

Improving the performance of District Heating Systems in Central and Eastern Europe

Pilot projects

Report on local working groups

Austria

Horizon 2020 (H2020-EE-2017-PPI)
Project N°784966



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PROJECT INFORMATION

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List of Abbreviations

AT	Austria
CEE	Central and Eastern Europe
CoM	Covenant of Mayors for Climate and Energy
CZ	Czech Republic
DisComEx	Dissemination, Communication and Exploitation
DG	Directorate-General of the European Commission
DHS	District Heating System
EBRD	European Bank for Reconstruction and Development
EU	European Union
GHG	Greenhouse Gas
HR	Croatia
KPI	Key Performance Indicator
LV	Latvia
LWG	Local Working Groups
NGO	Non-Governmental Organisation
RES	Renewable Energy Source(s)
SI	Slovenia
SRB	Serbia
UKR	Ukraine
WP	Work Package

Summary of the project

The project “KeepWarm - Improving the performance of district heating systems in Eastern Europe” is funded under the EU Horizon 2020 programme. Its objective is to accelerate cost-effective investments in the modernisation of District Heating Systems (DHS) in Central and Eastern Europe (CEE). KeepWarm is most active in seven countries: Austria (AT), Croatia (HR), Czech Republic (CZ), Latvia (LV), Serbia (SRB), Slovenia (SI) and Ukraine (UKR). The project focuses on this region, and these particular countries, because in most cases DHSs are frequently still inefficient and for the most part overly reliant on fossil fuels (especially gas, coal or oil).

The aim of this initiative, launched in April 2018, is to modernise DHSs around the whole region in a more sustainable manner. By improving system operations and promoting a switch to less-polluting sources, like renewable energy sources (RES), KeepWarm will contribute to reducing greenhouse gas (GHG) emissions. The eleven project partners strive to ensure that best practices for environmentally-friendlier heating and cooling will be taken up across Europe, replicating KeepWarm’s approach in other countries and regions, even beyond the end of the project in September 2020.

Project objectives

KeepWarm’s specific objectives are:

- At least 450 relevant stakeholders with increased capacities on technical, organisational, financial and managerial aspects – includes 150 DHS operators;
- At least 95 **DHS operators** are able to **develop business plans** and to identify the most suitable **financial model** for modernisation of their own DHS;
- At least 23 **business plans for the modernisation** of DHSs have been developed and **sources for investment** have been identified;
- DHS network **retrofitting** is addressed in at least 10 local **energy plans** and 7 regional or **national strategies** or plans;
- At least 23,300 **relevant stakeholders** (directly) and 125,000 (indirectly) **reached** across Europe in order to **replicate the project outputs** in primary and secondary target regions and ensure the project’s impact;
- **Support EU policies and initiatives**, such as the Covenant of Mayors for Climate and Energy (CoM) and DecarbHeat, by exploiting key lessons from KeepWarm activities and pilots to disseminate best practices across Europe.

KeepWarm consortium partners

LOGO	PARTNER NAME	SHORT	COUNTRY
	Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH	GIZ	Germany
	University of Zagreb Faculty of Mechanical Engineering and Naval Architecture	UNIZAG FSB	Croatia
	Landeskammer für Land- und Fortwirtschaft in Steiermark	LWK	Austria
	Regionalna Energetska Agencija Sjeverozapadne Hrvatske	REGEA	Croatia
	Jožef Stefan Institute Energy Efficiency Centre	JSI	Slovenia
	ICLEI European Secretariat GmbH	ICLEI Europe	Germany
	Teplarenske Sdruzeni Česke Republiky	TSCR	Czech Republic
	Biedriba Zemgales Regionala Energetikas Agentura	ZREA	Latvia
	Zavod Energetska Agencija za Savinjsko Salesko in Korosko	KSENA	Slovenia
	LLC KT-Energy Consulting	KT-Energy	Ukraine
	Institut za Nuklearne Nauke Vinca	VINCA	Serbia

