

## **Information about the needs for diesel generators in the agro-industrial complex of Ukraine**

As a result of the attacks of the Russian Federation on the energy infrastructure of Ukraine and taking into consideration the risks of such attacks in future, there is a need to provide backup power supply systems, in particular diesel generators.

Even in normal, peace conditions, the consistency of the technological processes is critical for functioning and manufacturing of agricultural production. Operation of elevators, irrigation systems, cooling for storage of finished products, technological lines for livestock breeding, processing of products - each branch of agriculture depends on a reliable source of electricity.

**In total, the need for diesel generators** in the agricultural sector of Ukraine is **1,133 units** for the cost of **USD 51 million (2 143 million UAH)**<sup>1</sup>, with the details stipulated below.

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<sup>1</sup>The exchange rate is 1 USD = 42 UAH

The total demand for diesel generators in **the livestock sector** is **493 units** for the total cost of **USD 16,12 million**, including:

- in cattle breeding - 163 units for the total cost of USD 2,79 million;
- in pig breeding - 53 units for the total cost of USD 1,42 million;
- in poultry farming - 277 units for the total cost of USD 11,91 million.

It is necessary to provide medium and small livestock farms with diesel generators in order to ensure their uninterrupted and productive operation (in cattle breeding: milking rooms, maternity sections; in pig breeding: functioning of premises for keeping sows with suckling piglets; in poultry breeding: functioning of premises for keeping poultry of meat or egg breeds, as well as incubators).

The lack of electricity at the farms will result in the ventilation system failure, death of newborn livestock, impossibility of prompt maintenance of milking rooms what in its turn can result in such disease as dairy cow mastitis.

No	Capacity kW	Price for 1 pc. (VAT included) in USD	Animal breeding fields										Total, pcs	Total cost USD (UAH)
			Cattle breeding pcs	Cost, UAH	Cost, USD	Pig breeding pcs	Cost, UAH	Cost, USD	Poultry farming pcs	Cost, UAH	Cost, USD			
1	9 kW	3 001		0	0		0	0	3	378 108	9 003	3	9 003 (378 108)	
2	10 kW	3 143		0	0	1	132 000	3 143		0	0	1	3 143 (132 000)	
3	12 kW	2 858		0	0		0	0	3	360 105	8 574	3	8 574 (360 105)	
4	15 kW	5 714	1	240 000	5 714	1	240 000	5 714		0	0	2	11 429 (480 000)	
5	20 kW	7 664	1	321 900	7 664	0	0	0	1	321 900	7 664	2	15 329 (643 800)	
6	25 kW	8 333		0	0		0	0		0	0	0	0	
7	40 kW	7 236		0	0	1	303 900	7 236	3	911 700	21 707	4	28 943 (1 215 600)	
8	50 kW	9 779	20	8 214 000	195 571	6	2 464 200	58 671	3	1 232 100	29 336	29	283 579 (11 910 300)	
9	55 kW	13 571		0	0		0	0		0	0	0	0	
10	60 kW	13 479		0	0	2	1 132 200	26 957	12	6 793 200	161 743	14	188 700 (7 925 400)	
11	65 kW	13 571		0	0		0	0		0	0	0	0	

