



UKRAINIAN WIND MARKET OVERVIEW

2015



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Ukrainian Wind Market Overview 2015 has been prepared by the Ukrainian Wind Energy Association (UWEA) in cooperation with KPMG legal group (Y.Katser, I.Cheker, V.Bulgak).

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THE UKRAINIAN WIND ENERGY ASSOCIATION (UWEA) is an all-Ukrainian, non-profit public organisation aimed at promoting wind energy technologies and ensuring wind energy industry's interests on the national and international levels.

UWEA links wind power project developers, wind power equipment manufacturers and suppliers, utilities, construction companies, scientists and researchers, lawyers, NGOs, consumers and others involved in the wind industry – one of the world's fastest growing energy industries.



The Ukrainian Wind Energy Association cooperates with various national, regional and local authorities. The UWEA contributes greatly to information and experience exchange with all stakeholders.

UWEA is a member of the World Wind Energy Association (WWEA) and the European Wind Energy Association (EWEA).



KPMG has been working in Ukraine since 1992, and our goal has always been to use KPMG global intellectual capital combined with the experience of Ukrainian professionals to assist leading Ukrainian and multinational businesses in achieving their business aims.

Our experience of working with major Ukrainian and international companies in the renewable energy industry provides us with deep understanding of the specifics and trends in this sector and enables us to identify current key processes, needs, and challenges of companies operating in this industry.

KPMG in Ukraine offers legal support and assistance on almost all legal aspects of investing and doing business in Ukraine, including:

1. Legal advisory and support

- Most suitable and tax efficient form of doing business in Ukraine
- Corporate structuring and reorganization
- Establishment of offshore holding companies/structures

- Corporate governance
- Financing the business in Ukraine and assistance with arranging financing
- Drafting and negotiation of various business contracts (e.g. EPC, O&M agreements, engineering service contracts, lease agreements etc.)
- Liaisons with state and local authorities in connection with obtaining licenses, permits, approvals, rulings

2. M&A support:

- Legal due diligence
- Transaction structuring
- Drafting and negotiation of the transaction documentation (e.g. SPA, shareholder's agreements, joint venture and investment agreements)
- Closing of the deal

3. Commercial litigation and disputes with state authorities

4. Antitrust clearance:

- Obtaining AMC approvals
- Support in AMC investigations

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KEY FACTS AND FIGURES



KEY FACTS AND FIGURES

Annexation of the Crimea by the Russian Federation and military operations on the occupied territories of Donetsk and Luhansk regions have negatively impacted the development of the renewable energy sector of Ukraine in 2015 including the national wind energy industry. In addition, regressive actions by the government aimed at reducing the “green” tariff rates in February-March 2015, dramatically aggravated the investment climate and almost completely stopped the development of the sector in the first half of the last year.

Renewable Energy Market seems to recover slightly after adoption of the Law of Ukraine “On Introduction of Amendments to Some Laws of Ukraine Regarding Ensuring Competitive Conditions of Electricity Production from Alternative Energy Sources” by Verkhovna Rada (*Ukrainian Parliament*) on 4 June, 2015. The law adopted by the Ukrainian parliament has reconfirmed the country’s commitment to the further development of renewable energy. It introduced highly anticipated amendments to a number of legislative acts in regard to feed-in tariffs (*hereafter – “FIT”*), the local content requirement and unbalanced tariffs for various types of renewables, etc (*please refer to chapter 8 for more details*).

2015 was the most difficult year for the national wind energy sector. Policy uncertainty and destructive actions of the government have dragged the

wind industry into stagnation. Only 16,6 MW were added in 2015 after 126,5 MW in 2014 and record 276 MW in 2012. Four wind turbines FL2500-100 with unit capacity of 2,5 MW were commissioned at Ochakovskiy Wind park in Mykolayiv region and two wind turbines Vestas V-112 with unit capacity of 3,3 MW – at Staryi Sambir-1 Wind power plant in Lviv region.

Thus, as of 31 December 2015, the cumulative capacity of the wind energy sector of Ukraine reached 514 MW out of which 426,2 MW have been installed in the mainland Ukraine. It corresponds to 0,8% of total installed energy generating capacities in the mainland Ukraine or 0,92% including Crimea. All the wind power plants have been grid connected.

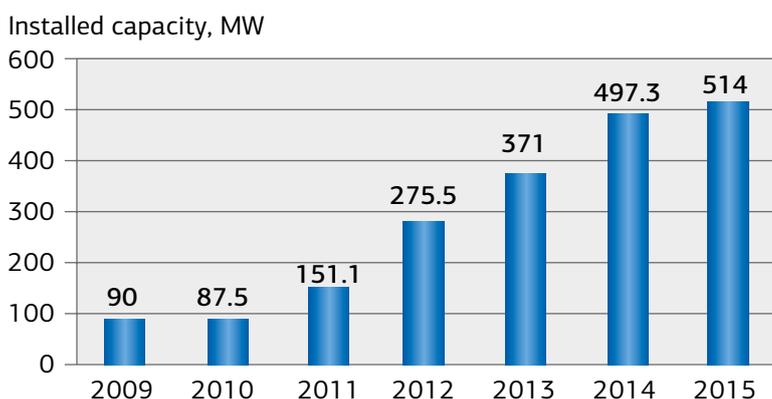
Russian annexation of the Crimean peninsula stopped wind development in the AR Crimea. The installed wind capacity of the Crimea has remained unchanged since 2013 amounting to 87,8 MW.

Wind capacity growth in Ukraine from 2009 (*the year of introduction of “green” tariff*) up to the present day is shown in Figure 1.

In 2015 all wind power plants located in the mainland Ukraine generated 1 125 mln kWh of electricity. Wind energy accounts for 0,73% of electricity generated and 0,8 % of total energy installed capacity in the mainland Ukraine or 0,92% – including Crimea. In comparison to 2014 the electricity generated by the wind power plants located in the mainland Ukraine remains practically at the same level. Delivery of electricity generated by the Crimean WPPs to the Ukraine’s Unified Energy System has been stopped since April 2014.

“Green” electricity generated from wind saved more than 1 329 mln ton of CO₂ emission and supplied 2.8 mln average Ukrainian households with electricity.

Figure 1. The dynamics of the Ukrainian wind energy sector in the period of 2009-2015



In 2015 the wind companies Wind Power, Management Company Wind Parks of Ukraine and Vindkraft Ukraina kept their leading position in the national wind sector.

Currently two wind power plants are located on the uncontrolled territory of Ukraine – Lutuginskiy

and Krasnodonskiy wind parks (*Luhansk region*), while Novoazovski wind park region is located on the line of collision in Donetsk region. The further previously planned development of these WPPs has been suspended. The legal proceedings regarding the status of these power plants have been initiated.

ELECTRICITY SECTOR OF UKRAINE

The installed capacities of power plants of Ukraine’s Unified energy system (hereinafter – “UES”) (including isolated generating plants) as of the end of 2015 totaled 54 892 MW (*Crimea excluded*). The bulk of those capacities (over 61,5%) falls on Thermal power plants, least of all (about 2,7%) – on power plants using renewable energy sources (*wind, solar, bio*). Nuclear power plants account for 25,2 % of total installed energy-generating capacity while Hydro power plants – for 10,65 %.

As of end of December 2015, main (including interstate) networks had some 23 thousand km lines of different voltage; whereas 137 transformer substations support their operation. Over 60% of main power network facilities were built in 1960s-1970s, they are obsolete and worn out.

It is planned to significantly increase the renewable energy generating capacities in Ukraine during the next 10 years.

According to the Ministry of Energy and Coal Industry of Ukraine 157,3 mln kWh electricity was generated in the country last year, 13,5 % less than in 2014.

Figure 2. Installed Renewable Energy Capacities (Crimea included), December 2015, MW

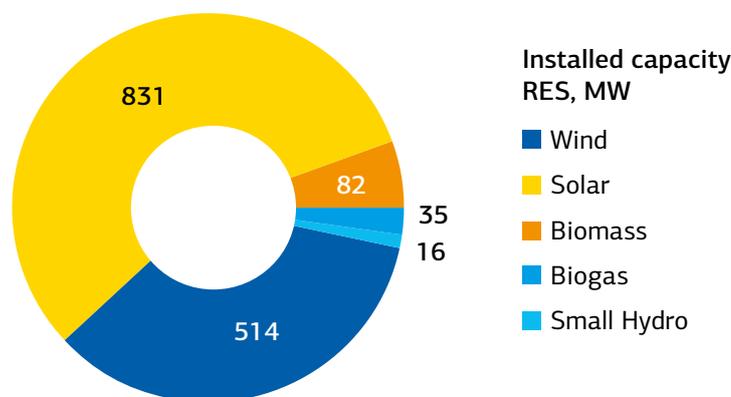
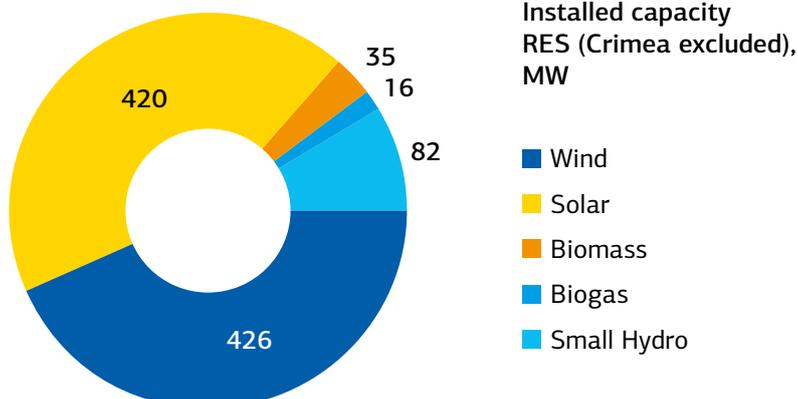


Figure 3. Installed Renewable Energy Capacities (Crimea excluded), December 2015, MW



UKRAINE'S UNIFIED ENERGY SYSTEM DEVELOPMENT PLAN FOR THE NEXT 10 YEARS

Since 16 July 2015 requirements for power plants with capacity exceeding 5 MW regarding compliance with Ukraine's UES development plan for the next ten years (*hereinafter* – “*Development Plan*”) necessary in order to obtain “green” tariff have been cancelled by the Law of Ukraine “On Introduction of Amendments to Some Laws of Ukraine Regarding Ensuring Competitive Conditions of Electricity Production from Alternative Energy Sources” which was adopted by the Parliament on 4 June, 2015.

