June 12, 2017

H. E. Oleksandr Danyliuk
Minister
Ministry of Finance of Ukraine
12/2 Hrushevsky St.
Kyiv, 01008
Ukraine

Re: Ukraine District Heating Energy Efficiency Project
CTF Loan No. TF016327
Second Amendment to the Clean Technology Fund ("CTF") Loan Agreement

Excellency:

We refer to: (a) the CTF Loan Agreement dated May 26, 2014 ("CTF Loan Agreement") between Ukraine ("Borrower") and the International Bank for Reconstruction and Development, acting not in its individual capacity but solely in its capacity as an implementing entity of the Clean Technology Fund ("World Bank" or "Bank"); (b) the Project Agreement dated August 18, 2014, between the Bank and Public Utility of Vinnytsia City Council "VINNYTSIAMISKTEPLOENERHO", both for the above mentioned Project; and (c) to letter number 19030-12/7-15/12397, dated May 5, 2017, from Yuri Butsa, Deputy Minister of Finance in Charge of European Integration Issues requesting cancellation of US$43,449,000 from Loan No. 8387; reallocation of US$6,720,000 from Category 1(x) to other disbursement categories of CTF Loan No. TF016327; and removal of Public Utility of Vinnytsia City Council "VINNYTSIAMISKTEPLOENERHO as Participating District Heating (DH) Company/Project Implementing Entity.

I am pleased to inform you that the Bank has acceded to the request. Accordingly, the CTF Loan Agreement is hereby amended as follows:

1. Paragraph 2 of Section IV.A of Schedule 2 is amended to read as follows:

"The following table specifies the categories of Eligible Expenditures that may be financed out of the proceeds of the Loan ("Category"), the allocation of the amounts of the Loan to each Category, and the percentage of expenditures to be financed for Eligible Expenditures in each Category:

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount of the Loan Allocated (expressed in USD)</th>
<th>Percentage of Expenditures to be financed (inclusive of Taxes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Goods, works, non-consulting services, and consultants’ services and EEI Implementation Costs for Part 1 (b) of the Project:</td>
<td>4,755,000</td>
<td>100%</td>
</tr>
<tr>
<td>i. Limited Liability Company Firm “TEHNOVA” (Chernihivska Teploelektrocentral)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Category</th>
<th>Amount of the Loan Allocated (expressed in USD)</th>
<th>Percentage of Expenditures to be financed (inclusive of Taxes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ii. Public Utility &quot;Dniproteploenerho&quot; of Dnipropetrovsk Oblast' Council</td>
<td>4,755,000</td>
<td></td>
</tr>
<tr>
<td>iii. Public Commercial Utility &quot;Donetskistmiskeplomerezha&quot; [Deleted]</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>iv. State Municipal Utility &quot;Ivano-Frankivsksteklopokomunenerho&quot; [Deleted]</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>v. Public Utility &quot;Kharkivski Teplovi Merezhi&quot;</td>
<td>10,755,000</td>
<td></td>
</tr>
<tr>
<td>vi. Municipal Public Utility &quot;Khersonsteploenerho&quot;</td>
<td>1,640,000</td>
<td></td>
</tr>
<tr>
<td>vii. Subsidiary Enterprise &quot;Kirovohradteplo&quot; of Limited Liability Company &quot;Center of Scientific and Technical Innovations of Ukrainian Oil and Gas Academy&quot; [Deleted]</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>viii. Public Utility &quot;Miskteplovodenerhia&quot; of Kamianets-Podilskyi City Council</td>
<td>1,990,000</td>
<td></td>
</tr>
<tr>
<td>ix. Oblast' Public Utility &quot;Mykolaiivobteploenerho&quot;</td>
<td>2,370,000</td>
<td></td>
</tr>
<tr>
<td>x. Public Utility of Vinnysia City Council &quot;Vinnysiamiskeploenerho&quot; [Deleted]</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>xi. Municipal utility heating networks company &quot;Ternopilmiskeplokomunenergo&quot; of Ternopil City Council</td>
<td>8,102,000</td>
<td></td>
</tr>
<tr>
<td>(2) Management Fee</td>
<td>225,000</td>
<td></td>
</tr>
<tr>
<td>(3) Unallocated</td>
<td>15,408,000</td>
<td></td>
</tr>
<tr>
<td>TOTAL AMOUNT</td>
<td>50,000,000</td>
<td></td>
</tr>
</tbody>
</table>
2. Paragraph 14 of the Appendix is amended by deleting Public Utility of Vinnysia City Council "VINNYTSIAMISKTEPLOENERHO"; and re-alphabetizing the sub-paragraphs as a result of said deletion. Accordingly, the amended definition of "Participating DH Company" in paragraph 15 of the Appendix reads as follows:

"14. "Participating DH Company" means each of the following district heating companies:

(a) Limited Liability Company Firm “TEHNOVA” (Chernihivska Teploelektrocentral operating pursuant to the Limited Liability Company Firm “TEHNOVA” Legislation;

(b) Public Utility “Dniproteploenerho”, of Dnipropetrovsk Oblast Council, established and operating pursuant to the Dniproteploenerho Legislation;

(c) Public Utility “Kharkivskii Teplovi Merezhi”, established and operating pursuant to the Kharkiv Teplovi Merezhi Legislation;

(d) Municipal Public Utility Khersonteploenerho, established and operating pursuant to the Khersonteploenerho Legislation;

(e) Public Utility “Miskteplovodenerhia” of Kamianets-Podilskyi City Council, established and operating pursuant to the Miskteplovodenerhia Legislation,

(f) Oblast Public Utility “Mykolaivobleploenerho”, established and operating pursuant to the Mykolaivobleploenerho Legislation;

(g) Municipal utility heating networks company “Ternopilmiskteplokomunenergo” of Ternopil City Council, established and operating pursuant to the Ternopilmiskteplokomunenergo Legislation.”

