



United Nations  
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## Session S1: REN21, supported by ESCAP and ADB - Asia-Pacific Renewable Energy Status

*Session S 1b. Renewable Energy Deployment through Auctions*

### Basic principles of the new Serbian incentive scheme

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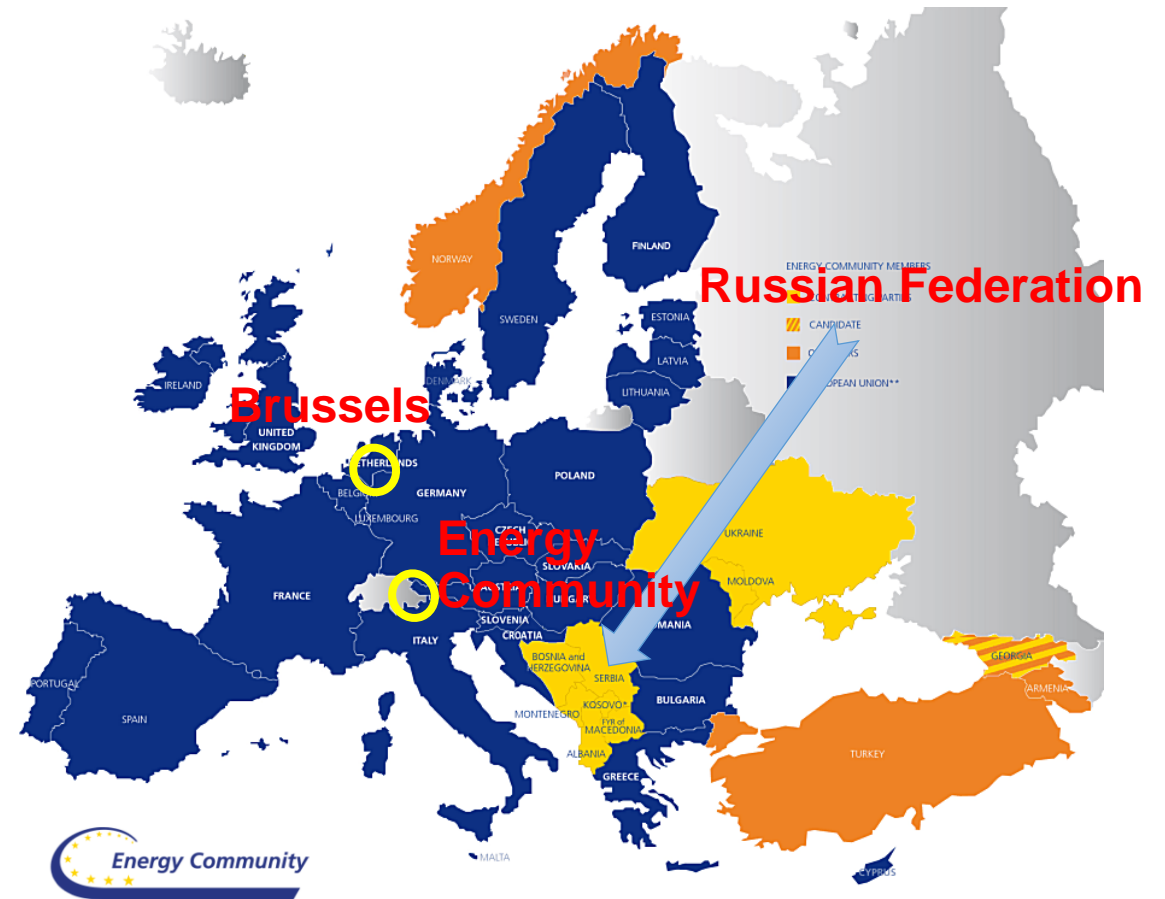


# 1. Serbian energy polisy (on the EU road)

2006 - Republic of Serbia ratified the Treaty on establishing the Energy Community

Signatories to the agreement are  
European Commission (EU) and  
Albania,  
Bosnia and Herzegovina,  
Croatia,  
North Macedonia,  
Serbia,  
Kosovo\*,  
Montenegro ...