12	70 kW	11 905	50	25 000 000	595 238	1	500 000	11 905		0	0	<b>51</b>	<b>607 143 (25 500 000)</b>
13	75 kW	15 238		0	0	2	1 280 000	30 476		0	0	<b>2</b>	<b>30 476 (1 280 000)</b>
14	80 kW	15 952		0	0	3	2 010 000	47 857		0	0	<b>3</b>	<b>47 857 (2 010 000)</b>
15	90 kW	16 386		0	0	1	688 200	16 386		0	0	<b>1</b>	<b>16 386 (688 200)</b>
16	100 kW	20 732	51	44 407 128	1 057 313	2	1 741 456	41 463	51	44 407 128	1 057 313	<b>104</b>	<b>2 156 088 (90 555712)</b>
17	120 kW	19 867		0	0	4	3 337 728	79 470	6	5 006 592	119 205	<b>10</b>	<b>198 674 (8 344 320)</b>
18	120-140 kW	19 867		0	0	1	834 432	19 867		0	0	<b>1</b>	<b>19 867 (834 432)</b>
19	150 kW	20 086	30	25 308 000	602 571	2	1 687 200	40 171		0	0	<b>32</b>	<b>642 743 (26 995 200)</b>
20	160 kW	35 463		0	0	3	4 468 365	106 390	18	26 810 190	638 338	<b>21</b>	<b>744 728 (31 278 555)</b>
21	180 kW	32 857		0	0		0	0		0	0	<b>0</b>	<b>0</b>
22	200 kW	32 143	10	13 500 000	321 429	9	12 150 000	289 286	33	44 550 000	1 060 714	<b>52</b>	<b>1 671 429 (70200 000)</b>
23	220 kW	32 629		0	0	5	6 852 110	163 145	6	8 222 532	195 775	<b>11</b>	<b>358 920 (15 074 642)</b>
24	250 kW	28 571		0	0		0	0		0	0	<b>0</b>	<b>0</b>
25	280 kW	27 393		0	0	1	1 150 500	27 393	15	17 257 500	410 893	<b>16</b>	<b>438 286 (18 408 000)</b>
26	300 kW	37 500		0	0		0	0	15	23 624 865	562 497	<b>15</b>	<b>562 497 (23 624 865)</b>
27	325 kW	44 945		0	0	1	1 887 708	44 945		0	0	<b>1</b>	<b>44 945 (1 887 708)</b>
28	327 kW	44 945		0	0		0	0	6	11 326 248	269 673	<b>6</b>	<b>269 673 (11 326 248)</b>
29	340 kW	40 503		0	0	1	1 701 130	40 503		0	0	<b>1</b>	<b>40 503 (1 701 130)</b>
30	350 kW	40 503		0	0	3	5 103 390	121 509		0	0	<b>3</b>	<b>121 509 (5 103 390)</b>
31	360 kW	43 033		0	0		0	0	18	32 532 840	774 591	<b>18</b>	<b>774 591 (32 532 840)</b>
32	400 kW	47 814		0	0	1	2 008 200	47 814	33	66 270 600	1 577 871	<b>34</b>	<b>1 625 686 (68278800)</b>

33	420 kW	42 857		0	0		0	0	3	5 400 000	128 571	3	128 571 (5 400 000)
34	450 kW	59 524		0	0		0	0		0	0	0	0
35	480 kW	62 159		0	0		0	0	3	7 831 980	186 476	3	186 476 (7 831 980)
36	500 kW	83 333		0	0	1	3 500 000	83 333	9	31 500 000	750 000	10	833 333 (35 000 000)
37	600 kW	100 000		0	0		0	0	24	100 800 000	2 400 000	24	2 400 000(100800000)
38	630 kW	109 524		0	0		0	0	3	13 800 000	328 571	3	328 571 (13 800 000)
39	650 kW	111 905		0	0	1	4 700 000	111 905		0	0	1	111 905 (4 700 000)
40	700 kW	123 810		0	0		0	0	3	15 600 000	371 429	3	371 429 (15 600 000)
41	1000 kW	140 207		0	0		0	0	6	35 332 230	841 244	6	841 244 (35 332 230)
42	1500 kW	180 355		0	0		0	0		0	0	0	0
43	1600 kW	193 544		0	0		0	0		0	0	0	0
<b>44</b>	<b>Total:</b>		<b>163</b>	<b>116 991 028</b>	<b>2 785 501</b>	<b>53</b>	<b>59 872 719</b>	<b>1 425 541</b>	<b>277</b>	<b>500 269 818</b>	<b>11 911 186</b>	<b>493</b>	<b>16 122 22 (677 133 565)</b>

*Reference: Dependence of diesel generator power on the number of cows kept at the farm:*