3. Paragraph 21 of the Appendix is amended also to make the correction, deletions, re-alphabetizing and addition described in paragraph 2 above. Accordingly, the amended definition of "Project Implementing Entity’s Legislation" in paragraph 21 of the Appendix reads as follows:

"21. "Project Implementing Entity’s Legislation" means each of the following:

(a) Charter of the Limited Liability Company Firm “TEHNOVA” approved by the Protocol of General Shareholders' meeting of September 26, 2013 and registered by the regulator on October 14, 2013 pursuant to which Limited Liability Company Firm “TEHNOVA” was established and operating (Limited Liability Company Firm “TEHNOVA” Legislation);

(b) Decision of Dnipropetrovsk Oblast Council No. 661-22/y, dated December 18, 2009, pursuant to which Public Utility "Dniproteploenerho" of Dnipropetrovsk Oblast Council was established and is operating (Dniproteploenerho Legislation);

(c) Charter approved by Decision of Kharkiv City Council No. 952, dated September 30, 2003, pursuant to which Public Utility "Kharkivski Teplovi Merezhi" was established and is operating (Kharkiv Teplovi Merezhi Legislation);

(d) Charter approved by Decision of Kherson City Council No. 506 dated December 28, 2011, pursuant to which Municipal Public Utility "Khersonteploenerho" was established and is operating (Khersonteploenerho Legislation);

(e) Charter approved by Decision of Kamianets-Podilskyi City Council executive committee No. 613, dated May 16, 2013, pursuant to which Public Utility "Miskteplovodenerhia" of Kamianets-Podilskyi City Council was established and is operating (Miskteplovodenerhia Legislation);
(f) Charter approved by Head of Mykolaiv Regional Administration, dated November 03, 2006, pursuant to which Oblast' Public Utility "Mykolaivoblteploenerho" was established and is operating (Mykolaivoblteploenerho Legislation); and

(g) Charter of the Municipal Utility “Ternopilmskteplokomunenergo” approved by Ternopil City Council meeting of April 26, 2013, pursuant to which Municipal Utility “Ternopilmskteplokomunenergo” of City Council was established and is operating (Municipal Utility “Ternopilmskteplokomunenergo” Legislation).

Except as specifically amended in this letter, all other provisions of the CTF Loan Agreement remain in full force and effect.

Please confirm the agreement of the Borrower to the amendments set out in paragraphs 1 through 3 above by countersigning and dating the confirmation set forth below, and returning one fully signed original of this letter of amendment to us. One fully signed original should be retained by the Borrower. Upon receipt by the Bank of: (a) the copy of this letter of amendment duly countersigned by the authorized representative of the Borrower; (b) the termination of its respective Project Agreement relating to CTF Loan Agreement (CTF Loan No. TF016327) duly signed by the authorized representative of Public Utility of Vinnytsia City Council VINNYTSIAMISKTEPLOENERHO; (c) the copy of the letter for the Second Amendment to the Loan Agreement (Loan No. 8387-UA) duly countersigned by the authorized representative of the Borrower; and (d) the termination of its respective Project Agreement relating to said Loan Agreement (Loan No. 8387-UA) duly signed by the authorized representative of Public Utility of Vinnytsia City Council VINNYTSIAMISKTEPLOENERHO; the above amendments shall become effective on the date of countersignature of this letter.

Very truly yours,

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
acting as an implementing entity of the
Clean Technology Fund

[Signature]
Ludmilla Butenko
Acting Country Director
Ukraine, Belarus and Moldova
Europe and Central Asia

CONFIRMED AND AGREED:

UKRAINE

By: [Signature]
Authorized Representative

Name: [Signature]
Minister of Finance of Ukraine for European Integration

Date: [Signature]
[Signature]
Copied to: Mr. Yuriy Butsa, Deputy Minister for European Integration, Ministry of Finance of Ukraine
Mr. Maksym Nefiodov, First Deputy Minister, Ministry of Economic Development and Trade of Ukraine
Mr. Eduard Krugliak, Deputy Minister, Ministry of Regional Development, Construction, Housing and Communal Services of Ukraine
Mr. Dmytro Vovk, Chairman of NECSR
Ms. Tamara Andriiva, Director, Department of International Legal Expertise, Ministry of Justice of Ukraine
Ms. Viktoria Kolosova, Director of the Department of Cooperation and International Financial Institutions, Ministry of Finance of Ukraine
Mr. Mykhailo Vydoinyk, Director, International Cooperation and Protocol Department, Secretariat of the Cabinet of Ministers of Ukraine
Ms. Hanna Bielokolos, Deputy Director of the Department – Head of the Division, Department for International Programs Coordination, Ministry of Economic Development and Trade of Ukraine
Mr. Frank Heemskerk, Executive Director, World Bank
Mr. Roman Kachur, Senior Advisor to Executive Director, World Bank