

# Boosting the deployment of renewables

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## ***CLEAN ENERGY PACKAGE II (CEPII)***

**Adopted: on the 19th Ministerial Council held on 30 November 2021 in Belgrade  
(Decision number 2021/14/MC-EnC)**

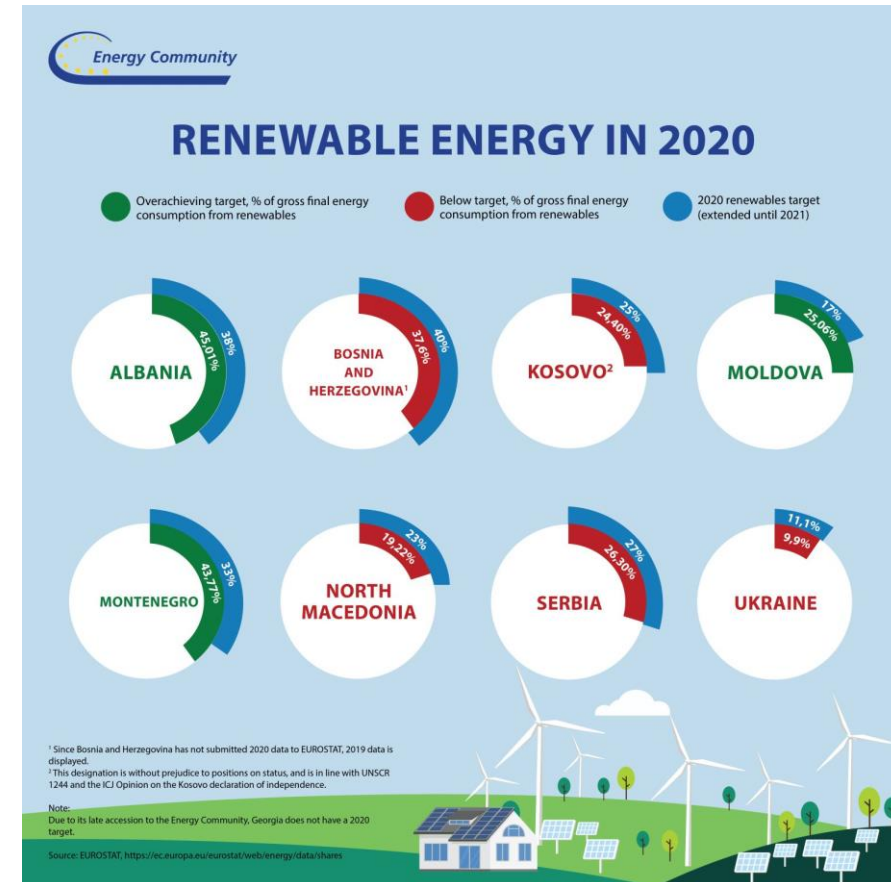
**Includes:**

- ✓ Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources (REDII);
- ✓ Revised Directive (EU) 2012/27 as amended by Directive (EU) 2018/2002 on energy efficiency;
- ✓ Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action (Governance Regulation);
  - ✓ Delegated Regulation (EU) 2020/1044 with regard to values for global warming potentials and the inventory guidelines ;
  - ✓ Implementing Regulation (EU) 2020/1208 on structure, format, submission processes and review of information reported.

# DIRECTIVE (EU) 2018/2001 on the promotion of the use of energy from renewable sources (REDII)

- ✓ Transposition and implementation deadline in the Energy Community: **31 December 2022**
- ✓ 2030 RES targets added in December 2022
  - (overall) Energy Community 2030 target for RES: 31%
  - 2030 RES targets
    - Georgia: 27,4%
    - Moldova: 27%
    - Ukraine: 27%
- ✓ New provisions include, among others:
  - ✓ Market based support scheme
  - ✓ Active role of consumers
  - ✓ Wider approach to guarantees of origin

[Link for the adapted and adopted REDII in the Energy Community](#)



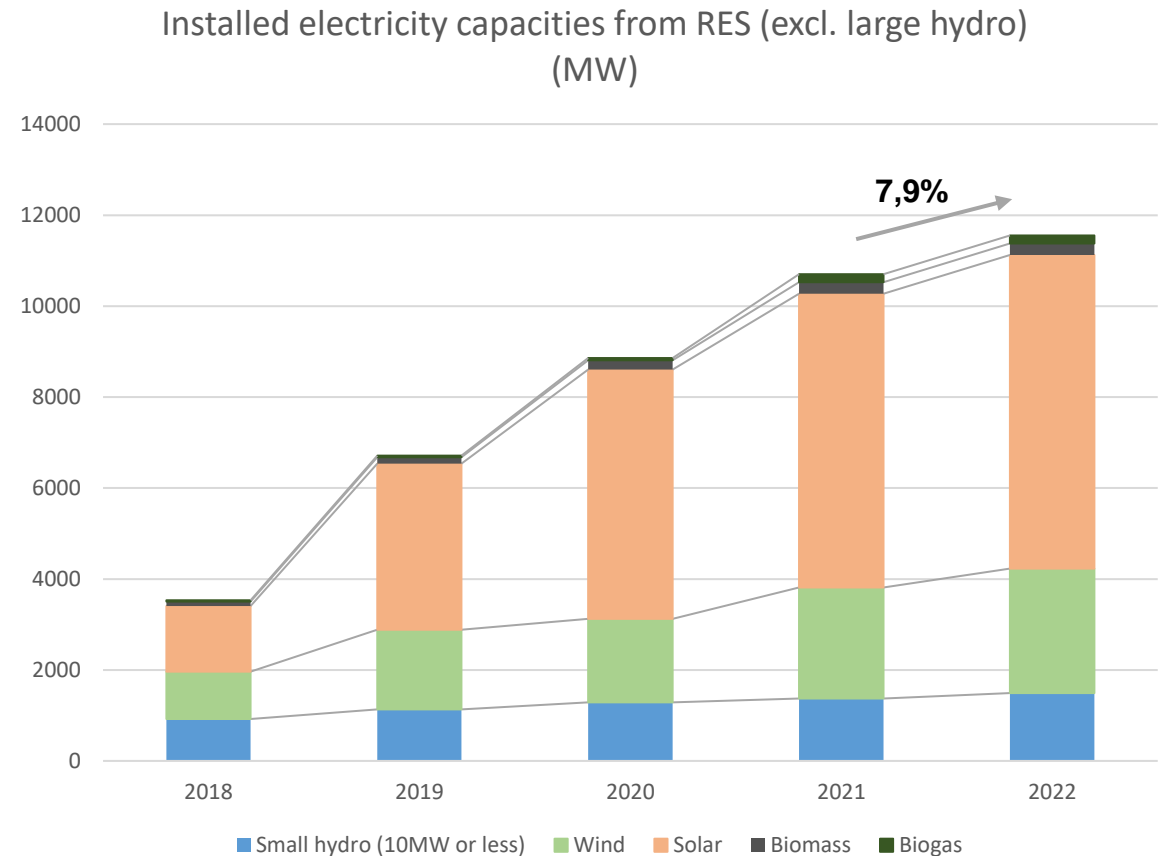
## Renewables potential vs. installed capacities

- Installed capacity of solar PV in 2022:  
6,894 GW
- Cost-effective potential until 2030:  
12,86 GW

