

Edition 2019



RENEWABLE ENERGY SECTOR OVERVIEW

Republic of Moldova

Key facts



Name:
Republic of Moldova

Doing Business
2019 Rank **47**



Capital:
Chisinau ca. 814,000

Employment
rate, 2018 **41.98%**



Population:
3.55 million
January 1st, 2019

Inflation rate,
2018 **0.9%**



Area:
33,847 km²



Language:
Romanian (official)

GDP per capita
at PPP, 2018 **€6,333**

Other spoken languages:



GDP current
prices, 2018
billion **€9.577**



Currency MDL:
1 EUR = 19.5 MDL
February, 2019

RES



2018/2019

65,029 GWh

5,591 ktoe technical
potential of RES

ca. **320 MW**
Minimum

ca. **790 MW**
Maximum

Load in the system

480 MW

Annual average load in
electricity system

€ 142
EUR/month

Minimum salary
in 2019

0.1 EUR/kWh
retail market

0.05 EUR/kWh
wholesale market

Medium tariff for electricity

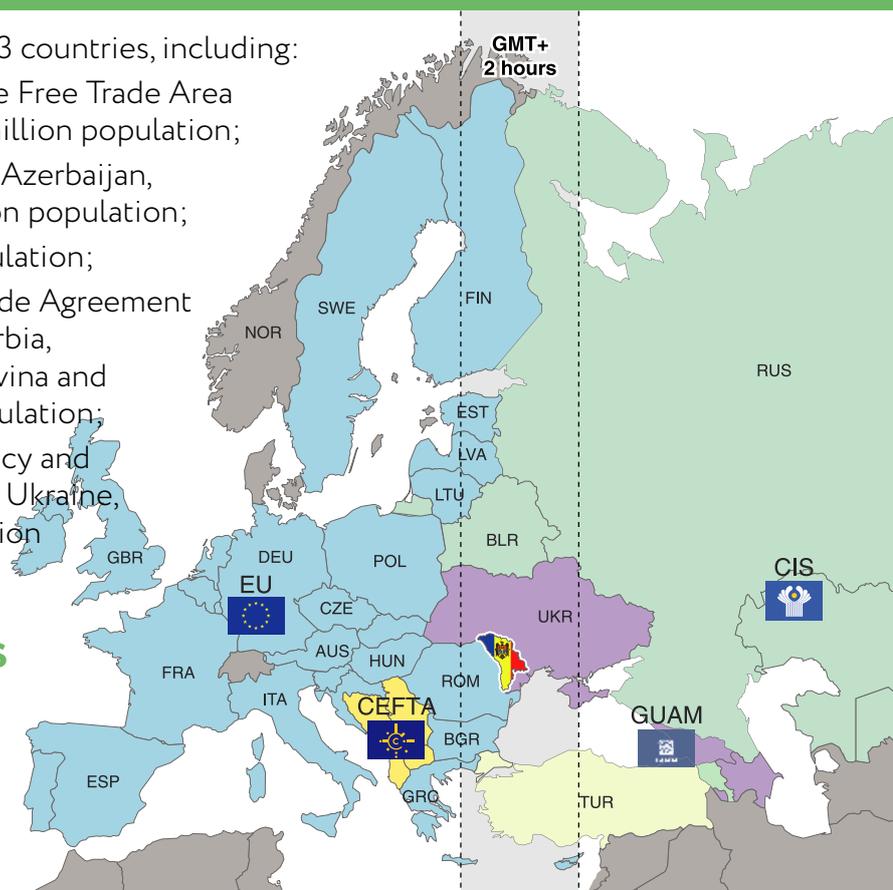
1950-2210 hours/year

Sunshine

Free Trade Agreements signed with 43 countries, including:

- **DCFTA** (Deep and Comprehensive Free Trade Area with the European Union) - 500 million population;
- **FTA with CIS countries** (Armenia, Azerbaijan, Tajikistan, Uzbekistan) - 250 million population;
- **FTA with Turkey** - 80 million population;
- **CEFTA** Central European Free Trade Agreement (Moldova, Macedonia, Albania, Serbia, Montenegro, Bosnia and Herzegovina and UNMIK (Kosovo) - 30 million population;
- **GUAM** Organization for Democracy and Economic Development (Georgia, Ukraine, Azerbaijan and Moldova) - 60 million population

880 million customers
duty-free market



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Overview of the Renewable Energy Sources (RES)

The Republic of Moldova's renewable energy potential is one of the region's largest. Primary energy supply figures for 2016 reveal that natural gas and petroleum products account for most of the total primary energy supply, with 29.9% and 32.0% respectively. In the same year, biofuels and wastes (including firewood and agricultural residuals) accounted for 25.0% of the primary energy sources supplied in the Republic of Moldova, which is the only local significant primary source of energy. Around 10.4% of energy is supplied directly as electricity (mainly from the Transnistrian region), while coal accounted for only 2.7% of primary energy sources supplied.

The Republic of Moldova took the responsibility to tackle the phenomenon of climate change by the following measures:

- reducing consumption by increasing energy efficiency;
- use of renewable energy sources to replace traditional pollutant sources.

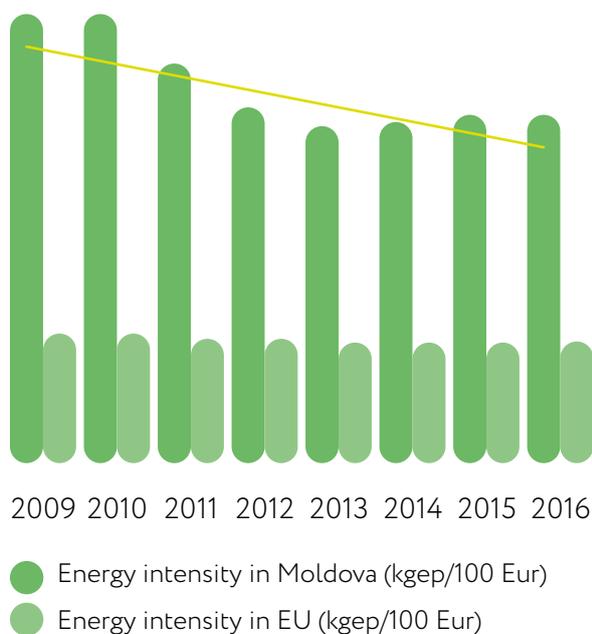
In 2017 Moldova's economy continued to consume approx. 4 times more energy (per capita) than the European average.

Wind energy has the greatest technical potential at approximately 77.3%, followed by solar potential equal to approximately 9.3%; biomass constitutes about 8.3%, out of which, solid biomass constitutes 7% & and biogas potential is estimated at 1.2%, and hydro potential is about 5.2%.

The technical potential of RES for power generation in the Republic of Moldova is estimated to be 65,029 GWh, equivalent to 5,591 ktoe.

