

TOWARDS BETTER ENERGY EFFICIENCY POLICIES

ENSMOV Workshop Market mechanisms based on auction schemes

Designing energy efficiency auctions in Greece

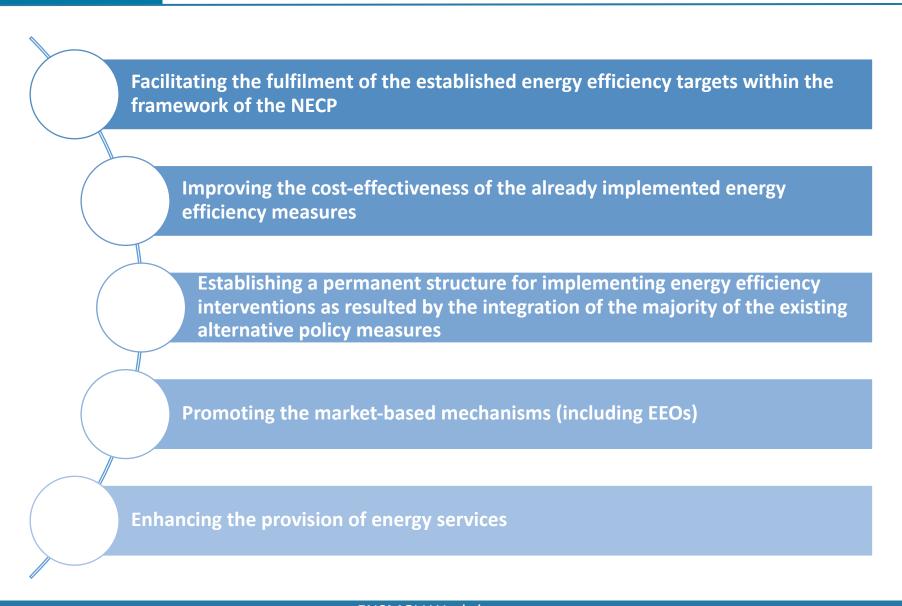
Christos Tourkolias, CRES



This project has received funding from the European Union's Horizon 2020 Research and innovation programme under grant agreement No 840034. This document only reflects the authors' views and EASME is not responsible for any use that may be made of the information it contains.