Moldova,  
and Ukraine



# 1. Serbian energy polisy (on the EU road)

## 2050 Energy strategy

- The EU has set itself a long-term goal of reducing greenhouse gas emissions **by 80-95%** when compared to 1990 levels by 2050. The Energy
- Roadmap 2050 explores the transition of the energy system in ways that would be compatible with this greenhouse gas reductions target while also increasing competitiveness and security of supply.

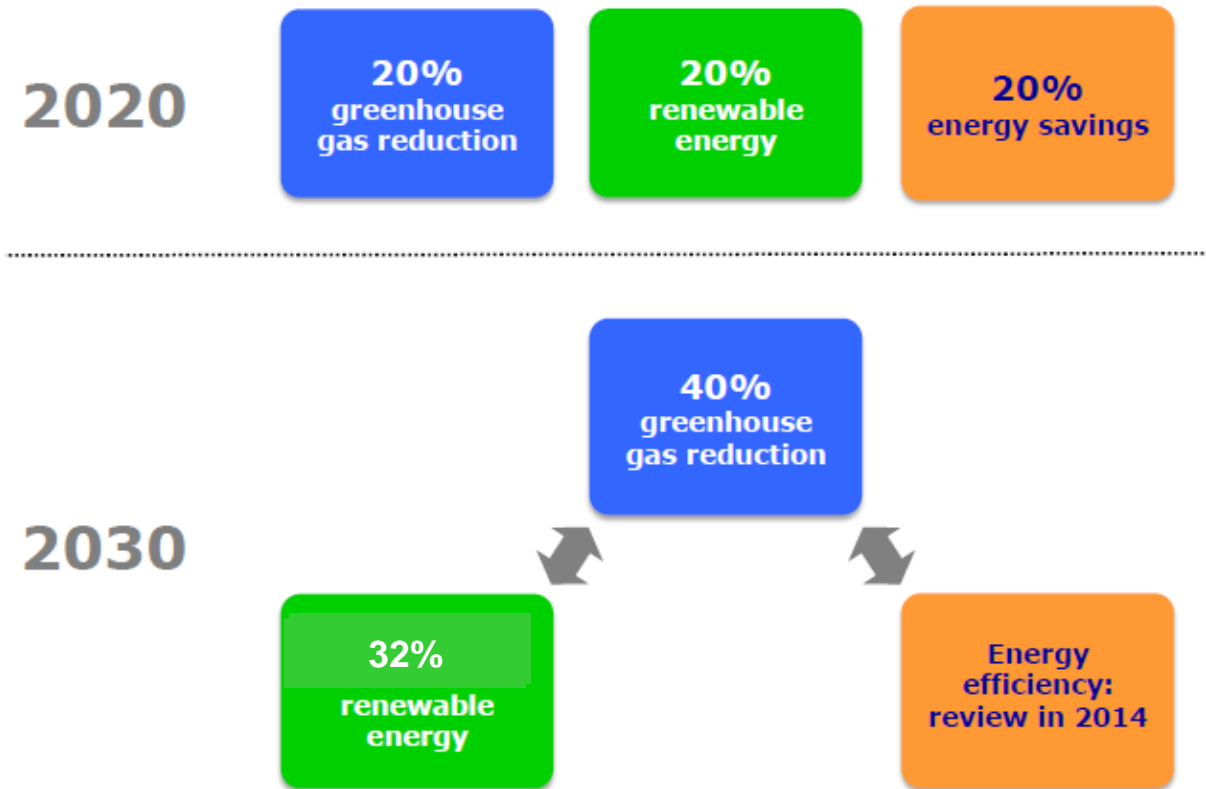
## Energy Roadmap

- The European **Commission's 2011 Energy Roadmap** set out **four main** routes to a **more sustainable, competitive and secure energy** system in 2050: **energy efficiency, renewable energy, nuclear energy and carbon capture and storage.**