Already in 2016, 26.8 % of the energy consumed in the Republic of Moldova was "green", this amount being almost totally oriented towards household heating and cooling, while renewable energy sources covered only 2 % of the country's electricity consumption.

The energy intensity of the Republic of Moldova



Source: Agency for Energy Efficiency, 2018

Available technical RES potential

RES Type	Technical Power			
	MW	%	GWh	%
Solar PV	4,648	17.1	6,044	9.3
Wind	20,869.1	76.7	50,235.7	77.3
Hydro	840	3.1	3,361	5.2
<10	275	1.0	1,100	1.7
>10	565	2.1	2,261	3.5
Biomass	850	3.1	5,388	8.3
Biogas	134	0.5	805	1.2
Biofuel	716	2.6	4,583	7.0
Total	27,207.1	100	65,028.7	100

Top reasons to invest in Moldovan RES



Guaranteed Feed-in Tariffs (FiTs) for smaller projects and transparent competitive bidding procedure for bigger ones. FiTs are calculated based on weighted average cost of capital of 8.3%.



Fiscal incentives for investments in generation of electricity from Renewable Energy. Under power purchasing guarantees the investor is protected against any commercial risks.



Electricity generated by solar-PV installations, wind turbines, biogas fired power plants and biomass power plants delivered in the electric network by eligible producers will be purchased obligatory by the central electricity supplier.

Investment Potential of RES in Moldova

All electricity generated by any size of solar-PV installations, wind turbines, biogas fired power plants and biomass power plants delivered in the electric network by eligible producers will be purchased obligatory by the central electricity supplier.

Electricity surplus generated by prosumers¹ based on the net-metering mechanism, will also be fully taken in the grid.

Power generation is protected against balancing risks, being transferred onto the Transmission System Operator (TSO). Under power purchasing guarantees the investor is protected against any commercial risks.

The institutional support offered to RES

The Ministry of Economy and Infrastructure (MEI) is the central public authority in the energy, construction and transport sectors.

National Agency for Energy Regulation (ANRE) is the institution responsible for regulating the energy sector.

Agency for Energy Efficiency (AEE) is the institution responsible for the implementation of the energy efficiency and renewable energy policies as well as the identification, evaluation and financing of EE and RES projects.

Legal Framework for the promotion of RES

Law on the Accession of the Republic of Moldova to the Treaty establishing the Energy Community, No.117 of 23.12.2009

Energy Strategy by 2030, Government Decision No. 102 of 05.02.2013

Law on Energy Efficiency, No.139 of 19.07.2018

Law on the promotion of the use of energy from renewable sources, No.10 of 26.02.2016

Law on thermal energy and promotion of cogeneration, No. 92 of 29.05.2014

Law on the Labelling of Energy-Related Products, No. 44 of 27.03.2014

Law on Approving Eco-Design Requirements for Energy-Related Products, No. 151 of 17.07.2014

Law on the Energy Performance of Buildings, No. 128 of 11.07.2014.

Renewable energy capacity limits, quotas and capacity categories

Technology	Fixed Tariff	Tender of capacity limits	Limit of the capacity, MW
Wind	20	80	4
Solar	15	25	1
Biogas	12	8	1
Biomass	5	-	1
Hydro	3	-	1
Total	55	113	-

Source: Governmental Decision 689 of 11.07.2018

¹ Prosumer broadly refers to energy consumers who also produce their own energy from a range of different onsite generators, incl. residential prosumers using systems such as small-scale solar PV to generate electricity.

Steps of tender process for providing the status of eligible producers

1. establishment of the timetable for tender's organization (by the government)
2. elaboration of tendering documentation
3. launching of the tendering procedure
4. submission of the offers
5. receipt of tenders
6. offers opening and qualification
7. offers evaluation (based on the lowest offered price criteria)
8. awarding of the eligible producer status
9. signing of the contract for renewable electricity acquisition with the central electricity supplier
10. monitoring of the reproducer obligations fulfillment

Instruments to attract investment in EE and RES



Availability of the Solar Energy Atlas/Wind Energy Efficiency Atlas/ Estimates of the Energetic Potential of Solid Biomass



Implementation of RES projects following the Energy Services Companies (ESCO) and PPP concepts



Availability of 17 Energy Efficiency (EE) and RES studies and guides



Availability of a Single Database in EE and RES



The Agency for Energy Efficiency Exercises the functions of Investors' Information Center in RES

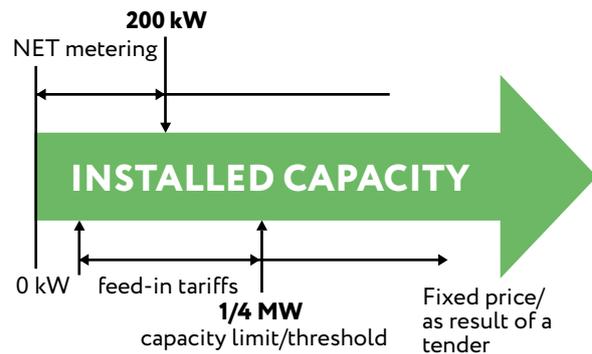


Available tax and customs exemptions

Investment support schemes for production and use of RES

National authorities support the development of all high potential technologies, such as: wind installations, solar, co-generation. In this regards, recently, the Government approved a decision regarding the capacity limits for

different RES technologies, in cumulative values, to be installed by 2020.



Thus, the main distinguishing features of the state support for interested parties willing to invest in the field of renewables are the following:

Net Metering – a supporting scheme focused on the end consumer, who owns a power plant with an installed capacity up to 200 kW but not more than the contracted power with the electricity supplier, which produces electricity from renewable sources for its own use and can deliver to the grid the surplus of the electricity produced.

Fixed tariffs - supporting scheme for eligible producers that are holding a RE power plant with a cumulative power not exceeding the capacity limit set by the Government, but which shall not be less than 10 kW. The investor shall built and commission the power plant in a 36 months time frame, which can be extended by 12 months.

Fixed Price - supporting scheme established in a tendering procedure which ends up with the issuing of the eligible producer status, for the producer who owns a RE power plant with a cumulative capacity bigger than the capacity limit set by the Government. The investor shall built and commission the power plant in a 24 months time frame, which can be extended by 12 months.