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Executive summary

The switch from a fossil fuel and inefficient DH system to clean and renewable alternatives with low level of losses is a challenging task. Moreover, other competitive heating solutions in heating sector make it difficult for other heating alternatives, such as DH to compete. Besides DH systems often were not able to provide appropriate value of their services from technical, environmental, societal as well as economic perspective. In other words, DH systems often are often in a difficult position due to many reasons. As a results, they often lack of ambitious plans and performing relevant activities such as development of feasibility studies, complicated public procurement procedures, evaluation of RES potential, successfully negotiation with both existing and future end-consumers, identification and application to both local/regional/national and EU funds (lack of investment strategy). On the other hand, they often lack work force and capacity to achieve ambitious plans due to lack of financial funds or know-how. To foster modernization of above-mentioned DHSs, the KeepWarm project focuses on modernization of pilot DH systems in 7 partner countries (Austria, Croatia, Czech Republic, Latvia, Slovenia, Serbia and Ukraine).

Project partners committed to provide support to DHSs representatives throughout an interdisciplinary approach with the aim of achieving investments developed in previous activities of projects such as feasibility studies, business plans and selection of pilot DHSs. After identification of current state and barriers which hinder successful investments, KeepWarm consortium organized local working groups in each country the aim of providing tailor-made assistance to remove barriers. The goal of the local working groups was to include all relevant stakeholders, which can be identified through the stakeholder analysis, to provide input for business plan development and feedback on future retrofitting plans as well as on barrier removal for DHS. This report is created as country-by-country overview of organized local working group meetings with the aim of presenting systematic and continuous activities of KeepWarm partners toward DHSs representatives and other stakeholders with the aim of achieving investments. In addition to this, each project partner used a tailor-made KeepWarm approach which is a result of previously taken activities such as feasibility studies, business plans and selection of DHSs to be retrofitted.

In case of Austria, project partner LWK Steiermark organized five meetings on different topics with respective DHSs representatives which were attended by 108 participants. In each initial meeting with DHSs, feasibility studies created through the project have been presented, as well as discussed in terms of modifications and further steps. Meetings taken afterwards have been a result of a continuous collaboration between Austrian partner and DHSs representatives in achieving investments according to business plans.

DHS Eibiswald: implementation of scenario 3 of the elaborated feasibility study, which dealt with the takeover of a grid in Aibl and a further expand of Eibiswald owns grid, connecting the grids of Aibl and Eibiswald as well as to rebuild their boiler house

DHS Ligist: implementation of scenario 3 of the elaborated feasibility study, which dealt with the replacement of their old biomass boilers with new ones as well as a small grid expansion to connect some new customers

It should be mentioned that, due to the pandemic situation (COVID-19), most of planned and already organized meeting have been cancelled and adjusted to virtual platforms which definitively hindered implementation of scenarios and reduced a number of total meetings taken. Following table presents basic information:

LOCAL WORKING GROUP MEETING 1
<p>Pilot: DHS Eibiswald Number of stakeholders: 11 Main topics:</p> <ul style="list-style-type: none"> • presentation of feasibility study • introduction to LWG • future plans - connection of new customers, twinning programme • on-going plans - grid connection, tender for boiler house
LOCAL WORKING GROUP MEETING 2
<p>Pilot: DHS Ligest Number of stakeholders: 32 Main topics:</p> <ul style="list-style-type: none"> • presentation of feasibility study • introduction to LWG • future plans – creation of business plan, twinning programme • on-going plans – renewal of boilers and adaptation of boiler house
LOCAL WORKING GROUP MEETING 3
<p>Pilot: DHS Eibiswald Number of stakeholders: 35 Main topics:</p> <ul style="list-style-type: none"> • site visits • twinning activities • on-going plans – construction works
LOCAL WORKING GROUP MEETING 4
<p>Pilot: DHS Ligest Number of stakeholders: 24 Main topics:</p> <ul style="list-style-type: none"> • Inspire event – presentation od DHS Ligest • Discussion about business plan • On-going plans – connection of new customers
LOCAL WORKING GROUP MEETING 5
<p>Pilot: DHS Eibiswald Number of stakeholders: 6 Main topics:</p> <ul style="list-style-type: none"> • Finalization of construction works • Finalization of office room and control centre • Finalization of grid construction • Future plans - grid expansion • On-going plans - connection of new customers

Introduction

As defined in the Grant Agreement, this deliverable N°4.2 Report on local working groups is closely tight with the work package 4's objective – achieve at least 15 DHS investments in at least 5 countries, using suitable technical and financial approaches (developed in Work Package 3), which will lead to increased efficiency and RES use. Throughout the task 4.2 Support to DH operators/owners to remove barriers and achieve investments, it is stated in the Grant Agreement that the main objectives are to provide a tailor-made support, remove barriers and achieve above mentioned investments.