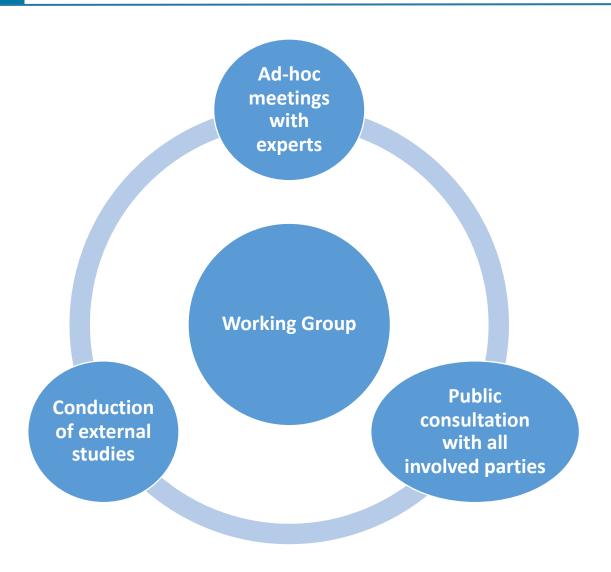


Reasons for initiating energy efficiency auctions



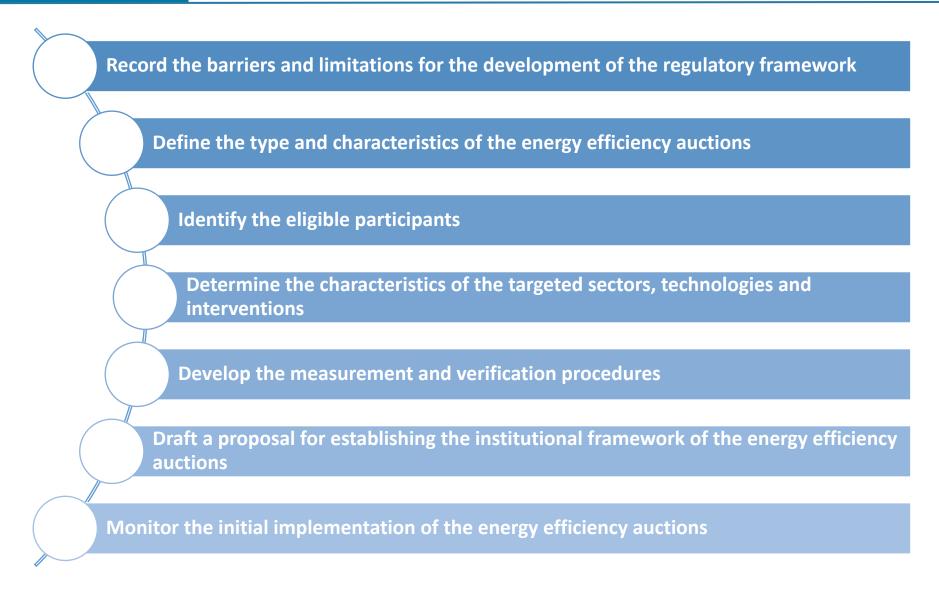


Working group for preparing the EE auctions





Duties of the established working group





Examined energy efficiency auction schemes

PPEC - Portugal

PROKILOWATT - Switzerland

Step Up! program - Germany

Emissions
Reduction Fund Australia

Bid4efficiency - USA

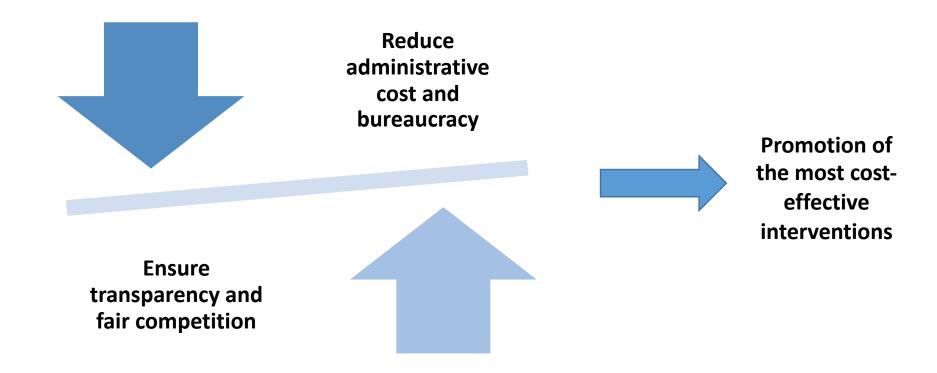
Energize Missouri - USA

Wisconsin Focus on Energy Bid for Efficiency Offering -USA

Hawaii Energy Efficiency Auction -USA



Priorities for designing the scheme





Step 1: Publication of an auction and submission of technical and financial bids by the interested parties



Step 2: Evaluation of the submitted applications



Step 3: Conduction of energy efficiency auctions



Step 6: Control and validation of the achieved energy savings



Step 5: Implementation of energy efficiency interventions



Step 4: Contract signature for the implementation of the energy efficiency interventions





Step 1: Publication of an auction and submission of technical and financial bids by the interested parties



Step 2: Evaluation of the submitted applications



Step 3: Conduction of energy efficiency auctions



Step 6: Control and validation of the achieved energy savings



Step 5: Implementation of energy efficiency interventions



Step 4: Contract signature for the implementation of the energy efficiency interventions





Step 1: Crucial issues

Responsible authority body for the application procedure

Assignment of the responsible body for the conduction and the monitoring of the energy efficiency auctions.

Required documentation for the application procedure

Publication of detailed guidance including information and the required documentation in relation to the application procedure and the specified technical and financial competence criteria.