The RES investments' project viability criteria

- ✓ technical credibility of the project
- ✓ financial credibility
- ✓ eligibility of land
- ✓ credibility of the power plant connection to the grid

Key Data about RES



Solid biomass

The potential 716 MW that could generate 4,583 GWh of electricity annually

VAT rate. reduced to 8% for:

- solid, inc. the raw material delivered for producing solid biofuel,
- in the form of agricultural and forestry products,
- agricultural and forestry vegetal residues,
- vegetable residues from the food industry,
- wood residues
- guaranteed FiT tariff for the electricity generated from biogas through combined heat and power technology



Solar Energy

Max. generation capacity 4.65 GW = 6 TWh/-year

Sunshine 1950 h/year (North) to 2210 h/year (South)

Sunshine duration - 3 - 10 hours

Sunless days 69 - 86 days

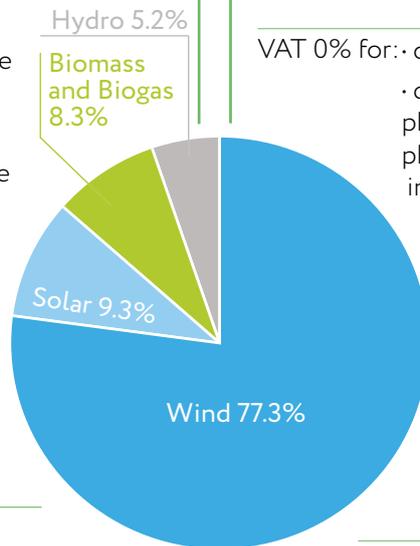
Guaranteed FiT tariff

Fiscal incentives

25 MW capacity quota for tender

VAT 0% for:

- construction and installation works
- diodes, transistors, semiconductor photosensitive devices, including photovoltaic cells even assembled in module or mounted in panels, light emitting diodes
- piezoelectric crystals mounted



Wind Energy

Max. generation capacity 20.8 GW = 50.2 Twh

Technical wind energy potential at H 100 m – 9,138 MW

Wind Energy Atlas

R&D projects

Guaranteed FiT tariff

Fiscal incentives

80 MW capacity limits for tender

VAT 0% for:

- switching electrical circuits equipment
- construction and installation works

Biogas

The potential of 134 MW that could generate 805 GWh per year

Guaranteed FiT tariff

Fiscal incentives

5 biogas produces

8 MW capacity limits for tender

Existing facilities produce biogas from animal (livestock) manure, agricultural residues, sugar industry residues (sugar beet) and solid municipal waste (landfill):

- biogas production in municipal wastewater treatment plants is a sustainable solution untapped/ unexplored so far
- national RE law allows for the biogas feed into the public network





Photo credit: Esco-Votaj

Wind Energy

According to the Report “Cost-competitive renewable power generation: Potential across South East Europe”, IRENA, 2017, the maximum wind generation capacity in Moldova is estimated at 20.8 GW, able to produce 50.2 TWh annually, which is 12 times more than the current electricity consumption of the country. Another source, the online version of the Wind Energy Atlas mentioned above, the technical wind energy potential determined for the height of 100 meters above ground is approximately 9,138 MW in installed capacity.

Specific investment costs per kW installed capacity

Based on the experts’ opinion, the use of energy from renewable sources suggests a specific investment cost of approximately 1,200 Euro/kW for 1-2 MW wind turbines. The financial estimates shall be based on specific investment cost of 1,200 Euro/kW.

Financial estimates are of a capacity factor of 27.5%, which is equivalent to an estimated annual average net output of electricity of 2,410.65 kWh/year/1 kW of installed capacity and yearly operation and maintenance costs for wind turbines is around 27 EUR/kWh*year.

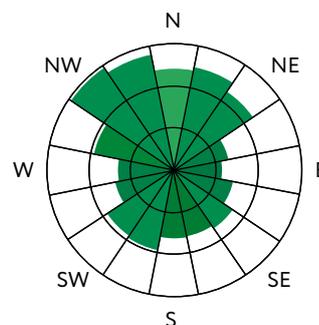
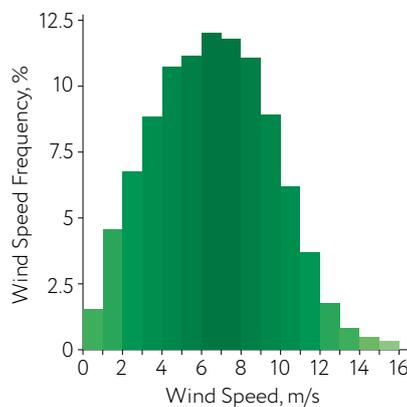
Weighted Average Cost of Capital shall be taken at the current level as per the methodology approved by ANRE: 8.3%, and will be used as a discount rate for calculating the estimated FiT and/or Cap Price.

Based on the following assumption:

- Calculation period for revenues = 15 years from commissioning;

- Duration of construction and mounting before commissioning = 1 year, and all cash-flow is spent right at the beginning of the year (i.e. the investment is not discounted).

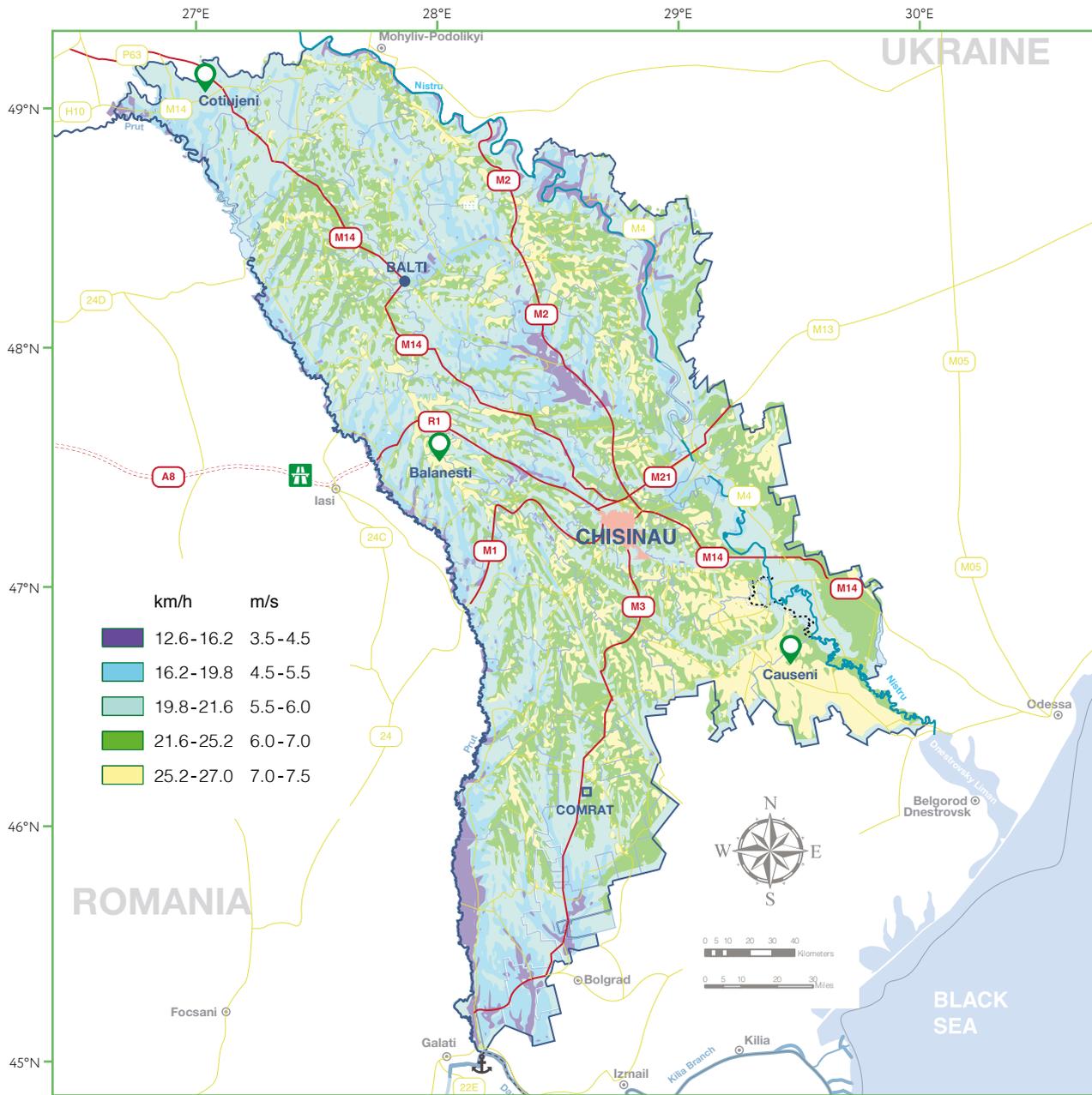
The FiT/CP calculated for wind generation should be approximately 10.35 Eurocents/kWh. FiTs/CPs for big wind energy projects will be around 7 Eurocents /kWh. Wind turbines are expected to have an additional lifetime of 5-10 years, after the expiration of the initial 15 years under the support scheme based on FiT or fixed prices.