The specific topics and focus of the conducted meetings were defined based on the needs of each DHS operator/owner and related stakeholder which is defined throughout the Task 4.1 Selection of DHS for retrofiting, investments and working groups. Working groups are established for each DHS to be retrofited and include at least representatives of DHS operators/owners, local government, and end consumers (and possible other key stakeholders if needed). The local working groups are responsible for the implementation and monitoring of the DHS retrofits. KeepWarm partner were mainly facilitator, discussion leader and triggering reflections and provide support in planned actions

In addition, the working groups will consider results of the Work Package 3 in order to provide an adequate support to secure investments:

- Supporting choices in the optimal financial approach and business model (combination of public and private capital, financing schemes like on-bill financing and similar)
- Support and guidance in preparation and application for potential grants (for example, EU structural funds through the Integrated Territorial Investment mechanism, and others)
- Supporting negotiations with customers (joint meetings with project partners as facilitators)
- Support on specific technical issues (in addition to the ones analyzed in WP3)
- Support with legal issues (e.g. unclear ownership/responsibilities of heating substations)
- Exchange with twins – and including lessons learnt
- Conclusions for future scenarios – long-term orientation

The outcome of Task 4.2 is the realization of 15 actual investments in DHS retrofits. Therefore, this document presents steps taken towards the above-mentioned goal through the activity of local working groups in terms of identification of problems, discussions, exchange of knowledge, remove of barriers and proposing relevant solutions.

Local working group – meeting 1

General Info

SHORT INFORMATION ABOUT THE LOCAL WORKING GROUP MEETING	
Country	Austria
Pilot city name	Eibiswald
Date	September 18, 2019
Location	Steiermarkhof, Ekkehard-Hauer-Straße 33, 8052 Graz
Number of participants/ Stakeholder groups	2 participants from DHS Eibiswald 2 participants from LWK Steiermark 2 participants from Bioenergie-Service (DHS association) 1 participant from the planning company 4 participants from other DHS operators
Topics(s)	Local working groups – introduction Feasibility studies Twinning activities
Minutes by	LWK Steiermark

Agenda



Graz, 04/09/2019

Einladung

Zum Local Working Group Meeting der Nahwärme Eibiswald

Datum: Mi, 18. September 2019, 18³⁰ Uhr

Ort: Steiermarkhof, Ekkehard-Hauer-Straße 33, 8052 Graz

Tagesordnung:

1. Eröffnung
2. Vorstellung der Feasibility Study für Eibiswald
3. Aktuelle Pläne der Nahwärme Eibiswald
4. Vorstellung: Zweck der Local Working Group
5. Allgemeine Diskussion über die Ausbaupläne
6. Vorstellung des Twinning Programms

Wir bitten um verlässliches Erscheinen und verbleiben
mit freundlichen Grüßen

Minutes and main Conclusions

Since the feasibility study for DHS Eibiswald has been finalised, LWK Steiermark and Bioenergie Service shortly presented scenario analyses, which deal with connection of the DHS Aibl, the rebuilding of the boiler house and the grid extension in Eibiswald.

Nahwärme Eibiswald and LWK Steiermark agreed on sending created studies as a beginning of implementation process. Thomas Kramer from the DHS Eibiswald also presented his plans to the local working group.

LWK shortly presented the main purpose of the local working group (LWG). This group aims to support pilot city Eibiswald and their operators/owners in achievement of investments. LWG consist of representatives from LWK Steiermark, Bioenergie Service, DHS Eibiswald, planning company Ringhofer & Partner and other DHS operators from the area. Furthermore, local/regional public authorities will be contacted.

In today's meeting all attending participants of the LWG discussed the feasibility study and the plans of DHS Eibiswald. Especially the necessity of connecting plenty of new customers to get subsidies was strongly discussed.