It is worth mentioning that the existing Law of Ukraine “On Operating Principles of Electricity Market of Ukraine” № 663-VII from October 24, 2013 obliges the system operator to ensure the conducting of public hearings and consultations of a draft development plan for the next 10 years with market stakeholders. After such public hearings Development Plan is to be approved by the Cabinet of Ministers of Ukraine. According to the effective legislation the Development plant should be revised or updated on an annual basis.

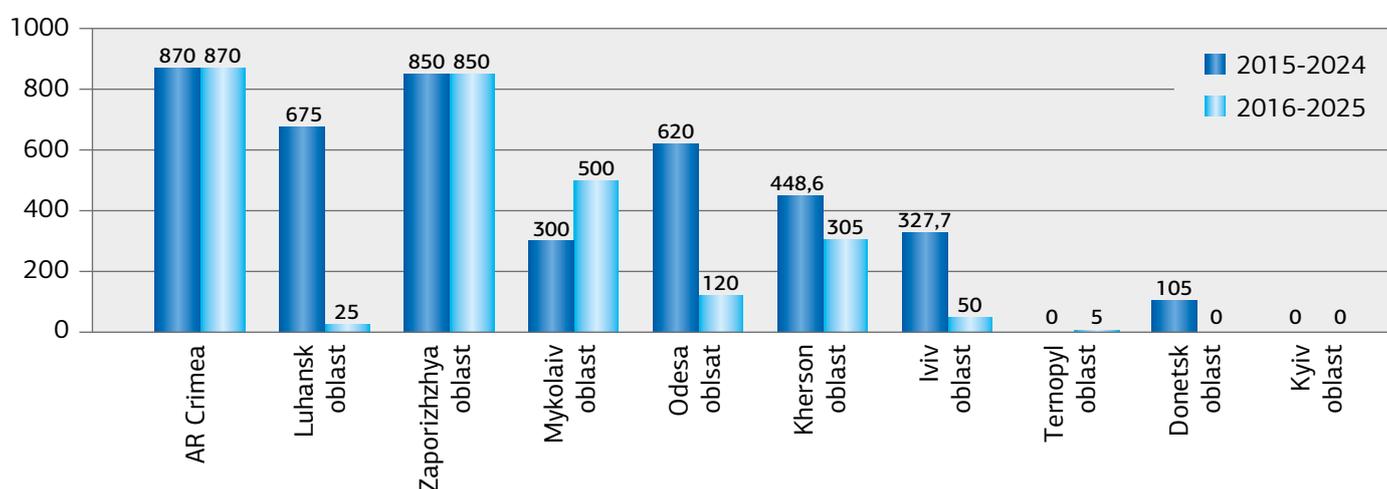
Table 1. Draft Ukraine's Unified Energy System Development Plan for the next 10 years

REGIONS	2015 – 2024	2016 – 2025
AR Crimea	870	870
Zaporizhzhya oblast	850	850
Luhansk oblast	675	25 (-650)
Iviv oblast	323,7	50 (-273,7)
Odesa obsat	620	120 (-500)
Donetsk oblast	105	0 (-105)
Mykolaiv oblast	300	500 (+200)
Kherson oblast	448,6	305 (-143,6)
Ternopyl oblast	0	5 (+5)
TOTAL	4192,3	2725 (-1467,3)

The below table shows the difference between estimated wind power capacities per each region of Ukraine for the period of 2015-2024 and revised figures for the period of 2016-2025 (*as of the date of the preparation of the Overview, the Development Plan has not yet been approved*).

Ukraine's Unified Energy System Development Plan is not only strategic document it's a market signal for the investors as well. To make it easier for a new comer to enter the wind energy market of Ukraine and to support new green field projects, the requirements for the new electricity generating projects to be in compliance with the Development Plan for the next 10 years was deleted from the adopted in June 2015 law on “green” tariffs in Ukraine.

Figure 4. Comparison of draft Development Plan for 2015-2024 and draft Development Plan for 2016-2025



WIND TURBINES INSTALLED IN UKRAINE

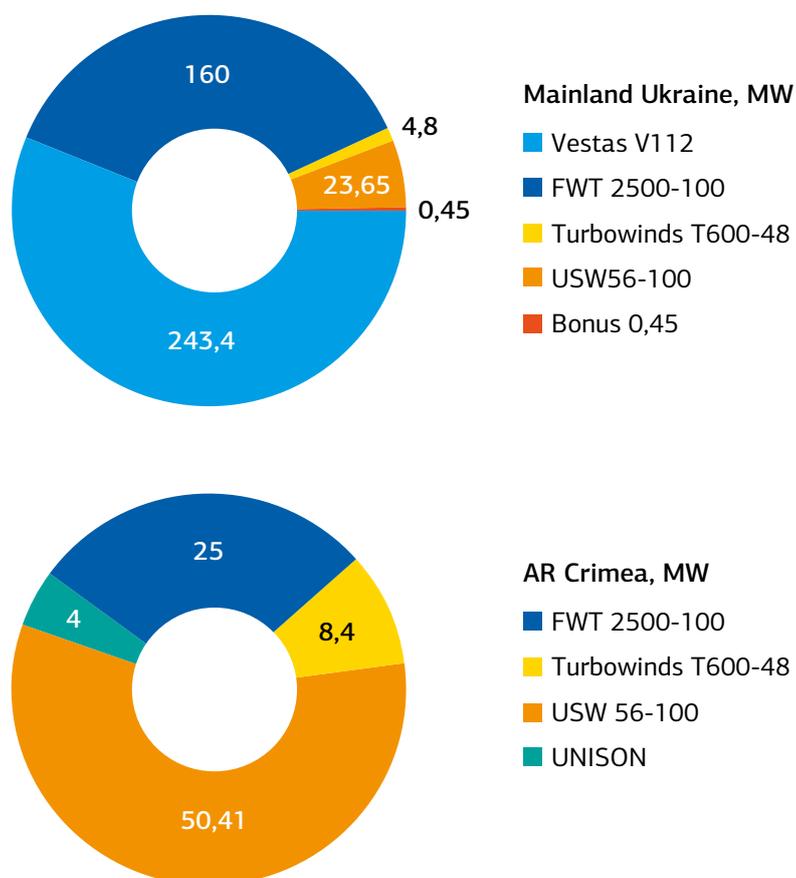
During 2015 only 16,6 MW of new wind power capacities came on line in the mainland Ukraine out of which 6,6 MW were installed in Lviv oblast and 10 MW – in Mykolaiv oblast. Thus, as of 31 December 2015, the cumulative capacity of the wind energy sector of the mainland Ukraine reached 426, 2 MW. All the wind power plants (WPP) are grid connected.

By the end of 2015 capacity of the national wind sector of Ukraine totalled to 514 MW (*including Crimea*). Share of Vestas produced wind turbine model V 112 in the new wind turbine market in Ukraine has reached almost 47% (or 243,4 MW) while FWT produced wind turbines FWT 2500-100 – 36% (185 MW).

Table 2. Wind turbines installed in Ukraine, December 2015

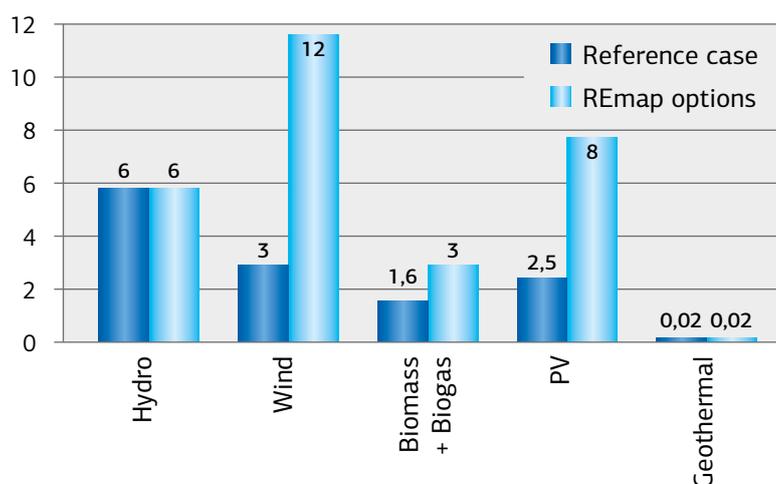
NUMBER OF WTGS	UNIT CAPACITY, MW
MAINLAND UKRAINE	
2	3,3
77	3,075
64	2,5
8	0,6
220	0,1075
1	0,45
TOTAL 372	
CRIMEA	
10	2,5
2	2,0
14	0,6
469	0,1075
TOTAL 495	

Figure 5. Wind turbines models installed in Ukraine, December 2015



REMAP 2030. RENEWABLE ENERGY PROSPECTS FOR UKRAINE

Figure 6. Installed capacity for renewable electricity generation in 2030, per RES, GW



Road Map for Renewable Energy in Ukraine to 2030 (REmap 2030. Renewable Prospects for Ukraine), developed by experts of the International Renewable Energy Agency (IRENA) in cooperation with specialists from the State Agency for Energy Efficiency and Energy Saving of Ukraine (SAEE), the Ukrainian Wind Energy Association and Bioenergy association of Ukraine was published on IRENA site on 29 April 2015.