Source: Location of Esco-Votaj Ltd based on Moldova Interactive Wind Atlas <https://moldova.awstrue power.com/>

Moldova Wind Atlas

Annual Average Wind Speed at 100 m altitude



Source: Moldova Interactive Wind Atlas <https://moldova.awstruepower.com/>

Annual measured and calculated average wind speeds, m/s

Cotuijeni tower				Bălănești tower				Căușeni tower			
H,m.	Meas.	Calc.	Dif.,%	H,m.	Meas.	Calc.	Dif.,%	H,m.	Meas.	Calc.	Dif.,%
30	5.42	5.66	4.43	15	5.07	4.95	-2.37	50	5.02	6.04	7.74
60	6.14	6.33	2.26	42	5.76	5.98	3.82	70	6.05	6.38	4.45
100	6.96	6.87	-1.30	75	6.45	6.66	3.26	80	6.21	6.52	5.00
102	6.99	6.90	-1.29	100	6.75	7.02	4.00	84	6.31	6.57	4.12
				103	6.81	7.05	3.52	100	6.55	6.76	3.21

Source: "Wind Energy Resources Atlas of the Republic of Moldova", Ion Sobor, Andrei Chiciuc, Vasile Rachier; Univ. Tehn. a Moldovei, Agenția pentru Eficiență Energetică, AWS Truepower [et al.]. - Chișinău: S. n., 2017

Solar Photovoltaic (PV)

Solar-PV installations existing at present in the Republic of Moldova range from 3 kW to 1,000 kW installed capacity (MEI, 2018). The maximum solar PV generation capacity in Moldova is estimated at 4.65 GW, able to generate over 6 TWh of electricity annually, which is about 1.5 times more than the present electricity consumption of the country.

Specific investment costs per kW installed capacity

Investors in solar-PV energy have to obtain and fulfil connection conditions for being connected to the grid. In accordance with a special regulation, the grid operator must issue connection conditions within 15 days after being requested. In order to benefit from the net-metering mechanism, future prosumers will also have to fulfil the connection conditions issued by DSOs, particularly with regards to bidirectional metering and protection of the grid. In both cases, investors will be responsible for covering all costs related to fulfilling grid connection conditions.

Financial estimates

Given that solar-PV is the main technology that could potentially benefit from the net-metering support mechanism, this section will refer to two different investment cases:

- A. Investment in solar-PV generation farms with a total installed capacity over 100 kWp, which will become eligible producers and sell based on FiT or fixed price mechanism;
- B. Investment in distributed solar-PV generation with a total installed capacity under 10 kWp, which shall benefit from the net-metering mechanism. In this case, the value of energy delivered in the grid will be calculated at the substitution cost, namely the end-user electricity tariffs, which range from 1.79 to 1.91 MDL/kWh, equivalent to 9.1-9.7 Eurocents/kWh.

Given that investors are largely protected against the currency exchange rate risk (MDL to USD), all calculations in this section shall be made in hard currency (EUR, because of

the availability of financial information in EU currency).

The analysis of available data related to existing photovoltaic systems in the Republic of Moldova reveals that the specific investment cost ranges from 1,000 Euro/kWp to 1,396 Euro/kWp. However, due to the fulminant development of solar-PV technologies, most of the solar-PV panels installed in Moldova are already technologically outdated. Analysis of costs for photovoltaic systems shows that the specific investment costs for small capacity 3-10 kWp lies between 1,100 Euro/kWp and 1,200 Euro/kWp.

Specific investment costs for solar-PV installations:

- A. 1,000 Euro/kWp for solar-PV projects with a total installed capacity over 100 kWp, which could benefit from support mechanisms based on FiTs or fixed prices;
- B. 1,200 Euro/kWp for solar-PV installations with capacity under 10 kWp, that could benefit from the support mechanism based on net-metering.

Tariffs approved by the regulator, ANRE, for existing photovoltaic generation projects were based on capacity factors ranging from 12.72% to 16 %.

Financial estimates are based on the following capacity factors:

- A. 16% for solar-PV projects with $P \geq 100$ kWp (eligible for FiTs or fixed prices), which is equivalent to the annual average net output of electricity of 1,402.56 kWh/year/1 kWp of installed capacity. Given the specifics of the technology, starting with year 11, the total volume of electricity generated shall be diminished by 1% annually.
- B. 14.5% for solar-PV installations with $P \leq 10$ kWp (eligible for net-metering), equivalent to the annual average net output of electricity of 1,271.07 kWh/year/1 kWp of installed capacity. Given the specifics of the technology, starting with year 11, the total volume of electricity generated shall be diminished by 1% annually.

Running costs

Financial estimates presented below are based on yearly Operation and Management (O&M) costs of:

- A. 12 EUR/kWp*year for solar-PV projects with $P \geq 100$ kWp (eligible for FiTs or fixed prices);
- B. 5 EUR/kWp*year for solar-PV installations with $P \leq 10$ kWp (eligible for net-metering).