Submission of technical and financial bids

- Submission of separate technical and financial bids from the interested parties.
- Minimum contents of the technical bids: Description of the current situation (baseline), the planned energy efficiency interventions, the methodology for the estimation of the achieved energy savings including the expected results on an annual basis, the foreseen time-plan for the realization of the investments and the additional technical issues including the compliance with the licensing requirements and technical specifications.
- Minimum contents of the financial bids: Analysis of the total estimated budget for the implementation of the planned energy efficiency interventions, the amount of the required public support and the expected pay-back period (at least higher than 3 years).



Step 1: Crucial issues

Submission of technical and financial bids (continued)

- Development of **specific templates** in order to facilitate the homogeneous and straightforward completion of the technical and financial bids.
- Utilization of predefined standard energy cost values for the calculation of the pay-back period.
- Implementation of sealed bid approach under a single step procedure.

Duration of the validity of the technical and financial bid

At least equal to the foreseen period for the sufficient evaluation of the submitted bids.

Implementation of application procedure

Electronic submission of the submitted bids.

Duration of application procedure

Allowing adequate period for the preparation and submission of the applications (indicatively at least one month).



Step 1: Publication of an auction and submission of technical and financial bids by the interested parties



Step 2: Evaluation of the submitted applications



Step 3: Conduction of energy efficiency auctions



Step 6: Control and validation of the achieved energy savings



Step 5: Implementation of energy efficiency interventions



Step 4: Contract signature for the implementation of the energy efficiency interventions





Step 2: Crucial issues

Responsible authority for the evaluation of the submitted applications

Assignment of the responsible authority for the evaluation of the submitted applications in collaboration with a Technical Evaluation Committee (composed by independent members).

Criteria and evaluation process

Evaluation of the submitted applications in regards to the specified technical and financial competence criteria.

Accuracy of technical bid

Assessment of the **expected energy savings**, the **utilised methodology** including the potential **assumptions** and the **feasibility of the proposed time-plan**.

Alteration of the technical bid

■ **Correction of minor mistakes** under the prerequisite that do not alter significantly the expected energy savings (up to 5%) in accordance to the formulated proposal by the Technical Evaluation Committee.



Step 2: Crucial issues

Technical competence criteria

- Minimum number of successfully completed projects with relevant relevance in a specific period.
- Minimum budget of successfully completed projects with relative relevance in a specific period.
- Acquired degree class.
- Acquired contractor class.

Financial competence criteria

- ☐ Minimum turnover and/or minimum capital during a specific period.
- □ Demonstration of the **availability of financial resources** (own contribution) for the implementation of the proposed energy efficiency investments.
- Exclusion of companies which have shown an abusive behaviour in previous auctions.
- Exclusion of companies with precedent cases of mismanagement of state aid rules.



Step 2: Crucial issues

Duration of the evaluation procedure

Specification of maximum number of mandatory working days (i.e. 45 working days) for completing all activities.

Publication of the evaluation results

Yes giving the opportunity for objections.

Period for objections

Allowing adequate period for evaluating the objections (at least two weeks).

Committee for assessing objections

Yes demonstrating the independence of the appointed members.



Step 1: Publication of an auction and submission of technical and financial bids by the interested parties



Step 2: Evaluation of the submitted applications



Step 3: Conduction of energy efficiency auctions



Step 6: Control and validation of the achieved energy savings



Step 5: Implementation of energy efficiency interventions



Step 4: Contract signature for the implementation of the energy efficiency interventions





Step 3: Crucial issues

Design the energy efficiency auction

- Conduction of auction based on the cost-effectiveness ratio as the only award criterion.
- Specification of the required public support for the declared energy savings within the technical bid.
- □ Calculation of the cost-effectiveness ratio dividing the public financial support with the cumulative energy savings in accordance to the actual lifetime of each intervention separately.
- ☐ Specification of a **ceiling price** (maximum accepted cost-effectiveness ratio).
- □ No **segmentation of the energy saving target** for the pilot program.
- ☐ No obligation for **minimum/maximum size of projects** for the pilot program.
- Obligation to submit only one financial bid per application.