REmap 2030 includes not only the analysis of the potential of renewable energy sources (*hereafter* – “RES”) in Ukraine, but also the economic benefits of increasing the share of renewables in the total final energy consumption.

If current policies (known as the Reference Case in this study), which are described in the approved National Renewable Energy Action Plan (NREAP) are maintained, the share of renewable energy in the total final energy consumption will increase from 3% in 2009 (*the plan’s base year*) to 13,2% by 2030. That total could be boosted to 21,8% using options identified in this study. Increasing the renewable-energy share from 13,2% under the Reference Case to 21,8% in REmap 2030 would result in savings of USD 175 million per year in 2030, and when accounting

Table 3. Installed capacity for renewable electricity generation in 2030, per RE sector, GW

RE SECTOR	REFERENCE CASE	REMAP OPTIONS
Hydro	6,0	6,0
Wind	3,0	12,0
Biomass + Biogas	1,6	3,0
PV	2,5	8,0
Geothermal	0,02	0,02

for benefits resulting from reduced health effects and CO₂ emissions savings would increase to USD 1.3 bln per year based on conservative estimates, and yield USD 5.5 bln in savings in 2030 based on more optimistic estimates.

Experts suggest that 73% of the RE potential can be used for heat, 20% – to generate electricity and 7% – in the transport sector.

If IRENA's REmap Options were used, there would be a significant increase in biomass use by 2030 for various transport and heating applications (*industry, buildings, and district heat*) compared with expectations under current policies. In particular, 57% of the bio energy resources – biomass, biogas – can be used for heating, the remaining 16% comes from solar energy and geothermal sources. The share of wind in electricity generation can reach 49%, while hydropower can account for 20%, the combined production of heat and electricity – 18,96%, solar PV – 11,9%, and geothermal energy – 0,14%.

Figure 7. Electricity generation from RES in 2030, per RE sector, TWh per year

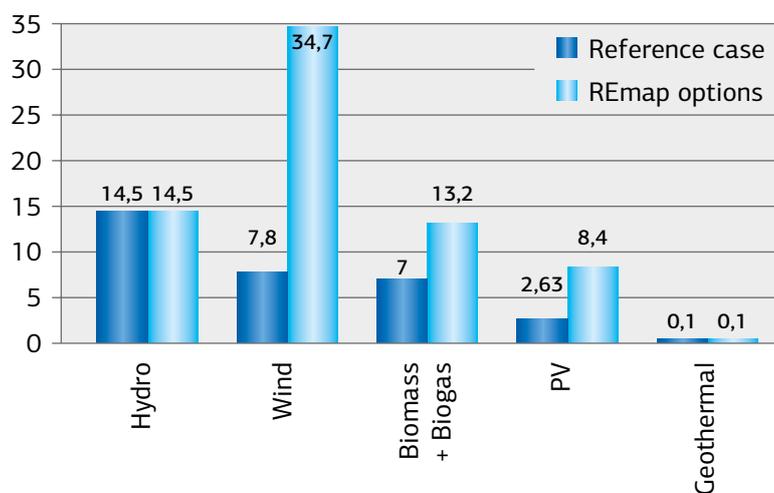


Table 4. Electricity generation from RES in 2030, by RE sector, TWh per year

RE SECTOR	REFERENCE CASE	REMAP OPTIONS
Hydro	14,5	14,5
Wind	7,8	34,7
Biomass + Biogas	7,0	13,2
PV	2,63	8,4
Geothermal	0,1	0,1

WIND POWER PLANTS OPERATING IN UKRAINE

In 2015 total installed wind capacity in the mainland Ukraine increased by 16,6 MW, amounting to 426,2 MW by the end of the year. All the wind turbines are grid connected. In 2015 all wind power

plants located in the mainland Ukraine generated 1 125 mln kWh of electricity. Delivery of electricity generated by the Crimean WPPs to the Ukraine's UES has been stopped since April 2014.

Table 5. Wind power plants operating in mainland Ukraine

NAME OF WPP	INSTALLED CAPACITY, 31.12. 2014, MW	COMMISSIONED IN 2015, MW	INSTALLED CAPACITY, 31.12. 2015, MW
Botievska WPP	200	0	200,0
Novoazovskiy Wind Park	57,5	0	57,5
Ochakovskiy Wind Park	37,5	10,0	47,5
Lutuginskiy Wind Park	25,0	0	25,0
Krasnodonskiy Wind Park	25,0	0	25,0
Novoazovska WPP	30,53	0	30,5
Novorossiyska WPP	9,225	0	9,225
Stavki WPP	9,225	0	9,225
Beregova WPP	12,3	0	12,3
Sivashska WPP	2,92	0	2,92
Saryi Sambir	0	6,6	6,6
Legena LLC	0,45	0	0,45
TOTAL:	409,6	16,6	426,2

SMALL WIND ENERGY SECTOR

Small wind energy market in Ukraine has been focused on autonomous wind installations (*hereafter "small wind turbine"*) to produce electricity for private households. In other words, development of small wind energy market has been based on local investments. Sharp reduction of the population's purchasing power caused by the political and economical crises has a negative impact on small wind

energy sector development. As a result, a number of manufacturers of small wind turbines ceased their activities in Ukraine.

39 small wind turbines were added last year in Ukraine. The installed capacity of small wind sector increased by 142,6 kW* having reached around 14,7 MW. The sector employs over 150 persons.

* According to information available to the UWEA

Table 6. Small wind turbines manufacturers and suppliers active in Ukraine in 2015

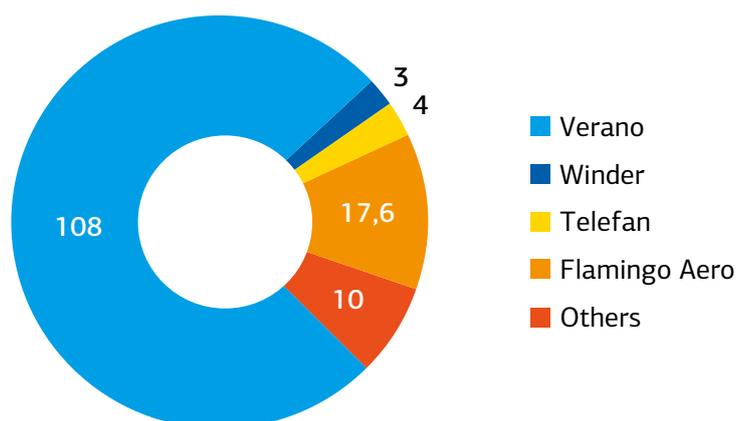
COMPANY	MANUFACTURED, PIECES	INSTALLED, PIECES	CUMULATIVE INSTALLED CAPACITY, KW
VERANO (Odessa)	119	18 installed; 79 exported	108
WINDER (Kyiv)	Imported from China	2	3
TELEFAN LLC (Dnipropetrovsk)	1	1	4
FLAMINGO AERO (Kyiv)	29	8	17,6
Others	0	10	10

Wind turbines with a unit capacity ranging from 1 kW to 20 kW have been produced in Ukraine by few Ukrainian manufacturers. Some Ukrainian-produced small wind turbines were exported to Kazakhstan, Russia and Tadjikistan last year.

Market recovery occurred to some extent upon adoption of the Law “On Introduction of Amendments to Some Laws of Ukraine Regarding Ensuring Competitive Conditions of Electricity Production from Alternative Energy Sources”. The above-mentioned Law has brought significant changes to the regulation of electricity production from wind energy by private households. As a result, private households obtained the right to install generating units intended for the production of electrical energy from wind, with rated capacity not exceeding 30 kW, and sell the excess of produced electricity by aggregation applying “green” tariff, without a specific license. *(Please refer to Chapter 8 for more details).*

However, there is still a number of legal barriers to the successful development of small wind energy sector in Ukraine. Existing difference in “green” tariff rate for electricity generated by residential photovoltaic systems and electricity generated by small wind turbines is one of the biggest obstacles since for hybrid installations of private households *(the most popular)* two points of metering of electricity generation should be registered with respective Oblenergo *(a regional electricity lines operator)*, and fulfillment of this requirement is practically impossible.

Figure 8. Total capacity of small wind turbines installed in 2015, per company, kW



UWEA proposes to introduce a single “green” tariff for all types of private households generating facilities operating on renewable energy sources. The proposed mechanism will simplify and reduce the cost of accounting process and the sale of electricity to the grid. Introduction of a single “green” tariff for electricity generated from solar and wind by private households will give the necessary impetus to the development of small wind energy sector in Ukraine that has stagnated for several years already.



LEGISLATION

“GREEN” TARIFF

The Law of Ukraine “On Introduction of Amendments to Some Laws of Ukraine Regarding Ensuring Competitive Conditions of Electricity Production from Alternative Energy Sources” (*hereinafter – “the Law”*) which was adopted by the Parliament on 4 June, 2015 and entered into force on 16 July, 2015, contains various changes UAH and signifies an important moment in the development of renewable energy sector of Ukraine, which remained at stagnation lately due to various legislative barriers.