Furthermore, LWK Steiermark presented the twinning program and the purpose of this program. The twin partner of the DHS in Eibiswald will be the Latvian DHS Jekabpils. Additionally, there was a discussion about a potential visit of the DHS Eibiswald by the Latvian Twins.

Twinning activities

Twinning partner will be Latvian DHS Jekabpils. No exchange has yet taken place.

Monitor of retrofit implementation steps

Nahwärme Eibiswald presented their plans and the already done actions to optimize their DHS. The DHS already has made progress in the development of optimisation. First planning is finished, and detailed planning is ongoing. Furthermore, discussions with relevant stakeholders already have been done.

Nahwärme Eibiswald already took over the DHS in Aibl. Soon they will start with a connection grid to Aibl. The goal is to close the boiler house in Aibl and operate the new connected grid from the boiler house in Eibiswald. On this new connection grid, there are several potential customers. Some of them already signed a heat contract. Furthermore, plans for a grid extension in Eibiswald are close to a finalisation.

DHS Eibiswald already applied for a subsidy in June and started a construction tendering for their boiler house. However, it seems to be tough to find good construction companies to a fair price now. The operators fear that costs could be higher than expected.

Local working group – meeting 2

General Info

SHORT INFORMATION ABOUT THE LOCAL WORKING GROUP MEETING	
Country	Austria
Pilot city name	Ligist
Date	November 14, 2019
Location	DHS Neumarkt/Steiermark
Number of participants/ Stakeholder groups	2 participants from DHS Ligist 2 participants from LKW Steiermark 2 participants from Bioenergie-Service (DHS association) 4 participants from boiler manufacturers 3 participants from planning companies 19 other DHS operators
Topics(s)	Local working groups – introduction Feasibility studies Business Model Twinning activities
Minutes by	LKW Steiermark

Agenda



Einladung zur Generalversammlung des Bioenergie-Service reg.GenmbH

Sehr geehrte Mitglieder, liebe KollegInnen,
in der Beilage übermitteln wir die Einladung zur Generalversammlung des Bioenergie-Service
reg. GenmbH am **Donnerstag, 14. November 2019, in Neumarkt/Stmk.**

Tagesprogramm:

- 10⁰⁰ Uhr:** **Treffpunkt: 8820 Neumarkt, Hauptplatz 4, Gde Raiffeisensaal**
Begrüßungskaffee, danach Fahrt zum Heizwerk
- 10³⁰ Uhr:** **Besichtigung der Fernwärme Neumarkt (Kärntnerstraße 25b)**
In der Heizzentrale der Fernwärme Neumarkt ist ein Biomassekessel mit 1,6
MW und 3 Urbas-Holzvergaser zu je 150 kW_{el} installiert. Weiters wird eine
Rauchgaskondensationsanlage betrieben und am Heizwerk ist eine 150 kW_p
Photovoltaikanlage installiert.
- 12⁰⁰ Uhr:** **Mittagessen im „Lohrs Mittagstisch“ (Hauptplatz 52)**
- 13⁰⁰ Uhr:** **Generalversammlung (Raiffeisensaal im Marktgemeindeamt)**
Laut Statuten gilt das Kopfstimmrecht, d.h. jedes Mitglied hat ein Stimmrecht.
Der Stimmberechtigte kann sich aber auch mittels Vollmacht vertreten lassen.
- 14⁰⁰ Uhr:** **Vorstellung Optimierungsprojekt Ligest (Raiffeisensaal im
Marktgemeindeamt)**
Gemeinsam mit dem Projekt KeepWarm wurde für das Heizwerk Ligest ein Op-
timierungsprojekt erarbeitet. Geplant sind ein Kesseltausch und der Neuans-
chluss von Kunden. Das Projekt soll als Local Working Group diskutiert wer-
den.

Ende ca. 15³⁰ Uhr

Wir freuen uns auf eure Teilnahme und ersuchen um zeitgerechte Anmeldung.

Mit freundlichen Grüßen.

Mag. Jakob Edler e.h.
(Obmann)

Franz Moser e.h.
(Geschäftsführer)

Minutes and main Conclusions

The local working group meeting of DHS Ligest took place in Neumarkt. It was part of a periodic meeting between different DHS operators, planners, boiler manufacturers and wood chip suppliers. This meeting had two main point. First a site visit and discussion about DHS Neumarkt, and second the local working group meeting of DHS Ligest. This report will focus on the second part of the meeting.