*\*up to 200 cows - 50 kW;*

*\*200-500 cows - 70kW*

*\*500-800 cows - 100kW*

*\*800-1500 cows - 150kW*

*\*1500-2500 cows - 200kW*

*\*more than 2500 cows - 500-1000kW*



16	100 kW	20 732	0	0	1	20 732	4	82 926	0	0	5	103 658	4	82 926
17	120 kW	19 867	0	0	0	0	2	39 735	0	0	0	0	0	0
18	120-140 kW	19 867	1	19 867	0	0	0	0	0	0	0	0	0	0
19	150 kW	20 086	1	20 086	0	0	3	60 257	0	0	0	0	3	60 257
20	160 kW	35 463	0	0	0	0	0	0	0	0	0	0	1	35 463
21	180 kW	32 857	0	0	0	0	0	0	0	0	0	0	1	32 857
22	200 kW	32 143	4	128 571	1	32 143	5	160 714	3	96 429	0	0	12	385 714
23	220 kW	32 629	0	0	0	0	0	0	0	0	0	0	0	0
24	250 kW	28 571	6	171 429	0	0	3	85 714	0	0	0	0	0	0
25	280 kW	27 393	0	0	0	0	0	0	0	0	0	0	0	0
26	300 kW	37 500	3	112 499	0	0	1	37 500	2	75 000	0	0	1	37 500
27	325 kW	44 945	1	44 945	0	0	0	0	0	0	0	0	0	0
28	327 kW	44 945	0	0	0	0	0	0	0	0	0	0	0	0
29	340 kW	40 503	0	0	0	0	0	0	0	0	0	0	0	0
30	350 kW	40 503	0	0	1	40 503	0	0	0	0	0	0	0	0
31	360 kW	43 033	0	0	0	0	0	0	0	0	0	0	0	0
32	400 kW	47 814	9	430 329	0	0	4	191 257	1	47 814	0	0	2	95 629
33	420 kW	42 857	0	0	0	0	0	0	0	0	0	0	0	0
34	450 kW	59 524	5	297 619	0	0	1	59 524	0	0	0	0	6	357 143
35	480 kW	62 159	0	0	0	0	0	0	0	0	0	0	0	0
36	500 kW	83 333	9	750 000	2	166 667	6	500 000	0	0	0	0	12	1 000 000
37	600 kW	100 000	4	400 000	0	0	1	100 000	0	0	1	100 000	10	1 000 000
38	630 kW	109 524	0	0	0	0	0	0	0	0	0	0	0	0
39	650 kW	111 905	0	0	0	0	0	0	0	0	0	0	0	0
40	700 kW	123 810	0	0	0	0	4	495 238	1	123 810	0	0	0	0
41	1000 kW	140 207	23	3 224 767	5	701 036	0	0	19	2 663 938	0	0	13	1 822 694
42	1500 kW	180 355	0	0	0	0	0	0	0	0	0	0	0	0
43	1600 kW	193 544	1	193 544	0	0	0	0	0	0	0	0	0	0
<b>44</b>	<b>Total:</b>		<b>72</b>	<b>5 853 440</b>	<b>12</b>	<b>972 509</b>	<b>53</b>	<b>1 987 383</b>	<b>28</b>	<b>3 021 461</b>	<b>6</b>	<b>203 658</b>	<b>83</b>	<b>5 084 003</b>

For the smooth operation of **elevators 272 units** are needed for the cost of **USD 16,83 million**.

The lack of electricity supply will lead to a complete shutdown of technological processes for grain processing and storage, which in turn will lead to its unsuitability for further use, including for feed purposes. Agricultural producers and elevators will suffer significant material and financial losses.