By adoption of this Law the parliamentarians confirmed that the country is dedicated to wide utilisation of renewable energy. “Green” tariff coefficients for the energy, produced from the energy of wind remained unchanged. Same as before, the “green” tariff is calculated by the formula which provides multiplication

of retail rate of voltage for second-class customers as of January 2009 (*EUR 0.05385*) on coefficient of “green” tariff for electricity produced from wind energy (*for WPPs or private households*).

The value of “green” tariff remains fixed in euros, but the process of establishing its equivalent in national currency has changed. According to the Law UAH equivalent of “green tariff” is set on a quarterly basis at the last meeting of the National Energy and Utilities Regulatory Commission (*hereafter – “NEURC”*). NEURC calculates the tariff for each respective quarter based on the UAH/EUR average exchange rate over the 30-day period prior to such meeting. This rule does not apply to commercial power stations, commissioned since 1 January 2025.

Table 7. Amount of “green” tariff for WPPs, commissioned since 1 January 2015, in EUR

UNIT CAPACITY OF WIND TURBINES	AMOUNT OF “GREEN” TARIFF				
	since 01.01.2015 to 31.12.2015	since 01.01. 2016 to 31.12.2016	since 01.01.2017 to 31.12.2019	since 01.01.2020 to 31.12.2024	since 01.01.2025 to 31.12.2029
Wind turbine with installed capacity below 600 kW	0,0582	0,0582	0,0582	0,0517	0,0452
Wind turbine with installed capacity 600- 2000 kW	0,0679	0,0679	0,0679	0,0603	0,0528
Wind turbine with installed capacity equal and exceeding 2000 kW	0,1018	0,1018	0,1018	0,0905	0,0792

“GREEN” TARIFF FOR PRIVATE HOUSEHOLDS

The above-mentioned Law has brought significant changes to the regulation of electricity production from wind energy by private households. As a result, private households obtained the right to install generating units intended for the production of electrical energy from the energy of wind, with

rated capacity not exceeding 30 kW, and sell the excess of produced electricity by aggregation applying “green” tariff, without a specific license. At the same time, according to the provisions of the Law, “green” tariff for private households is calculated by the same formula, applied to large WPPs,

namely, by multiplying EUR 0.05385 on coefficient of “green” tariff for electricity, produced from wind energy by private households (*detailed description of the formula is provided above*).

At the same time, the Law has introduced the minimum fixed amount of “green” tariff for private households, which, similarly to rules applicable to WPPs, shall be calculated by converting “green” tar-

iff to euros, calculated according to the rules of the Law as applied on 1 January, 2009 based on official exchange rate of NBU on the specified date, which is equivalent of 11,6 eurocents for kW•h.

The amount of “green” tariff is designed so that depending on the introduction date of commissioning of wind turbines by private households, the amount in euros will vary as illustrated in the table below:

Table 8. Amount of “green” tariff for wind energy facilities of private households, commissioned since 1 July 2015, in EUR

WTG UNIT CAPACITY	“GREEN” TARIFF RATE				
	01.01.2015 – 31.12.2015	01.01.2016 – 31.12.2016	01.01.2017 – 31.12.2019	01.01.2020 – 31.12.2024	01.01.2025 – 31.12.2029
small wind turbine with installed capacity up to 30 kW	0,1163	0,1163	0,1163	0,1045	0,0932

The amount of “green” tariff for private households, which concluded agreements for sale of electrical energy effective until 31 December 2024, is subject to quarterly indexation held by NEURC at the NBU average official exchange rate calculated for the 30 days preceding the date of the NEURC meeting. Last (*at the date of this review*) quarterly indexa-

tion of “green” tariff to euro was stated in NEURC’s Resolution No. 3144 as of 29 December, 2015. Therefore, for private households producing electricity from wind by energy power facilities, with rated capacity not exceeding 30 kW, the “green” tariff (*excluding VAT*) was fixed at following rates, depending on the date of their commissioning:

from 01 July 2015 to 31 December 2019	294.75 kopecks/kWt•hrs
from 01 January 2020 to 31 December 2024	264.73 kopecks/kWt•hrs
from 01 January 2025 to 31 December 2029	236.07 kopecks/kWt•hrs

The Law has also changed the calculation of volume of energy, to which the “green” tariff is applied. Previously, the “green” tariff was applied to the total volume of produced electricity, but since 16 July, 2015, the amount of electricity is calculated by

subtracting the electric power used for own needs of a WPP from the total electricity generated at the station. For private households, the difference between produced and consumed by this household electricity can be sold at the “green” tariff.

CANCELLATION OF REQUIREMENTS REGARDING COMPLIANCE WITH PLAN OF DEVELOPMENT OF THE UNIFIED ENERGY SYSTEM OF UKRAINE

Since 16 July 2015 requirements for power plants with capacity exceeding 5 MW regarding compliance with Development Plan, necessary in order to obtain “green” tariff from 1 January 2015 have been cancelled. It is worth reminding that De-

velopment Plan was approved on 29 September 2014 by order № 680 of the Ministry of Energy and Coal Industry of Ukraine (*hereinafter – “MEC”*), but it has not been approved by the Government of Ukraine yet.

CANCELLATION OF “LOCAL CONTENT” RULE

Law of Ukraine “On Introduction of Amendments to Some Laws of Ukraine Regarding Ensuring Competitive Conditions of Electricity Production from Alternative Energy Sources” has cancelled the condition of complying with local component requirement for obtaining a “green” tariff.

It is worth reminding that before the Law has entered into force, the quantity of local component, necessary for obtaining “green” tariff for WPPs, commissioned after 1 July 2014 and the construction of which commenced after 1 January 2012, was not less than 50%.

PREMIUM TO “GREEN” TARIFF FOR USAGE OF UKRAINIAN-PRODUCED EQUIPMENT

Instead of “local content” requirement, with the purpose to support national producers the Premium to “green” tariff was introduced for utilization of equipment, produced in Ukraine at WPPs, including on the electric station construction queues (launch complexes), commissioned from 1 July 2015 till 31 December 2024. The premium rate constitutes 5% provided level of Ukrainian-produced equipment usage is 30%, and 10% premium provided 50% of usage accordingly. At the same time, such premium does not apply to electricity produced by private households. This premium to the “green” tariff is set by NEURC and shall apply for the duration of “green”

tariff. Premium for use of Ukrainian production of equipment does not apply to energy facilities commissioned since 1 January 2025, and to generating facilities of private households.

Ukrainian origin of the existing on-site elements of equipment is confirmed by a certificate of origin issued in the manner prescribed by the Ukrainian Chamber of Commerce (*its regional offices*) for such elements and other supporting documents. The level of utilization of Ukrainian produced equipment is determined as totality of the respective percentage indexes of specific equipment items.

Table 9. WPPs. Elements of equipment with Ukrainian origin for adding the premium to “green” tariff

ELEMENT OF EQUIPMENT	%
Rotor Blade	30
Tower	30
Nacelle	20
Main frame	20
TOTAL	100

GRID CONNECTION

In 2015, conditions to the financing of WPP grid connection changed. 100% of the costs for grid connection is laid on investor. It is worth reminding that previously 50% of grid connection costs were covered by electricity transmitting organization, and another 50% was funded by a repayable financial assistance provided by the investor to the electricity transmitting organization.

Same as before, grid connection procedure is regulated by the “Rules of electric power facilities grid connection”, approved by NERC Resolution №32 as of 17 January 2013 (*hereinafter* – “*Grid Connection Rules*”) and “Methodology of fees calculation for con electric power facilities grid connection”, approved by NERC Resolution №115 as of 2 December 2013.

In addition to the abovementioned Grid Connection Rules, currently two other documents regulating the WPP grid connection issues remain in force – BMD 341.003.001.001-2000 “Wind energy facilities grid connection” and “Rules of wind power stations grid connection” approved by the Order of the Ministry of Energy №570 as of 28 October 2009. Due to the fact that in a number of positions these documents are outdated and contradict the main document “Rules of electric power facilities grid connection”, approved by NERC Decree №32 dated 17 January 2013, and also in order to bring the Rules to the single standards UWEA initiates cancellation of these documents. In addition, according to UWEA experts the conditions of TEE development should be clarified in the Grid Connection Rules.

EMERGENCY TEMPORARY MEASURES IN THE ENERGY SECTOR

From October 2014 to December 2015 Cabinet of Ministers of Ukraine by its resolutions periodically introduced emergency provisional measures in the energy sector in order to “provide reliable, trouble-free (*stable*) functioning of the Ukraine’s UES, to prevent accidents and damage to electric power facilities, their elements and structures”.

Thus, NEUSRC was empowered upon request of MEC to amend the value of “green” tariff, and the state-owned enterprise “National Energy Company” Ukrenergo” in coordination with the MEC could introduce temporary limits on production of electricity, in particular for the producers from alternative energy sources.

LITIGATION REGARDING EMERGENCY TEMPORARY MEASURES

As part of the emergency measures, in violation of the effective Ukrainian legislation, NEURC did not held adjustment of the “green” tariff according to the changes in the currency exchange rate in the period from September 2014 to January 2015 inclusively. Moreover, referring to the emergency state

in energy sector, introduced by the Government of Ukraine, by its Resolution No.157 dated 31 January 2015 NEURC rapidly reduced the “green” tariff for February 2015 by 10% (20% for SPPs). Subsequently, Resolution No. 493 dated 27 February 2015 reduced “green” tariff to 50% (55% for SPPs).