# 1. Serbian energy polisy (on the EU road)

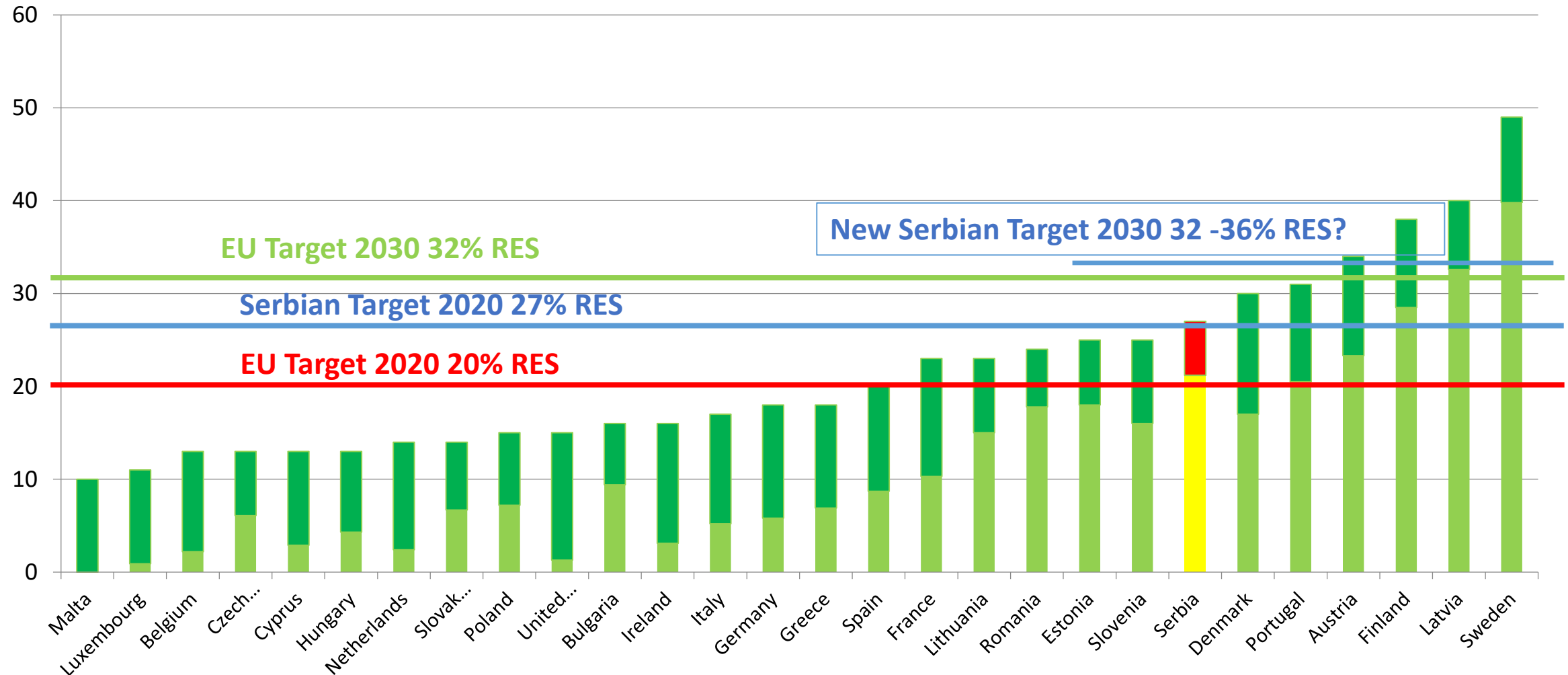
## The Energy Roadmap 2050



4. jun 2018

# 1. Serbian energy polisy (on the EU road)

## Commitments for RES - Comparison of RES % with EU Member States



# 1. Serbian energy policy (on the EU road)

## Efforts by the Ministry

2004 – The Law on Energy Sector (I package)

For RES

2009 - „Feed-in“ tariff system and status of privileged electricity producer, definition of free capacities for the use of „wind“ and „solar“

2010 – Action Plan for Biomass adopted

2011 - The Law on Energy Sector (II package and the minor part of III package)