Since the feasibility study for DHS Ligest has been finalized, LWK Steiermark and Bioenergie Service shortly presented scenario analyses.

Nahwärme Ligest and LWK Steiermark agreed on sending created studies as a beginning of implementation process. Raffael Stohandel from the DHS Ligest also presented his plans to the local working group.

LWK shortly presented the main purpose of the local working group (LWG). This group aims to support pilot city Ligest and their operators/owners in achievement of investments. LWG consist of representatives from LWK Steiermark, Bioenergie Service, DHS Ligest, planning company, boiler manufacturers and other DHS operators from the area. Furthermore, local/regional public authorities will be contacted.

In today's meeting all attending participants of the LWG discussed the feasibility study and the plans of DHS Ligest. Additionally, the development of the business model was discussed.

Furthermore, LWK Steiermark presented the twinning program and the purpose of this program. The twin partner of the DHS in Ligest will be the Latvian DHS Auce.

Twinning activities

Twinning partner will be Latvian DHS Auce. No exchange has yet taken place.

Monitor of retrofit implementation steps

The DHS Ligest presented their optimization plan and their already done activities. The implementation phase in Ligest is divided into two phases. The phase one is the renewal of the boilers and the adaption of the boiler house. These activities are mainly finished. Against the first plan of changing both boilers, the operators decided to just change one boiler, because of cost reasons. The DHS Ligest installed a new 2.5 megawatt wood chip boiler of the company Kohlbach. Additionally, installations and control systems in the boiler house were adapted to the new boiler.

As a next step the DHS Ligest plans to connect new customers to the grid, beginning in the year 2020. For these steps the operators are currently negotiating with potential customers. The operators are optimistic that new customers will connect to the grid.

Local working group – meeting 3

General Info

SHORT INFORMATION ABOUT THE LOCAL WORKING GROUP MEETING	
Country	Austria
Pilot city name	Eibiswald
Date	January 22, 2020
Location	DHS Eibiswald, 8552 Eibiswald
Number of participants/ Stakeholder groups	3 participants from DHS Eibiswald 2 participants from LWK Steiermark 2 participants from Bioenergie-Service (DHS association) 4 participants from boiler manufacturers 3 participants from planning companies 2 participants from DHS Jekabpils (twin partner) 5 participants from Keep Warm partners 2 participants from grid suppliers 12 other DHS operators
Topics(s)	Local working groups Review of the optimization steps Twinning activities
Minutes by	LKW Steiermark

Agenda

Excursion II
Efficient district heating plants

08:00 Departure Messe Congress Graz parking lot

09:30 - 11:00 **Nahwärme Eibiswald eGen**

- 2,7 MW heating plant
- 2.500 m² thermic solar collector
- 700 kW flue gas condensation

12:00 **Lunch**

14:00 - 16:00 **Fernwärme Leibnitz 100% Carbon free**

- 4,8 MW heating plant
- 0,4 MW Flue gas cleaning and heat recovery
- waste heat integration, demonstrator for Austria as a part of the Green Energy Labs

16:30 - 18:00 **Nahwärme Fernitz GmbH**

- 1,5 MW heating plant
- flue gas condensation
- BHKW biogas

18:30 Arrival at Messe Congress Graz



Minutes and main Conclusions

The second local working group meeting of the DHS Eibiswald took place on 22nd of January 2020. It was part of the work package 6 twinning site visit. Beside the twins from Jekabpils, Latvia and the other Latvian partners, also boiler manufacturers, planners, grid suppliers and other DHS operators from Austria participated at this site visit event.

Since the optimisation steps such as rebuilding the boiler house and grid expansion are already in execution, the goal of the local working group meeting was to present the progress in Eibiswald and discuss barriers and things, which went well. Furthermore, the goal was the discussion of the progress in Eibiswald with their Latvian twins from Jekabpils.

In the first part of the site visit and discussion the planner Martin Ringhofer showed the newly built boiler house including the two new boilers of the company Agro-Forst. Furthermore, he talked about the difficulties of building the new boiler house, as the property is very small and has a triangle form. Additionally, the property is limited by a small river on one side and a street on the other side.