Weighted Average Cost of Capital

The following WACC are based on the assumption of financial estimates presented below:

- A. ca. 8.3% for solar-PV projects with $P \geq 100$ kWp (eligible for FiTs or fixed prices);
- B. ca. 2% for solar-PV installations with $P \leq 10$ kWp (eligible for net-metering).

Other parameters built in the formula presented below are:

- Calculation period for revenues = 15 years from commissioning, as provisioned by the Methodology approved by ANRE on September 28, 2017;
- Duration of construction and mounting before commissioning = 1 year, and all cash-flow is spent right at the beginning of the year (i.e. the investment is not discounted).

Based on the assumption of the above-mentioned parameters, the following conclusions can be drawn:

- A. The FiTs / CPs for big photovoltaic energy projects will be around 9 Eurocents/kWh. After 15 years, when the support scheme based on FiT or Fixed Prices expires, the PV-panels are expected to still have a useful lifetime of at least 5-10 more years.
- B. The levelled cost of electricity generated, together with the “missed opportunity cost” of depositing the money shall be 14.035 Eurocents/kWh, which is less than current end used cost of energy for potential prosumers (9.6-10.9 Eurocents/kWh).

According to the State Hydrometeorological Service of the Republic of Moldova, the average duration of sunshine throughout the year varies from 1950 hours (North) to 2210 hours (South) out of which 60% are recorded between May and September (1235-1370 hours). The average sunshine duration for a sunny day fluctuates during the year from 3 hours in December to 10 hours in July.



Photo credit: Invest Moldova, 2018

Biogas

The potential for biogas power plants in the Republic of Moldova is about 134 MW in terms of installed capacity and in terms of electricity produced – 805 GWh per year, which is equivalent to ~20% of the annual national energy demand. Electricity volumes that can be generated are limited by availability of raw materials for biogas production.

At the moment in the Republic of Moldova there are 5 biogas cogeneration stations with a cumulative installed capacity of 5,6 MW electricity, with an average tariff of the generated electricity of 0.11 USD/kWh or 1,82 MDL/ kWh. To be mentioned that, the above tariffs were approved by the ANRE in the context of the old Law on renewable energy No. 160 of 12.07.2007, that was repealed from 25.03.2018 by the law No. 10 of 26.02.2016 on the promotion of the use of energy from renewable sources, which provides a set of mechanisms for supporting and raising the interest for renewable energy investments.

The following support for generation based on biogas is being offered by the Government:

- Power purchasing guarantees: all electricity generated from biogas and delivered in the electric network by eligible producers will be purchased obligatory by the central electricity supplier.
- For biogas based power plants with installed capacity of more than 10 kW and under the threshold to be approved by Government, the generated electricity will be mandatorily purchased by the Central Electricity Supplier.
- This support scheme could potentially become more relevant for such projects once end user tariffs significantly surpass the FiT/CPs calculated by ANRE. Investors in biogas based power plants would have to obtain and fulfil conditions for connecting to the grid. In accordance with the regulation, the grid operator must issue connection conditions within 15 days after being requested. Investors will be responsible for covering all costs related to the connection to the grid.

Financial estimates presented below in this section shall be based on the specific investment costs of 3,500 Euro for 1 kW of capacity installed in biogas fueled power generation and capacity factor of 50%, equivalent to an annual volume of 6,136.20 kWh of electricity delivered in the grid per 1 kW of capacity installed and shall be based on yearly O&M Costs of 100 Euro/kW*year for each 1 kW of installed capacity.

Production of electricity by biogas power plants already operating in the Republic of Moldova reveal capacity factors falling in the range 52.4%-65.2%.

Weighted Average Cost of Capital shall be taken at the current level as calculated based on the methodology approved by ANRE: 8.3%, and will be used as a discount rate for calculating the estimated FiT and/or Cap Price.

Other parameters built in the formula presented below are:

- Calculation period for revenues = 15 years from commissioning
- Duration of construction and mounting before commissioning = 1 year, and all cash-flow is spent right at the beginning of the year (i.e. the investment is not discounted)
- Based on the above-mentioned parameters, the FiT/CP calculated for biogas generation should be approximately 9.187 Eurocents / kWh.



Photo credit: Südzucker Moldova

Solid Biomass

The main potential sources of biomass are agricultural residuals and wastes, since forests only cover about 12% of the country's area and need to be protected and expanded. Also, despite agricultural residuals and wastes are relatively widespread, investors would need to take into consideration that their price could significantly rise once demand for them is consolidated. The potential for biomass power plants in the Republic of Moldova is 716 MW of installed capacity that could potentially generate of 4,583 GWh of electricity annually.

The support mechanisms for biomass based generation are as following:

- Power purchasing guarantees: all electricity generated from biomass and delivered in the electric network by eligible producers will be purchased obligatory by the central electricity supplier.
- For biomass-based power plants with installed capacity over 10 kW and under the threshold to be approved by Government, the generated electricity will be mandatorily purchased by the Central Electricity Supplier.

Investors in biomass fired power plants would have to obtain and fulfil connection conditions for being connected to the grid. In accordance with a special regulation, the grid operator must issue connection conditions within 15 days after being solicited. Investors will be responsible for covering all costs related to connection to the grid.

Investment costs of 3,000 Euro are estimated for 1 kW of capacity installed in biomass power generation. The potential across South East Europe suggests a capacity factor of about 73% for biomass power plants. Financial estimates presented below in this section shall be based on the capacity factor of 70%, equivalent to an annual volume of 6136.20 kWh of electricity delivered in the grid per 1 kW of capacity installed. Operation and maintenance costs for biomass combined heat and power plants is 131 Euro/kW³year and shall be based on yearly O&M Costs of 100 Euro/kW/year for each 1 kW of installed capacity.

Weighted Average Cost of Capital shall be taken at the current level as calculated based on the methodology approved by ANRE: 8.3%, and will be used as a discount rate for calculating the estimated FiT and/or Cap Price.

Other parameters built in the calculation presented below are:

- Calculation period for revenues = 15 years from commissioning, as provisioned by the methodology approved by ANRE on September 28, 2017;
- Duration of construction and mounting before commissioning = 1 year, and all cash-flow is spent right at the beginning of the year (i.e. the investment is not discounted).

The FiTs / CPs for electricity produced from biomass using CHP technology will be around 9 Eurocents / kWh. After 15 years, when the support scheme based on FiT or Fixed Prices expires, the solid biomass fueled power installations are expected to still have a useful lifetime of at least 10-15 more years.



Photo credit: Ministry of Economy and Infrastructure



Photo credit: Technical University of Moldova, Renewable Energy Sources Lab

Research and Development (R&D) in RES



Professional Labour Force

Moldova offers an active, educated and multilingual workforce. It is a melting pot of several nationalities, such as Romanians, Russians, Ukrainians and others. There are available skilled construction and installation workers and electricians because of a strong tradition and competence in industry and the energy sector.