→ Solar PV can be increased almost **100%**

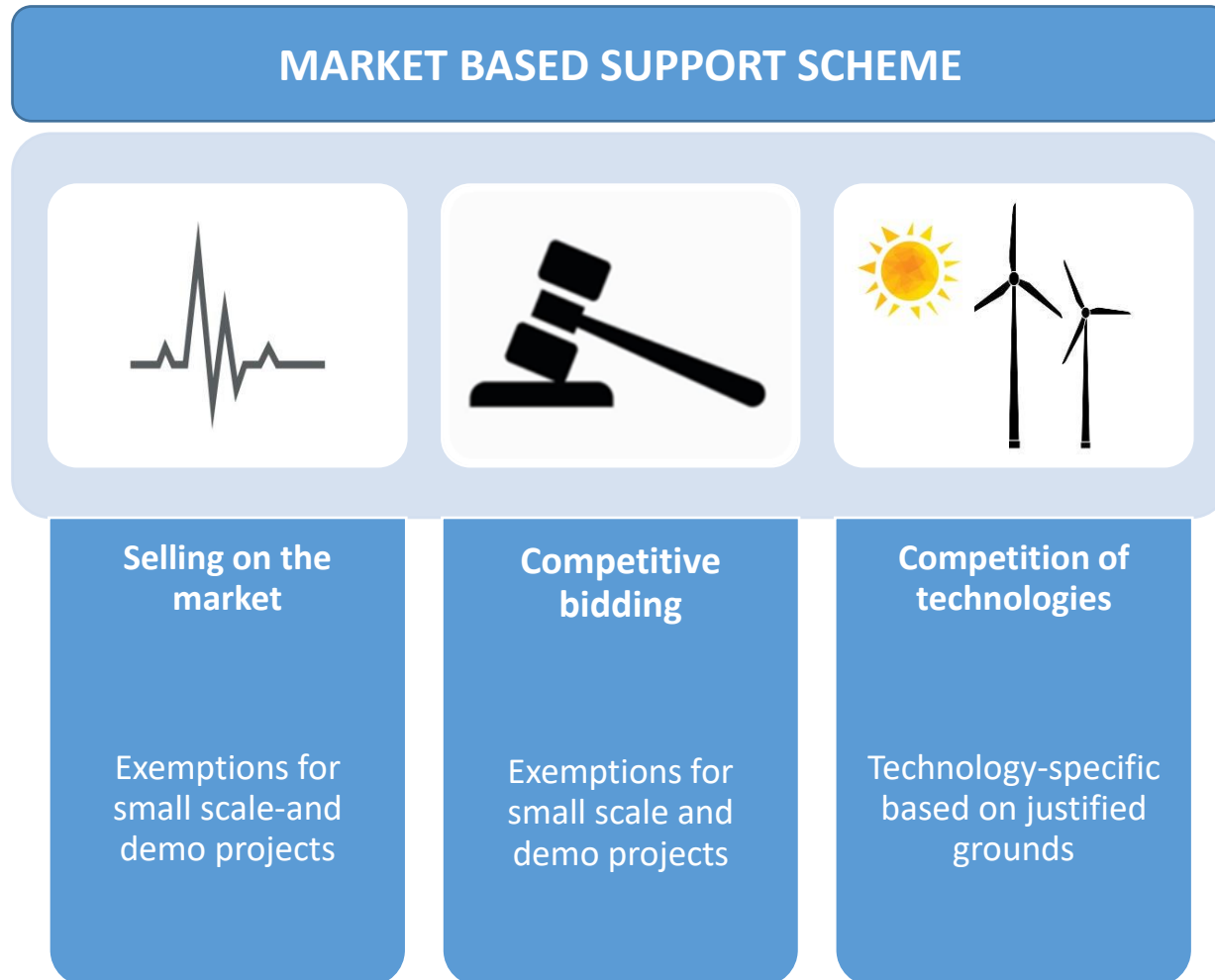
- Installed capacity of wind in 2022:  
2,742 GW
- Cost-effective potential until 2030:  
24,69 GW

→ Wind potential is **10** times higher than installed capacities



# Renewable Support Schemes

# Renewable Support Schemes



- Some of the key challenges in the Energy Community Contracting Parties:
- nonexistence of **day ahead** and **intraday** market
  - no stable **regulatory framework** and **long-term plan**
  - complex **permitting** procedures
  - **grid flexibility**

## Assuring security and stability of the scheme

Don't turn back time!



- Specific provision to **avoid "retroactive" changes** to support
- Revisions **may not compromise the economic viability** of supported projects
- Need to **publish long-term schedules** for support schemes
- **Market based premium** and competitive bidding as the main form of support

# Embracing auctions in the Energy Community

## Albania



### Fixed Purchase Price/ Contract for Difference

- Two solar PV auctions and one, ongoing, wind auction
- Best price: 24.89 €/MWh
- 15 years contract

## Kosovo\*



### Fixed Purchase Price/ Contract for Difference

- Announced in May 2023
- 95-105 MW total capacity
- Ceiling price : 65 €/MWh
- 15 years contract

## North Macedonia



### Fixed premium

- Several solar PV auctions from 2019-2022
- 0,01 €/MWh on top of the price realized by the sale of each kWh on the wholesale electricity market

## Serbia

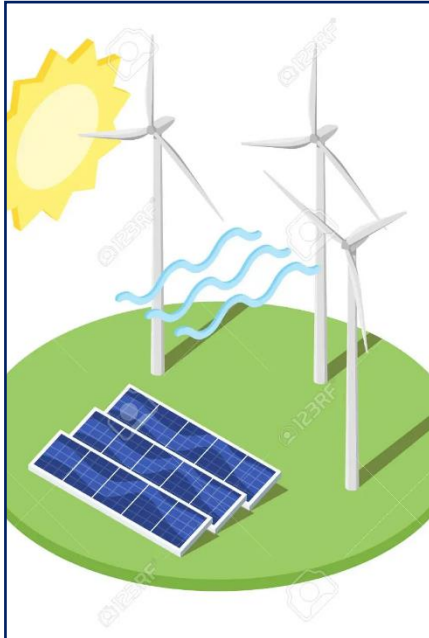


### Contract for Difference

- Announced in June 2023
- 50 MW solar PV and 400 MW wind
- Ceiling price : 90 €/MWh for solar PV and 105 €/MWh for wind



