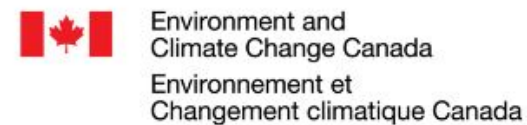




ENERGY  
TRANSITION  
PARTNERSHIP

## International Experiences on Legal Regulations Related to Auction of Renewable Energy Projects

Project "Legal Support to the Development of Power Generation Projects (Viet Nam)"



- This Report is developed with the purpose of **studying the auction mechanism of renewable energy projects** that have been applied in some other countries, **recommendations of international organizations related to the auction mechanism of renewable energy projects** to **provide useful information on international experiences in auction of renewable energy projects to Viet Nam's policy-making agencies.**
- The Authors opt to analyze the legal provisions related to the auction mechanism for renewable energy projects of **three countries/regions**, namely **Germany, Japan, the Latin America and Caribbean**, and especially the **policy recommendations of IRENA** in designing the auction mechanism for renewable energy projects.
- The Report consists of **five major parts**: (i) Recommendations by IRENA; (ii) Regulation on auction for power projects development of Germany; (iii) Regulation on auction of renewable energy projects in Japan; (iv) Experiences in auction of power project development in Latin America and the Caribbean; and (v) Conclusions and recommendations.

# INTRODUCTION



# 1. RECOMMENDATIONS BY INTERNATIONAL RENEWABLE ENERGY AGENCY (IRENA)

# GENERAL GUIDELINES ON AUCTION DESIGN

## BY IRENA (1)



### **Advantages of the renewable energy project auction design:**

- Flexibility;
- Potential for real electricity price discovery;
- Ability to ensure greater certainty in price, quantity, the predictability of renewable energy supply;
- Capability to guarantee commitments and transparency in the power purchase and sale process.

### **Limitations/risks of the bidding mechanism:**

- High transaction costs or risk of underbidding;
- Limiting the participation of small-scale developers (for being not able to meet the bidder's qualification requirement);
- Delays and underbuilding.



# GENERAL GUIDELINES ON AUCTION DESIGN

## BY IRENA (2)



- 1. Auction demand:** pay attention to allocating between products, for example, allocation according to different renewable energy technologies, project size, or geographical location; choose an appropriate method of determining the volume of products.
- 2. Qualification requirements:** consider five factors, including (i) Reputation of the bidders; (ii) Technology; (iii) Production site selection; (iv) Ability to secure grid access; and (v) Ability to promote local socio-economic development.
- 3. Winner selection process:** define the bidding procedure, minimum competition requirements, winner selection criteria, and the contractual pricing mechanism.
- 4. Sellers' liabilities:** consider the bidder's level of commitment to contract signing, the ability to ensure contract schedule, the issue of remuneration profile and financial risks, the degree of bidder's commitment to quantity liabilities, handling the case of violation of the bidder's commitment related to quantity, penalties related to the bidder's underbuilding and delay, assigning liabilities for transmission delays.

# RECOMMENDATIONS ON AUCTION DESIGN BY IRENA

- ❖ IRENA's studies also provide specific recommendations in the auction design, the most important of which is **there should be a balance among the different design elements of the auction design.**
  - When determining the demand of the power purchaser, the balance between costs and other specific goals should be considered.
  - When determining qualification requirements, it is necessary to strike a balance between reducing entry barriers to encourage competition and underbuilding.
  - When determining a winner selection process, a simple or complex process can be applied to achieve certain objectives.
  - When determining sellers' liabilities, it is necessary to properly allocate risks among the bidder, the auctioneer, and the electricity purchaser.
  
- ❖ IRENA also makes other recommendations such as **ensuring transparency to increase the bidder's confidence and tailoring the auction design to the specific context.**