These Resolutions contradicted provisions of Clause 17-1 of the Law of Ukraine “On Electricity”, according to which the “green” tariff cannot be less than approved minimum amount of “green” tariff, which is fixed in euros and on each date of setting tariffs for consumers shall be converted into the national currency at the official exchange rate of NBU as of the date of such conversion.

In order to cancel these NEURC’s Resolutions all the WPPs functioning in Ukraine took part in the court hearings as claimants or third parties. District Administrative Court of Kyiv by its decisions as of 23 June 2015 declared unlawful and abolished the NEURC’s Resolutions No. 157 and No. 493. In addition, the Court ruled that NEURC must compensate

to the complainants amounts they did not receive in the period from September 2014 to February 2015. For enforcement of court decisions, NEURC issued a Resolution No. 2060 as of 23 July 2015, No. 2140 as of 6 August 2015 and No. 2144 as of 10 August 2015, obliging the regulator to pay the foregone amounts in the defined quantity. On 3 November 2015, NEURC applied to the District Administrative Court of Kyiv with an inquiry to postpone the implementation of the judgment as of 23 June 2015. However, on the hearing on 11 November 2015 the court made a decision to dismiss the application NEURC based on its groundlessness. On 30 December 2015 NEURC issued another Decree №3249 for the purpose of payment of unreceived amounts in defined quantities.

TAX AND CUSTOMS CHANGES

Land tax privilege for wind energy electricity producers was canceled on 1 January 2015. Before that date, the owners of power facilities placed on land plots (both within and outside settlements), which were provided for the siting of energy objects, paid 25% of land tax, calculated in accordance with the provisions of Tax Code of Ukraine (*hereinafter* – “TCU”).

It is worth reminding that in 2014 tax reduction on income tax was also canceled for producers of electricity from renewable energy sources, and customs duties and import VAT for importers of a number of energy-saving materials, equipment and accessories were additionally introduced.

ELIMINATION OF PRIVILEGE FOR MANUFACTURERS OF ENERGY-EFFICIENT EQUIPMENT

On 1 January 2015, company income tax privilege for income acquired in connection with the introduction of energy efficient technologies was cancelled. Particularly, previously article 158 of TCU provided a tax relief on 80% of company's income, received as a result of disposal in customs zone of Ukraine of self-produced goods in accordance with the list ap-

proved by the Cabinet of Ministers of Ukraine. This list, among others, included equipment functioning on renewable energy resources and supplies, raw materials, equipment and components, used to produce energy from renewable sources (*for example, wind energy units*).

ELIMINATION OF EXCISE DUTIES AND ADDITIONAL IMPORT DUTY

As positive news for producers and suppliers of electrical energy (except for wholesale suppliers), they were relieved from excise duty under condition of disposal of energy on wholesale market.

Additionally, on 1 January 2016 the Law of Ukraine "On Measures of Stimulation of External Economic

Activity" entered into force and eliminated additional import duty amounting to 5%, which during 2015 applied to construction parts of wind energy stations and equipment for them. It is worth reminding that such additional import duty was temporarily introduced in the beginning of the last year in order to stabilize payment balance of Ukraine.

REDUCTION OR ELIMINATION OF CUSTOMS DUTY ON CONSTRUCTION PARTS AND EQUIPMENT OF WPP ORIGINATED WITHIN EU

On 1 January 2016 Title IV of Association Agreement between the European Union and Ukraine (hereinafter – the "Agreement") entered into force. It is aimed at liberalization of commerce between Ukraine and EU, which provides for a successive reduction or elimination of customs duties on import products originating from EU, including equipment for WPPs and spare parts thereto. The Agreements states that elimination or reduction of customs duties by Ukraine generally will occur successively over the transitional period of a maximum of 10 years for certain goods. Unless otherwise provided for in Annex I-A to the Agreement (The Tariff Agenda of Ukraine) upon the expiration of the transitional period the customs duty shall constitute 0%.

The successive reduction of customs duties by Ukraine shall be conducted in accordance with the schedules of reduction of customs duties of Ukraine, developed by the Ministry of economic development and trade of Ukraine (hereinafter – "MEDT"). In particular, the successive reduction of customs duties was calculated according to the following formula^f:
Customs duty for n year = Base rate[#]/previous year[§] rate – (Base rate/(transitional period (in years)+1)).

The schedule of reduction or elimination of customs duties rates for ten randomly chosen positions (components of WPP and equipment for them) are listed in the Table 10.

^f – For most commodity items formula is the general formula used to calculate the import duty rates in 2016
[#] – Only for calculation the import duty rates in 2016
[§] – For calculating the import duty rates following after 2016 years (2017 and further)

Table 10. Schedule of reduction of customs duties rates in Ukraine published by the MEDT

NAME OF THE COMMODITY ITEM (ACCORDING TO THE CUSTOMS TARIFF OF UKRAINE) **	Code of Commodity Nomenclature for Foreign Economic Activities	Base rate of customs duties on imports (%)	Transitional period (years)	CDR ^{ff} in 2016 ^{##}	CDR in 2017	CDR in 2018	CDR in 2019	CDR in 2020	CDR in 2021	CDR in 2022	CDR in 2023	CDR in 2024	CDR in 2025	CDR in 2026
Wind-powered electric generating units	8502 31 00 00	0.5	0	0	0	0	0	0	0	0	0	0	0	0
Stator blades, rotors and rotor blades	8406 90 10 00	2	0	0	0	0	0	0	0	0	0	0	0	0
Tools and equipment for meteorology, hydrology and geophysics (<i>air humidity and temperature sensors, air vanes, etc.</i>)	9015 80 11 00	5	3	3.8	2.5	1.3	0	0	0	0	0	0	0	0
Barometers not connected to other measuring instruments	9025 80 20 90	5	3	3.8	2.5	1.3	0	0	0	0	0	0	0	0
Data loggers with fail-safe system of stand-by power supply	8537 10 99 90	5	3	0 ^{§§}	0	0	0	0	0	0	0	0	0	0
Control system boxes	8538 90 99 00	4	3	3	2	1	0	0	0	0	0	0	0	0
Metal structures made of ferrous metals, (<i>towers and lattice masts; anchor carts, etc.</i>)	7308 20 00 00; 7308 90 98 00	0	0	0	0	0	0	0	0	0	0	0	0	0
AC generators (<i>synchronous generators</i>) with capacity of more than 750 kVA	8501 64 00 00	5	3	0 ^{§§}	0	0	0	0	0	0	0	0	0	0
Liquid-filled transformers with capacity of more than 1600 kVA, but not exceeding 10 000 kVA	8504 22 90 00	10	3	0 ^{§§}	0	0	0	0	0	0	0	0	0	0
Cylindrical roller bearings	8482 50 00 00	10	3	0 ^{§§}	0	0	0	0	0	0	0	0	0	0

** – For your convenience the names of certain commodity items in this table were simplified and do not correspond the exact definitions in the Customs Tariff of Ukraine
^{ff} – Here and hereinafter – “Customs duties rate on imports (%) according with Agreement”
^{##} – Despite the direct action of the Agreement principle and the position of the MEDT officials on absence of necessity to approve the reduction of customs duties rates by

the Ukrainian Parliament, there still remains some legal uncertainty on whether certain amendments should be introduced to the national legislation of Ukraine (in particular, the Customs Tariff of Ukraine) by the Supreme Council of Ukraine
^{§§} – For certain commodity items in terms of which the customs duty had constituted 0% prior to entry into force of the Agreement, such duty will continue to be 0%

PLANNED CHANGES IN UKRAINIAN LEGISLATION IN 2016 REGARDING WIND POWER SPHERE

FACILITATION OF LAND ALLOCATION FOR WPP CONSTRUCTION

In order to create favorable conditions for further development of electricity production from renewable energy sources, Draft Law No. 2529a as of 26 August 2015 “On Amendments to Certain Legislative Acts of Ukraine on Simplification of Land Allocation Procedures for the Construction of Facilities

for the Production of Heat and/or Electricity from Renewable Energy and/or Biofuels” was prepared. (On 2 February 2016 the draft law was approved by the Committee of the Parliament of Ukraine, responsible for agrarian policy and land matters. First hearing of the draft law is expected in the nearest future).

The draft law provides for possibility of location of facilities, producing electric power from renewable energy sources on all categories of land, without changing the designation purpose of the land, and providing up to 1 January 2018 state or municipally owned land plots for utilization by owners of such facilities even in case of absence of a zoning plan or detailed plan of the territory. In addition, owners of WPPs and other alternative power facilities can obtain the right to construct, locate and use such facilities on land of all forms of ownership under a contract with the owner or land user, including through the establishment of easements, leases (subleases), superficies or permanent use of land without chang-

ing its designated purpose. For these purposes, it is planned to amend the Law of Ukraine “On energy lands and the legal regime of special zones of energy facilities” and the Law of Ukraine “On regulation of urban development”.

Changes to the Land Code of Ukraine also provide the possibility of provision of land plots with agricultural purpose for the construction of WPP, and other alternative energy facilities. In doing so, mainly non-agricultural land or agricultural land of poorer quality should be provided for the purposes of construction.