## *RES auction in Georgia*



### **Contract for Difference**

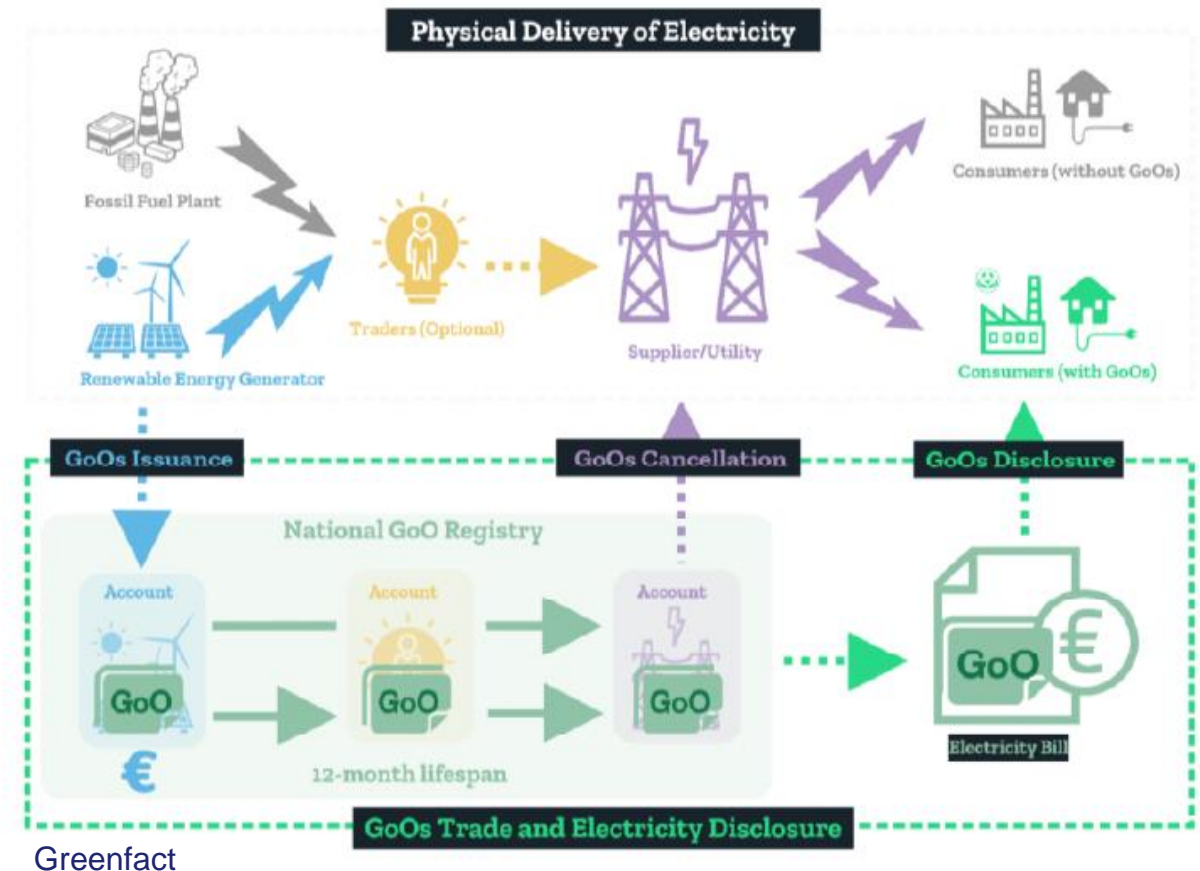
- 10 solar PV winning project (70,78 MW)
- 12 run-of-river hydropower projects (149,27)
- 2 wind projects (77MW)
- > achieved prices for these projects ranged between 53- 68,5 USD/MWh (approximately 49-63,4 €/MWh)

# Guarantees of Origin

# What is Guarantees of origin Certificate

- The primary goal of renewable energy certification is to enable disclosure, revealing the origin of energy sold to final consumers
- The GO, an electronic certificate, contains factual information, known as attributes, about that specific unit of electricity. This includes data on the technology used to generate the electricity, where it is located, where it is produced, by whom, etc.

