Best practices and lessons learned on the competitive procurement of renewables: The experience of Greece

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Presentation Structure

• Legislation Framework
• The Pilot Tender for PV installations
  – Basic Components
  – Description of the process
  – Results of the auction procedure
  – Conclusions
The Renewable Energy Sources (RES) support mechanism (sliding Feed In Premium) was approved and published on 25.02.2017 in the EU[C(2016) 7272 final])


In line with the “Guidelines on State aid for environmental protection and energy (2014-2020)” (2014/C 200/01), Greece had the obligation to run a pilot tender within 2016 for a 5% of the total RES capacity, which was to be installed within the period 2015-2016 at least ~20-25 MW.
Legislation framework (2/2)

• Law 4414/09.08.2016 “New support scheme for renewable energy sources power plants and high efficiency combined heat and power plants.- Provisions on the legal and functional separation of the supply and distribution branches in the natural gas market and other provisions” introduced the permanent competitive bidding processes for RES and CHP projects and provided the guidelines for a pilot competitive bidding process for photovoltaic (PV) installations.

• According to par. 5 of Article 7, the pilot competitive bidding process for PV installations should be launched by the end of 2016 by decision of the Hellenic Regulatory Authority for Energy (RAE), which would also be responsible for carrying out the bidding process as well as for the certification of its result.
According to Art. 7, Par. 8, “…a decision of RAE launching the pilot competitive bidding process for PV installations on the basis of the provisions of par. 5, which shall be held within 2016, shall be adopted within three (3) months from entry into force hereof.”

The pilot competitive process for the PV installations was set on the 12th of December 2016 within a short execution period of 3 months.
Steps of Competitive procedure

1. RAE’s Decision - Tender
2. Registration of Participants
3. Application and Supporting Documents Submission
4. Evaluation / Examination of Applications
5. RAE’s Decision - Table of Potential Participants
6. Submission of Objections
7. RAE’s Decision - Final Table Phase A
8. Users’ Training - Virtual Auction
9. Conducting of Online Auctions
10. RAE’s Decision - Table of Final Results
The pilot tender for PV in Greece

- An innovative, transparent, simplified, valid and reliable process, which was executed by RAE.
- A specific electronic platform for the auction procedure was developed in cooperation with a company, which has experience in online auctions, cosmoONE (company of OTE Group), which was adapted on the requirements of RAE.
- All the applications were submitted electronically in the platform, in order to simplify the procedure and manage the strict timetable of the auction.
1. The auctioned power should be at least 40 MW (by the law) → *RAE will set the final auction capacity.*

2. The auctioned power should be allocated between PV installations, which are exempt from the obligation to issue a generation license (≤ 1 MWp – Category I – 1\(^{st}\) Auction) and those which are subject to the issuance of a generation license (> 1 MWp – Category II – 2\(^{nd}\) auction) – *by the law.*

3. The maximum allowable power per bid submitted is set at 10 MW.

4. The maximum allowable bidding price, in the context of the pilot competitive bidding process, was set at 104 €/MWh for Category I and at 94 €/MWh for Category II – *by the law.*
5. A participation fee of 500 € for each participant was set by the law (→ Ongoing discussion for the amount of the participation fee in the permanent auctions to be set according to the installed generation capacity of each project).

6. A letter of Guarantee for participation in the auction procedure was set by RAE: 1% of the total investment cost of a typical PV installation (10 €/kW). If the participant didn’t succeed, the letter of Guarantee would be returned.
7. A specific letter of Guarantee for proper performance was set by RAE.