DRAFT LAW “ON THE ELECTRICITY MARKET OF UKRAINE” AND RESPONSIBILITY FOR THE IMBALANCE OF POWER

Provisions of the Draft Law “On the Electricity Market of Ukraine”, prepared by the MEC, suggest introduction of financial responsibility for producers of electricity from renewable sources for imbalance or power. Imbalance of power is a difference between the actual volumes of release and consumption of electric energy by the party, responsible for balance and accepted system transmission operator and daily schedules according to volumes of purchased and sold electricity, calculated in accordance with market rules.

UWEA welcomed the preparation of the draft law aimed at the implementation of Ukraine’s obligations under the Treaty establishing the Energy Community and on the Association Agreement between Ukraine and the European Union, as part of which the provisions of the Third Energy Package are implemented in the Ukrainian legislation. At the same time, UWEA has developed suggestions regarding requirement for the producers of electricity, set to “green” tariff, to reimburse the cost of power imbalances. Taking into account the commitments of Ukraine to the European Community to achieve 11% share of RES in final energy consumption by

2020, and the fact that the provision presented in the MEC draft law violates worldwide adopted principle of proportionality, UWEA offers introduction of the obligation to compensate by electricity producers, constituting part of the balancing group of producers on the “green” tariff, part of the cost of the imbalance of electric power of a guaranteed buyer, after achieving the goals, set by the National Action Plan on renewable energy for the period up to 2020, adopted by the Cabinet Ministers of Ukraine as of 1 October 2014 (*Please see the overview of wind energy market in Ukraine in 2014*). In addition, when determining the share of cost of unbalance control, the only deviation value taken into account is the part of the deviation of the actual volume of electricity output of the respective producers on “green” tariff on their daily schedules of supply of electric energy, which exceeds 20% of the installed capacity of power facility using wind energy.

Thus, the producers of electricity from RES are to follow the further passage of the draft law and the resolution of the issue concerning the introduction of financial responsibility for the imbalance of power.

TECHNICAL IMPROVEMENT OF ELECTRICAL ENERGY ACQUISITION WITH “GREEN” TARIFF

To avoid any doubts in interpretation of the legislation in force regarding acquisition of electric energy produced from alternative sources, a new draft law № 3447 on “green” tariff “On Amending Certain Laws of Ukraine Regarding Improving the Mechanism of Alternative Energy Production Stimulation (*technical*)” was prepared.

This draft law provides clarification of the volume of purchases of electricity produced from business entities on the “green” tariff, in particular by amending Article 15 of the Law of Ukraine “On Electric Power Industry” and in Article 22 of the Law of Ukraine “On the basis of functioning of Electricity Market of Ukraine”. It is assumed that the wholesale market will be obliged to buy the entire volume of electricity, produced in the power generation facilities from alternative energy sources, taking into account allowances for “green” tariff minus the amount of electric energy use for their own needs, according

to records of metering devices; and to provide full payment of its value regardless of installed capacity. Additionally the draft law provides clarification of the wording of Article 17-1 of the Law of Ukraine “On Electric Power Industry” in terms of the mechanism of establishing “green” tariff for private households, namely the provision of “green” tariff for electricity produced by generating installations of private households. Thus, it is proposed to connect establishment of a “green” tariff to the date of filing a registration notification by private households regarding installation of generating facilities.

UWEA proposes to introduce a single “green” tariff for all types of private households generating facilities operating on renewable energy sources. The proposed mechanism will simplify and reduce the cost of accounting process and the sale of electricity to the grid.

REGULATORY CONSIDERATIONS OF BUSINESS RELATIONSHIP IN WIND POWER SPHERE IN ATO ZONE

Law of Ukraine № 284-VIII as of 7 April 2015, introduced changes to the part 4 Article 23 of the Law “On Electric Power Industry” which provides that the Cabinet of Ministers of Ukraine establishes specifics of regulation of legal, economic and organizational relations associated with the production, transmission, distribution, supply, purchase, sale and use of electrical energy in the area where the authorities temporarily do not exercise their powers, or do not exercise them in full. List of settlements on the territory of which the authorities temporarily do not exercise their powers or do not exercise them in full is defined by the Cabinet of Ministers of Ukraine (*CMU Decree № 1085-r dated 7 November 2014*).

Based on part 4 article 23 of the Law of Ukraine “On Electric Power Industry”, the Cabinet of Ministers of Ukraine passed Resolution № 263 as of 7 May 2015 “On specifics of regulation of relations in the field of electric power in the territory, where the public authorities temporarily cannot perform or do not fully perform their powers” (*hereinafter – the “Regulation №263”*), which prohibited SE “Energorynok” to make settlements and buy electricity from producers located in the ATO zone, and sell to ATO zone electricity from the Ukraine's UES. SE “Energorynok” kept the only right to sell the difference in electricity flows in points of accounting, defined by MEC, on the basis of contracts concluded with these power distribution companies, and buy difference in flows based on agreements with Local power producers.

Dispatching management of production, transmission, distribution and supply of electricity in the ATO zone, as well as its transmission backbone and interstate power grids was delegated to a separate division of the SE NEC Ukrenergo – Donbass power system.

Regulation № 263 seriously violates guaranteed by the Ukrainian state companies' rights to receive income from the sale of electricity enshrined in law: Art. 15 and Art. 171 of the Law of Ukraine "On Electric Power Industry" (100% of payment of electricity by "green" tariff can not be less than the fixed minimum amount).

Pursuant to implementation of the Regulation №263, the Order of MEC № 273 as of 8 May 2015 (which cancelled earlier Orders of MEC № 100 as of 18 February 2015 and №88 from 12 February 2015) defined the list of electric energy producers, whose facilities (equipment and/or energy equipment) are

located in the territory, where the public authorities temporarily cannot perform or do not fully perform their powers. The above-mentioned list of local electricity producers, comprises four WPPs, in particular LLC Wind Park Lutuginsky, LLC Wind park Krasnodonsky, LLC Wind park Novoazovskiy and VEO Vetroenergoprom.

It is important to note that this Order was appealed by LLC Wind Park Novoazovskiy and VEO Vetroenergoprom based on the location of the generating equipment of these companies on the territory of the settlement, which is not included in the Cabinet of Ministers Decree № 1085-r. By decision of the District Administrative Court of Kyiv the lawsuit was satisfied and MEC Order № 273 was recognized as illegal and canceled in part of its inclusion to the list facilities of 2 companies, whose generating equipment is in the Donetsk region. (At the time of the Overview the trial is pending.)

CHANGES IN LEGISLATION REGULATING WIND POWER PROJECTS IN THE CRIMEA

With regard to the Crimea, with a few exceptions, the situation in the energy sector in 2015 remained the same. It is worth reminding that after the occupation of Crimea by the Russian Federation Cabinet of Ministers of Ukraine on 7 May 2014 adopted a Resolution №148 "On peculiarities of regulation of relations in the sphere of electric power industry in the temporarily occupied territories of the Autonomous Republic of Crimea and Sevastopol." According to this Resolution, since 1 June 2014 SE Energorynok (i) does not carry out the purchase of electricity from producers located in the Crimea; (ii) does not carry payments with them, including the repayment of debts of previous periods; as well as (iii) does not sell electricity to suppliers of electric energy for its supply to consumers in the Crimea. In turn, only State Foreign Trade Company Ukrinterenergo (hereinafter – "Ukrinterenergo") can purchase on the territory of Ukraine and supply it to the Crimea. Purchase of electricity for Crimea from

Ukrinterenergo is carried by PJSC DTEK Krymenergo, and then is sold to Centre of carrying settlements.

Resolution as of 10 December 2014 №698 amended the above mentioned Resolution of the Cabinet of Ministers №148 as of 7 May 2014, pursuant to which Ukrinterenergo provides a competition for sale of electricity among suppliers with open price offer under auction principles and sells electric energy under condition of full prepayment or provision of a guarantee by the state bank.

It was established that electricity producers, which are placed on the temporarily occupied territory, sell electricity produced by them for the contractual prices of electricity transmission companies, which conduct activities on the temporarily occupied territory, under the terms of bilateral sale-purchase agreements of electric energy.

ELECTRIC ENERGY SUPPLY TO THE CRIMEA

Currently, the electricity delivery is conducted by Ukrinterenergo under the terms of the contract №02-804 / 2014-0003, entered into with the Russian company Inter RAO and the contract №28, entered into with the Russian company Centre of carrying settlements.

Previously, power supply was carried out according to the export-import contract between Ukrinterenergo and branch DTEK Krymenergo, PJSC DTEK Krymenergo, which was nationalized by the decision of the Government Council of the Republic of Crimea as of 21 January 2015.

STATUS OF WIND ENERGY BUSINESS IN THE CRIMEA

Under Russian law, the Ukrainian companies located in the Crimea had to take one of the following decisions before 1 March 2015:

1. incorporate in accordance with Russian legislation and continue operations as Russian legal entity; or
2. Continue operating in the Crimea as a foreign legal entity with respecting legal, regulatory and tax implications.

In turn, it is worth reminding that the National Bank of Ukraine in November 2014 recognized the legal entities located in the Crimea as non-residents for the purposes of monetary and banking legislation of Ukraine. Moreover, the NBU has forbidden residents to invest in Ukraine's Crimean assets, and significantly limited the ability of payments from Ukraine to the Crimea.

FINANCING

In December 2015 the EU extended until 31 July 2016 the sanctions against Russia, which were introduced by Resolution of the European Council № 825/2014 and the Resolution № 1351/2014 in 2014 in connection with the occupation of the Crimea. It is worth reminding that these by sanctions European companies are prohibited from financing the Crimean business (*including through the provision of loans, credits, entering into equity*). A similar ban on the funding of the Crimean business by US compa-

nies introduced by the Order of the President of the United States №13685 dated 19 December 2014 was extended until 6 March 2016.