1 GO = 1MWh

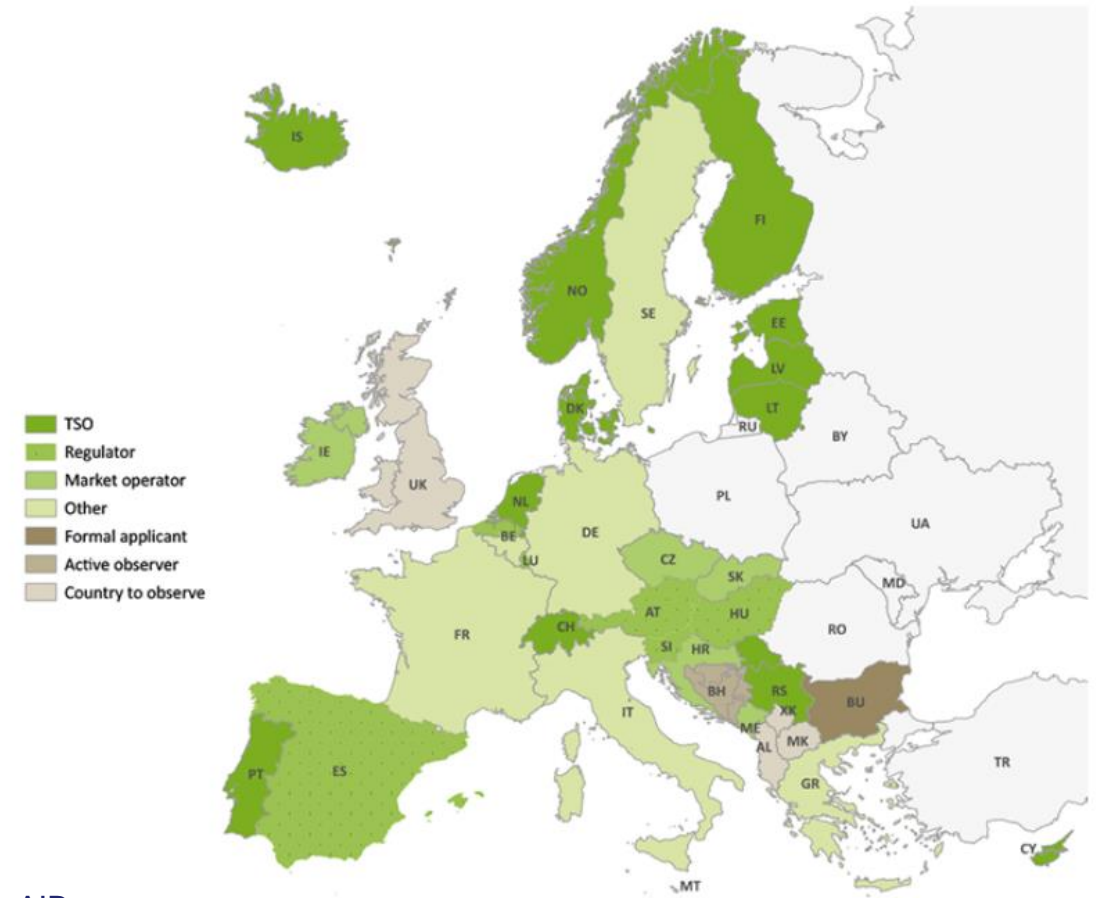


# The European Energy Certification System (EECS)



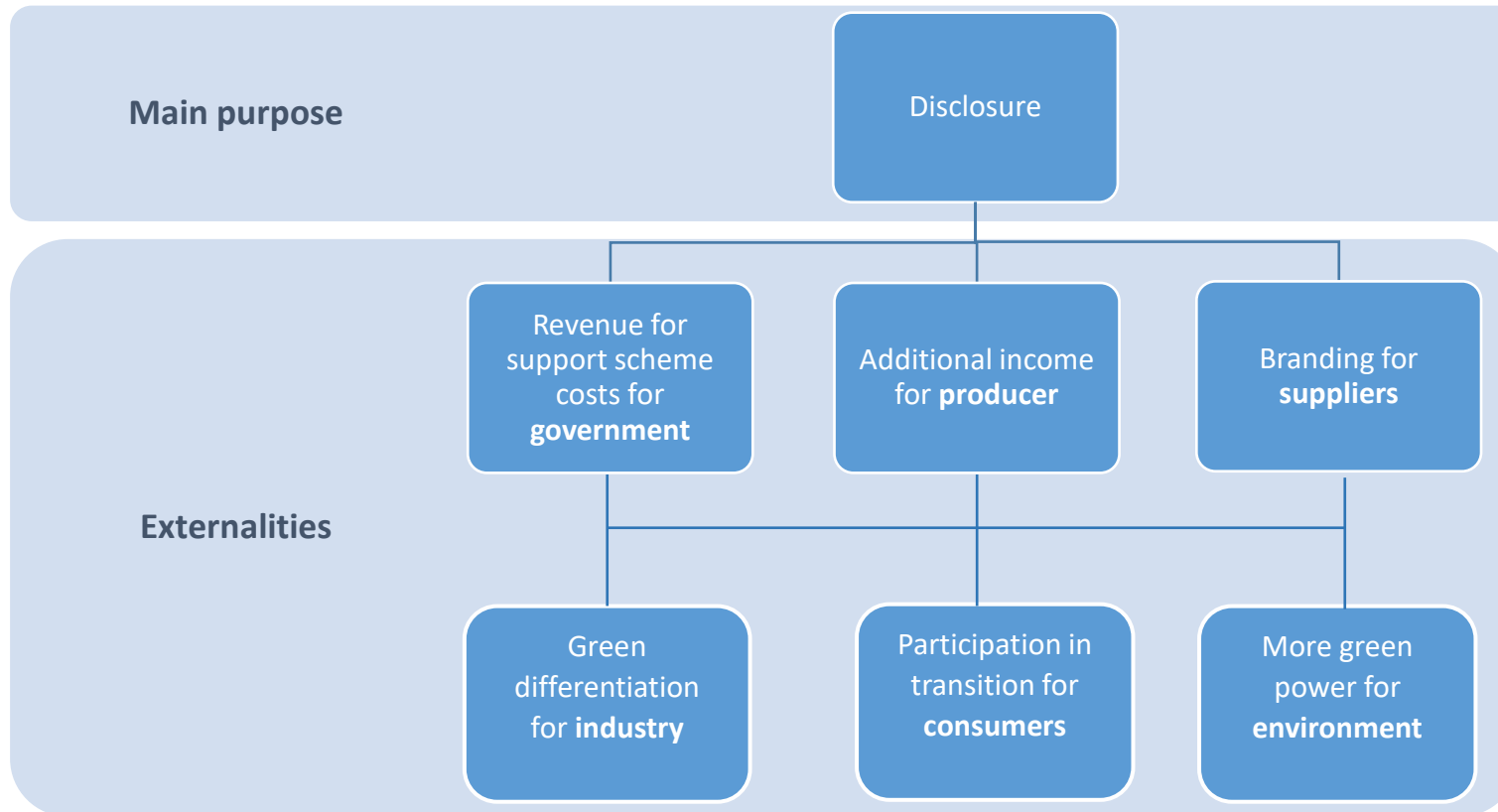
- AIB Hub is the central point that enables member registries to inter-communicate and transfer traded certificates (GOs) under a standardised system, EECS
- The EECS certificate market is a hub designed to facilitate the exchange of certificates EU-wide, where GOs are traded on a voluntary basis

28 European states are members of the AIB  
(24 EU as well as Norway, Serbia, Switzerland and Iceland)

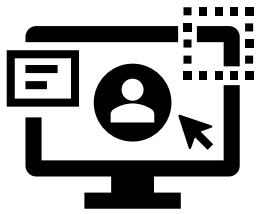


AIB

# Benefits of renewable energy certification



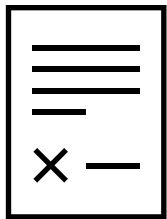
# Informing consumers about origin of their energy



1. **Establish a national electricity GO registry in each domain:**
  - GOs internationally transferrable among the Energy Community domains
  - Fulfills EECS, RED I&II, CEN requirements now and in the future.
  - System extendable to all energy sources and energy carriers (RED II).



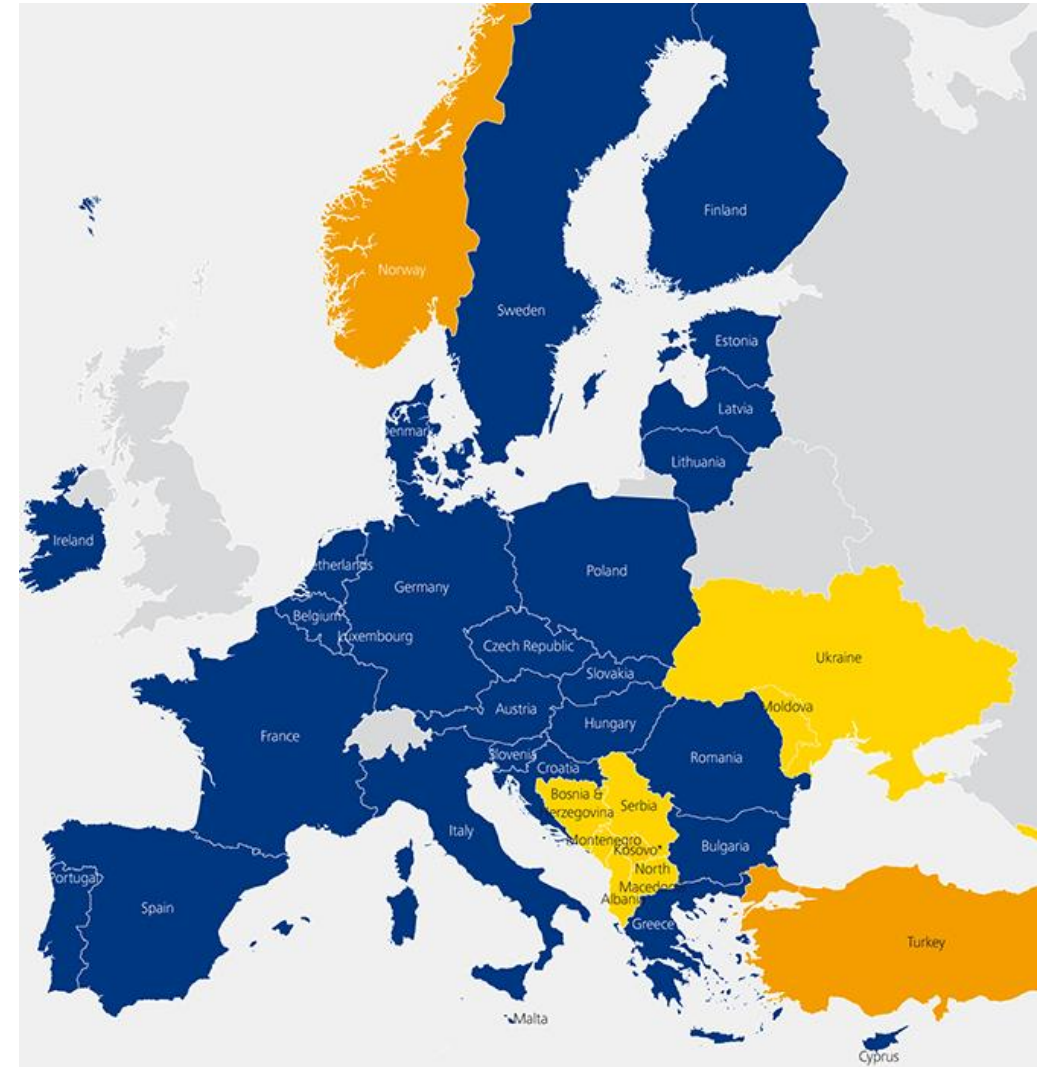
2. **Training and knowledge transfer:**
  - Train all competent bodies as proficient registry users before go-live
  - Familiarize other users of the system (future Account Holders)
  - Knowledge transfer beyond what is strictly in the scope of the project
    - GOs, residual mix, disclosure, markets, EECS DP



3. **Continuation framework after project:**
  - Developed national registries will be kept ready until June 2023
  - Direct agreement made available for competent bodies and ready for signing