<b>Elevators</b>					
<b>No</b>	<b>Capacity kW</b>	<b>Price for 1 pc. (VAT included) in USD</b>	<b>Quantity, pcs</b>	<b>Cost, UAH</b>	<b>Cost, USD</b>
1	9 kW	3 001	0	0	0
2	10 kW	3 143	1	132 000	3 143
3	12 kW	2 858	0	0	0
4	15 kW	5 714	0	0	0
5	20 kW	7 664	5	1 609 500	38 321
6	25 kW	8 333	3	1 050 000	25 000
7	40 kW	7 236	0	0	0
8	50 kW	9 779	3	1 232 100	29 336
9	55 kW	13 571	0	0	0
10	60 kW	13 479	7	3 962 700	94 350
11	65 kW	13 571	12	6 840 000	162 857
12	70 kW	11 905	0	0	0
13	75 kW	15 238	0	0	0
14	80 kW	15 952	2	1 340 000	31 905
15	90 kW	16 386	0	0	0
16	100 kW	20 732	22	19 156 016	456 096
17	120 kW	19 867	0	0	0
18	120-140 kW	19 867	0	0	0
19	150 kW	20 086	3	2 530 800	60 257
20	160 kW	35 463	0	0	0
21	180 kW	32 857	1	1 380 000	32 857

22	200 kW	32 143	30	40 500 000	964 286
23	220 kW	32 629	1	1 370 422	32 629
24	250 kW	28 571	30	36 000 000	857 143
25	280 kW	27 393	0	0	0
26	300 kW	37 500	16	25 199 856	599 997
27	325 kW	44 945	0	0	0
28	327 kW	44 945	0	0	0
29	340 kW	40 503	0	0	0
30	350 kW	40 503	16	27 218 080	648 050
31	360 kW	43 033	0	0	0
32	400 kW	47 814	13	26 106 600	621 586
33	420 kW	42 857	0	0	0
34	450 kW	59 524	11	27 500 000	654 762
35	480 kW	62 159	0	0	0
36	500 kW	83 333	27	94 500 000	2 250 000
37	600 kW	100 000	19	79 800 000	1 900 000
38	630 kW	109 524	0	0	0
39	650 kW	111 905	0	0	0
40	700 kW	123 810	20	104 000 000	2 476 190
41	1000 kW	140 207	15	88 330 575	2 103 109
42	1500 kW	180 355	9	68 174 064	1 623 192
43	1600 kW	193 544	6	48 772 998	1 161 262
<b>44</b>	<b>Total:</b>		<b>272</b>	<b>706 705 711</b>	<b>16 826 326</b>



**In the field of fish farming and aquaculture 65 units** are needed for the cost of **USD 0,56 million**.

The lack of stable power supply to the production facilities of aquaculture facilities will result in inevitable negative consequences during critical periods such as autumn catch, winter maintenance and spawning campaign.

Autumn catch and boning is accompanied by the need for aeration of water and loading operations during the transfer of fish for winter maintenance, what is mainly carried out with the help of electric elevators.

Winter maintenance requires constant monitoring of the gas mode and its regulation by installing aerators, which are mostly powered from electric circuit.

The most sensitive to power outages is the spawning period, which almost always requires the use of pumps, aerators, water temperature control, etc.

The deenergizing to the incubation facility will result after few hours in the loss of all fish planting material and roe that stay in the facility.

Thus, the lack of a stable power supply at the fish farms can result in catastrophic consequences with the possible loss of fish planting material, commercial fish and brood stock. However, the availability of backup power supply (generators) will provide possibility to prevent such losses.

<b>Fish farming and aquaculture</b>					
<b>No</b>	<b>Capacity kW</b>	<b>Price for 1 pc. (VAT included) in USD</b>	<b>Quantity, pcs</b>	<b>Cost, UAH</b>	<b>Cost, USD</b>
1	9 kW	3 001	0	0	0
2	10 kW	3 143	0	0	0
3	12 kW	2 858	2	240 070	5 716
4	15 kW	5 714	0	0	0
5	20 kW	7 664	32	10 300 800	245 257
6	25 kW	8 333	0	0	0
7	40 kW	7 236	4	1 215 600	28 943
8	50 kW	9 779	24	9 856 800	234 686
9	55 kW	13 571	0	0	0
10	60 kW	13 479	1	566 100	13 479
11	65 kW	13 571	0	0	0
12	70 kW	11 905	1	500 000	11 905
13	75 kW	15 238	0	0	0
14	80 kW	15 952	0	0	0