Financing of the Crimean business by Ukrainian companies is also problematic, as since November 2014 Ukrainian companies are prohibited from investing in the Crimea, and, Ukrainian companies need to obtain individual licenses from NBU to provide loans to companies located in the Crimea.

UWEA



UWEA ACTIVITY

The year 2015 was not an easy one for the Ukrainian wind industry. On the one hand, military operations in the East of Ukraine have caused equipment maintenance problems, as well as problems with electricity delivery for the wind power plants located in the ATO zone. On the other hand, regressive actions by the government aimed at reducing the “green” tariff have forced companies that generate electricity from wind to spend their time participating in court proceedings to defend their rights instead of developing wind projects.

The UWEA was actively involved in the drafting of the legislation in the field of renewable energy defending the European-based wind industry approaches and standards. The UWEA highly appreciates great consulting assistance provided by the World Wind Energy association (WWEA) and the European Wind Energy association (EWEA) (*the UWEA is a member of these both international organisations*) over the year.

It’s worth noting that since 2015 **100 % of the national producers of electricity from wind are members of the UWEA.**

Last year the UWEA experts actively participated in many national and international conferences,

different working groups’ meetings dedicated to the issues related to the further development of the Ukrainian energy sector in general, and RES sector in particular. Members of the UWEA Expert Council were involved in drafting Energy Strategy of Ukraine up to 2020, 2035 and 2050.

UWEA is a member of the Public Council at the National Electricity and Utilities Regulatory Commission, and Public Council at the State Agency for Energy Efficiency and Energy Saving of Ukraine and such working groups (*hereafter – “WG”*) as State Policy for RES Development WG, Climate Policy WG, Energy Diplomacy WG, etc.

UWEA’s experts participated in a number of meetings of the Verkhovna Rada Committee on Fuel and Energy Complex, Nuclear Policy and Nuclear Safety; meetings of National Energy company Ukrenergo and State Enterprise Energorynok (Wholesale electricity market) to discuss energy sector related draft laws and Ukraine’s Unified Energy System Development Plan for 10 years.

As a national expert the UWEA also contributed to the global / regional renewable energy market reviews developed by such international organisations as **REN 21, IRENA, MAKE Consulting.**

PARTICIPATION IN LEGISLATIVE PROCESS

The UWEA members actively participated in drafting RE legislation, including Law of Ukraine “On Introducing Changes to Certain Laws of Ukraine Regarding Competitive Conditions for Production of Electricity from Alternative Energy Sources”. Verkhovna Rada of Ukraine adopted the law on June 2015 (*Please refer to chapter 8 for more details*).

A number of amendments to the draft bill “On Electricity Market of Ukraine” by the Ministry of Energy and Coal Industry of Ukraine, have been developed and proposed by the UWEA Expert Council. In particular, the article 74 of the above mentioned draft provides for the reimbursement of imbalance by producers that generate electricity at electric-

ity generating facilities using the energy of wind and sun light in case of deviation of their ex post amount of produced electricity from its daily production schedule. This approach does not comply with the current regulations concerning the manufacture and sale of electricity produced by the RES generators stipulated by the Law of Ukraine № 514 “On Introducing Changes to Certain Laws of Ukraine Regarding Competitive Conditions for Production of Electricity from Alternative Energy Sources” dated 4 June 2015.

State Agency for Energy Efficiency and Energy Saving of Ukraine officially supports the proposals made by the UWEA.

EWEA LETTER TO THE PRIME MINISTER OF UKRAINE

In his letter Mr. Becker noted “EWEA has been a strong supporter of the Association Agreement concluded by your government and the EU. We consider this landmark deal to be a tremendous opportunity for economic cooperation notably in the energy sector. The development of wind power in particular, will be critical to any credible strategy tackling our common energy security”.

The EWEA welcomed the adoption of a Ukrainian Renewable Energy Action Plan setting an ambitious target for wind energy installation by 2020 stressing that meeting this objective requires a strong regulatory framework underpinned by a reliable support mechanism.

This situation related to non-revision of the “green” tariff by the NEURC to reflect inflation and the EUR/UAH exchange rate “sends a counter-productive signal to the wind energy industry particularly as it is a capital intensive sector”.

In January and February 2015, as part of the emergency measures introduced by the Cabinet of Ministers of Ukraine, the NEURC reduced the “green” tariff rate by 10% and 50% correspondingly (*for solar energy generators by 20% and 55% correspondingly*).

The UWEA initiated several appeals on this issue and meetings with representatives of ministries, deputies of the Verkhovna Rada of Ukraine and European Energy Community Secretariat.

In consequence of the all successful legal claims in the Ukrainian courts by the Ukrainian wind energy producers and public pressure, the NEURC has finally approved a resolution on making additional payments of lost revenue compensation for the period of September 2014 – March 2015 to the green energy producers.

FIRST WIND POWER PLANT IN THE WESTERN PART OF UKRAINE

The first WPP in the West of Ukraine Staryi Sambir -1 was officially commissioned on 19 February 2015.

“For the first time in Ukraine a wind power plant was constructed in the mountainous region”, pointed out Maxim Kozytsky, a director of Eco-Optima LLC and a project owner. The first stage of WPP Staryi Sambir-1 composed of two wind turbines Vestas V-112 (unit capacity – 3,3 MW; hub height -119m, rotor blade length – 56 m). Funding was provided by the EBRD / USELF and Clean Technology Fund.

The cost of the project amounts to EUR 20.5 mln. The wind power plant will deliver about 18,68 mln kWh of environmentally sound electricity, enough to provide one-third of electricity consumption in Staryi Sambir region (for comparison, annual electricity consumption in the region comes to about 50 mln kWh).

“Each kWh of electricity generated from local renewable energy sources brings the Ukraine closer to energy independence, strengthens its energy security and paves the road to peace,” UWEA Chairman Andriy Konechenkov stressed.



UWEA: UKRAINIAN WIND ENERGY STRATEGY

On 6 April STC “PSYCHEA” jointly with the Ukrainian Wind Energy Association conducted an expert-analytical round table “Prospects for the Development of the Electricity Sector in Ukraine: Challenges and

Solutions”. The leading Ukrainian energy experts, representatives of the national wind industry participated in the event.

The Round table was focused on achieving energy independence, power development plan and an important and integral role of the wind industry in the process. The participants also discussed ways of improving the transparency of information on the energy market of Ukraine and issues related to the cost of the added capacities for different technologies as well as efficiency technologies in terms of increasing the power grid capacity.

The UWEA presented its strategy for the development of wind power industry in the country, Wind power industry is able to provide minimum 15% of electricity consumption in Ukraine – such opinion was expressed by Andriy Konechenkov, UWEA Chairman.



INVESTING IN ALTERNATIVE ENERGY AND ENERGY EFFICIENCY

International Conference “Investing in alternative energy and energy efficiency” within the Ukrainian Investment Dialog project organised by a company Business Gathering and supported by Kyiv Regional State Administration and State Agency on Energy Efficiency and Energy Saving of Ukraine, was held in Kiev on 22 May.

The conference focused on proposals concerning the legislative incentives to attract investment into renewable energy sector. Its participants included

members of the parliamentary committees, representatives of Ministry of Energy and Coal Industry of Ukraine, professional associations, businesses, international financial organizations and foreign investors.

The participants also discussed implementation of the National Renewable Energy Action Plan up to 2020, the outcomes and opportunities of EBRD’s Renewable Energies Financing program in Ukraine as well as fundraising suggestions by the international experts.

In his speech Andriy Konechenkov underlined that “only the implementation of effective legislation and a clear signal on the targeted development of renewable energies sent by the government can

improve the investment climate in Ukraine. Today's investments in renewable energy are one of the promising areas in the world”.

UKRAINE AND ENERGY COMMUNITY

In the course of the two-day educational workshop for journalists “Ukraine and Energy Community: Essence and Content of the Reforms” that took place in Kiev on 25-26 May 2015, a number of issues in relation to the establishment of the European market rules in the Ukrainian energy sector and its benefits to the Ukrainian consumers was presented and discussed at length. It was organised by analytical centre DiXi Group, Energy Reforms coalition and Information-analytical resource “Ukrainian energy UA-Energy.org” under support of the EC and Heinrich Böll Foundation.

Representatives of Energy Community Secretariat, Ministry of Energy and Coal Industry of Ukraine, State Agency on Energy Efficiency and Energy Saving, NEURC, members of the EC Support Group for Ukraine, SE NEC Ukrenergo, NJSC Naftogas of Ukraine, NNEGC Energoatom, the Ukrainian Wind Energy association, Ukrainian Bioenergy association and other leading experts in energy and environmental policy. Experts from the UWEA informed journalists on the current status of the global and Ukrainian wind and solar energy markets. Specific steps to attract new investments into the national wind power sector to be taken by the Ukrainian authorities had been discussed.

UWEA – ENERGY COMMUNITY SECRETARIAT MEETING

Meeting between the members of the Ukrainian Wind Energy Association and the European Energy Community secretariat with the participation of the European Wind Energy Association took place in Vienna, Austria, on 3 July 2015.

Participants discussed the regulatory challenges experienced by the Ukrainian wind industry, in particular, lack of indexation of the “green” tariff in the period of August 2014 – February 2015; cuts to

the FiT in February and March 2015 and exclusion from the market of wind assets adjacent to conflict zones. Additional issues related to priority access, VAT recovery and import tariffs were highlighted as part of a generally challenging regulatory environment.