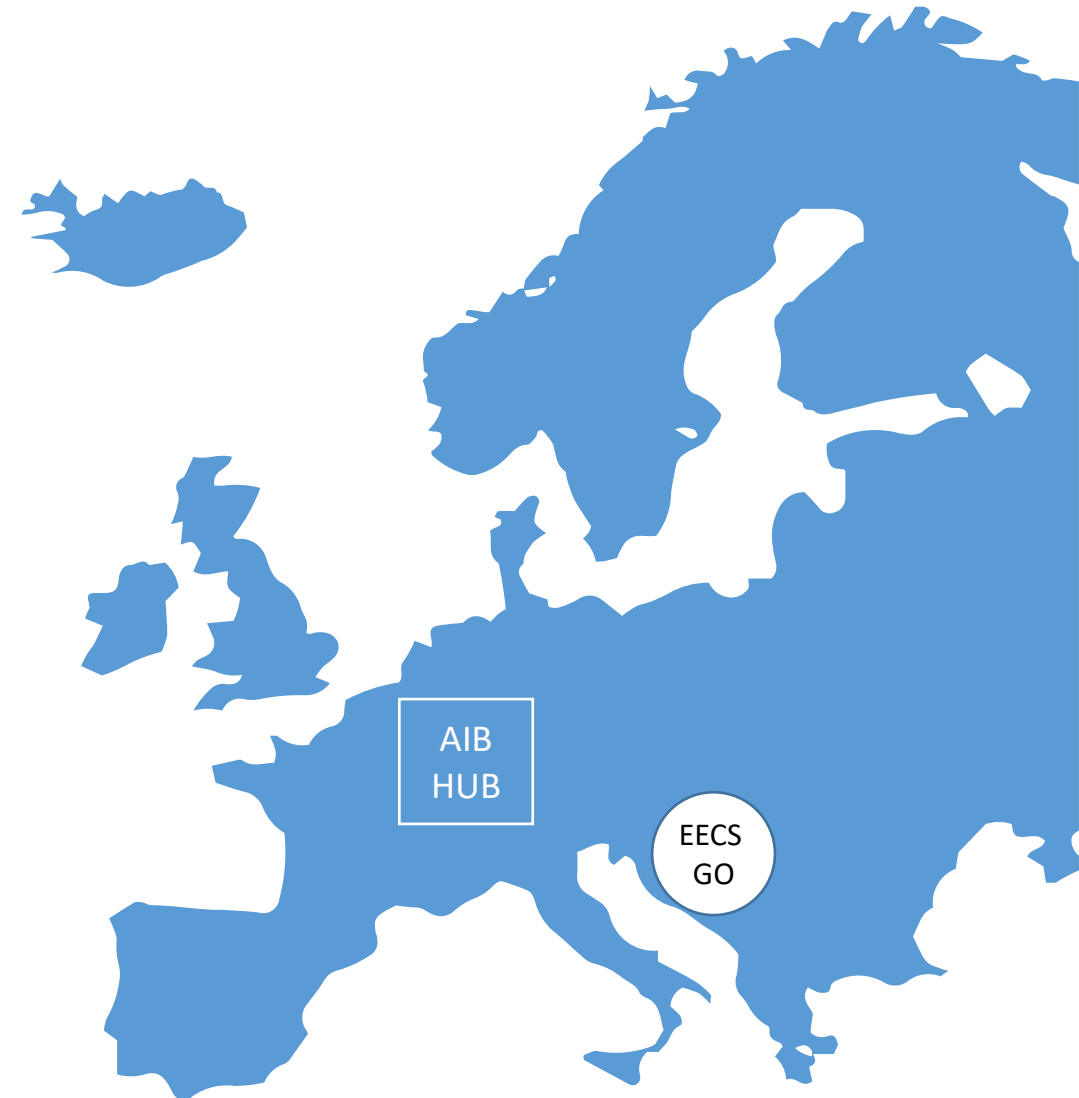


4. **Prepare for AIB Membership:**
  - Compatibility and hub connection maintenance guarantee
  - Enables a stepwise approach for international transfers



# Approach to regional GOs

- Stage 1: Purely regional system
  - Establish a new Trading Scheme (Energy Community GO) in G-REX, which will prevent transfers to the AIB Hub but enable international transfer within the Energy Community
- Stage 2: EECS and regional hybrid
  - If / when domain becomes and AIB member, EECS trading scheme is added to GOs issued in that country.
  - Such GOs may be exported to AIB domains or Energy Community domains. Once exported to a non-AIB domain, the EECS trading scheme is stripped off.
- Stage 3: All Energy Community domains members of the AIB
  - Ultimately when all EC domains are members of AIB, the Energy Community trading scheme may be removed if not needed.



# **Renewable Power Purchase Agreements (PPA)**



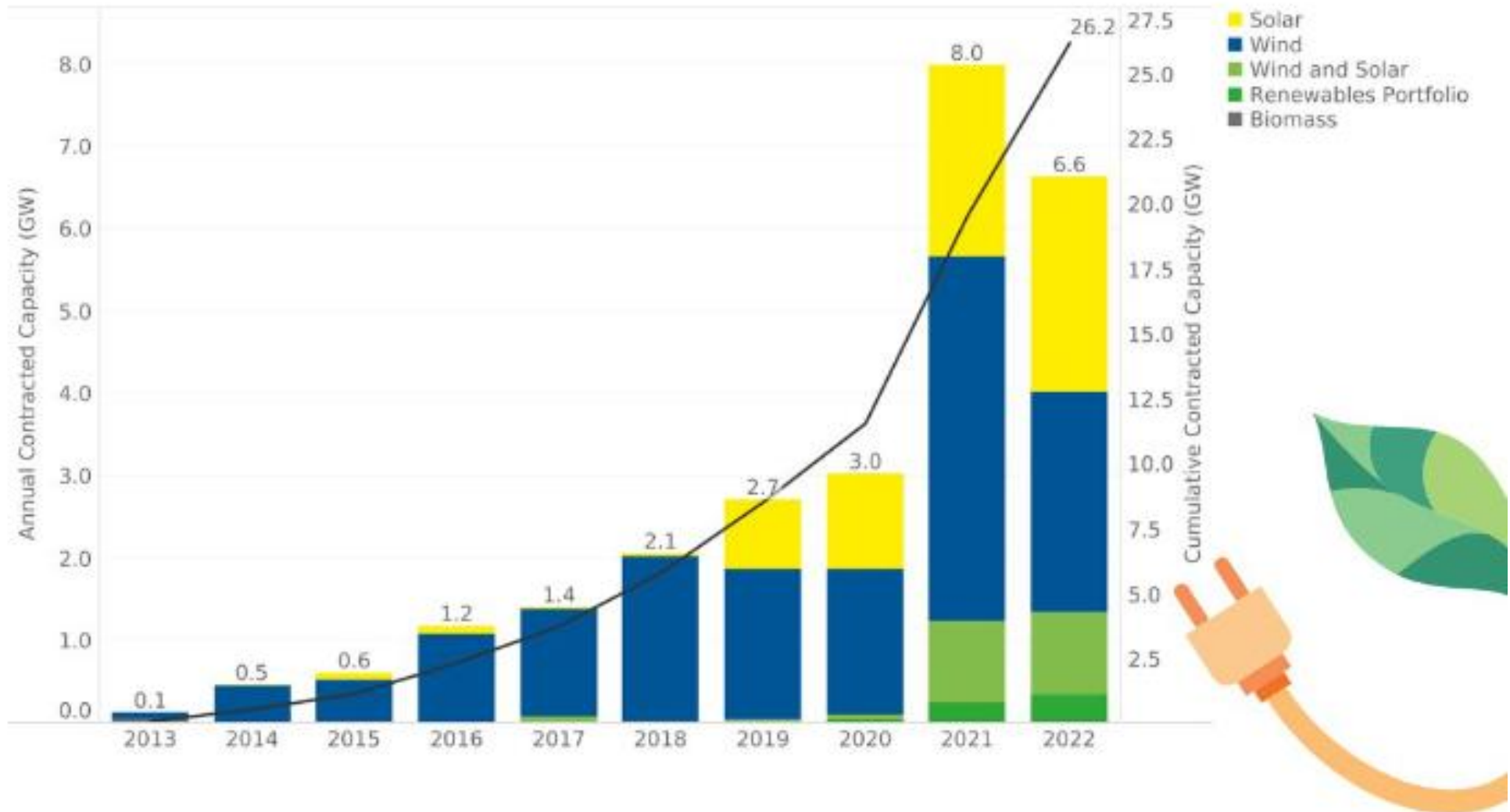
# Corporate Power Purchase Agreements (cPPAs)