In accordance with the State Energy Inspectorate (2017), presently there are over 430 authorized (licensed) electricians in Moldova and over 100 authorized energy auditors (individuals).

At the same time, the national authorities work over the certification / qualification schemes for the following specialties (guided by European regulations, transposed into national legislation):

- installers of small-scale biomass boilers and stoves, solar photovoltaic and solar thermal systems, shallow geothermal systems and heat pumps.
- evaluators of the energy performance of buildings;
- inspectors of heating and air-conditioning systems of buildings;
- inspectors of air-conditioning systems of buildings.



Education

Well-educated young graduates, in sector-specific faculties, are available to work in companies. Moldova has strong technical

faculties and specific colleges, e.g. Chisinau and Balti Polytechnic Colleges, Technical College of UTM, Microelectronics College, Informatics College, Light Industry College, Technological College etc. The Technical University of Moldova has competence in power engineering, electronics, construction, mechanical engineering, etc

The Technical University of Moldova (UTM), located in Chisinau, is the main higher education institution for technical education. The number of engineers, managers and other specialists is sufficient to meet the investor's demand in most sectors.



Dual VET System

The dual vocational education and training, also known as dual VET, aims to respond to modern demands of the labour market and produce skilled workers with required qualifications. In Moldova, Dual VET was applied already by several companies, BECK Ltd. and Gas Union Fenosa. There are other aprox.20 VET schools in different regions of the Republic of Moldova open to cooperate with your company.



Research Projects

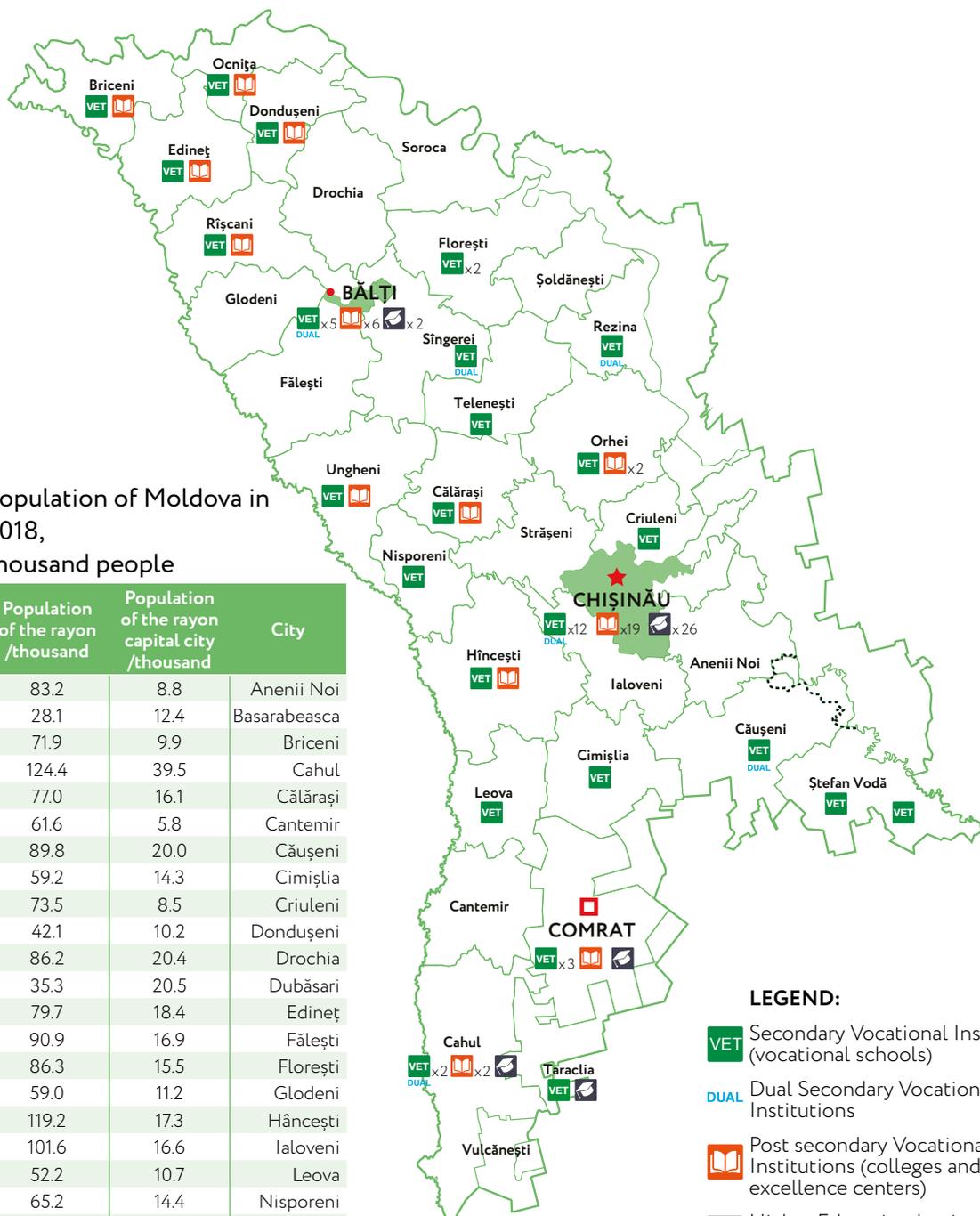
The Technical University of Moldova, the main higher education institution in technical field, has entered into partnership with private companies to develop their R&D laboratories. The two projects worth mentioning is the "Renewable Energy Lab" Project and the "Technology Museum Park" Project.

Educational Institutions

Population of Moldova in 2018, thousand people

Population of the rayon /thousand	Population of the rayon capital city /thousand	City
83.2	8.8	Anenii Noi
28.1	12.4	Basarabeasca
71.9	9.9	Briceni
124.4	39.5	Cahul
77.0	16.1	Călărași
61.6	5.8	Cantemir
89.8	20.0	Căușeni
59.2	14.3	Cimișlia
73.5	8.5	Criuleni
42.1	10.2	Dondușeni
86.2	20.4	Drochia
35.3	20.5	Dubăsari
79.7	18.4	Edineț
90.9	16.9	Fălești
86.3	15.5	Florești
59.0	11.2	Glodeni
119.2	17.3	Hâncești
101.6	16.6	Ialoveni
52.2	10.7	Leova
65.2	14.4	Nisporeni
53.3	9.3	Ocnîța
124.4	34.0	Orhei
50.2	12.9	Rezina
67.0	13.0	Râșcani
91.8	14.8	Sângerei
41.2	7.5	Șoldănești
100.0	37.9	Soroca
69.8	8.5	Ștefan Vodă
92.3	20.8	Strășeni
43.3	14.9	Taraclia
71.5	8.1	Telenești
117.1	38.3	Ungheni

source: www.ipt.md
Interactive map of Technical Vocational Education Institutions



LEGEND:

