

# ECRB Customers and Retail Markets Working Group

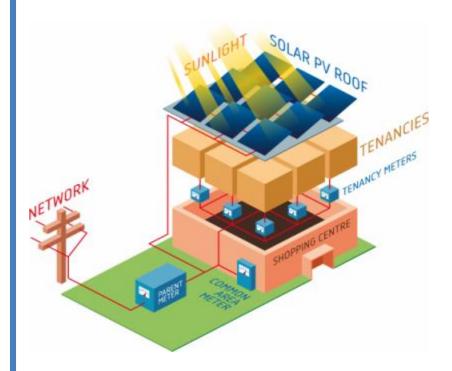
## Regulatory framework on Prosumers in Contracting Parties

Petrit Haziri, Kosovo Energy Regulatory Office The main purpose of the study was to asses legislative and regulatory framework related to small scale solar PV systems installed for generation of electricity (self consumption) also known as prosumers, mainly for house holds and small commercial customers

#### **Residential customer**



#### Small commercial customer



- Legal framework definitions on:
- Self consumption Generators
- Prosumers
- Procedures that deals with prosumers
- Support schemes in Contracting Parties
- Capacity limitation of generators
- Voltage Level of connection
- Application procedure for prosumer status
- Information's on the benefit of changing status from regular consumer to producer

## **Legal definition**

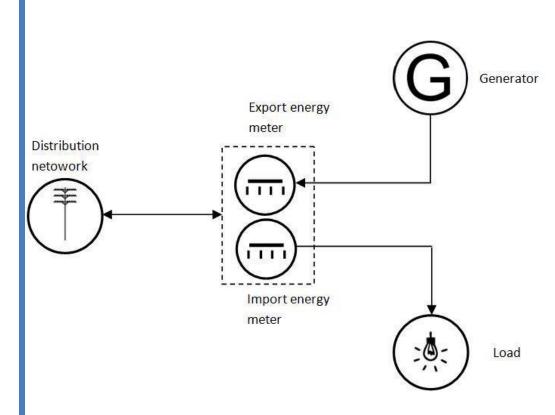
- Most of the CP have the definition established in primary and secondary legislation for Self Consumption Generator and for prosumer.
- Self Consumption Generator- Final customer that generates electricity from renewable energy sources and shall have a right to exchange electricity that it delivers to the system and takes from the distribution system.
- Prosumer-Is an electricity customer who is at same time and at the same site the owner of a Micro RES generating facility, connected to the grid and having right to self-consume the generated electricity as well as to deliver the excess of generated electricity to the supplier.
- In some of the CP introduces the definition of Autonomous Generators instead of prosumers or self- consumption generators.
- None of the CP has separate procedure that deals exclusively with prosumers- incorporated in other procedures.

## **Self consumption - Support schemes**

Net metering Net billing

**Net-metering** is a simple arrangement that ensures consumers that who install a generator (usually photovoltaic (PV) systems) receive a one-for-one credit for any electricity their systems generate and export to the grid within a billing period. In this case, production and consumption are compensated over a longer period (up to one year). Under Net-metering, all kWh of the generator are equally valorized

**Net-billing** is an arrangement by which the consumer receives one-for-one monetary credits for every kWh of exported to the grid. Every kWh is valorized either at a single price or at a price which corresponds to the time of production. Credits are awarded over a determined time-frame, typically one year. It is equivalent to a net-metering scheme, but with monetary compensation instead of enerav compensation



## **Prosumers - RES generating facilities**

 Lower and Upper limit of capacity for RES generating facility allowed for household and small commercial consumer-Prosumers

STATES	ALB	ARM	BIH	GEO	KOS	MNE	NMKD	UKR
Upper limit	500	150	50	100	100	50	20	30
House holds	DSO/ Capa city	DSO/C apacity	DSO/C apacity	DSO/Ca pacity	NA	DSO/C apacity	4	30
Small comme rcial	DSO/ Capa city	DSO/C apacity	DSO/C apacity	DSO/Ca pacity	NA	DSO/C apacity	20	Not defined