Directive on RES - partially

2013 – **National Action Plan for RES of the Republic of Serbia**

**2014** - The Law on Energy Sector (the whole III package)

Directive on RES - fully

**2015 – National Strategy of Development of the Energy Sector by 2025 with projections until 2030**

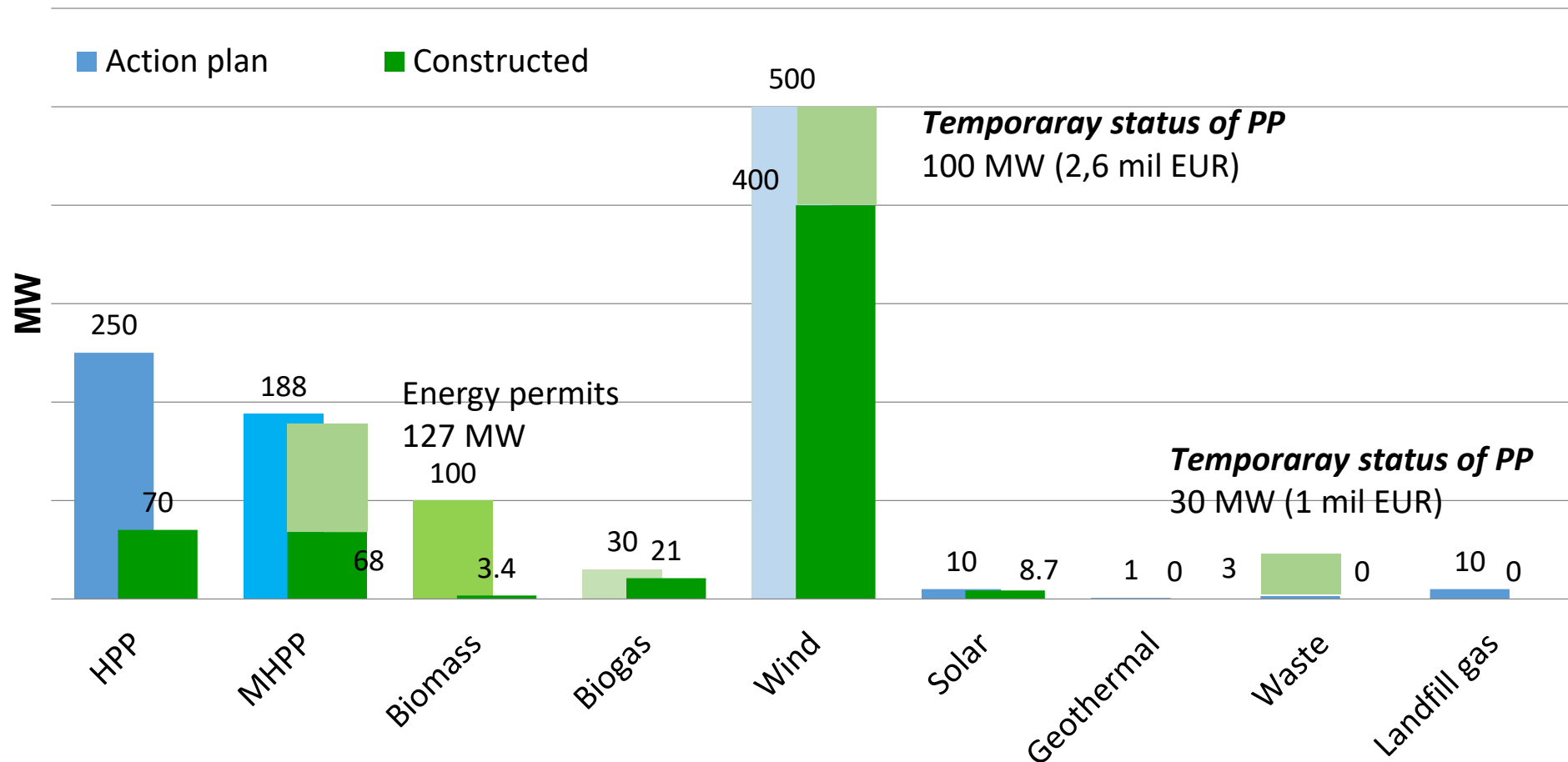
**2016 - New Regulations on incentives for privileged power producer**

# 1. Serbian energy polisy (on the EU road)

## Results achieved

Plans (new 1092 MW) and Realization (electricity)