-  Secondary Vocational Institutions (vocational schools)
-  Dual Secondary Vocational Institutions
-  Post secondary Vocational Institutions (colleges and excellence centers)
-  Higher Education Institutions (universities)

Population, thousand people

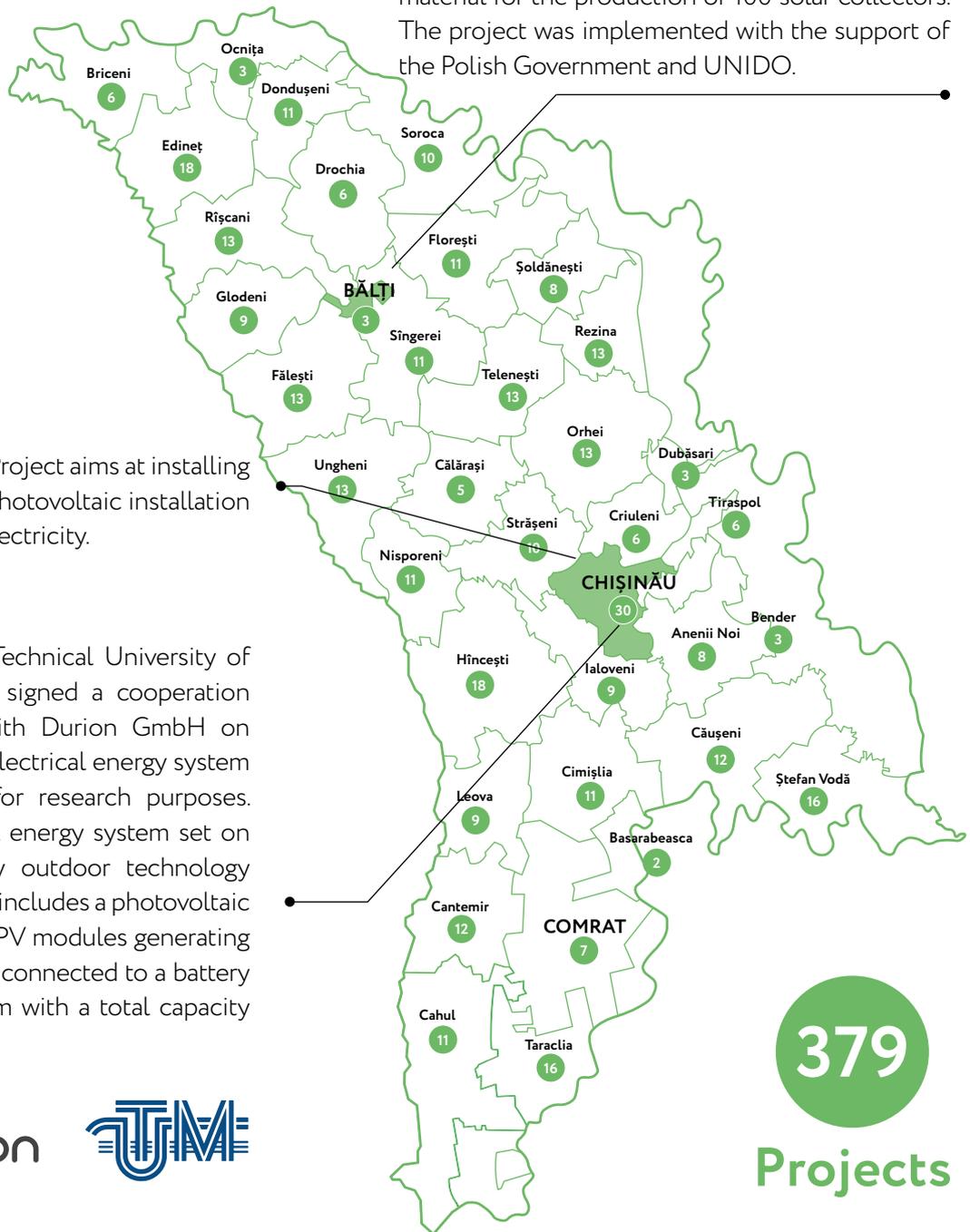
3,553.1	Republic of Moldova, total
814.1	Chișinău Municipality, Chișinău City
150.7	Bălți Municipality, Bălți City
145.8	

Population of ATU Găgăuzia, thousand people

161.9	ATU Găgăuzia
26.2	Comrat Municipality
22.9	Ciudâr-Lunga
16.7	Vulcănești

RES Projects

Enhanced local manufacturing capacity of solar thermal energy systems in the Republic of Moldova. "Răut" SA benefited from an assembly line and raw material for the production of 100 solar collectors. The project was implemented with the support of the Polish Government and UNIDO.



Moldova PV Project aims at installing a functional photovoltaic installation to generate electricity.

In 2017, the Technical University of Moldova has signed a cooperation agreement with Durion GmbH on installing an electrical energy system in Chisinau for research purposes. The electrical energy system set on the university outdoor technology museum park includes a photovoltaic system of 46 PV modules generating 245 Wp each, connected to a battery storage system with a total capacity of 38 kWh.