Responsible authority

Assignment of the responsible authority for the conduction of the energy efficiency auction.



Evaluation of the received bids

- **Ranking of the submitted bids** in ascending order starting with the lowest cost-effectiveness ratio.
- Accumulation of the declared cumulative energy savings according to the technical bids until the fulfilment of the energy savings target as resulted by the prioritization of the cost-effectiveness ratio.
- □ Allowing excess of the energy savings target under the prerequisite that no excess of the planned total budget of the public support will be occurred simultaneously.
- Transfer of the remaining budget to the next round of the energy efficiency auctions in the case of the energy savings target is not achieved.
- Utilization of pay-as-bid model.

Duration for the announcement of the results

Specification of the maximum number of mandatory working days (i.e. 10 working days) for completing all activities.

Periodicity of competitive processes

Development of a long-term roadmap including at least 2 auctions on annual basis.



Step 1: Publication of an auction and submission of technical and financial bids by interested parties



Step 2: Evaluation of the submitted applications



Step 3: Conduction of energy efficiency auctions



Step 6: Control and validation of the achieved energy savings



Step 5: Implementation of energy efficiency interventions



Step 4: Contract signature for the implementation of the energy efficiency interventions





Step 4: Crucial issues

Contract form

■ **Minimum contents of the contracts**: Detailed description of planned energy efficiency interventions focusing on the expected energy savings (with the technical bid of the participant as an annex), specification of the amount of public support, determination of all other obligations of the beneficiaries with regard to the implementation of the energy efficiency interventions including the consequences in the case of breaching them.

Responsible authority

Assignment of the responsible authority for contract signature.

Duration for the contract signature

Specification of maximum number of mandatory working days (i.e. 5 working days) for completing all activities.

Advance payment

Provision only in financial bids, which exceed specific budget levels. The advance payment should be expressed as a percentage of the awarded public support.

Performance letter of guarantee

■ **Mandatory submission** for all the selected applications. Specification of a specific threshold in relation to the awarded public support (i.e. 5%).



Step 1: Publication of an auction and submission of technical and financial bids by interested parties



Step 2: Evaluation of the submitted applications



Step 3: Conduction of energy efficiency auctions



Step 6: Control and validation of the achieved energy savings



Step 5: Implementation of energy efficiency interventions



Step 4: Contract signature for the implementation of the energy efficiency interventions





Step 5: Crucial issues

Progress reporting obligation

- Submission of a **progress report** on a regular basis presenting the progress of the performed work and the potential risks including proposals for the initiation of mitigation actions.
- Submission of the final completion report indicating the completion of the current step.

Period for completion of energy efficiency improvement interventions

■ Alignment of the period for the completion of the foreseen energy efficiency interventions with the declared time-plan within the technical bid.

Penalty for delaying completion of energy efficiency improvement interventions

■ Reduction (linear or exponential) of the awarded public support in relation to the remaining work progress for the full completion of the energy efficiency interventions.

Penalty for lack of cumulative energy savings in relation to the energy saving target

■ Reduction (linear or exponential) of the awarded public support in relation to the remaining energy savings for the full achievement of the energy saving target.



Step 1: Publication of an auction and submission of technical and financial bids by interested parties



Step 2: Evaluation of the submitted applications



Step 3: Conduction of energy efficiency auctions



Step 6: Control and validation of the achieved energy savings



Step 5: Implementation of energy efficiency interventions



Step 4: Contract signature for the implementation of the energy efficiency interventions





Step 6: Crucial issues

Responsible authority

☐ Assignment of the **responsible authority** for conducting the foreseen control and verification activities.