Over 300 companies committed to a 100% renewable electricity supply globally (through the [RE100 initiative](#))

- Corporate PPAs are essential to double RES deployment and lower energy prices
- For all PPA structures, the generator's GOs are bundled with the renewable electricity supply to verify renewable consumption by the corporate buyer, and their financial value is accounted for in the PPA price the counterparties agree to in the negotiation
- Already 5% of RES capacity in the EU is covered by a PPA



# Corporate Power Purchase Agreements in the EU



# Renewable Self-Consumption

# Self-consumers in the center of energy transition

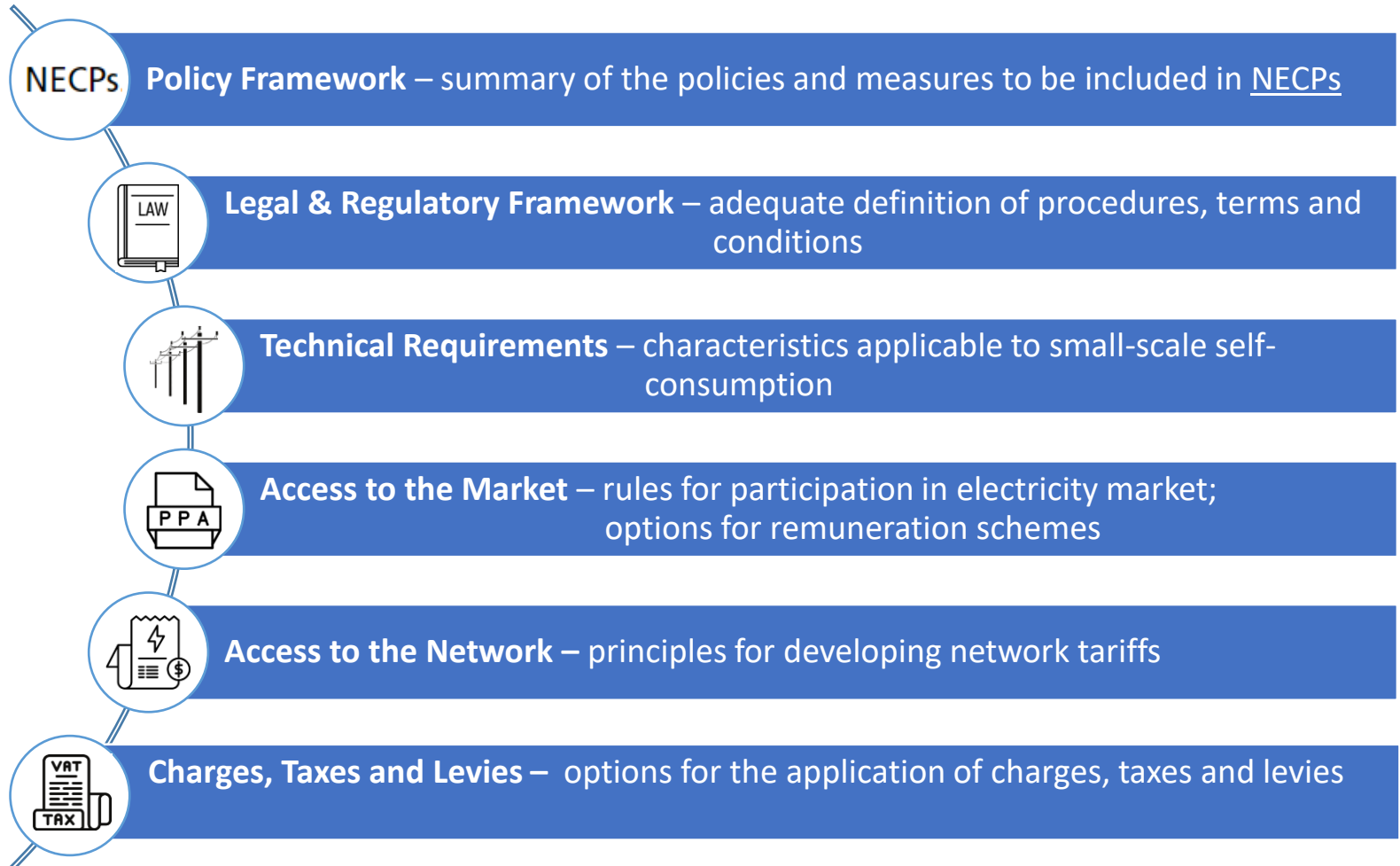
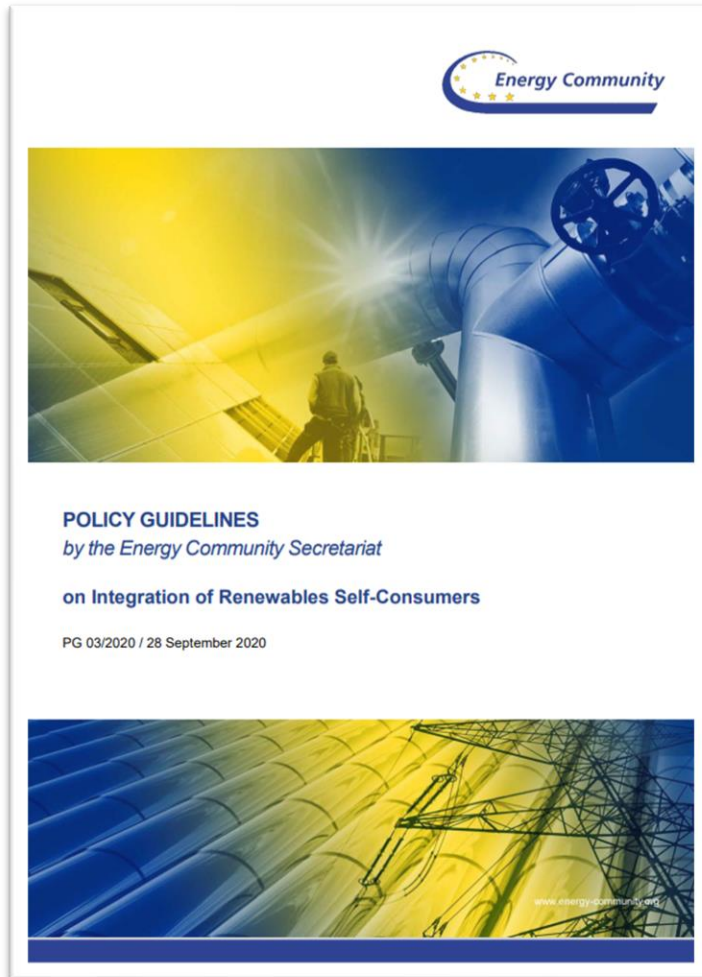
## REDII obligations

- ✚ maintaining rights as consumers;
- ✚ remuneration for the electricity fed to the grid;
- ✚ not subject to discriminatory or disproportionate charges and procedures;
- ✚ guarantee benefits for individual & jointly acting self-consumers;
- ✚ adequate contribution to the overall cost-sharing system.