## 2. REGULATIONS ON AUCTION OF POWER PROJECT DEVELOPMENT IN GERMANY

# AUCTION CONTENTS IN RENEWABLE ENERGY SOURCES ACT 2017 (1)

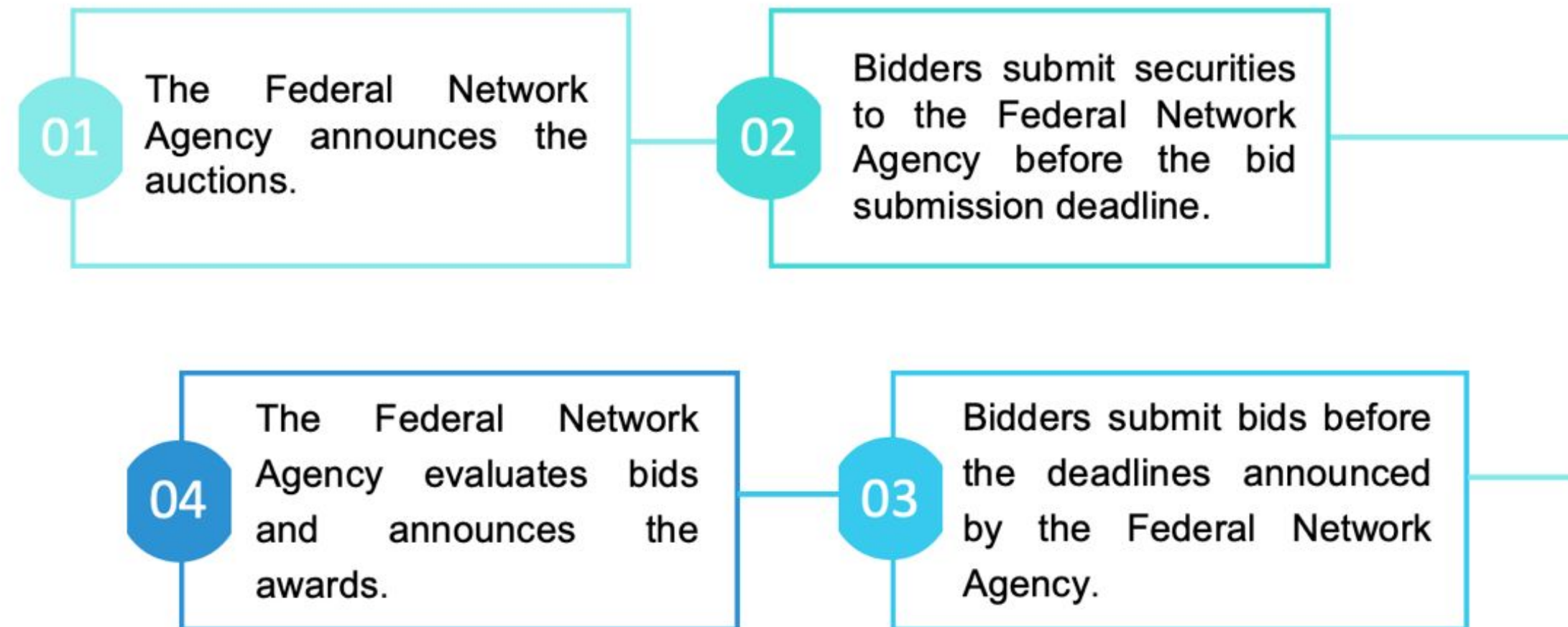
- ❖ **The Renewable Energy Sources Act 2017** of the Federal Republic of Germany (**EEG 2017**) is promulgated to create a paradigm shift in renewable energy funding towards more competition and greater cost efficiency, support to reduce the deployment costs of wind energy projects and solar energy projects rapidly.
- ❖ Contents of the auction for the development of power projects in EEG 2017 are specified in Part 3, Chapter 3 and divided into 5 Divisions by type of renewable energy, including:
  - Division 1 - General auction regulations;
  - Division 2 - Auctions for onshore wind energy installations;
  - Division 3 - Auctions for solar energy installations;
  - Division 4 - Auctions for biomass energy installations;
  - Division 5 - Technology-neutral auctions.
- There is **no separate law on auction for renewable energy projects in Germany**, contents are stipulated in a general law on renewable energy.
- ❖ The structure of EEG 2017 is logical and coherent, the regulations are **arranged in the appropriate order, from general contents** (regulations on auction applicable to all types of energy) to **specific regulations on auctions for each type of energy** (for example, there are separate sections for onshore wind energy, solar energy, biomass energy).



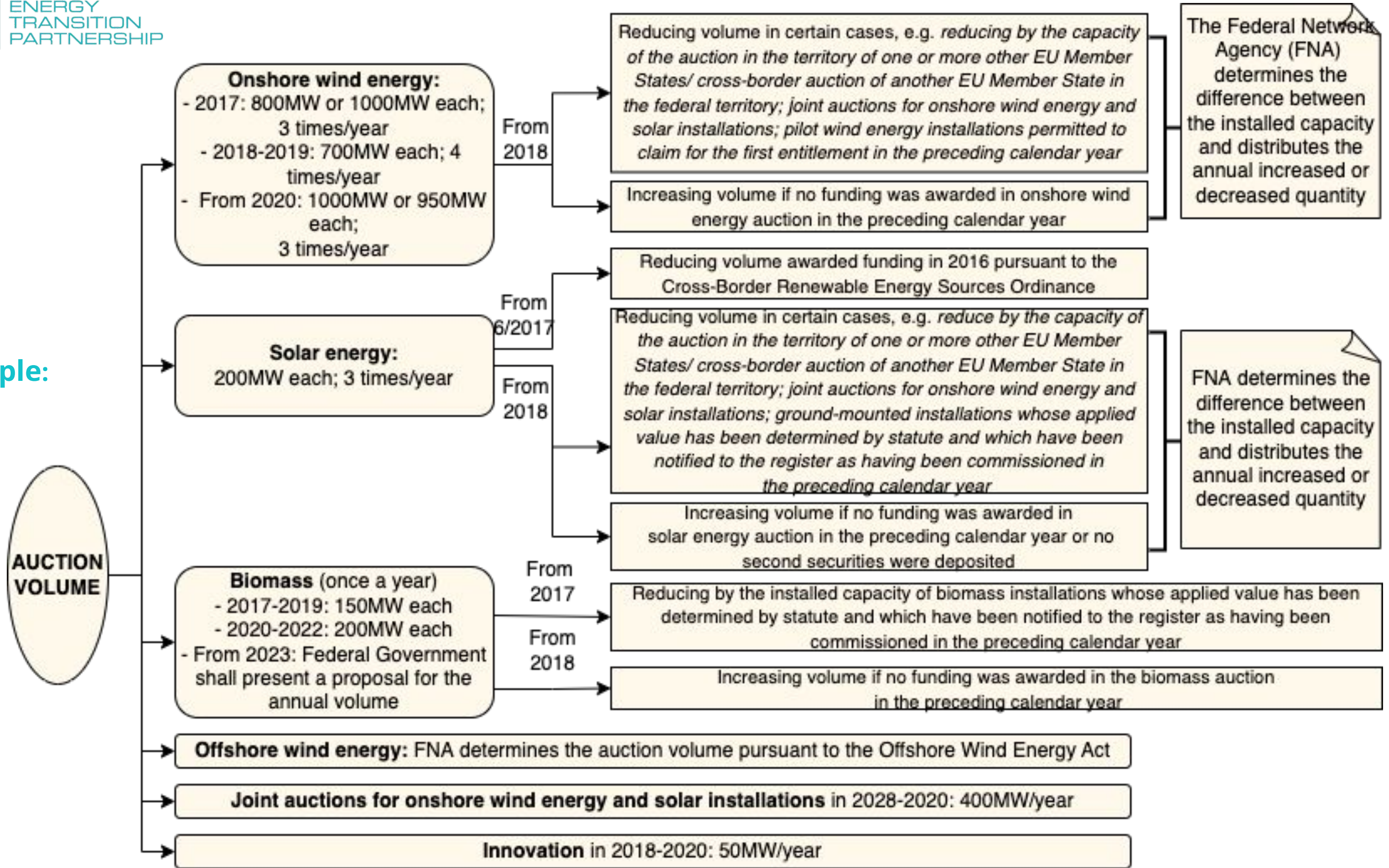
# AUCTION CONTENTS IN RENEWABLE ENERGY SOURCES ACT 2017 (2)