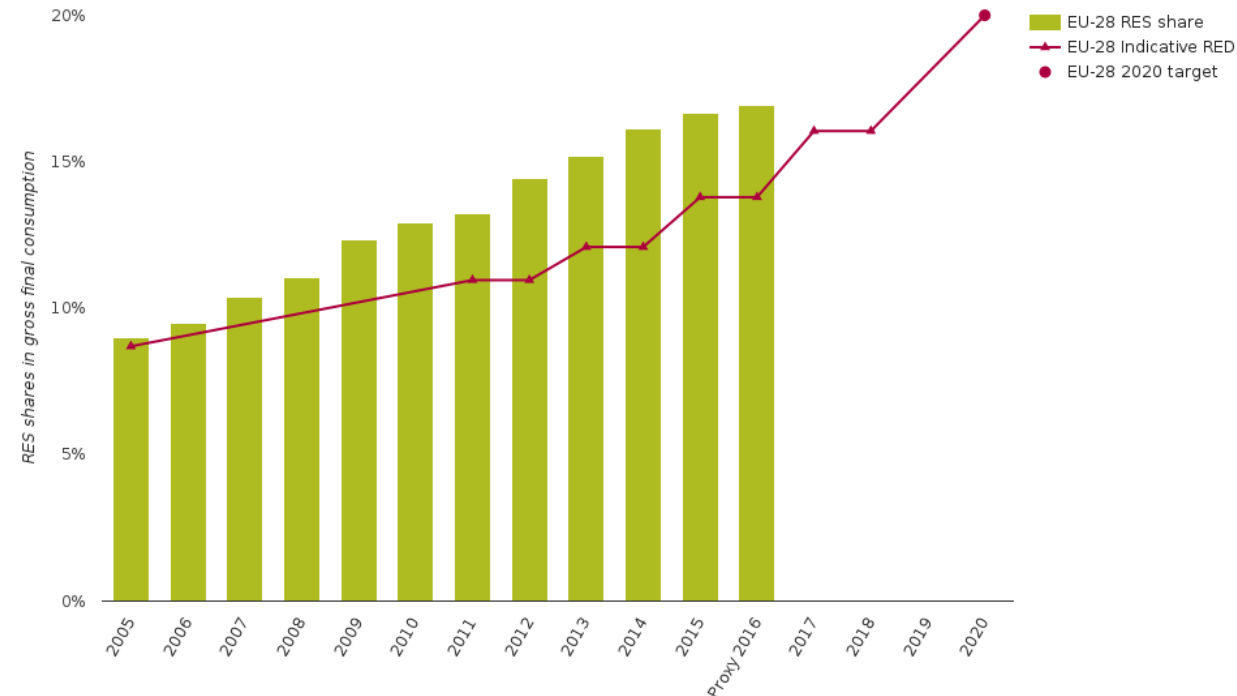
2019





## 2. New recommendations from the EU Commission

- 2013 – **European Commission guidance for the design of renewables support schemes**, providing recommendations to EU countries for creating incentive policies for the use of RES so as to avoid creating distortions in the electricity market.
- Further changes were implemented in 2014 when the European Commission introduced its "**Guidelines on State Aid for Environmental Protection and Energy**". These Guidelines set the general conditions for investments and operating aid for any features of new support schemes through to 2020.
- "**Clean Energy for All Europeans**" legislative package proposed in November 2016, such transparent, competitive, non-discriminatory and cost-effective principles are almost certainly to become the standard criteria for RES support schemes across Europe.



## 2. New recommendations from the EU Commission

By the end of 2017, 18 out of 29 countries had either introduced tendering schemes (13) or were about to do so (5).

