



District Heating Energy Efficiency Project

Country / Region: **Ukraine** | Project Id: **XCTFUA056A** | Fund Name: **CTF** |

MDB : **International Bank for Reconstruction and Development**

Comment Type	Commenter Name	Commenter Profile	Comment	Date
Comment 1	Irina Stavchuk	National Ecological Center of Ukraine	<p>We fully support EBRD engagement in energy efficiency in buildings. It is the area with huge potential for energy and GHG savings; it has very strong social and poverty reduction aspect with reduced energy bills and finally, it is very important for energy security for the country.</p> <p>However, we have some comments and questions to the project plan and its implementation. As far as we understand, the project includes installation of Individual Heat Substations (IHS) to residential buildings. According to privatization procedures in 1990s the buildings are in property of its residents. The question is, Since all the residential buildings are private, how the municipality will select which buildings will get individual heat substations? What kind of selection procedure is planned?</p> <p>Individual heat substations (IHS) indeed help to reduce heat consumption by houses tremendously in Ukraine. Nevertheless, they work only when the technology is well maintained. Most of the multistore buildings in Ukraine are still operated by municipal companies (or transformed into private, but with same methods of work) in a very bad way, when even basic maintenance is not organized. The reason is also because the municipal tariffs in most cases include only current repair and no long-term reconstructions. Therefore, the question is How the EBRD and municipality of Kharkiv city are planning to deal with the risk of bad maintenance in residential buildings with poor management?</p> <p>The law from 2015 envisages that most residents of multistore buildings should organize themselves in condominiums and select company for management of the building; take care of their property, take decisions and control implementation of reconstruction measures they decide to implement. The law has lead to a wave all over Ukraine on organization of condominiums. National policy and municipal programs all over Ukraine provide financial support programs specifically to condominiums to implement energy efficiency measures as the most transparent and efficient way to use public resources for buildings sector. If residents get it for free and never contribute to it financially, there is a high risk the technology will be broken/not well maintained. Provision of expensive individual heat substations for free might create confusion in the housing sector, since some residents would need to collect funds to install such technology and some could get it without cost. It might undermine the whole idea of reform in housing sector and pushing society out from paternalism to proactive engagement in condominiums and energy efficiency measures. Therefore, if it was not planned initially, we advise to organize municipal support program for HIS installation on the basis of personal engagement of residents in its funding, e.g. up to 10-15% of total cost.</p>	Jun 11, 2018
Response 1	Monyl Nefer Toga Makang	IBRD	<p>Dear Irina,</p> <p>Thank you for your comments. You raise important issues related to the management of residential multi-apartment building in Ukraine and energy efficiency in the residential sector. While this project was not designed to directly address these sector-wide policy and regulatory issues, we are delighted to provide responses to the best of our ability.</p> <p>Building selection for Individual Heat Substations (IHS).</p> <p>The selection of the buildings to be equipped with Individual Heat substations was carried out during by the participating District Heating Companies (DHCs) at the early stages of project implementation on the basis of agreed criteria such as energy consumption, potential to save energy, technical fit between the rest of the distribution system and the individual heating substations, etc. These criteria were defined and formalized during the project preparation and approval process (in 2013 and 2014). The proposed restructuring will not introduce any changes in this respect.</p> <p>Maintenance in residential buildings</p>	Jun 14, 2018



Toga Makang

below our responses to the questions and comments raised.

1. Further information on the effect that the installation of new automated distribution control system would have on the reported results

The installation of the innovative system will allow to monitor the consumption of heating from customers through a real time measuring of temperature, pressure and other hydraulic condition of the district heating network. It will also enable the district heating company using remote control of chambers, valves, and individual heating substations (IHS) system to ensure the accurate operation of ITPs and maintain affordable temperature and reliable service, and enhance comfort in all apartments. The new automated distribution control system will help optimize use of the heating source, and consequently bring better impact on energy savings and avoided CO₂ emissions mainly due to the reduced gas usage (The reduced gas usage is estimated at 8.9 million m³). Thus by adding proposed system in the scope of the project tons of avoided GHG emissions are correspondingly improved by 11.2%.

2. Determination that 20m is the correct funding size for this component, including breakdown of what this will expect to achieve and rationale for minimum concessionality required for the project to proceed

The funding size was determined by a prefeasibility study done for the whole district heating network in Kharkiv conducted during the project preparation phase. The adjusted actual cost today is higher, but the \$20m investment will provide just enough demonstration effect to foster a replication at a larger scale. The investment is expected to achieve higher improvement in energy efficiency and higher GHG emission as outlined above. More importantly, the investment is expected to introduce the consumer driven automated distribution control system to Ukraine, and its success will have wider impact throughout the country.

The proposed \$20m corresponds to the minimum concessionality required for the project to go ahead because there are no commercial funds available to support the investment, and a smaller investment in the Kharkiv context will not have sufficient impact; hence reduce the demonstration effect (to the rest of the country) of the investment. As outlined below, the city put together some financing to replace networks which ruptured during the winter. It is more politically visible to invest in networks than a control system; hence it's unlikely the city can raise funds to invest in the consumer driven automated distribution control system from rate-payers.

3. Component IBRD intend to reduce their funding for. Further rationale for why this is and what effect it will have. It seems odd that CTF financing of \$20m extra is required as IBRD pull their exact same level of funding out why is this and is CTF financing additional.

Under the Project, for CTF as well as IBRD loan, the Government of Ukraine is the borrower, and on-lends the funds to the participating DH companies under Subsidiary Loan Agreements (SLA). As part of this process, before agreeing to an SLA, the Ministry of Finance assesses the financial situation of the utilities and their prospective ability to fulfill the debt service obligations under the SLA. For each participating utility, a ceiling had been authorized for the total borrowing under the project. An upward revision of the authorized is possible in case of good technical and financial performance (as is the case for Kamyranets which will benefit from an increase in its IBRD allocation under this restructuring given its good performance). In the case of Kharkiv, the deteriorated technical and financial situation of the utility company made it impossible to immediately request an increase of the total authorized loan amount. For this reason, given the pressing needs for network repairs, the municipality decided to finance directly from its own budget emergency network repair work and civil works which would have been supported by IBRD. Thus, the Government of Ukraine requested to reduce the IBRD allocation and to finance automated distribution control system investments through CTF. After project investments are implemented and produce benefits, it is expected that the utility will be able to mobilize funding from less concessional sources to finish off investments in the networks. The CTF financing is critical for the innovative component which other sources of financing are not familiar with, and hence perceive as risky. Without the consumer driven control system, the utility would continue to struggle as the benefits will not be realized fully.

4. Extent of the (assumed) dialogue with the cities that will be removed from the scope of the project. Potential ways to move forward with the current structure. Likelihood of political tensions in Ukraine, a country with high levels of regional tension, as a result of the proposed reallocation of funds

The last two utilities removed from the project are Vinnytsia (2017) and Chernihiv (2018). The fact that these cities were removed from the project only 3 and 4 years respectively after its approval in spite of not being able to substantively start



implementation demonstrate that sustained efforts were deployed to attempt to find a solution. While regrettable from a technical and economic standpoint, no significant political fallout has resulted from the removal of these two cities from the project. In the case of the Vinnytsia utility, given the strong representation of this locality at the national political level, possible risks of political fallout were carefully managed. With regard to Kharkiv, the proposed reallocation would enhance the support and increase the level of concessionality for this particular city, and can be seen as beneficial from a regional tension perspective, given the importance of this regional capital for North East Ukraine.