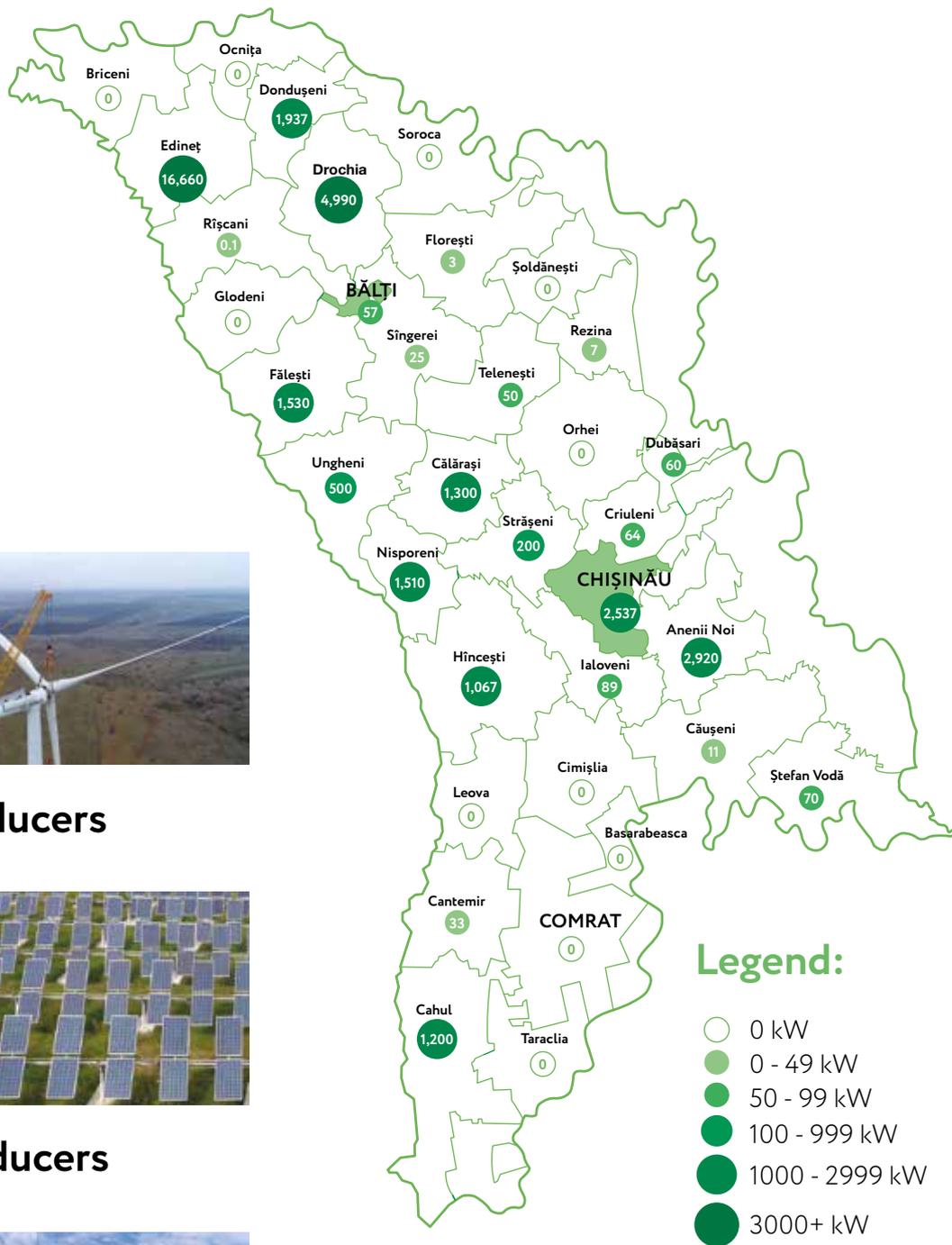


379
Projects

376 projects in the field of Renewable Energy were implemented all over in Moldova until 2017 with the support of the Energy Efficiency Fund, Moldova Social Investment Fund, the UNDP Project Energy and Biomass.



RES Production Capacities, kW



18 Producers



52 Producers



5 Producers

The capacities of RES producers, 2017:

- wind energy producers 27,1 MW
- solar energy producers 3,9 MW
- biogas energy producers 5,7 MW



“The company’s main focus is wind energy. We have started our activity with the development of 3 projects with a total capacity of 90 MW. It is worth mentioning that the local authorities, with whom we have collaborated, have been committed to finding feasible solutions, so that we were able to manage various difficulties with identifying and registering of not allocated land, putting it into use, changing destination, endorsing of the technical-design projects, etc.”

Marcela Lefter,

Executive Director, Electra Norte Molwind (Electra Norte, Spain)

“Wind power production has become a priority for us so that until now we are able to install three wind turbines in the northern area of the country with a total capacity of 3.5 MW. We will continue to develop this area, even if we have some constraints, more important being the production of clean energy and the security of citizens.

Oleg Borodatii,

Project Coordinator, NORDIX-PRIM SRL

“In 2016 we decided to build a wind power project. In 2017, two 3.3 MW turbines were installed, primarily because it is an inexhaustible source of energy, it does not generate greenhouse gases, pollutants and no waste - so it is environmentally friendly and the population. We are currently in the process of installing two more wind turbines. We will continue to make considerable efforts to expand and increase our capacity to produce alternative energy.

Vasile Scutari,

Director, IMPORTEX-TRANS

“Esco Voltaj is a local company that provides energy services and renewable energy solutions. Our portfolio contains a great diversity of Energy Efficiency Solutions, being an Eco friendly company. We encourage entrepreneurs, civil society and authorities to become more independent energetic by using the natural resources. We highly appreciate the efforts of Moldova’s authorities regarding the promoting of renewable energy, so in this regard we strongly believe that this domain will be very attractive and energy efficiency projects will be very promoted in the coming period, as well as for investors and final consumers and of course being a great achievement in protecting the environment.



Romeo Lopotencu,

General Director, Esco Voltaj Company



“The collaboration with Invest in Moldova and GIZ team helped our Moldovan company to develop its activity and to easily go through the business challenges of a company investing for the first time in Moldova. We initiated strong collaboration with various partners. Our subsidiary implements the research projects with Technical University from Moldova (TUM) in development of battery storage systems, horizontal axis wind turbines, and software development. Recently we decided to develop in TUM campus, one of the Group’s Data Centers, an innovative project in digital contracting and Blockchain Technology.

Uwe Kuhnle,

President and CEO

“Südzucker Moldova has worked with the Government of the Republic of Moldova on the development of the regulatory background for the “Green Energy”, so that projects of this level can be implemented. We have invested already more than 14 mil. Euro in the Green Energy projects. One of the examples is the biogas plant, locate at the company’s facility in Drochia. It represents the country’s largest green energy supplier. And produces 8.5 million cubic meters of biogas from beet pulp in a year.”



Dr. Alexander Koss,

Speaker of the Board of the Moldovan-German company Südzucker Moldova

THE MOLDOVAN INVESTMENT AGENCY



THE ONE-STOP SHOP FOR ALL YOUR INVESTMENT QUESTIONS

ASSISTANCE & INFORMATION



Provide

- Information on the investment climate
- Sector-specific information
- Consulting on suitable locations – FEZ, IP (Invest Moldova database)
- Information on relevant tax, legal and administrative issues



Assist

- Scoping missions (agenda, logistics, follow up)
- Investment incentive application
- Information on business providers - HR, Legal, Consulting, etc.



Connect

With relevant partners:

- Embassies
- Government authorities
- Business associations
- Existing investors

INVESTMENT ATTRACTION & PROMOTION ACTIVITIES

G2B and B2B Missions abroad

International events-
promotion of the investment
climate of the Republic of
Moldova

Moldova Business Week

AFTERCARE

Platforms for Investors

Council for the promotion of projects of national importance, chaired by Prime Minister

Economic Council to the Prime Minister of the Republic of Moldova

- 41 associative structures of the business community
- 43 state institutions
- 16 representatives of the scientific and research community
- 6 Working groups:

Eliminating constraints in entrepreneurial activity: Coordinator - American Chamber of Commerce (AMCHAM)

Facilitation of trans-border trade: Coordinator - European Business Association (EBA)

Stimulation and retention of private investments : Coordinator - Foreign Investors Association (FIA)



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We provide tailored services for potential investors throughout the investment decision process. We also support existing investors in extending their operations.

Our team consists of permanent investment attraction staff, sectorial consultants, as well as regional officers. Combining our experience, we are able to provide you with information relevant for your decision making, as well as links to businesses and government.



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