- ❖ In Section 1 - **General auction regulations**, EEG 2017 stipulates important contents such as the volume of auctions (of each type of energy in each period), contents and the procedure of auction announcement, requirements for bids, auction procedure, the submission of securities, award procedure, disqualification of bids, the announcement of the awards and value to be applied, cancellation of awards.
- ❖ **The Federal Network Agency** is the authority to conduct activities related to auctions (except for technology-neutral auctions) such as issuing notices on auctions, setting out principles on bidding forms, selecting winning bidders, or declaring the award cancellation of awards.

## ❖ The general auction process in Germany according to EEG 2017



Example:



Example:

AWARD  
PROCE-  
DURE

**Bid sorting** (the bids submitted are opened after the bid deadline):

- In the case of different bid values, bids are sorted in ascending order, starting with the bid with the lowest bid value
- If the bid value is the same, bids are sorted in ascending order by each bid quantity, beginning with the lowest bid quantity. If the bid values and the bid quantity of the bids are equal, the sequence shall be decided by lot

**Bid and bidder consideration:**

- Disqualifying unqualified bids, e.g. *not meeting general requirements (including format requirements) for bids; specific requirements for the respective form of energy; bidders do not pay/pay the full amount of auction fee/securities before bid deadline; bid value of the bid exceeds the maximum value; there is reason to suspect that the bidder is not planning any installation on the site indicated in the bid, such as an installation has already been commissioned on the site; etc.*
- Disqualifying unqualified bidders, e.g. *bidders submitted bids with false information/documents or colluded with other bidders on the bid values of the bids submitted in this or a previous auction; bidders have bid quantities of at least 2 previous auctions completely canceled, etc.*

FNA cancels an award in certain cases, e.g. *FNA withdraws/revokes the award pursuant to Administrative Procedure Act; awarded bidder returns his award*

Decides on the list of admissible bids in the order of sorted bids (after disqualifying unqualified bids/ bidders) until the auction volume is secured

FNA registers the information and documents related to awarded bidders; announces on its website information on bid deadline, form of energy, names of the awarded bidders, location of the installation, lowest and highest bid values, average award value weighted by quantity, etc.; informs the awarded bidders about the award and the value of the award

# AUCTION CONTENTS IN RENEWABLE ENERGY SOURCES ACT 2017 (3)

- ❖ EEG 2017 **regulates specific regulations for each case of auctions** (onshore wind energy, solar energy, and biomass energy), including specific regulations on bidding documents, how to calculate the amount of security, the maximum value, disqualification of bids, the payment to the awarded bidders, etc.

- ❖ In the divisions on the auction for each energy, there are **specific regulations that are only being applied to that energy**.