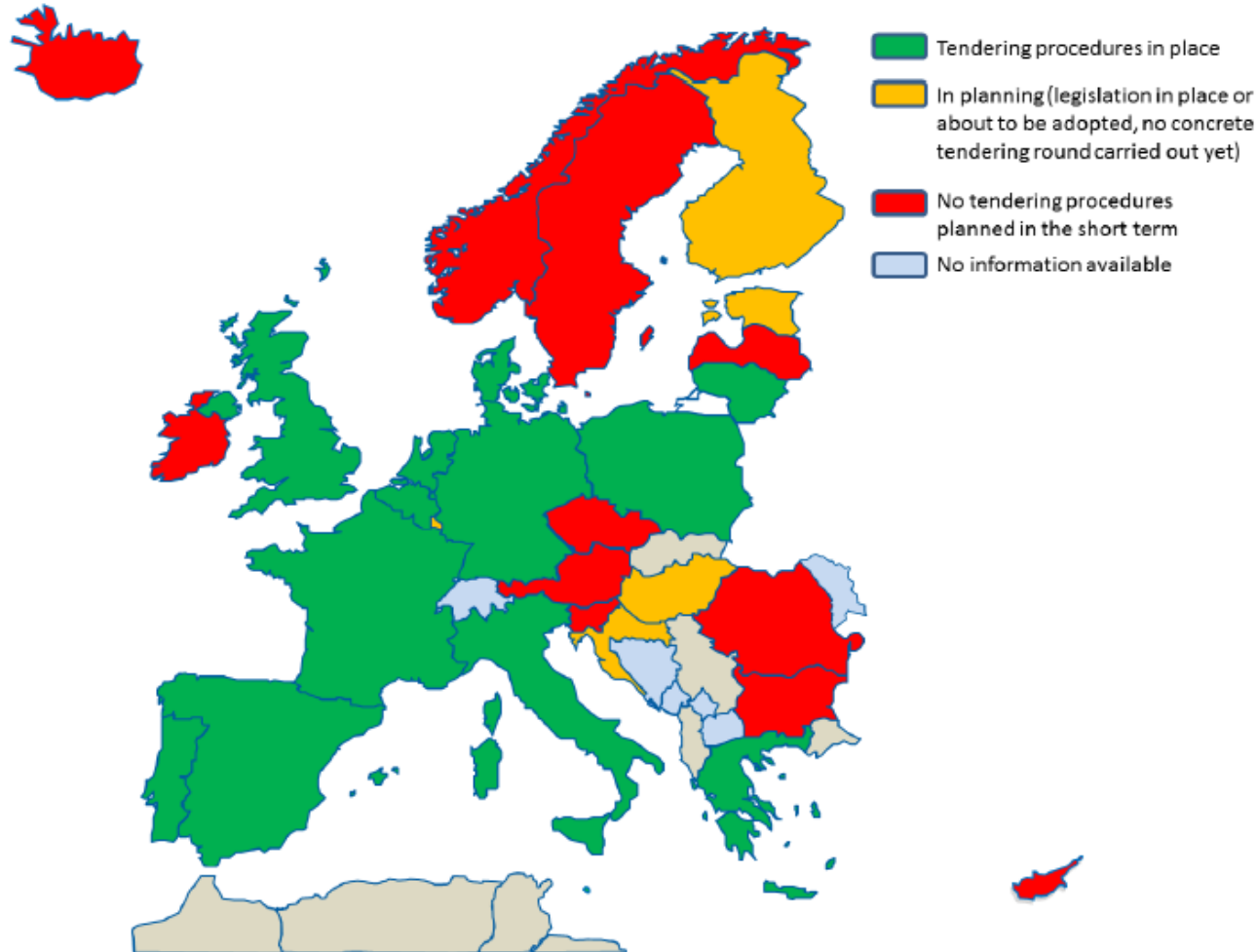


Figure 1 – Overview of implementation status of RES tendering procedures

### 3. Basic principles of the new Serbian incentive scheme

#### **Competitive Procurement of Renewables in Serbia**

**Prepared with European Bank for Reconstruction and Development**

#### **Recommendations on Auction Design**

1. Roles and Responsibilities
2. Auction Timing within the Development Process
3. Technology Arrangements
4. Siting Arrangements
5. Auction Volume and Project Limits
6. Selection Mechanism
7. Qualification Requirements
8. Measures to Ensure Project Realisation
9. Level of Support
10. Duration of Support
11. Balancing Responsibility
12. Additional Measures to Promote Auction Effectiveness