Procedure, requirements and frequency of control and verification actions

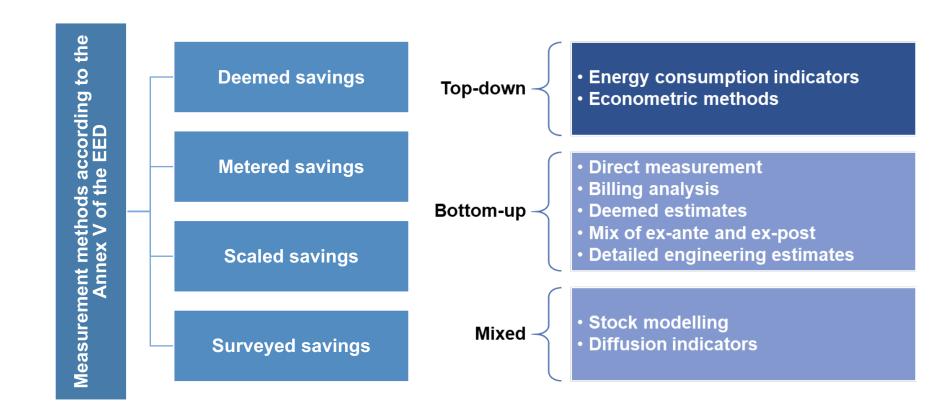
- Application of identical control and verification procedures, which are implemented within the framework of the EEOs in order to comply with the technical requirements of Article 7 of the EED.
- ☐ Initiation of the foreseen procedures strictly after the completion of all the interventions and the **submission of the final completion report**.

Duration for the completion of the control and verification actions

Specification of maximum number of mandatory working days (i.e. 60 working days) for completing all activities.



Step 6: Measurement framework

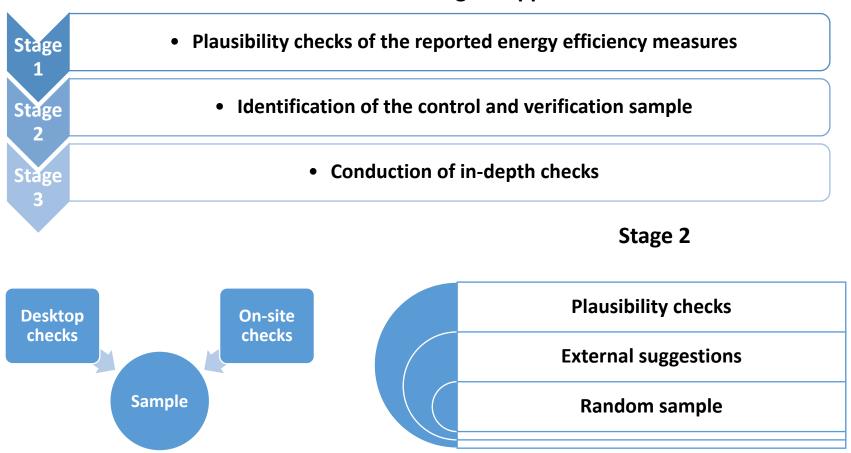




Step 6: Control and verification scheme

Verification and control process within EEOS in Greece

Used methodological approach



(Source: multee.eu, CRES)



Step 6: Control and verification scheme

Sample size and representativeness

✓ Article 7 of the EED requires that"...a control system is put in place that also includes independent verification of a statistically significant proportion of the energy efficiency improvement measures".

	SIGNIFICANT SAMPLE					
Population Size (total amount of reported energy efficiency measures)	Confidence Level = 95% Confidence Interval			Confidence Level = 99% Confidence Interval		
	10%	5%	1%	10%	5%	1%
100	49	80	99	63	87	99
500	81	217	475	125	286	485
1,000	88	278	906	143	400	943
5,000	94	357	3,288	161	588	3,845
10,000	95	370	4,899	164	624	6,247
50,000	96	381	8,057	166	657	12,486
100,000	96	383	8,763	166	661	14,267
500,000	96	384	9,423	166	665	16,105
1,000,000	96	384	9,513	166	665	16,369

(Source: multee.eu)



Step 1: Publication of an auction and submission of technical and financial bids by interested parties