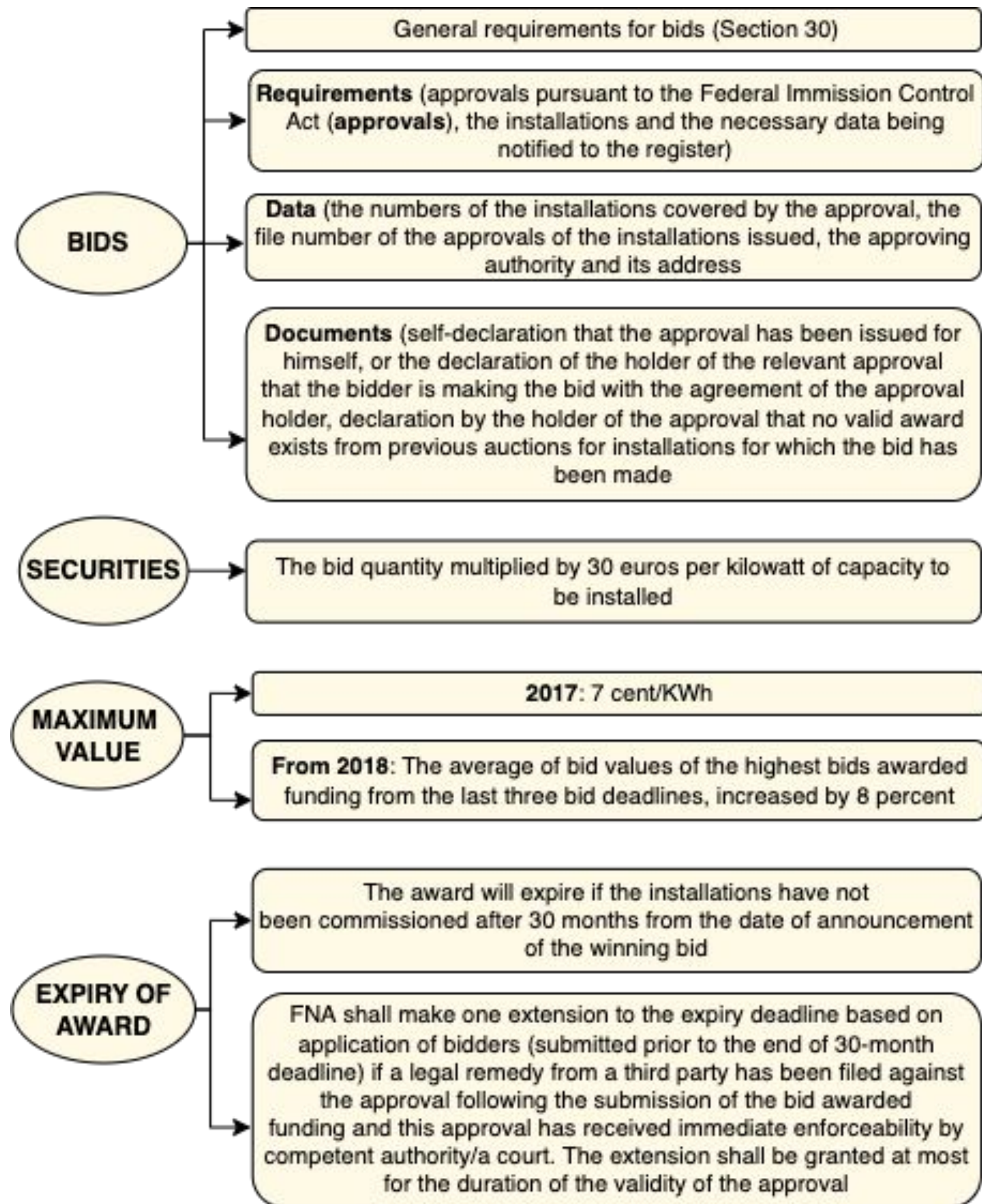
### Example:

- Onshore wind energy installations: EEG 2017 regulates special auctioning rules for citizens' energy companies.
- Solar energy installations: EEG 2017 regulates the special precondition for awards for disadvantaged areas.
- Technology-neutral auctions: EEG 2017 regulates the joint auctions for onshore wind energy and solar energy installations; and innovation auctions, in which there is no restriction on types of renewable energy.