### 3. Basic principles of the new Serbian incentive scheme

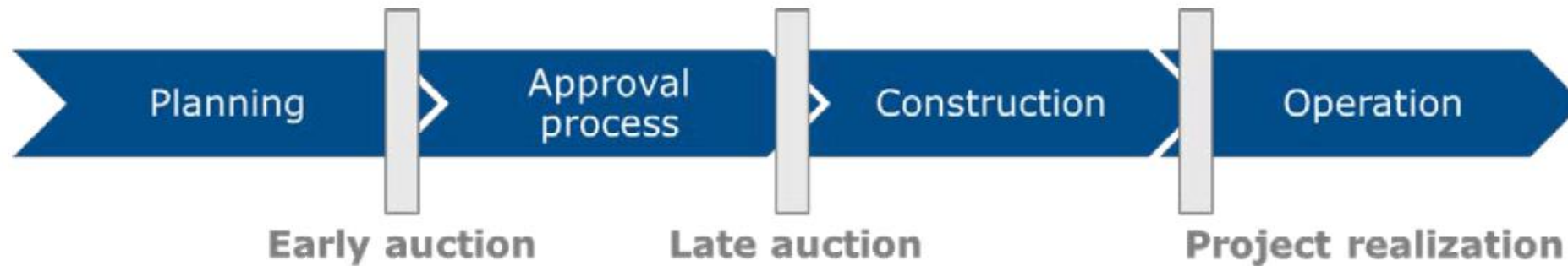
#### 1. Roles and Responsibilities

- The **Ministry of Mining and Energy** is responsible for formulating and managing energy policy.
- The **Energy Agency of the Republic of Serbia (AERS)** is the regulatory body for the electricity, natural gas and liquid fuel sectors.
- **Public Enterprise Electric Power Industry of Serbia (EPS)** is dominant electricity producer, with over 7 GW of thermal and hydro capacity and 99% market share in both installed capacity and generation. It also has wind and solar projects under development. EPS is **Guaranteed Electricity Supplier (GES)**. In Serbia's existing RES support scheme, the **GES is defined to be the counterparty for the PPA and incentive measures**.
- **EPS Distribution** is the **Distribution System Operator (DSO)** in Serbia.
- **EMS** is the **Transmission System Operator (TSO)** and **Electricity Market Operator in Serbia**. It conducts the development, operation and maintenance of the electricity transmission grid.

According to our understanding of Serbia's regulatory framework, **the introduction of auctions could be achieved through new secondary legislation** specifying that projects (subject to certain limits) can acquire TPPP and PPP **status via auctions conducted by the Ministry of Mining and Energy**.

### 3. Basic principles of the new Serbian incentive scheme

#### 2. Auction Timing within the Development Process



- An 'early' auction takes place at an earlier stage of the project development process, where crucial planning permits and a grid connection are yet to be obtained.
- A 'late' auction takes place at a later stage of the project development process, for example once planning permits and a grid connection have been secured.
- For less speculative bids and higher likelihood of project realisation they **recommend that RES auctions in Serbia are implemented as late auctions**, in line with international practice

## 3. Basic principles of the new Serbian incentive scheme

### 3. Technology Arrangements

- RES auctions may be organised **such that a project competes against all other projects regardless of technology type** (i.e. “TECHNOLOGY-NEUTRAL” basis), **or only competes against other projects of the same technology type** (i.e. “TECHNOLOGY-SPECIFIC” basis).
- **Recommendation is that RES auctions in Serbia are implemented on a TECHNOLOGY-SPECIFIC basis.**

### 4. Siting Arrangements

- There are two basic types of siting arrangements used for RES auctions: **government-sited auctions** (also known as “single-item auctions”) and **bidder-sited auctions** (also known as “multiple-item auctions”).
- In government-sited auctions, the project site is selected by the authorities and pre-developed to a certain degree (e.g. permitting and resource assessment). Bidders then compete for the right to construct a facility at the specific site. In a bidder-sited auction, the auctioneer sets a target volume for the auction round, and bidders compete with their projects which they have pre-developed at their chosen sites.
- Developers are responsible for site selection in Serbia’s existing RES support scheme, and the grid connection process is well-defined, so **recommendation is that bidder-sited auctions are implemented in Serbia.**

