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**PROSPECTS OF WORLD SCIENCE -
2019**

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ORGANIZATION OF "GREEN" POWER-STATION

Sunny energy is an accessible alternative, that can replace traditional energy sources that contaminate air and water successfully. An interesting fact is that almost twenty sunny days equal all supplies of oil, coal and other fuel. Main pluses of sunny energy are in that she is accessible, clean and inexhaustible. The use of sunny energy is unbelievable scalene. From simple calculators to the cars, waterheaters, fountains, building, and also power-stations and companions. Energy from a sunny battery can be used for the production of electricity, heating of objects of any area, organization of the systems of aeration or heating of water. A Business-idea on the production of sunny panels and realization of sunny energy will bring income quickly.

Today in Ukraine the greatest price on a green tariff in the world, that exceeds electricity charges in several times and presents are 0,18 euros.

Period of action	Cost in an euro after 1 kW
July 2015 – December 2015	0,2
January 2016 – December 2016	0,19
January 2017 – December 2019	0,18
January 2020 – December 2024	0,16
January 2025 – December 2030	0,14

For 2012 the 3,4 million square meters of sunny panels were set in the entire countries of Європейського Union. It allowed to soup up sunny energy in ЄC to the

record 29,6 ГВт. A market leader is remained by Germany, on the second city on the volume of market is Austria, on the third is Greece.

Ukraine almost in 3 times increased the rates of setting of alternative energy sources. The general set power of RAE (renewal alternative energy) attained 2117 MwT. 96% of all entered RAE are wind and sunny power-stations. In Ukraine the third began to work after power In Європі the sunny station of "Солар-Фарм-1". SES consists of 750 thousand sunny panels general power 200 MwT. SES will produce about 280 million кВт-ч. It sufficiently, if to provide electric power two middle Ukrainian cities, such as Nikopol and Marganets.

For establishment of sunny to mine-power-station it is necessary to work out a project, buy and set an equipment, process document, set a meter, conclude the act of technical verification of SES and sign an agreement on the sale of electric power. Green tariff for sunny to power-station of placed on a roof anymore than tariff for industrial sunny power-stations. If to set the station by an area 130 square meters (86 panels are for 1,5 кв.м) and by power 23 kW, then in a month it is possible to earn about 12 000 hryvnyas. Obtained by an ecological way energy can монетизувати, selling to the state on a "green" tariff. For today the station can bring an about 12 000 UAH./of miss, and in the summer months of spades can bring a to 20 000 UAH./of month.

How to expect profitability of SES ?

	Month	1	2	3	4	5	6	7	8	9	10	11	12	За рік
1	Consumption, kW*h	250	250	250	250	250	250	250	250	250	250	250	250	3000
2	Electric energy is produced SES	305	495	1020	1240	1450	1410	1400	1310	990	730	300	250	10900
3	"Surpluses are on a sale"	55	245	770	990	1200	1160	1150	1060	740	480	50	0	7900
4	A receipt is on an account with deduction of taxes and collections, UAH. (A green tariff is a 5.54 UAH after 1 kW*h)	247	1099	3455	4443	5385	5205	5161	4757	3321	2154	224	0	35450

5	An acuests is from generation for own necessities, UAH. (tariff 1, 68 UAH after 1 kW*h	420	420	420	420	420	420	420	420	420	420	420	420	5040
	Result, UAH	667	1519	3875	4863	5805	5625	5581	5177	3741	2574	644	420	40490
	Cost of SES 10 kW, UAH													231000
	Term of return of investments, year													5,7

**(to the table the example of calculations is driven for private SES, that located in middle breadths)*

1. In the first line the consumption of electric energy is indicated on the months of year on own necessities. For example, it charging of електромобіля, robot of computers, television, warmed water in a pool etc.

2. In the second line the indicated amount of energy, that does sunny power-station. In a table evidently, that in November, December and January to sunny energy acts on earth least. Most values are on April-August. In the first line the consumption of electric energy is indicated on the months of year on own necessities. For example, it charging of електромобіля, robot of computers, television, warmed water in a pool etc.

3. In the third line the calculated surpluses are on a sale. In November, December and January they will not be and be to defray costs, id est to pay for a self-consumption from a general network, as pay all - for 1,68 UAH after 1 kW*h.

4. In fourth is an amount of moneys that act on your account for surpluses of energy. On the "Green tariff" money act a to 15 number each month for previous. Today it is 5.54 UAH after 1 kW*h. Thus, it does not cost to forget that we economized, did not pay for electric power for own necessities.

5. In a fifth column writenin acuestss are on a self-consumption calculating on today 1,68 UAH after 1 kW*h.

6. In the last column summed up counts. If to correlate all tables, then recoupment of own sunny power-station takes place for period 5-8.

Main advantages of sunny power-station are inexhaustibility, independence, receipt of acuests and longevity. Private SES can be different power, but not to exceed

30 kW. The cost of SES depends on her power. Then greater power, the the station costs more expensive. To watch work to power-station maybe in the mode on-line. Statistics of making of energy is accessible for a revision. Sunny panels work due to converting of sunbeams into electric power. Sunny batteries produce a direct current. Inventor changes him on variable. Accumulators accumulate untapped energy and give it if necessary. When a sun sets and the charge of accumulators is outspent - AVR commutes the feed of house on the electric system and charging of accumulators.

Summarizing it is possible to say, that sunny energy can considerably decrease accounts for electricity and energy of a sun are fully a free source. Sunny energy collects in Ukraine of all greater popularity. All in Ukraine for today the sunny batteries connected to the general electric system are owned by 2323 families. General power of private SES presents 37 MwT, and a volume of the investments attracted by them is an about 35 million euro.

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