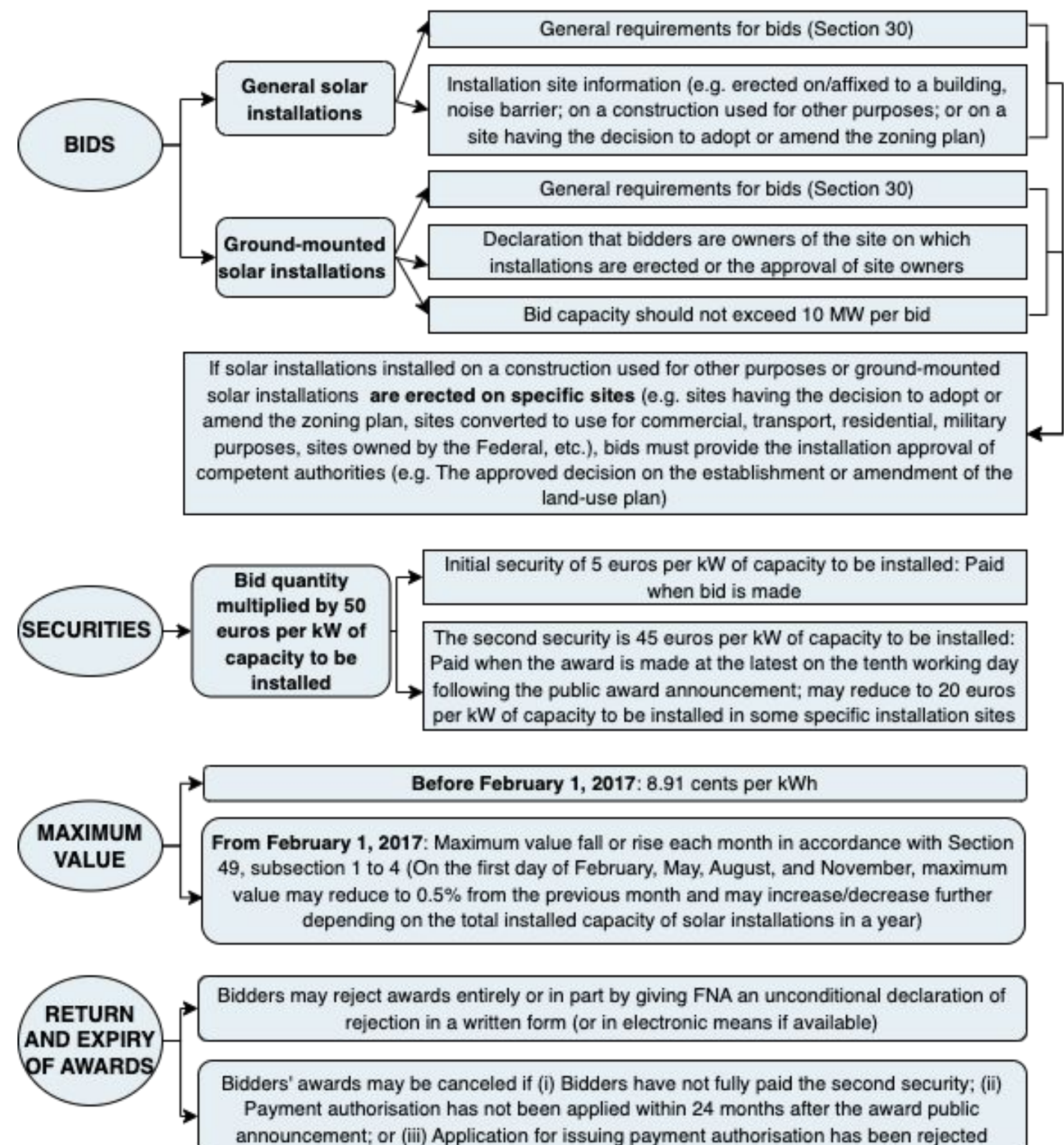


# Example:

## ONSHORE WIND



## SOLAR





# 3. REGULATION ON AUCTION OF POWER PROJECT DEVELOPMENT IN JAPAN

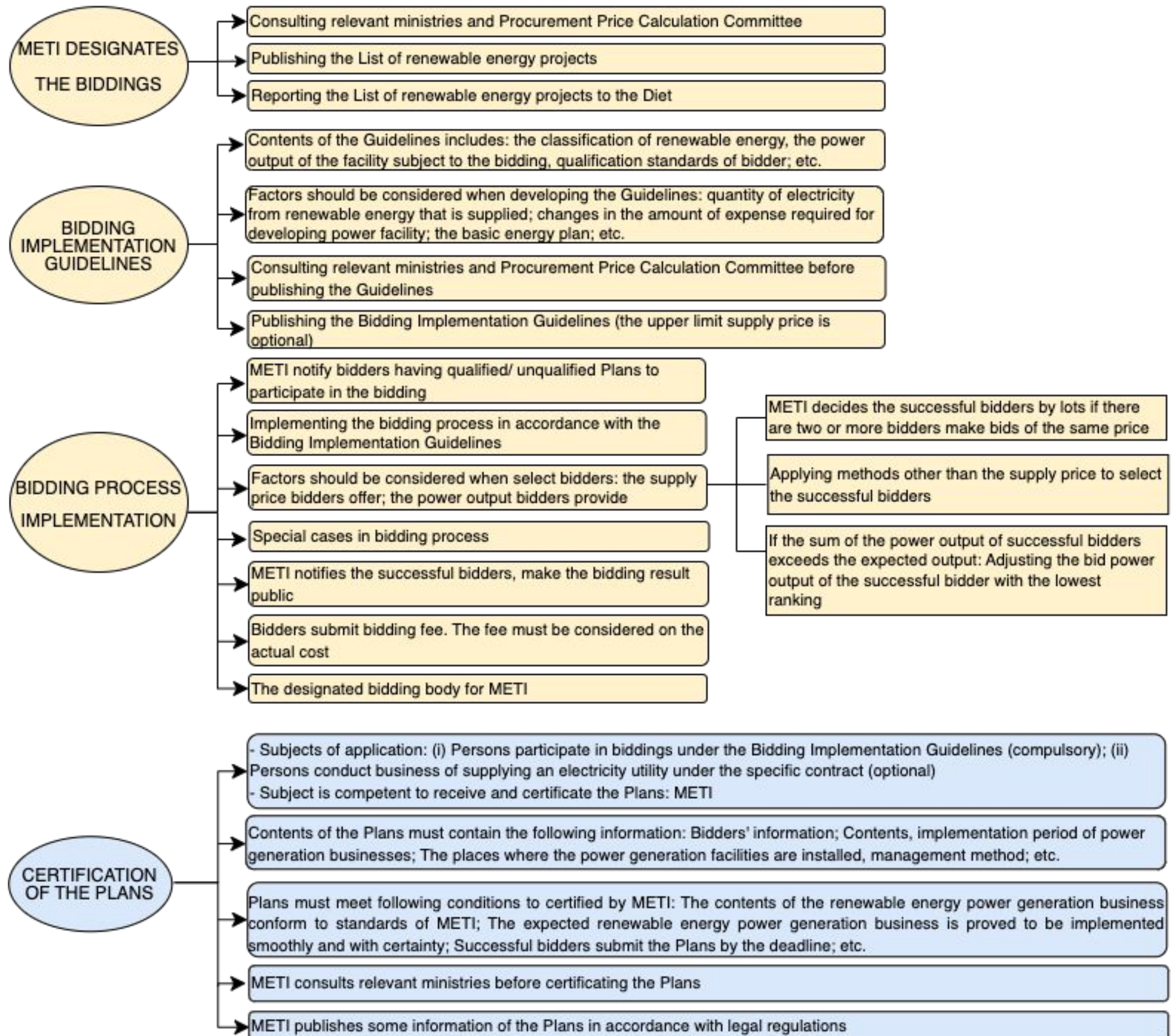
# AUCTION CONTENTS IN RENEWABLE ENERGY LAW 2012 (1)