Step 2: Evaluation of the submitted applications



Step 3: Conduction of energy efficiency auctions



Step 6: Control and validation of the achieved energy savings



Step 5: Implementation of energy efficiency interventions



Step 4: Contract signature for the implementation of the energy efficiency interventions





Step 7: Crucial issues

Payment schedule

- Payment of the implemented measures only after the successful completion of the control and verification activities and the submission of the foreseen report by the responsible authority providing evidence and justification of all the crucial issues (such as the achieved cumulative energy savings, the eligible budget for the implementation of the energy efficiency interventions, the calculated pay-back time and the degree of compliance with the technical issues of Article 7).
- Calculation of the public support in relation to the State-Aid rules.

Responsible authority

Assignment of the responsible authority for carrying out the payments.

Duration for the payment of the implemented projects

Specification of maximum number of mandatory working days (i.e. 5 working days) for completing all activities.



Other issues: Compliance with state-aid rules

Alternative 1: Compliance with the General Block Exemption Regulation - GBER

■ Eligible cost on which the aid intensity will be calculated shall be the extra investment costs necessary to achieve the higher level of energy efficiency and is identified by reference to a similar, less energy efficient investment that would have been credibly carried out without the provided financial aid (counterfactual scenario) >> Leads to an aid intensity of 30% of the eligible cost.

Alternative 2: Formal notification to the European Commission taking into account the Guidelines on State aid for environmental protection and energy 2014-2020 (EEAG).

☐ The aid intensity level for energy efficiency can be up to 100% if the provided financial aid is being granted through a bidding process.

Alternative 3: Use of the de minimis Regulation

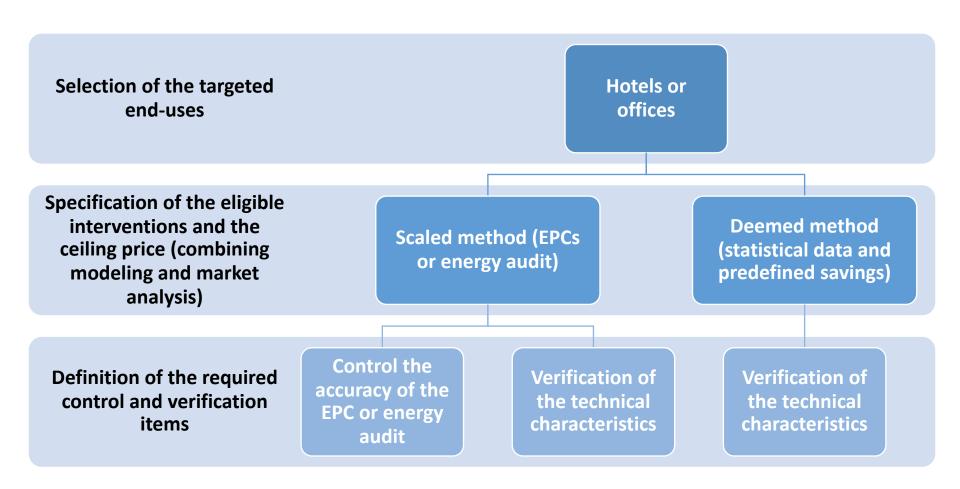
Definition of a maximum cap of 200,000€ of public support.

Ideallly: Design the scheme so as not be considered as state aid

- ☐ Aid granted to individuals or general measures open to all enterprises.
- ☐ Unofficial communication to the DG Competition for the selection being outside the state aid framework.



Selection of targeted sectors and interventions



Initially focus on final energy savings but examine expressing the target at primary energy savings so as to facilitate the level playing field with RES.

Adoption of the main regulatory framework

Completion of the draft outline of the tendering procedure

Conduction of public consultation

Establishment of the secondary regulatory framework

Launching the energy efficiency auctions



Thank you for your attention!!!

Christos Tourkolias

CRES

ctourkolias@cres.gr

web: www.ensmov.eu

discussion group: www.linkedin.com/in/ensmovproject

Subscribe to the ENSMOV newsletter!

