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Engagement with Ukrainian stakeholders on regulatory, legislative, and financing suggestions for mass-scale deployment of individual heat substations in Ukraine

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Background

Individual heat substations (IHSs) are important for improving the district heating (DH) infrastructure in Ukraine. Mass-scale deployment of IHSs in multi-family buildings could greatly improve energy efficiency in the DH sector. By regulating building-level temperature, IHSs can significantly reduce heat consumption by preventing unnecessary heating. IHSs are also important because they allow homeowners to regulate their heat consumption, resulting in energy and cost savings. This makes the DH system more focused on the customer, thereby improving the quality of service and customer satisfaction. As a result of increased efficiency, IHSs also increase energy independence for the country, decrease customer payments, and improve the quality of services and comfort level of the customers. Installing IHSs is one of the key steps in transitioning from a highly inefficient DH system.

PNNL started the discussion on the importance of IHSs several years ago when discovering that the rate of IHS installations in Ukraine are well below the level needed to achieve any significant reduction of energy consumption in the DH sector. PNNL highlighted the importance of a mass-scale of IHS deployment in the White Paper on Transforming the District Heating in Ukraine¹. The White Paper, prepared together with the Energy Security Project (ESP), outlines key challenges and opportunities in Ukraine's DH sector.

Together with ESP, PNNL also prepared a report on IHS deployment in Ukraine². The IHS report discusses several approaches towards large-scale IHS installation in Europe. Several European Union states in Central Europe successfully installed IHSs on a large scale as part of their DH reforms, and generally found that these investments were cost-effective and improved service quality and energy efficiency. The experience of international development partners and financial institutions in Ukraine has shown significant benefits of a relatively limited number of IHS projects in the country. The IHS report proposes actions Ukraine could take to facilitate IHS deployment. PNNL and ESP widely disseminated the IHS report to inform key stakeholders about the IHS benefits.

Objective

The purpose of this memo is to discuss the position of key stakeholders on IHS deployment and developed amendments to the Law of Ukraine "On Heat Supply." This memo also briefly discusses ways to bring funding for mass-scale IHS installation by DH companies.

¹ USAID 2020. White Paper on Transforming District Heating in Ukraine: Assessment and Recommendations. August 2020.

USAID 2021. Options for Large-Scale Installation of Individual Heat Substations Based on International Best Practices. February 2021.

Results of Stakeholder Engagement on IHS Deployment

PNNL and ESP presented the key findings of the White Paper and the IHS report to the international development partners. Key discussions included the following international stakeholders: the European Union, World Bank staff and consultants, the European Bank for Reconstruction and Development (EBRD), the Nordic Environment Finance Corporation (NEFCO), the Swiss Cooperation and other organizations. All international partners understand the importance of IHS and agree that Ukraine should speed up their deployment to improve the quality of service in the sector. The international development partners and international financial institutions provided a number of comments and suggestions that ESP and PNNL incorporated in the IHS report.

After building a consensus with the international partners, PNNL and ESP discussed the importance of IHSs with the Ministry for Community and Territories Development of Ukraine (Minregion) and the National Energy Utilities Regulatory Commission (NEURC). Both Minregion and NEURC agreed that it is important to promote IHS deployment in Ukraine; however, they expressed their concerns that the current legislation in Ukraine stipulates that the co-owners of multi-family building have the legal right to install IHSs in their buildings. The role of DH companies in the process is limited, and DH companies can only install IHSs when using funds from international development donors. The legal status of the IHSs installed by DH companies is not clearly defined. Also, DH companies regulated by NEURC cannot include the cost for IHS maintenance in the heat tariffs.

PNNL also discussed the position of IHS deployment with several cities and DH companies. A representative of the Kyiv State City Administration said that the city understands the importance of IHS and wants to install them; however, the legal barriers should be addressed first. Kyivteploenergo, the largest DH company in Ukraine, sees the benefits of IHS deployment. In Lviv, the city administration has a dedicated staff who works with homeowner associations (HOAs) to install IHS via programs of the Energy Efficiency Fund. Two DH companies in Lviv support the installation of IHSs in the city because this would allow them to account for sales of heat and hot water more accurately, reduce losses and improve customer satisfaction.