- The use of renewable energy started to increase in Japan after the Japanese Government issued the **Act on Special Measures Concerning Procurement of Renewable Energy Electricity by Electric Utilities 2012** (Renewable Energy Law 2012), which took effect in 2016.
- Similar to Germany, **Japan has not issued a separate legal normative document on the auction mechanism for renewable energy projects** but generally stipulates this content in a general Law on renewable energy (Renewable Energy Law 2012).
- The auction mechanism of renewable energy projects focus on contents such as:
  - Designation of classification of renewable energy power generation facilities following the bidding process;
  - Bidding implementation guidelines;
  - Submission of Renewable energy power generation business plan;
  - Bidding process implementation;
  - Procurement price and period pertaining to successful bidders;
  - Certification/changes of Renewable energy power generation business plan;
  - Notification of discontinuance of business, order for improvement, expiration/revocation of certification.



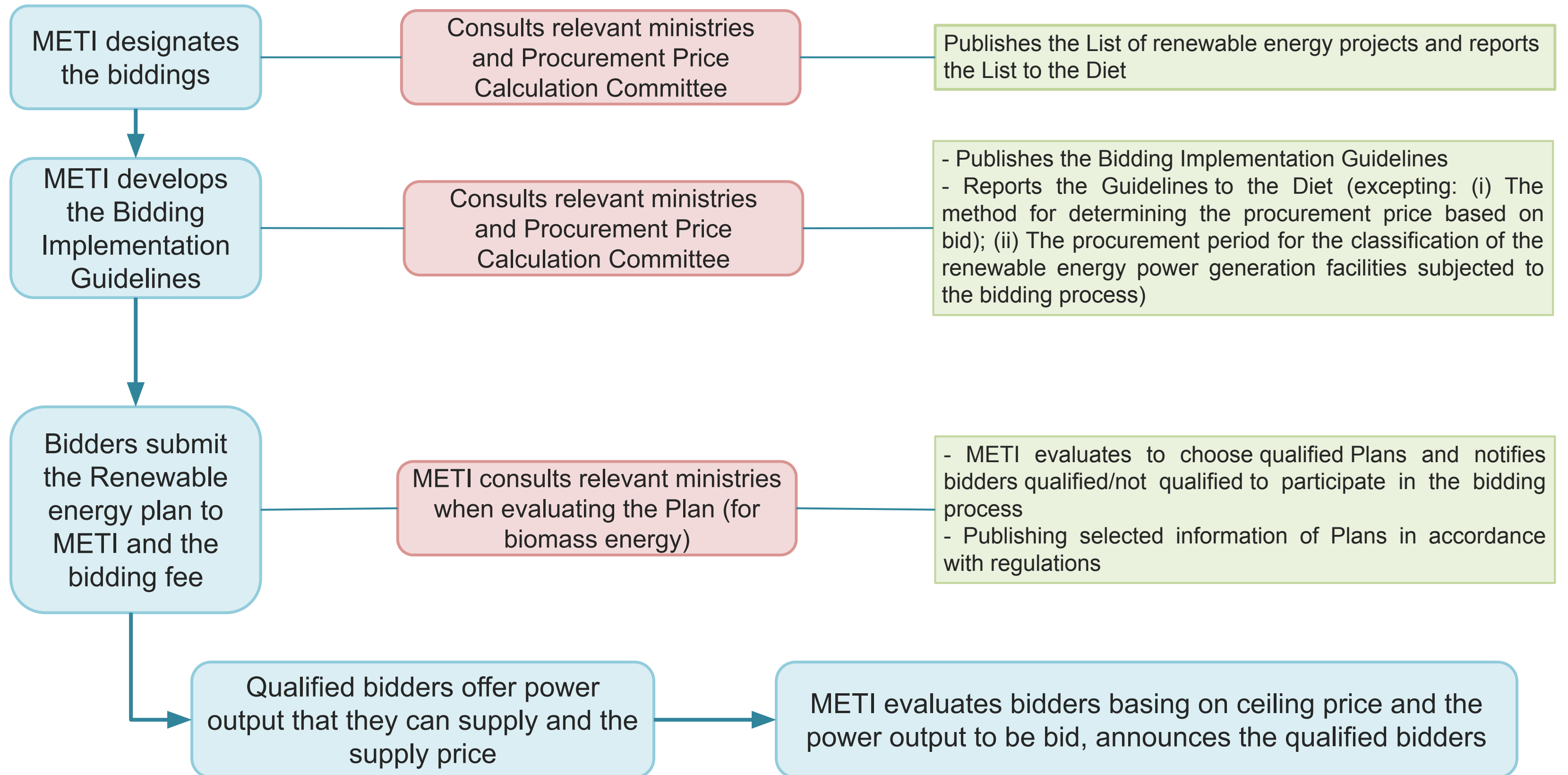
Example:

**Renewable Energy  
Law 2012**





## ◆ Bidding process according to Renewable Energy Law 2012



## AUCTION CONTENTS IN RENEWABLE ENERGY LAW 2012 (3)

Japan's Renewable Energy Law 2012 **follows 4 basic elements recommended by IRENA**, including (i) Auction demand, (ii) Qualification requirement, (iii) Winner selection process, and (iv) Sellers' liabilities.