In the second part of the site visit, Klaus Steinbauer and Thomas Krammer from the Nahwärme Eibiswald showed the participants the old part of the DHS and also talked about their purpose as well as about the grid expansion in Eibiswald and the grid connection of Aibl.

In this meeting all attending participants of the LWG discussed the already done optimisations of the DHS and future plans of DHS Eibiswald. Especially the necessity of connecting plenty of new customers to get subsidies was strongly discussed.

Furthermore, LWK Steiermark introduced the operators of DHS Jekabpils to DHS Eibiswald, which are twins in the KeepWarm project. It was the first time the operators saw each other face to face. They discussed the created business models of both DHSs as well as the current activates and constructions in Eibiswald.

Twinning activities

Twinning partner is Latvian DHS Jekabpils. Operators of Jekabpils attended to this working group meeting. During the meeting they discussed their feedback on the business models. The operators of Jekabpils were very interested how financing of such a 7 Million Euro project, like in Eibiswald works. Especially if banks are giving loans and how easy are, they are giving loans for such a project. Additionally, the twins talked mainly about the new technical equipment in Eibiswald, such as the new boilers and the flue-gas recirculation.

For the Business Model of Jekabpils they strongly discussed costs in Latvia. Costs of energy, equipment, personnel etc. Furthermore, they discussed the planned size of the new boiler in Jekabpils.

Monitor of retrofit implementation steps

The Nahwärme Eibiswald showed their already done actions to optimise their DHS. Especially the newly built boiler house with completely new installations, boilers, flue gas condensations, filters, pumps, etc. The installations are not 100 percent ready yet. There are still in construction phase. Furthermore, the office buildings still will be built newly.

The planning company Ringhofer & Partner is very satisfied with the current progress. Especially that they could install and start the new boilers during winter.

The Nahwärme Eibiswald already took over the DHS in Aibl. They also built new grids to connect the grid of Aibl with Eibiswald. Therefore, they deliver the heat in Aibl from the DHS in Eibiswald. The boiler house in Aibl is out of order. On this new connection grid, there are several potential customers. Some of them already connected to the grid and signed a heat contract. Some will follow for the next season. Furthermore, the grid expansion in Eibiswald are close to a finalisation and plenty of new customers already connected to the grid.

The total costs of the project will be higher than expected. During the feasibility study the estimate costs were about six million Euros. Currently they expect costs of around seven million Euros. Mainly caused by high prices of construction companies.

The local working group will support the operators in Eibiswald in the implementation of their activities and especially in networking. It will be crucial to have more discussions with public authorities, companies, and potential customers.

Local working group – meeting 4

General Info

SHORT INFORMATION ABOUT THE LOCAL WORKING GROUP MEETING	
Country	Austria
Pilot city name	Ligist
Date	January 23, 2020
Location	CEBC, Messe Graz
Number of participants/ Stakeholder groups	2 participants from DHS Ligist 2 participants from LWK Steiermark 1 participants from Bioenergie-Service (DHS association) 2 participants from DHS Auce (twin partner) 6 participants from Keep Warm partners 11 other participants
Topics(s)	Local working groups Business Model Twinning activities
Minutes by	LKW Steiermark

Agenda

Workshop: Saubere Luft und effiziente Heizwerke, Saal 1, 13:30 – 17:00

Powered by Keep Warm and Clean Air II Project

Donnerstag
23
Jänner



„Durch die verstärkte Einbindung von erneuerbaren Energieträgern und Abwärme sowie durch stetige Optimierungsmaßnahmen tragen Europas Heizwerke wesentlich zum Klimaschutz und zur Reduktion von Emissionen bei.“

Chairman: Klaus Engelmann, Landwirtschaftskammer Steiermark, Österreich




„Die Biomasseverbrennung ist nachhaltig, trägt aber dennoch deutlich zur Feinstaubbelastung bei. Dieser Workshop zeigt Ihnen Maßnahmen und Wege der Umsetzung zur Reduktion von Luftschadstoffen, sowie deren Einfluss auf die Luftqualität.“

Chairman: Rita Sturmlechner, BEST Bioenergy and Sustainable Technologies GmbH, Österreich