15	90 kW	16 386	0	0	0
16	100 kW	20 732	0	0	0
17	120 kW	19 867	1	834 432	19 867
18	120-140 kW	19 867	0	0	0
19	150 kW	20 086	0	0	0
20	160 kW	35 463	0	0	0
21	180 kW	32 857	0	0	0
22	200 kW	32 143	0	0	0
23	220 kW	32 629	0	0	0
24	250 kW	28 571	0	0	0
25	280 kW	27 393	0	0	0
26	300 kW	37 500	0	0	0
27	325 kW	44 945	0	0	0
28	327 kW	44 945	0	0	0
29	340 kW	40 503	0	0	0
30	350 kW	40 503	0	0	0
31	360 kW	43 033	0	0	0
32	400 kW	47 814	0	0	0
33	420 kW	42 857	0	0	0
34	450 kW	59 524	0	0	0
35	480 kW	62 159	0	0	0
36	500 kW	83 333	0	0	0
37	600 kW	100 000	0	0	0
38	630 kW	109 524	0	0	0
39	650 kW	111 905	0	0	0
40	700 kW	123 810	0	0	0
41	1000 kW	140 207	0	0	0
42	1500 kW	180 355	0	0	0
43	1600 kW	193 544	0	0	0
<b>44</b>	<b>Total:</b>		<b>65</b>	<b>23 513 802</b>	<b>559 852</b>

To ensure the functioning of the central office of the **Ministry of Agrarian Policy and Food of Ukraine** 2 units are required the cost of **USD 0,16 million**.

The absence of stable power supply will result in malfunction and possible complete shutdown of the equipment in the building of the Ministry as well as the servers' failure that ensure the safety of information and the electronic document flow.

<b>Ministry of Agrarian Policy and Food of Ukraine</b>					
<b>No</b>	<b>Capacity kW</b>	<b>Price for 1 pc. (VAT included) in USD</b>	<b>Quantity, pcs</b>	<b>Cost, UAH</b>	<b>Cost, USD</b>
1	9 kW	3 001	0	0	0
2	10 kW	3 143	0	0	0
3	12 kW	2 858	0	0	0
4	15 kW	5 714	0	0	0
5	20 kW	7 664	0	0	0
6	25 kW	8 333	0	0	0
7	40 kW	7 236	0	0	0
8	50 kW	9 779	0	0	0
9	55 kW	13 571	0	0	0
10	60 kW	13 479	0	0	0
11	65 kW	13 571	0	0	0
12	70 kW	11 905	0	0	0
13	75 kW	15 238	0	0	0
14	80 kW	15 952	0	0	0
15	90 kW	16 386	0	0	0
16	100 kW	20 732	0	0	0
17	120 kW	19 867	0	0	0
18	120-140 kW	19 867	0	0	0
19	150 kW	20 086	0	0	0
20	160 kW	35 463	0	0	0
21	180 kW	32 857	0	0	0
22	200 kW	32 143	1	1 350 000	32 143

23	220 kW	32 629	0	0	0
24	250 kW	28 571	0	0	0
25	280 kW	27 393	0	0	0
26	300 kW	37 500	0	0	0
27	325 kW	44 945	0	0	0
28	327 kW	44 945	0	0	0
29	340 kW	40 503	0	0	0
30	350 kW	40 503	0	0	0
31	360 kW	43 033	0	0	0
32	400 kW	47 814	0	0	0
33	420 kW	42 857	0	0	0
34	450 kW	59 524	0	0	0
35	480 kW	62 159	0	0	0
36	500 kW	83 333	0	0	0
37	600 kW	100 000	0	0	0
38	630 kW	109 524	0	0	0
39	650 kW	111 905	0	0	0
40	700 kW	123 810	1	5 200 000	123 810
41	1000 kW	140 207	0	0	0
42	1500 kW	180 355	0	0	0
43	1600 kW	193 544	0	0	0
<b>44</b>	<b>Total:</b>		<b>2</b>	<b>6 550 000</b>	<b>155 952</b>

To ensure the trouble-free operation of **the Ukrainian Institute for Plant Variety Examination** **26 units** are required for the cost of **USD 82,2 thousand**.