Each successful participant had to comply with the tender rule of “4% guarantee of proper performance”. This means that each participant must submit to RAE an additional letter of Guarantee, only if the sum of all letters of Guarantee which have already been submitted to all the Operators (Grid or System Operator) during the licensing procedure does not equal or exceed the amount defined by the 4% rule of the total investment cost for each project.
8. **Level of competition**

A 40% rule of a minimum level of competition was decided by the Greek regulator, ensuring the competition between the participants in each category. This rule determined that each category’s capacity sum must be equal or exceed 140% of the auctioned capacity.
On the 21st of October 2016, RAE organized a workshop, discussed with the market participants and... decided over the procedure and the rules of the pilot tender, taking into account all the comments of the public dialogue.
Description of the pilot competitive process
Online Auction Design

Planning should:

take into consideration

– the specifications and types to be auctioned,

– the number of potential participants,

– market conditions,

– the intended goal, and

be designed to

– have the broadest possible participation,

– create the greatest possible competition, and

– achieve the best possible price.
Description of the Process (1/11)

- **Step 1**: RAE issued by decision of the Board the terms and conditions for participation and described the process (RAE’s call for tender).

The rules were decided by RAE and an algorithm was developed for the auction.
**Online Platform**

<table>
<thead>
<tr>
<th>Participant &amp; user / users</th>
<th>Submitting Applications and Supporting Documents</th>
<th>Online Auction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Description of the Process (3/11)
Logging on cosmoONE’s site

1. Enter the following url: [www.cosmo-one.gr](http://www.cosmo-one.gr).

2. Click ‘LOG IN TO APPS’.

3. Click the link ‘ΣΥΝΔΕΣΗ’ of Marketsite.
Logging into the Community Manager of cosmoONE

Important

The credentials used are the same as given in the initial Application Form for the submission of the Prerequisites documents for Stage A’ of RAE’s Pilot Tender.

For any queries, please contact the Help Desk.

Enter your credentials and submit pressing the button “Υποβολή”.
Entering the Pilot Tender Online Application

Please press the link ‘auctionONE’.

**Important Notes**

In the first screen of the Community Manager, you are able to view the following:

- Available Applications.
- Your firms credentials and communication info.
- Categorization.

Reminder: Please check your credentials and communication info, which can be modified in the Profile Manager of your firm.
Description of the Process (4/11)

• Step 2: Registration of participants
  For this purpose, a specialized electronic platform was developed, where participants could enroll.

• Step 3: Submitting the form online
  After registering on the online platform, the submission of the Application and the Supporting Documents began, each participant following the corresponding project category and legal form:
Description of the Process (5/11)

<table>
<thead>
<tr>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category I – Technology projects I with power ≤ x MW - Individual</td>
</tr>
<tr>
<td>Category I – Technology projects I with power ≤ x MW - Legal person – S.A.</td>
</tr>
<tr>
<td>Category I – Technology projects I with power ≤ x MW - Legal person – Ltd</td>
</tr>
<tr>
<td>Category I – Technology projects I with power ≤ x MW - Legal person – G.P., L.P.</td>
</tr>
<tr>
<td>Category I – Technology projects I with power ≤ x MW - Legal person – P.C.</td>
</tr>
<tr>
<td>Category I – Technology projects I with power ≤ x MW - Legal person – Greek Public, Legal Persons governed by Public Law, Legal Persons governed by Private Law, Local Authorities, etc.</td>
</tr>
<tr>
<td>Category II – Technology projects I with power &gt; x MW – Individual</td>
</tr>
<tr>
<td>Category II – Technology projects I with power &gt; x MW - Legal person – S.A.</td>
</tr>
<tr>
<td>Category II – Technology projects I with power &gt; x MW - Legal person – LLC</td>
</tr>
<tr>
<td>Category II – Technology projects I with power &gt; x MW - Legal person – G.P., L.P.</td>
</tr>
<tr>
<td>Category II – Technology projects I with power &gt; x MW - Legal person – P.C.</td>
</tr>
<tr>
<td>Category II – Technology projects I with power &gt; x MW - Legal person – Greek Public, Legal Persons governed by Public Law, Legal Persons governed by Private Law, Local Authorities, etc.</td>
</tr>
</tbody>
</table>
Description of the Process (6/11)

• **Step 4: Final Application and Submission of Supporting Documents**

  With the final submission of the application, the participant received an email verifying that the application was submitted and had a unique ID number.