PNNL and ESP discussed the White Paper and the IHS report with EBRD and specifically asked about Bank's position on financing IHS in Ukraine. A representative of EBRD confirmed that the Bank is ready to invest in IHSs; however, two issues must be resolved: 1) the legal status of the IHS installed by the DH company and 2) the repayment mechanism that would allow DH company to recover the installation and maintenance cost.

The results of the stakeholder consultations based on the IHS report showed that all interested parties – the government (represented here by Minregion and NEURC), cities, DH companies, international development partners and international financial institutions understand the IHS and support a mass-scale IHS deployment in Ukraine.

Development of Amendments to the Heat Supply Law

Based on the result of our analysis, PNNL concluded that it is necessary to amend the Law of Ukraine “On Heat Supply” to allow DH companies to invest in IHSs. PNNL developed key principles of IHS deployment in Ukraine to be implemented in the Law of Ukraine “On Heat Supply.” These amendments should close existing legal loopholes in legislation and provide opportunities to DH companies to install IHSs in multi-family building.

PNNL discussed the idea to amend the Law with USAID and ESP. Based on the agreed set of principles, PNNL and ESP drafted amendments to the Law of Ukraine “On Heat Supply” to allow DH companies to install and own IHSs in multi-family buildings connected to their DH systems.

PNNL and ESP discussed the IHS legal proposal with Minregion and NEURC in January 2021. Both Minregion and NEURC supported the idea of IHS deployment and provided their feedback on the proposed amendments. Per Minregion’s request, PNNL worked with ESP on a policy note that explains the key provisions of the proposed amendments. ESP also provided a detailed analysis of the benefits and risks of IHS deployment, the role of stakeholders, and possible financing.

PNNL discussed the legal, organizational, and technical aspects of IHS installation with KyivTeploEnergo (KTE). KTE support the idea of mass-scale deployment of IHS and support the proposed amendment to the Law of Ukraine “On Heat Supply.” The KTE legal department provided useful comments and suggestions to the draft bill in February. PNNL also discussed IHS deployment with the Kyiv City State Administration (KCSA). The KCSA legal department provided comments in March.

ESP and PNNL addressed comments from Minregion, NEURC, KTE, the Swiss Embassy and prepared the draft bill for a discussion with international development partners. ESP and PNNL discussed the key provisions of the bill with the international development partners and financial institutions during a donor technical meeting on March 17. The European Commission, the Energy Community Secretariat, EBRD, the European Investment Bank, the International Finance Corporation, NEFCO, the Swiss Cooperation and other stakeholders participated in the meeting. The workshop participants once again highlighted the importance of IHS deployment. We received several suggestions during the call and written comments from the workshop, which PNNL incorporated into the draft law.

To learn about the experience with IHS installations in Ukraine and expectations of different stakeholders, ESP is conducting a survey of homeowner associations, managing companies, DH companies and city administrations. The results of the survey will be used to comprehensively inform policymakers about positive and negative experience with IHS installation and maintenance.

Next steps

PNNL and ESP will organize several meetings to build political support to speed up adoption and implementation of policies for mass-scale IHS deployment in Ukraine. This would include a meeting with policy makers at Verkhovna Rada, conversations with DH companies and municipalities and initial meetings of international financial institutions and selected cities.

The purpose of the workshop at Verkhovna Rada of Ukraine is to discuss the overall priorities in the DH sector, highlight the importance of IHSs and present the developed legal package. The workshop will be used to build strong support of the bill in the parliament. PNNL would present on international best practices for IHS deployment while ESP will present a draft bill. ESP and PNNL would invite members of the parliament to express their position and the vision on IHS policy framework. This workshop will be the final step in stakeholder's engagement to submit the draft law to the parliament. ESP and PNNL will work with Minregion and members of the parliament to officially transfer the draft law to Verkhovna Rada for review and adoption.

PNNL and ESP will also organize meetings with representatives of cities and DH companies to promote the idea of mass-scale IHS deployment. PNNL will use this opportunity to encourage cities and DH companies to consider development of IHS deployment strategies both under the current legal environment and when the proposed changes will take place.

PNNL will also work with several international financial institutions, like the European Bank for Reconstruction and Development, and selected cities to start conversation on mass-scale IHS deployment in cities with financing from IFIs. IFI can provide loans to cities to finance large scale IHS deployment in Ukraine.

If needed, PNNL would provide technical assistance to Minregion to address any remaining issues and answer questions to finalize the draft law that Minregion will submit to Verkhovna Rada.