The lack of stable power supply will stop the examination of new plant varieties and result in the impossibility of their official registration and issuance of patents. Agrarians will not receive new, high-productivity plant varieties, and the Institute will not have no possibility to accumulate database of the varieties on its servers, to perform qualification examination, in particular the transfer of data from research sites, their processing and preparation of expert statements, as well as to form of the State Register of Plant Varieties, which are suitable for distribution in Ukraine, the Register of Patents for Plant Varieties, the Register of Applications. Additionally, the stand-by power generators are needed to conduct a set of laboratory tests of qualification examination and storage of official samples in the long-term storage at below-zero temperatures.

To ensure the trouble-free operation of **the State Enterprise "State Center for Certification and Expertise of Agricultural Products"** **6 units** are needed for the cost of **USD 36,9 thousand**.

The lack of stable electricity supply will lead to the termination of certification of agricultural seeds and planting material. It will also stop the supply of seeds to farmers inside the country, import and export of seeds, and possible disruption of sowing.

To ensure the trouble-free operation of **the State Institution "Soil Protection Institute of Ukraine"** **8 units** are required for the cost of **USD 63,4 thousand**.

The failure of power supply will stop the process of soil monitoring on agricultural land for the quality of soil and its erosion safety, its contamination with heavy metals, radionuclides, residual amounts of pesticides and agrochemicals, other toxic substances of man-made and natural origin. There will be the discontinuation of process of agrochemical certification to determine the indicators of soil fertility and the level of their contamination with toxic substances, as well as monitoring of changes in these indicators as a result of economic activity. The process of determining the residual amount of pesticides, agrochemicals, heavy metals and radionuclides in products and raw materials, surface waters intended for agricultural use, as well as the process of determining the quality composition of mineral fertilizers is of paramount importance to provide stable yields by agricultural producers and ensure food security of the state under the condition of military aggression from the side of the Russian Federation.

To ensure the trouble-free operation of **the Ukrainian Research Institute of Spirits and Food Biotechnology** **1 unit** is required for the cost of **USD 7,2 thousand**.

The lack of stable power supply will make it impossible to perform the main functions of the Institute.

There are **6 units of generators** for the cost of **USD 68,8 thousand** are needed to ensure the trouble-free operation of **the Ukrainian Research Institute of Forecasting and Testing of Equipment and Technologies for Agricultural Production named after Leonid Pogorilyi**.

The lack of trouble-free electricity supply will make it impossible to perform the main functions of the institution, in particular it will suspend scientific and technical research, testing, analysis, evaluation and approval of machines (tractors, agricultural machinery for crop production, livestock, poultry and feed production, as well as means of mechanization, automation, engineering support for the agricultural sector) and technologies for agricultural production and training.