• **Step 5: Send Original Documents to RAE**

  After the final submission of the application and within a strict deadline of three (3) days, the participant sent the original documents to the Authority, as specified in RAE’s official announcement (application, formal declaration, letter of guarantee).
Description of the Process (7/11)

• Step 6: Evaluation/Examination of applications
  RAE evaluated/examined the applications and, if necessary, would request for supplementary information.

• Step 7: Decision of RAE’s Board
  By decision of RAE’s Board, a table of participants was issued, which complied with the terms and conditions of RAE’s announcement during this first stage.

• Step 8: Objections Submission
  Participants could submit written objection regarding the results within a certain time period (e.g. in 2 working days).
Description of the Process (8/11)

• Step 9: Examination of objections
  Evaluation of the possible objections.

• Step 10: RAE’s decision for the Participants’ Final Table
  After evaluating the objections and by decision of RAE’s Board, the Final Table of Participants was issued.

Completion of 1st Stage
Description of the Process (9/11)

• **Step 11: Users’ training and virtual auction**

Participants that were qualified from the first stage

- were invited for an informative session,
- were trained on online auction procedures, and
- had the opportunity to participate in virtual auctions,

in order to get familiar with the online platform.
You will be forwarded in the Terms of Use page of the Online Tenders Service. In acceptance...

...press ‘Αποδοχή’ as shown.

Copyright 2016 cosmoONE MarketSite. All rights reserved.
Press ‘Κέντρο Προσφορών’.
Adding a Tender to the Bidding Console

1. Find the Tender you wish to attend.
2. Select by clicking the tick box of the tender.
3. To add, press ‘Προσθήκη στην Κονσόλα’.
Important Fields of the Tender Screen 1/3

The field ‘Η προσφορά σας’ is intended for submitting your bid in €/MWh.

Your “installation power” which is fixed is shown in this field.

The field «Μόνο Ολόκληρη» is permanently checked and states that your bidding is for the whole of your “installation power”.

Your bid is altered by the arrows by a step of 0,01 €/MWh.
Important Fields of the Tender Screen 2/3

In the field “Δεσμευμένη Ποσότητα”, the temporary power you have acquired at any given moment (1,912,240) is shown, according to your latest bid. If you have not acquired any power, the field will show “0/1,912,240”.

In the field “Υπολειπόμενη Ποσότητα”, the remaining power is shown during the tender. If a “0” is shown, the whole amount of power is temporarily reserved.

In the field “Υπερισχύουσα Προσφορά”, the best bidding price of the tender at any given moment is shown.
These fields show the initial parameters of the tender, including the increment of the bidding steps, the total amount of power auctioned and the initial starting price. These parameters are not altered during the tender.

The button “Υποβολή” is used to submit a bid. There are two buttons with the exact same function.
How to submit a bid

1. Check the tender’s tick box

2. Enter in the field “Η προσφορά σας” your bidding price in €/MWh which must be a multiple of the bidding step.

Keep in mind the field “Υπολειπόμενη Ποσότητα”. If it is set to zero or is less than your installation’s power, then you are bidding to acquire power from other contenders.

3. To submit your new bidding price, press “Υποβολή”.

The tender algorithm’s prioritization sorts the bids as followed:
1. Bidding price (lower is better) -> 2. Quantity (Power installed – smaller is better) -> 3. Time (first in first served).
After submission

4. Check in the field "Αποτέλεσμα προσφοράς" if your latest bid was accepted.

5. If your bid was accepted, the field "Δεσμευμένη Ποσότητα" will show in the first and second portion the same amount.

6. Notice that if your bid was accepted, the "Total Amount" was reduced by the amount of your installed power.
Checking available and temporary acquired amount

If the field “Υπολειπόμενη Ποσότητα” is equal to zero, then the initially available power has been temporarily acquired by the contenders.