*Driven by motivations to increase **energy security**, be protected from **rising energy prices** and play an **active role** in the fight against climate change, citizens and businesses are starting to turn to renewables self-consumption*



# Policy Guidelines on Integration of Renewables Self-Consumers by Energy Community Secretariat



# Regulation and Policy

## Enabling legal framework

Consume

Store

Sell

## Self-consumption targets

- Contribution national 2030 RES target
- NECP



## Easily accessible information



single points of contact



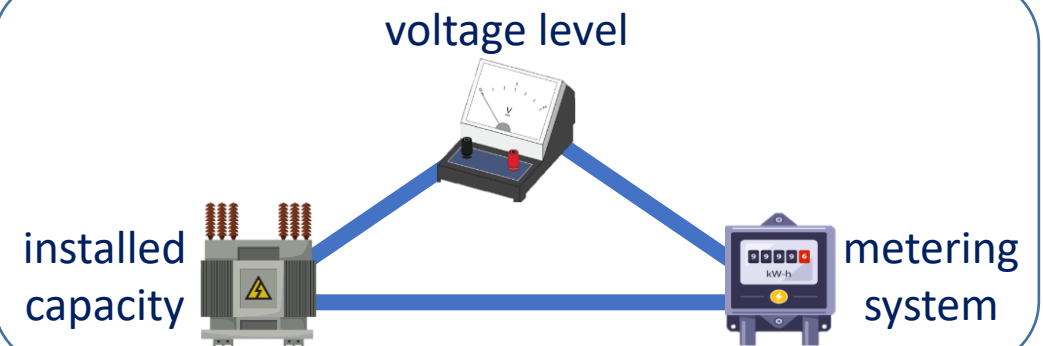
display benefits, rights and obligations online