## **Voltage Level of connection**

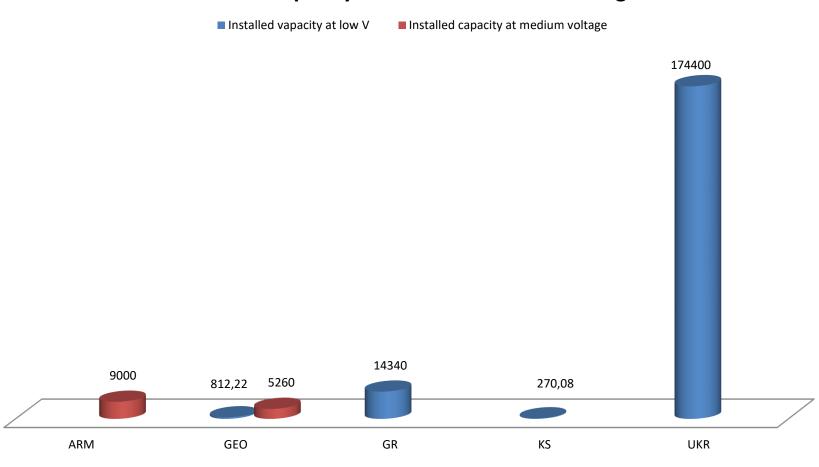
STATES	ALB	ARM	ВІН	GEO	KOS	MD	MNE	NMKD	SRB	UKR
Low voltage	X	X	X	X	X	X	X	X	X	X
Medium voltage		X + High voltage		Х						х

### Number of PV systems for self-consumption in operation in CP

Year	ARM	BIH	GEO	GR	KS	MON	UKR
2017		4	28	746		1	3010
2018	779	5	67	1007	3	2	7479
2019		5		1104	3	2	
Total number	779	14	95	2857	6	5	10489

## Total installed capacity in kW

#### **Installed capacity at Medium and Low Voltage**



### **Application for Prosumer status**

- In all CP and observer countries except Kosovo and BIH customers have to apply in DSO;
- No licensing requirements;
- Connection agreement DSO and customer;
- Supply agreement Supplier and customer;

# Information's on the benefit of changing status from regular consumer to producer

- Most NRA have all information's available on their web site and are publicly accessible
- There was no campaign on informing customers for the possibility of switching from regular consumers to producer consumers

### **Legal framework in Kosovo**

- Rule on support scheme for renewable energy sources generators
- Rule on authorization of building new capacities

Rule on support scheme for renewable energy sources generators

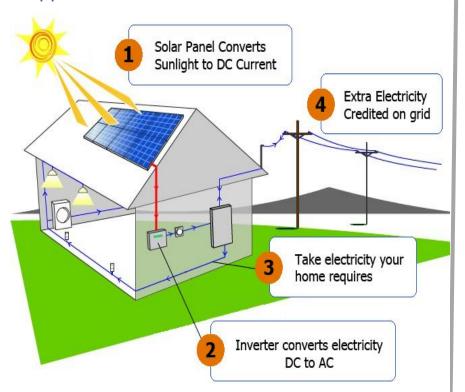
- **Prosumer** is an electricity customer who is at same time and at the same site the owner of a Micro RES generating facility, connected to the grid and having right to self-consume the generated electricity as well as to deliver the excess of generated electricity to the supplier;
- Self-consumption Generators are the Prosumers who are able to feed excess electricity generation to the grid for future consumption or pay to the supplier the electricity consumed in case of a negative Balance;
- Micro RES Generating Facility means a Generating Facility connected to the network with a capacity up to 100 kW (≤100 kW);

# Rule on support scheme for renewable energy sources generators

**MICRO-GENERATOR** 

**SELF-CONSUMPTION** 

Max allowed capacity for prosumers in support scheme is **100 kW** 



#### Net metering



Net-metering is a simple arrangement that ensures consumers that who install a generator (usually photovoltaic (PV) systems) receive a one-for-one credit for any electricity their systems generate and export to the grid within a billing period.

#### **REGULATED FRAMEWORK**

RES generators not submitted to the Support Scheme, can chose to sell their energy according to the Regulated Framework, with the following conditions:

- With a Price approved by Regulator,
- They will have the dispatching priority, and
- Priority in the connections' assessment.

## The Self-consumption Support Scheme

### Net-Metering scheme

- Suppliers off-take all electricity produced and deliver all electricity consumed by Prosumers within a Billing Period;
- Suppliers account for the Prosumer Balance of the Billing Period, based on which the monthly invoice is prepared;
- If the Prosumer Balance is positive then the Prosumer is credited in energy (kWh) in the next Billing Period;
- Any outstanding positive Balance on the last Billing Period of a Calendar Year is reset to zero (0 kWh) without compensation from the Supplier;
- If the Prosumer Balance is negative, then the Supplier invoices the Prosumer for the value of the Prosumer Balance

# Rule on authorization of building new capacities

#### **Application Procedure**

The legal or physical body which plans to construction new generation capacities for self-consumptio is obliged to submit a written request to the Regulator, fulfilling the following evidence.

