Substantiation of the small scale of the JI project "Reduction of Greenhouse Gases Emissions Due to Energy Efficiency Improvements and Waste Heat Utilization at JSC "Ukrgrafit""

On 22nd of August, 2012 the representatives of Ukrainian DFP have forwarded to Project Participant JSC "Ukrgrafit" the comments from UNFCCC Secretariat regarding the scale of the JI Project "Reduction of Greenhouse Gases Emissions Due to Energy Efficiency Improvements and Waste Heat Utilization at JSC "Ukrgrafit"".

The comments state the following:

> *Regarding the submissions of the JI track 1 project "Reduction of Greenhouse Gases Emissions Due to Energy Efficiency Improvements and Waste Heat Utilization at JSC "Ukrgrafit"" we would like to seek clarification regarding the scale of the project. The JI information system indicates that this is a small scale project, however the selected sectoral scope 4: Manufacturing Industries usually describes large scale projects. In addition, the PDD and Determination report does not provide the calculation of total aggregate energy savings from the project being less than 60 GWh to be eligible as small scale project under Type II category.*
>
> *Therefore, the project description (JI Infosystem and documents uploaded) does not provide sufficient information confirming the small-scale of the project, as required by paragraph 14 of the Provisions for the charging of fees to cover administrative costs related to activities of the JISC (version 05) adopted in JISC 29 meeting.*

Based on this, from our side we would like to provide the substantiation of the small-scale category of the JI project "Reduction of Greenhouse Gases Emissions Due to Energy Efficiency Improvements and Waste Heat Utilization at JSC "Ukrgrafit"" with the clarification comments and calculation of total energy savings from the project.

According to "Provisions for joint implementation small scale projects", Version 3 (paragraph 7) the type II small scale projects are energy efficiency improvement projects which reduce energy consumption, on the supply and/or demand side, by up to 60 gigawatt hours (GWh) per year (or an appropriate equivalent). Further it is stated that "60 gigawatt hours" is defined as 60 GWh(e) (see paragraph 8) and that the appropriate equivalent for 15 MW (e) could be 45 MW(th) (see footnote 3 at page 3). Thus, the appropriate equivalent for 60 GWh (e) could be 180 GWh in fuel energy content.

Joint Implementation project "Reduction of Greenhouse Gases Emissions Due to Energy Efficiency Improvements and Waste Heat Utilization at JSC "Ukrgrafit"" foresees energy efficiency improvements due to reconstruction of electrocalcinators (electricity savings for thermoanthracite production and electricity savings for synthetic graphite production – see detailed description at pages 7-9), graphitizing process modernisation (electricity savings

for production of graphitised electrodes with diameter 600mm – see detailed description at pages 11-12), reconstruction of the calcination kiln (natural gas savings for carbon fillers production – see detailed description at pages 9-10) and exhaust boilers installation for heat energy generation (fossil fuel savings – see detailed description at pages 12-13).

Thus, energy efficiency improvements could be divided into energy efficiency improvements foreseeing electricity savings and energy efficiency improvements foreseeing fossil fuel savings.

Data on electricity savings are provided below.

Data	2008	2009	2010	2011	2012
Electricity savings for thermoanthracite production, MWh	2221	1920	2433	2433	2433
Electricity savings for synthetic graphite production, MWh				787	3936
Electricity savings for production of graphitised electrodes with diameter 600 mm, MWh	1346	1854	1839	1839	1839
Total electricity savings, MWh	**3567**	**3774**	**4272**	**5059**	**8208**

Maximum annual electricity savings due to project implementation (electricity savings due to reconstruction of electrocalcinators and graphitizing process modernisation) reach 8 208 MWh or 8.2 GWh(e) in 2012.

Data on fossil fuel savings are provided below.

Data	2008	2009	2010	2011	2012
Natural gas savings due to reconstruction of the calcination kiln, 1000 m^3	2 460	2 289	2 777	2 777	2 777
Natural gas savings due to reconstruction of the calcination kiln, GJ[1]	83646	77838	94411	94411	94411
Natural gas savings due to reconstruction of the calcination kiln, GWh	23,2	21,6	26,2	26,2	26,2

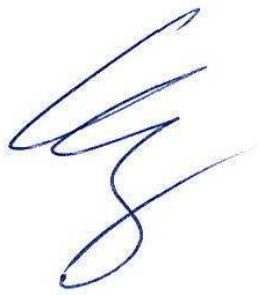
Data	2008	2009	2010	2011	2012
Coal consumption for heat energy generation under the baseline, tonnes				16520	24780
Coal consumption for heat energy generation under the baseline, GJ				356667	535000
Natural gas consumption for heat energy generation by exhaust boilers under the project scenario, 1000 m^3				7133	10700
Natural gas consumption for heat energy generation by exhaust boilers under the project scenario, GJ				242533	363800
Fossil fuel savings due to exhaust boilers installation, GJ				114 133	171 200
Fossil fuel savings due to exhaust boilers installation, GWh				31,7	47,6

[1] Natural gas net calorific value of 34 GJ/1000m3 according to state construction norms of Ukraine DBN V.2.5-20-2001 “Gas supply” was used for conversion.

Maximum annual fossil fuel savings due to project implementation (natural gas savings due to reconstruction of the calcination kiln in the amount of 2.777 million cubic meters or 26.2 GWh in fuel energy content and fossil fuel savings due to exhaust boilers installation in the amount of 171 200 GJ or 47.6 GWh in fuel energy content) reach 73.8 GWh in fuel energy content. This value could be estimated as an appropriate equivalent of about 25 GWh(e).

Therefore, total energy efficiency improvements due to joint implementation project realization are equal to 33.2 GWh(e), which is well below the benchmark of 60 GWh(e).

Thus, as indicated in section A.4.2 of the PDD the joint implementation project at JSC "Ukrgrafit" is a small scale project. The small scale project conforms to the type (ii): Energy efficiency improvement project activities, which reduce energy consumption, on the supply and/or demand side, by up to 60 gigawatt hours (GWh) per year (or an appropriate equivalent), and category H. Energy efficiency and fuel switching measures for industrial facilities.



Best regards,

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