If you had temporarily acquired an amount of power and lost it from a better bid, then the field “Δεσμευμένη Ποσότητα” will turn red and show in the first portion zero. Please check these fields constantly to ensure that you are aware of the status at any given time.
If your bid was not accepted, you will be notified here in red with the following status messages depending on the reasons of non-acceptance:

- Rejection
- Lower bid than yours

The only way to reacquire an amount is to improve your bid (reduce your bid).
Step 12: Conducting online auctions

The two online auctions of the two project Categories

- Category I (≤ 1MW), auctioned capacity: 4,8 MW and
- Category II (> 1 MW), auctioned capacity: 35,2 MW

of the competitive procedure took place on the same day at 10:00 a.m. (Category I) and at 12:00 a.m. (Category II), lasting thirty (30) minutes each.
Step 13: RAE’s decision on the final results and announcement

After the end of the two auctions, by decision of RAE’s Board, the final tables with the successful candidates were published and the results of these competitive procedures were announced.

Completion of the pilot competitive procedure
Results of the auction procedure
## Auction tender for PV ≤ 1MW

<table>
<thead>
<tr>
<th>Types of participants</th>
<th>Request to participate</th>
<th>Approved for participation in the Auction</th>
<th>Assured quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.A. COMPANY</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>INDIVIDUAL</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LIMITED LIABILITY COMPANY (LLC)</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>GENERAL PARTNERSHIP/LIMITED PARTNERSHIP (LP)/CIVIL-LAW PARTNERSHIP</td>
<td>8</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>PRIVATE CAPITAL COMPANY (PCC)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LEGAL PERSON GOVERNED BY PRIVATE LAW</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>14</strong></td>
<td><strong>13</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>
# Auction tender for PV >1MW

<table>
<thead>
<tr>
<th>Types of participants</th>
<th>Request to participate</th>
<th>Approved for participation in the Auction</th>
<th>Assured quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.A. COMPANY</td>
<td>11</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>INDIVIDUAL</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LIMITED LIABILITY COMPANY (LLC)</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>GENERAL PARTNERSHIP/LIMITED PARTNERSHIP (LP)/CIVIL-LAW PARTNERSHIP</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>PRIVATE CAPITAL COMPANY (PCC)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LEGAL PERSON GOVERNED BY PRIVATE LAW</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>14</strong></td>
<td><strong>12</strong></td>
<td><strong>7</strong></td>
</tr>
</tbody>
</table>
Auction tender for PV ≤1MW
Auction tender for PV >1MW
Conclusions (1/3)

- A specific online platform was modified according to the decisions of RAE.
- Application of the “40% Rule” with excellent results and benefits for the Consumer.
- There were no problems understanding and using the applications during the users’ training.
- The "virtual auctions" solved any questions about the procedure of the tenders.
- No mistakes in participants’ registration process, procedure of application and suspension supporting documents in the online platform.
Conclusions (2/3)

• The online submission of the applications enabled RAE to skip the time-consuming administrative check of the required documents and to proceed directly with the evaluation, significantly reducing the time required.

• Each auction lasted 30 minutes, without extensions and, in total, $35 + 446 = 481$ bids were submitted.

• Approximately 100% of the auctioned Capacity was covered according to the tender procedure.
Conclusions (3/3)

• All selected candidates of both Categories I and II complied with the Rule of 4% about Performance Guarantees.

• Only two objections were submitted within half an hour after each auction, which were addressed immediately.

• **Achievement of significant reduction in prices:**
  
  – Category I (PV power ≤ 1MW): (prices from 94,97 € / MWh to 104 € / MWh) → **weighted average price: 98,78 € / MWh**
  
  – Category II (PV power > 1MW): (prices of 79,97 € / MWh to 94 € / MWh) → **weighted average price: 83,3 € / MWh**

• Significant competition achieved in both categories (small and large Projects).
Thank you for your Attention!

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