			Ukrainian Institute for Plant Variety Examination		SE Certification center		Soil Protection Institute of Ukraine		Research Institute of Spirits and Food Biotechnology		Research Institute named after L. Pogoriliy	
No	Capacity kW	Price for 1 pc. (VAT included) in USD	Quantity, pcs	Cost, USD (UAH)	Quantity, pcs	Cost, USD (UAH)	Quantity, pcs	Cost, USD (UAH)	Quantity, pcs	Cost, USD (UAH)	Quantity, pcs	Cost, USD (UAH)
1	9 kW	3 001	25	75 021 (3 150 900)		0,00		0,00		0,00		0,00
2	10 kW	3 143		0,00		0,00		0,00		0,00		0,00
3	12 kW	2 858		0,00		0,00		0,00		0,00		0,00
4	15 kW	5 714		0,00	5	28 570 (1 200 000)		0,00		0,00		0,00
5	20 kW	7 664		0,00		0,00	7	53 650,00 (2 253 300)		0,00		0,00
6	25 kW	8 333		0,00	1	8 333 (350 000)		0,00		0,00		0,00
7	40 kW	7 236	1	7 236 (303 900)		0,00		0,00	1	7 236 (303 900)	2	14 472 (607 800)
8	50 kW	9 779		0,00		0,00	1	9 779 (410 700)		0,00		0,00
9	55 kW	13 571		0,00		0,00		0,00		0,00	4	54 284 (2 280 000)
10	60 kW	13 479		0,00		0,00		0,00		0,00		0,00
11	65 kW	13 571		0,00		0,00		0,00		0,00		0,00
12	70 kW	11 905		0,00		0,00		0,00		0,00		0,00
13	75 kW	15 238		0,00		0,00		0,00		0,00		0,00
14	80 kW	15 952		0,00		0,00		0,00		0,00		0,00
15	90 kW	16 386		0,00		0,00		0,00		0,00		0,00
16	100 kW	20 732		0,00		0,00		0,00		0,00		0,00
17	120 kW	19 867		0,00		0,00		0,00		0,00		0,00
18	120-140 kW	19 867		0,00		0,00		0,00		0,00		0,00
19	150 kW	20 086		0,00		0,00		0,00		0,00		0,00

20	160 kW	35 463		0,00		0,00		0,00		0,00		0,00
21	180 kW	32 857		0,00		0,00		0,00		0,00		0,00
22	200 kW	32 143		0,00		0,00		0,00		0,00		0,00
23	220 kW	32 629		0,00		0,00		0,00		0,00		0,00
24	250 kW	28 571		0,00		0,00		0,00		0,00		0,00
25	280 kW	27 393		0,00		0,00		0,00		0,00		0,00
26	300 kW	37 500		0,00		0,00		0,00		0,00		0,00
27	325 kW	44 945		0,00		0,00		0,00		0,00		0,00
28	327 kW	44 945		0,00		0,00		0,00		0,00		0,00
29	340 kW	40 503		0,00		0,00		0,00		0,00		0,00
30	350 kW	40 503		0,00		0,00		0,00		0,00		0,00
31	360 kW	43 033		0,00		0,00		0,00		0,00		0,00
32	400 kW	47 814		0,00		0,00		0,00		0,00		0,00
33	420 kW	42 857		0,00		0,00		0,00		0,00		0,00
34	450 kW	59 524		0,00		0,00		0,00		0,00		0,00
35	480 kW	62 159		0,00		0,00		0,00		0,00		0,00
36	500 kW	83 333		0,00		0,00		0,00		0,00		0,00
37	600 kW	100 000		0,00		0,00		0,00		0,00		0,00
38	630 kW	109 524		0,00		0,00		0,00		0,00		0,00
39	650 kW	111 905		0,00		0,00		0,00		0,00		0,00
40	700 kW	123 810		0,00		0,00		0,00		0,00		0,00
41	1000 kW	140 207		0,00		0,00		0,00		0,00		0,00
42	1500 kW	180 355		0,00		0,00		0,00		0,00		0,00
43	1600 kW	193 544		0,00		0,00		0,00		0,00		0,00
<b>44</b>	<b>Total:</b>		<b>26</b>	<b>82 257,00</b> <b>(3 454 800)</b>	<b>6</b>	<b>36 903,00</b> <b>(1 550 000)</b>	<b>8</b>	<b>63 429,00</b> <b>(2 664 000)</b>	<b>1</b>	<b>7 236,00</b> <b>(303 900)</b>	<b>6</b>	<b>68 756,00</b> <b>(2 887 800)</b>