- The evidence that shall be submitted are:
  - Evidence from DSO on annual energy consumption;
  - Evaluation on annual kWh production of installed equipment;
  - Consent for connection to the grid, issued by DSO; and
  - Consent from the relevant municipality.
- Following the receipt of relevant evidence, and if the Regulator evaluates that they are completed, it shall issue a decision related to construction of new generation capacities for self-consumption

### **SMALL-SCALE GENERATORS**

			Applicant's details			
Name						
Address						
Contact person			Meter reference number			
Tel. no.	Fax no.		E-mail address			
			Generating Facility details			
Name			Location			
Installed Capacity (kW) In case of combined generation with conventional fuels, only the capacity RES shall be presented			Expected Annual Production (kWh)			
		Pri	mary Renewable Energy Source			
Source	Technology	Tick	Additional Notes			
Solar	Phot ovol taic					
Other Place and date	Specify technology		Signature			
Diana and data						



Punonjesi i perkujdesit:\_\_\_\_\_

#### Bulevardi Bill Klinton nra Bill Clinton Bulevard nog Republika e Kosovés - Republic of Kosova

\_\_Data:\_\_



#### FORMA E APLIKIMIT PER LIDHJE TE RE/PELQIM PARIMOR/PtLQIM ELEKTROENERGJETIK (PEE)

rorma e plotesuar meposht€ sé bashku me te gjitha dokumentet e nevojshme duhet dorézuar tek zyrat e shérbimit té Konsumatoreve

A.	Lidhje e Re B.	Pélqim Parimor C.	Pélqim Elektroenergjetik				
INFORMATAT PFIR KONTAKTIM APLIKUESI							
Emri (emri i prindit) mbiemri perso	nit fizik/juridik:						
Numri personal i ID:							
Numri biznesit (néseperson juridik)							
Shifra Konsumatorit (nese ekziston)	15						
Adresa:							
Nr. telefonit :							
E-mail adresa:							
P£RFAQESUESI I AUTORIZUAR (Né	ese ka)						
Emri dhe mbiemri							
Numri Personali ID:							
Emri kompanisé(nése ka):							
Marrédhenia me ju (p.sh. Kontraktı	ues):						
AdreSa:							
Nr. telefonit:							
<u>E-mai</u> l <u>adresa</u> :							
TE 5J4£NOHET: ADRESA E LOKACION	IT TL OBJEKTIT I PARAPAR	£ PER KY/E (ND£RTIM) SI DI	HE DISTANCA NGA PIKA KY§£SE NE RRJETIN ELEKTRIK				
A. Informatat shtesd per Lidhje té re	Dokumentet e	nevojshme me rastin e	e aplikimit pér pelqim parimor apo PEE				
(plotéso mé poshte )	(sheno X per secilin dokument qg sjell konsumatori dhe bashkangjite né kéte aplikacion)						
ltur d6shironi tf1 kryhen purist	B. Dokumentet pé	r Pélqim Parimor	C. Dokumentet pér Pelqim Elektroenergjetik				
Mu <u>all</u> Viti	Q Kushtet e Ndértim	it nga Kuvendi Komunal	0 Informaté mbi destinlmin e ob)ektit(veprlmtarla)				
	Q KopJa e Planit		0 Certifikata e bizneslt (vetém pér apllkues juridik)				
Parashtruesi kekesés éshté:	Q Fleta Poseduese		Q Projekti elektrik i objektit ndértimor				
M Pronari Q Qiraxhiu	Q Orto Foto (jo oblig	ative/preferohet)	Q Pérmbledhje e projektit elektrik (1 fage, A4)				
		-					
	<u>-</u>		•				
*Aplikacioni nuk da té merret parasysh	n nose nuk plotesohen i	te aiitha tӎ dhenat dhe	nuk bashkanajiten dokumentet e lartpl!rmendura				

\_\_\_\_Nénshkrimi:\_\_\_\_

\_\_\_\_\_Nénshkrimi:\_

16

# Thank you for your attention