The bidding process prescribed in Renewable Energy Law 2012 is strict and logical, **promoting the responsibility of METI Minister and related ministries, and departments in the bidding process, ensuring public disclosure, and transparency, increasing accessibility and compliance for bidders through public lists and guidelines.**

The **electricity purchase price is a prerequisite and important criterion** for selecting winners. Based on the set **ceiling price**, bidders will be selected if the selling price does not exceed the ceiling price in ascending order of the electricity price proposed by the bidders.

# 4. EXPERIENCES IN AUCTION OF POWER PROJECT DEVELOPMENT IN THE LATIN AMERICA AND CARIBBEAN



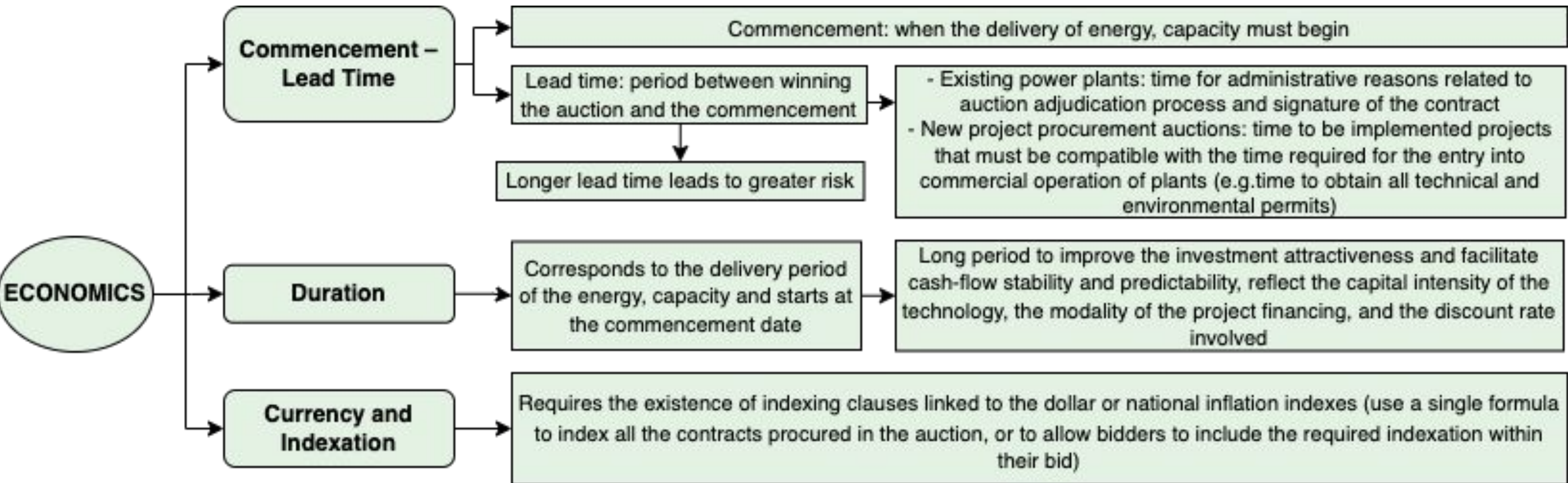
# AUCTION DESIGN IN THE LATIN AMERICA AND CARIBBEAN

- ❖ In general, the auction design in the Latin American and Caribbean countries is **not much different from the design recommended by IRENA**, especially in the following factors: (i) Auction demand, (ii) Qualification requirement, (iii) Winner selection process. In fact, Sellers' liabilities (the fourth of the four elements recommended by IRENA) are clearly stated in the PPA.
- ❖ A **recommended PPA template** for Latin America and the Caribbean countries includes the following groups of terms: (i) general terms, (ii) economic terms, (iii) technical, economic, environmental, and social obligations, and (iv) financing terms.
- ❖ The **recommended PPA terms** for Latin America and the Caribbean countries **include a number of contents to fit the region context** (for example, the inflation rate and international equipment procurement). The competent authorities of Viet Nam can refer to the PPA template of this region in developing a PPA template that is applicable to the auction design in Viet Nam.