### 3. Basic principles of the new Serbian incentive scheme

#### 5. Auction Volume and Project Limits

- Auction volume refers to the amount of RES capacity demanded by the auctioneer in each auction.
- The main factors to consider when setting auction volumes are as follows:
  - Alignment with RES targets
  - Alignment with network plans for RES integration
  - Degree of competition in the auctions
  - Market signals to the investment community

Table 1-4: Proposed technology-specific auction volumes

RES Technology	2020	2021	2022	2023 and beyond
Solar	20 MW	20 MW	40 MW*	Auctions to continue with potentially increasing volumes
Wind	150 MW	150 MW	150 MW	Auctions to continue with potentially increasing volumes

\* Subject to future review as the project pipeline develops

### 3. Basic principles of the new Serbian incentive scheme

#### 6. Selection Mechanism

- As RES support in Serbia transitions towards competitive procurement, priorities include: a simple and transparent process, speed of implementation, and low administrative burden. **Therefore it is recommend that RES auctions in Serbia are implemented as static (sealed bid) auctions, without a post-bid negotiation stage.**
- **It is recommend that bids are evaluated on a price-only basis** (in Euro cents per kWh, like the existing support scheme) **after a qualification phase.**



### 3. Basic principles of the new Serbian incentive scheme

#### 7. Qualification Requirements

- **Technical requirements** - **A set of stringent technical requirements is recommended**, aligned with late auctions, to qualify for auction participation:
  - A valid construction permit for the power plant
  - A valid grid connection approval
  - Evidence that the developer owns or has the right to use all land defined in the construction permit
  - ...
- **Experience requirements** - bidders have to show their experience of executing similar projects
- **Financial requirements**
  - Bidder must be registered as a local entity by Serbian Business Registers Agency
  - Bidder must not be subject to proceedings of bankruptcy, liquidation, controlled administration termination of activity, or any other related situation at the time of bidding

### 3. Basic principles of the new Serbian incentive scheme

#### 8. Measures to Ensure Project Realisation

- *Realisation deadline*
- *Financial guarantees and penalties*

Proposed penalty system for delays to completion

Penalty for delay	Wind deadlines from acquiring TPPP status	Solar deadlines from acquiring TPPP status (if validity unchanged*)	Solar deadlines from acquiring TPPP status (if validity extended*)
50% of the financial guarantee	3 years	–	2 years
100% of the financial guarantee	4 years	2 years	3 years

### 3. Basic principles of the new Serbian incentive scheme

#### 9. Measures to Ensure Project Realisation

- *It is recommend that RES auctions in Serbia start off by awarding fixed Feed-in Tariffs*
- ***Ceiling price***

In line with international best practice, it is recommended setting ceiling prices separately for Serbia's wind and solar auctions and disclosing them in advance
- ***Pricing rule***

It is recommended applying the pay-as-bid pricing rule - successful bidders are each awarded the price which they submitted.

### 3. Basic principles of the new Serbian incentive scheme

#### 10. Duration of Support

- It is recommended increasing the support duration to the 15 to 20-year range observed in EU countries. It is recognised, that a 12-year support duration is well established in Serbia and has not been a major barrier to RES deployment thus far.

#### 11. Balancing Responsibility

- In Serbia, there is not yet an intraday electricity market and the balancing market is still illiquid and heavily regulated. Market conditions are therefore unsuitable for the transfer of balancing responsibility to RES producers.
- It is recommended that the new support scheme continues to assign balancing responsibility to the Guaranteed Electricity Supplier

#### 12. Additional Measures to Promote Auction Effectiveness

- It is recommended continuity and multi-year forward visibility in Serbia's auctioning schedule to promote the effectiveness of auctions, boost the degree of competition, and ultimately reduce RES support costs.

## 4. Conclusion

- The auction system is without any doubt more transparent and more competitive system and a system for obtaining more realistic (lower) price for electricity
- Although in Serbia exist a well-established RES incentive system based on the first come first serve principle, Serbia will soon switch to the auction system
- RES auctions in Serbia start off by awarding fixed Feed-in Tariffs, not Feed-in Premium
- The auction system is a universal principle, but it needs to be adjusted for each country