## Simplified administrative procedures

- Clear
- Simple
- Transparent
- Proportionate
- Comprehensive

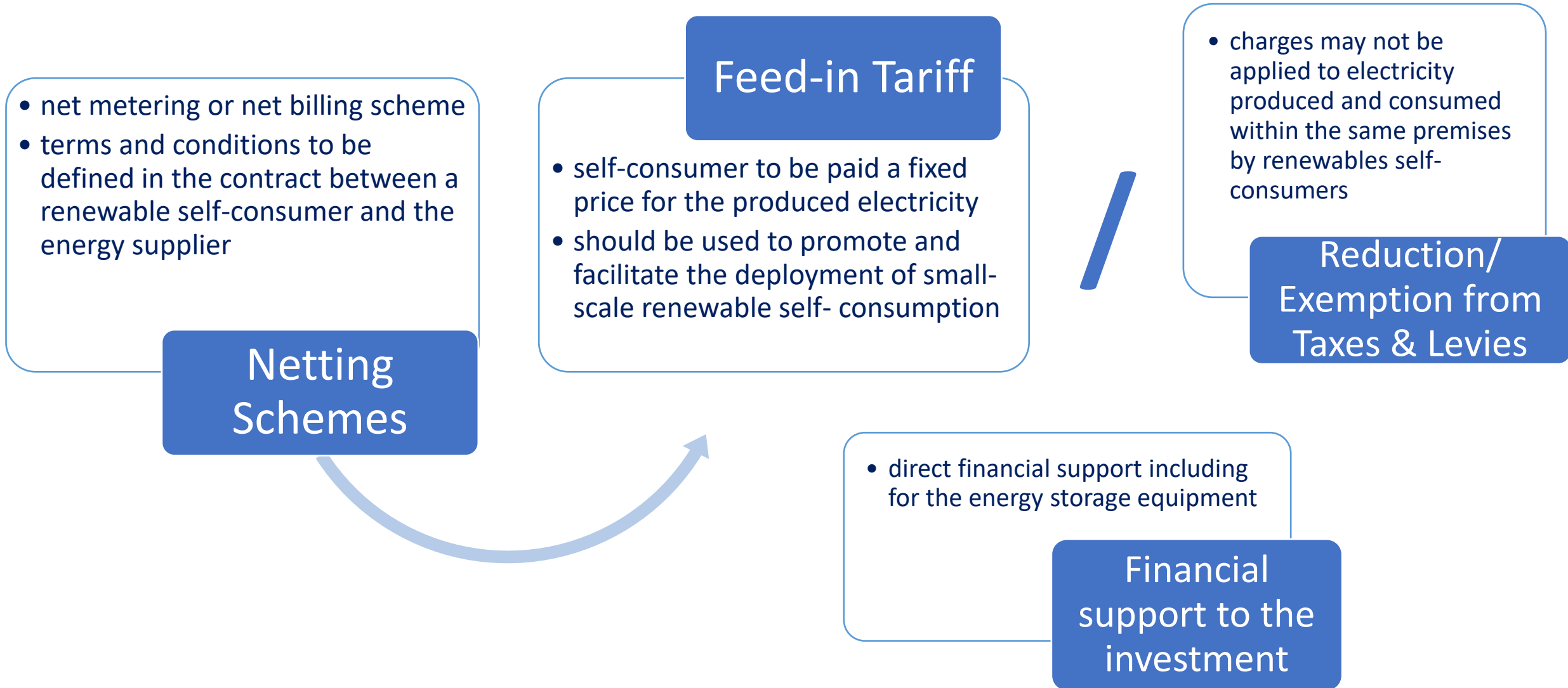


## Clearly defined technical requirements

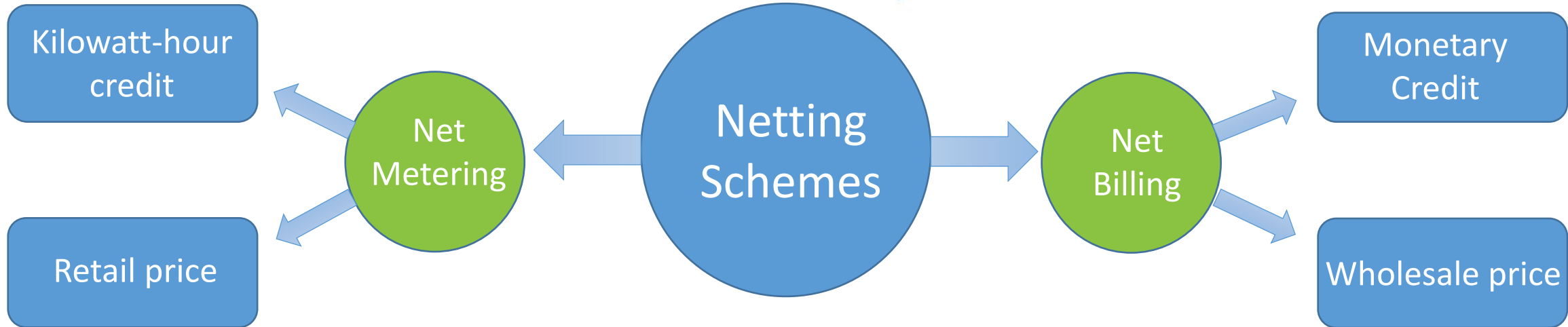
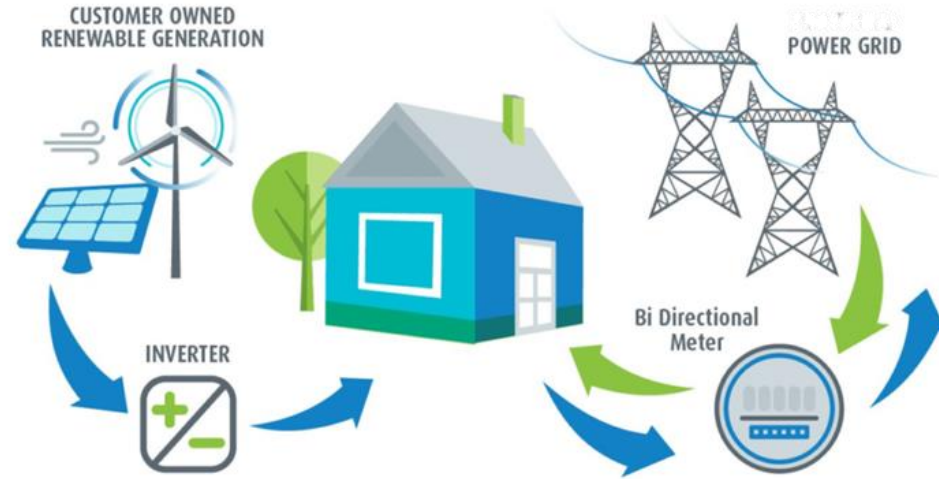


# Support Scheme Options

*facilitating penetration and integration of self-consumption*



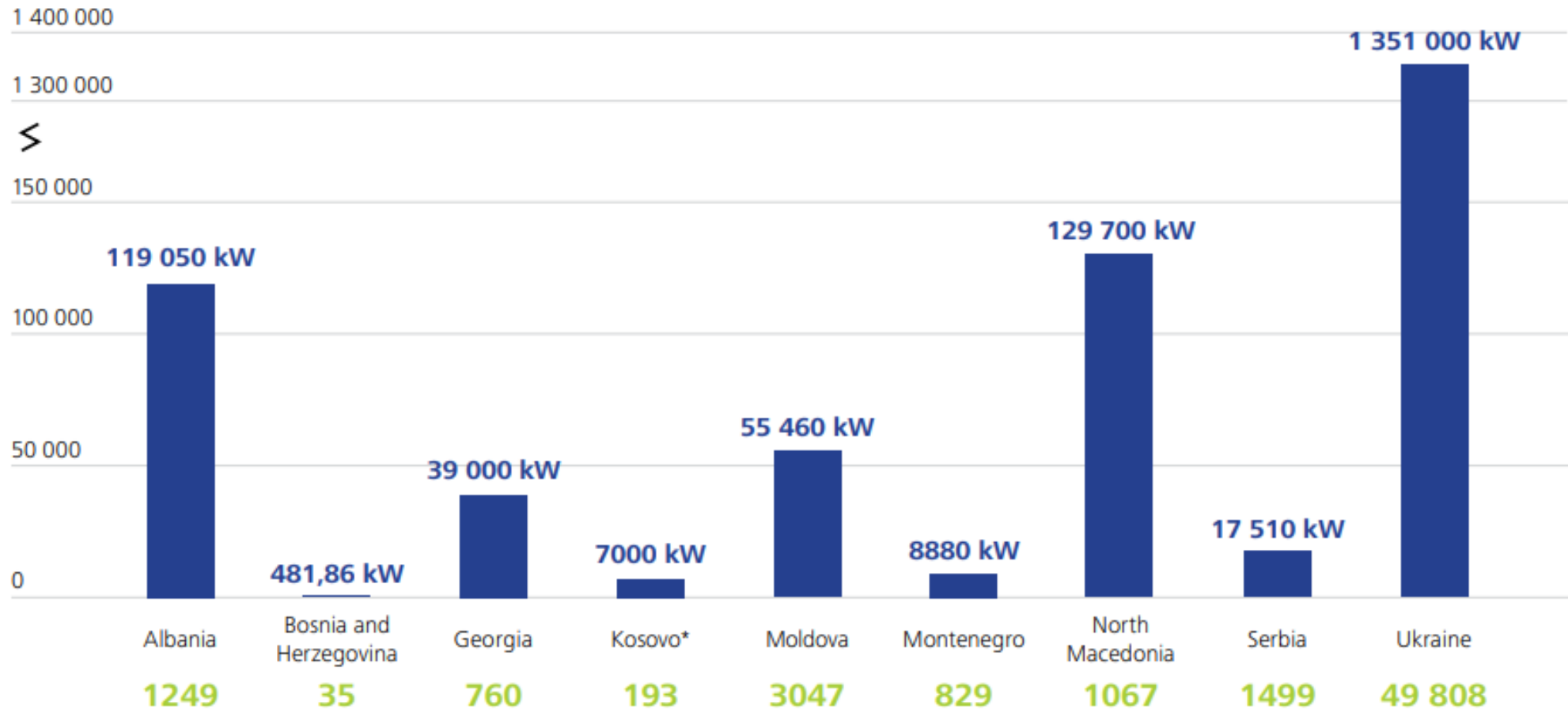
# Netting Schemes





# Self-Consumption data in Contracting Parties

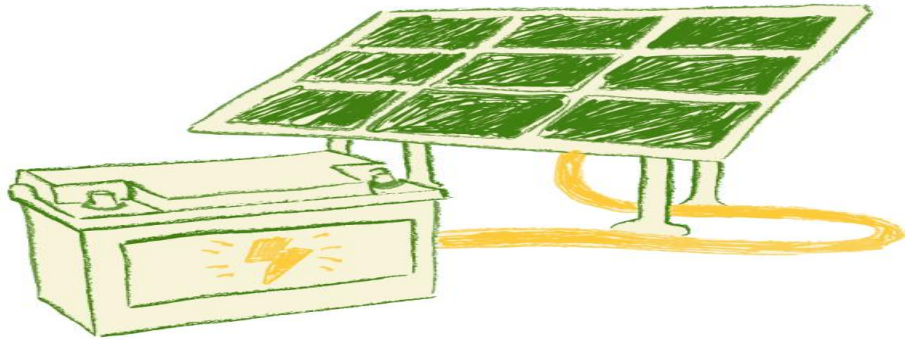
## Installed capacity of self-consumers [kW]



Number of self-consumption installations

Source: compiled by the Energy Community Secretariat

## Installation capacity limits in Contracting Parties



	Installation capacity limit	
	Households	Legal entities
<b>Albania</b>	500 kW	
<b>Bosnia and Herzegovina</b>	10,8 kW	50 kW
<b>Georgia</b>	500 kW	
<b>Kosovo*</b>	100kW	
<b>Moldova</b>	200kW	
<b>Montenegro</b>	No limit	
<b>North Macedonia</b>	6 kW	40 kW
<b>Serbia</b>	10,8 kW	150 kW
<b>Ukraine</b>	50 KW	

## *Examples of good practice in the Energy Community*

### **Montenegro: Solari 3000+ project**

- State-owned power utility Elektroprivreda Crne
- Installation of solar panels on 3,000 households
- Monthly repayment for the loan lower than the average household's electricity bill

### **Serbia: online solar calculator**

- Costs calculation
- Implementation and financing options
- Legal framework





**THANK YOU**  
**FOR YOUR ATTENTION**

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