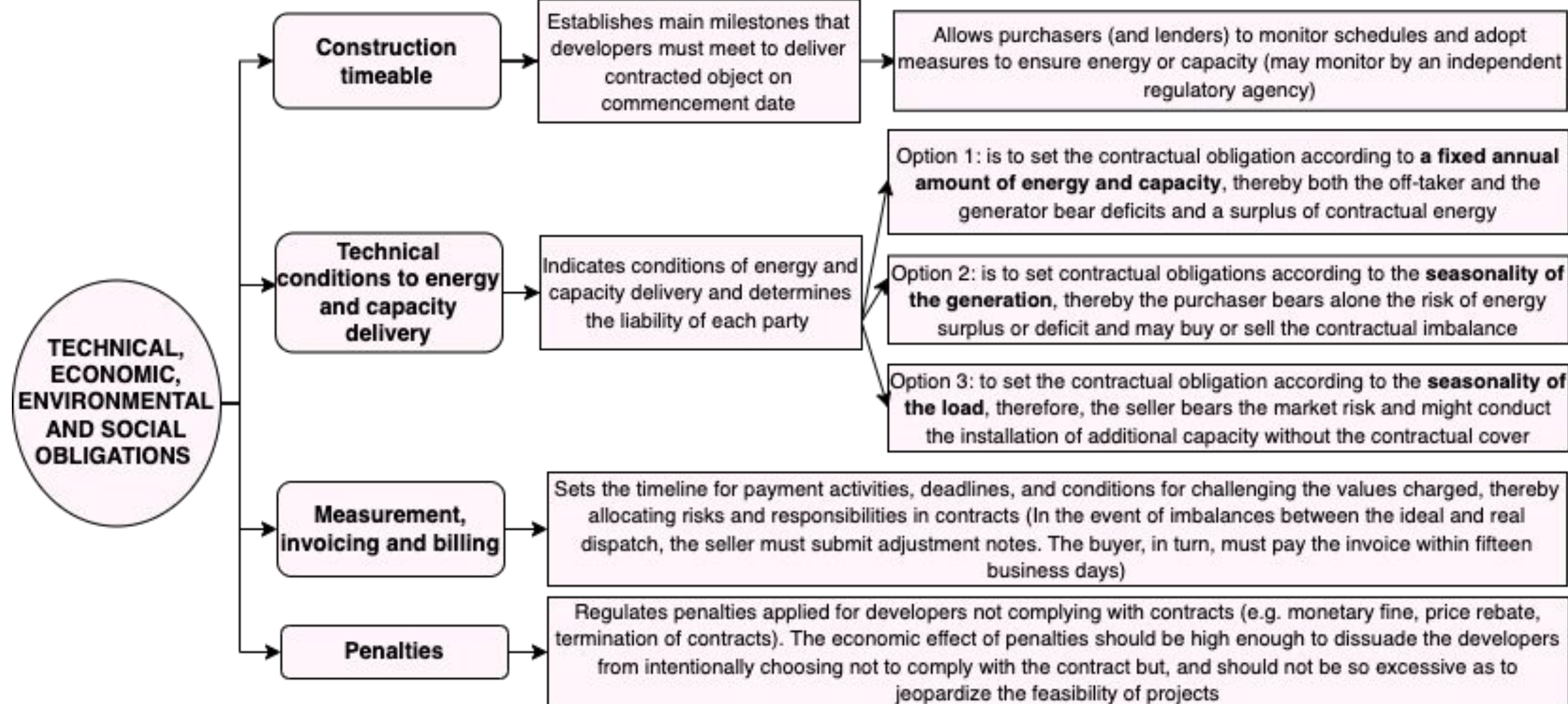


**List of basic clauses in recommended PPA template**

Categories	Clause
<b>General</b>	Definitions
	Object
<b>Economics</b>	Commencement – Lead Time
	Duration
	Currency and Indexation
<b>Technical, Economic, Environmental and Social Obligations</b>	Construction timetable
	Technical conditions to energy and capacity delivery
	Measurement, invoicing and billing
	Warranties
	Arbitrage and dispute settlement
	Penalties
	Indemnities
	Act of God and force majeure
	<b>Financing</b>
Assignment of accounts receivable	



Example:



# RECOMMENDATIONS (1)

- ❖ Policy makers should be aware of the advantages, limitations, and risks in conducting the auction of renewable energy projects to maximize the advantages and find solutions to address the limitations and minimize the risks of this design.
- ❖ Policy objectives need to be clearly defined during the design of the auction mechanism to ensure the balance of 4 elements (i) Auction demand, (ii) Qualification requirement, (iii) Winner selection process, and (iv) Sellers' liabilities.
- ❖ The development of an auction mechanism should ensure that it is appropriate to the national context (especially from technical aspects such as the determination of energy needs or potential for technological development).
- ❖ Attention should be paid to ensuring the transparency of the auction mechanism to increase the chance of successful application in Viet Nam.

# RECOMMENDATIONS (2)

- ❖ Policy makers may consider developing a separate law on renewable energy, including the content of the auction mechanism similar to the model of Germany and Japan, or developing a new, separate document (for example, in the form of a decree guiding the Law on Electricity) stipulating the auction mechanism of renewable energy projects.
- ❖ The document regulating the auction mechanism in Viet Nam can refer to the regulations of Germany - which are structured into a group of general regulations and a group of specific regulations for each type of renewable energy.
- ❖ The responsibility and participation of the competent authorities, especially the consultation, and publicity in the bidding process according to Japanese regulations, can be a useful reference source for policy makers in the process of drafting legal documents.
- ❖ If the proposed auction mechanism document stipulates the model of PPA with the winner, the drafting agencies can refer to the recommended PPA template for the Latin America and Caribbean region.



# RECOMMENDATIONS (3)

- ❖ It is also noted that securing the necessary resources from the competent agencies and the entities responsible for organizing the auction is a particularly important factor in the auction preparation and implementation.
- ❖ Finally, the Report on legal international experience should be considered together with the Report on technical international experience.

THANK YOU VERY MUCH!