The meeting participants outlined further steps for cooperation aimed at supporting and developing wind energy in Ukraine.

GLOBAL WIND DAY

A range of activities and events were organized to mark Global Wind Day. Round table “Wind Energy – Road to Energy Independence in Time of War” was conducted on 15 June 2015 by the Ukrainian Wind Energy Association in cooperation with the Scientific-Technical Center Psychea (STC “PSYCHEA”). Yaroslav Petrov, Counsel to a law firm Asters, Ivan Lysenko, Head of Department of Perspective Development at Wind Power company, and other UWEA experts participated in the event.

In his opening words Sergiy Sapegin, director of STC “PSYCHEA”, noted that the role of RES had been constantly increasing at national and international levels. For Ukraine with its current military – political instability and total energy dependence on imported energy carriers the renewable energy development is of high importance and urgency.

One more event conducted the same day should be noted – an International scientific and practical conference “Small Wind Energy” organised by the Ukrainian Academy of Sciences and all-Ukrainian scientific and popular magazine “Vynakhidnyk and Ratsionalisator” (*Inventor and Innovator*).

The leading energy scientists and specialists, public organisations involved in development, use and implementation of renewable energy technologies discussed the status of energy sector of Ukraine and the role of RES in the national energy mix. Special attention was paid to the issues related to the development of small wind energy sector, innovations made by the Ukrainian scientists and practical use of the small wind technologies in urban environments.



VISIT TO THE SOLAR AND WIND POWER PLANTS IN ZAPORIZHZYA OBLAST



On 24 June 2015 in the framework of a meeting held by the Ukrainian Energy Assembly (UEA), two Ukrainian companies Tokmak Solar Energy and Wind Power presented their RE projects implemented in Zaporizhzhya region. Members of the Ukrainian Parliament, journalists and energy experts visited solar plant Tokmak Solar Energy and Botiyevskaya wind power plant. Both plants successfully generate green electricity from the local RES, provide social and financial support to the local population and create new jobs.

The wind power plant being composed of 65 wind turbines Vestas V 112 is one of the largest wind farms in the Central and Eastern Europe. Its total installed capacity amounts to 200 MW.

The Botiyevskaya WPP located in the coastal area of the Azov Sea is the first plant to form the Priazovskiy Wind Park. The wind park will include two more wind power plants – Primorskaya (200 MW) and Berdyanskaya (150 MW) WPPs.

“Such visits to the operating renewable energy facilities are urgent and important, especially for policy decision-makers. It’s very useful for them primarily to see the green electricity generating facilities, to see how the technology “works”. It’s not possible to reach energy independence and energy security without renewable energies nowadays”, concluded Andriy Konechenkov, Chairman of the UWEA, in his presentation devoted to the wind development in Ukraine.

STATE AGENCY ON ENERGY EFFICIENCY AND ENERGY SAVING OF UKRAINE TO HAVE INDEPENDENT STATUS



The UWEA jointly with other professional association and public organisations officially addressed the President of Ukraine and Prime–Minister of Ukraine with request to strengthen the status of the State Agency on Energy Efficiency and Energy Saving of Ukraine and to subordinate it directly to the Cabinet of Ministers of Ukraine (*currently the agency is subordinated to the Ministry of Regional Development, Building and Housing and Communal Services of Ukraine*).

The public organisations consider the independent status of the Agency will correspond to the European practice and ensure efficient coordination of energy saving and RES policies.

PARTICIPATION OF THE UWEA IN INTERNATIONAL CONFERENCES AND FAIRS



The First Intercontinental wind power congress IWPC run from 31 March to 2 April. The congress hosted wind energy representatives from 20 different countries in four continents in the WOW Istanbul Convention Centre.

During his speech, Markus Tacke, president of the European Wind Energy Association, said that Istanbul is pivotal to connecting many countries together and can be considered as an energy centre for renewable energy developments connecting Northern Africa and the Middle East.

Summarizing the results of the First Intercontinental Wind Power Congress Andriy Konechenkov, UWEA’s Chairman, noted that “Turkey is a country with a local content bonus scheme being implemented. Currently, eleven leading wind manufacturers are operating in the Turkish market. By using the Turkish experience we will not only increase the capacity of the national wind energy sector, but also attract significant investment in machine-building complex of Ukraine. Moreover, it will create many new jobs.”



Hon. Peter Elliot Rae, a Former Australian Senator who represented the Liberal Party for the state of Tasmania, Honorary Chairman of the International Renewable Energy Alliance (*REN Alliance*) was elected as a President of the World Wind Energy Association succeeding Prof. He Dexin from China. The election took place at WWEA Board Meeting hold on 25 October on the occasion of the WWEC 2015, just before the WWEA General Assembly.

The World Wind Energy Conference 2015 focused on wind power innovation for a 100 % renewable energy supply, in harmony with the environment and society. More than 340 delegates from 30 countries participated in the event.



For the first time the Ukrainian representative – Mr. Andriy Konechenkov, the UWEA’s Chairman – was elected as a vice-president of the WWEA. Mr. Konechenkov has been actively involved in the WWEA activity since 2003; he has chaired the Wind CIS Committee at the WWEA since 2013.



Despite the difficult situation after the terrorist attacks that took place in Paris on the night of 13-14 November, the annual EWEA conference EWEA ANNUAL EVENT 2015 was as always, successful, demonstrating the role of wind energy technologies in tackling the climate change problems and in ensuring global security and reliability in energy supply. Ukrainian Wind Energy Association took an active part in the event. In total, during 4 days, November 17-20, more than 6500 persons attended the EWEA 2015.



In her opening remarks French minister for Ecology, Sustainable Development and Energy, Segolene Royal stressed that “wind energy is part of the solution to ensure our global security”. The EC Vice-President for Energy Union Maroš Šefčovič said “On-shore wind energies are actually the cheapest, competing even with coal. That makes wind energy not only clean but also highly competitive if the framework is right!”.

PARTICIPATION OF THE UWEA IN THE NATIONAL PROFESSIONAL EVENTS

The UWEA's experts participated in different national conferences, seminars, fairs, Round tables as an information partner and/ or as a speaker. Among the main events with the UWEA's participation we'd like to mention the following ones:

- International Conference "Ukraine is an Independent State" (Organizers: Ukrainian Chamber of Commerce and Industry, Public Council at the Ministry of Foreign Affairs of Ukraine, UWEA and others. 26 February, Kyiv.)
- Experts Discussion "New Energy Strategy of Ukraine up to 2020: Security, Energy Efficiency and Competition" (Organisers: Razumkov Centre under support of Verkhovna Rada Committee on Fuel and Energy Complex, Nuclear Policy and Nuclear Safety. 27 February, Kyiv.)
- Round Table "Ukraine's Unified Energy System Development Plan for 10 Years Perspective" (Organisers: Ministry of Energy and Coal Industry of Ukraine, Ukrainian Nuclear Forum association. 14 April, Kyiv)
- Scientific and Practical Conference "Energy Efficiency 2015" (Organisers: Ukrainian Energy Engineering Association, Pinsitute for Industrial Ecology and others. 23-25 September, Odesa)
- Public hearings on Road Map for Renewable Energies development (Organisers: United Nations Development Programme UN/GEF. 29 September, Kyiv)
- 7th International Sustainable Energy Forum and Exhibition in Ukraine SEF 2015 (Organisers: Innovative Business Centre. 15 October, Kyiv)
- 6th European Energy Day (Organisers: EUEA. 5 November, Kyiv)
- VII International Investment Business Forum on Energy Efficiency and Renewable Energy (Organisers: State Agency on Energy Efficiency and Energy Saving. 10-13 November, Kyiv)
- The fourth electrical industry conference "Systems of guaranteed power supply and automation" (Organisers: Networks and Business, 26 November, Kyiv)
- Scientific and Practical Conference "State Energy Policy in the Framework of Accession of Ukraine to the Energy Community Treaty" (Organisers: State Institute of Strategic Studies. December 2, Kyiv)

Several articles and interviews by the UWEA's expert were published in different periodic media including such newspapers and magazines as: Business, 2000, Energy Business, Capital, Networks and Business, Terminal, Oil Products and others.

Some articles were published by the following Internet Resources:

<http://elektrovesti.net>,
<http://www.ua-energy.org>,
<http://renewable.com.ua>,
<http://oil-gas-energy.com.ua>,
<http://energefficiency.in.ua>,
<http://energynews.com.ua>.

Members of the UWEA Expert Council took part in the press-conferences held by such news agencies as: Interfax, Ukrainian News, Obozrevatel (Observer), Ukrinform and gave TV interviews on the following channels: The First National, RBK, The First Business, Channel 5, ICTV Channel 112, etc.

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THE 15th World Wind Energy Conference and Exhibition WWEC2016 TOKYO

“Concentrating efforts for wind power growth in Japan and worldwide!”

The University of Tokyo, Japan

31 October - 1 November 2016 / Technical tour on 2 November 2016

The main theme of WWEC2016 is **Concentrating efforts for wind power growth in Japan and worldwide!** WWEC2016 will focus on wind power technology and approaches of how to further increase the global wind power capacity of 435 GW in the world based on engineering as well as social science. Various studies have shown that Japan is blessed with an abundance of wind such as onshore and offshore wind to rebuild and strengthen the country from the damage of the great earthquake in 2011. WWEA and the WWEC2016 Tokyo Organizing Committee invite the wind power community around the world to join us to make the benefits of wind power available for all human beings. The official conference languages will be English and Japanese.

<http://wwec2016tokyo.com/>