Folgende Themen erwarten Sie:

- Optimierung von Biomasse-Heizwerken
- Reduktion der Rücklaufemperatur
- Emissionsreduktion in Biomasse-Feuerungen
- Einsatz von Biomasse in städtischer Fernwärme
- Biomassequalität als Erfolgsfaktor für saubere Verbrennung
- Emissionsreduktion durch richtiges NutzerInnenverhalten
- Verbesserung der Luftqualität mit Biomassefeuerungen
- Technischer Fortschritt im internationalen Kontext bei Biomassefeuerungen

Im Anschluss bietet sich die Möglichkeit, den „Clean Air II Trailer“ zu besichtigen. Dieser Anhänger mit drei installierten Öfen, inklusive umfangreicher Messtechnik, wird im Projekt Clean Air II zur NutzerInnen-schulung verwendet. Ein Video zeigt, wie der Trailer zum Einsatz kommt. NutzerInnen können dabei ihr Heizverhalten testen, erfahren ihre Emissionswerte und werden geschult, um einen emissionsarmen und effizienten Betrieb zu gewährleisten.

Simultanübersetzung 

13:30 Beginn

Der Workshop zeigt Lösungen auf, wie eine saubere Verbrennung in Biomassekesseln und Öfen gewährleistet und wie der Betrieb von Biomasse-Heizwerken effizient gestaltet wird. Im ersten Teil des Workshops wird demonstriert, wie Heizwerke modernisiert, optimiert und dabei die Emissionen gesenkt werden. Zur Veranschaulichung dienen praktische Beispiele und deren Umsetzung. Der zweite Teil des Workshops befasst sich mit Maßnahmen zur Verbesserung der Luftqualität mit Biomasse-feuerungen. Dafür werden technische und nicht-technische Maßnahmen in nationalen und internationalen Projekten und deren Ergebnisse präsentiert.

17:00 Ende



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Minutes and main Conclusions

The second local working group meeting of the DHS Ligist took place on 23rd of January 2020. It was a side event of the Austrian KeepWarm national inspire event. Beside the twins from Auce, Latvia and the other Latvian partners, also boiler manufacturers, planners, grid suppliers and other DHS operators from Austria participated at this local working group meeting.

Since some optimisations steps such as changing a boiler are already finished, the goal of the local working group meeting was to present the progress in Ligist and discuss barriers and things, which went well. Furthermore, the goal was the discussion of the progress in Ligist with their Latvian twins from Auce.

After a short introduction of LWK Steiermark, Raffael Stohandel and Maria Stering from DHS Ligist presented their already done actions as well as future optimisation plans to the local working group.

In this meeting, all attending participants of the LWG discussed the already done optimisations of the DHS and future plans of DHS Ligist. Especially the necessity of connecting of new customers was strongly discussed. Furthermore, the discussion was about changing plans in Ligist. The operators initially planned to change both of their existing boilers. Now, they decided to change just one, because of cost reasons.

Furthermore, LWK Steiermark introduced the operators of DHS Auce to DHS Ligist, which are twins in the KeepWarm project. It was the first time the operators saw each other face to face. They discussed the created business models of both DHSs as well as the current activates in Ligist.

Twining activities

Twining partner is Latvian DHS Auce. Operators of Auce attended to this working group meeting. During the meeting they discussed their feedback on the business models. The operators of Auce were very interested about operation costs in Austria. Especially, how it is possible to operate such a DHS with very low personal costs, like Ligist, although being in a high salary country. Additionally the twins talked mainly about the technical equipment in Ligist, and customer contracts.

For the Business Model of Auce they strongly discussed costs in Latvia. Furthermore, they discussed the feeding system of the boiler as well as different grid types.

Monitor of retrofit implementation steps

Nahwärme Ligist showed their already done actions to optimise their DHS. Especially the newly built boiler with completely new installations. However, the DHS changed its previous plan to change both boilers. Instead they just switched the bigger one. Mainly, because of financial reasons.

Additionally, the operators are planning to connect some new customers. Currently they are negotiating. However, negotiations seem to be quite tricky. It is necessary to connect several new customers that the grid extension is financially feasible. Therefore, it is an issue if some potential new customers are not 100% convinced yet.

However, the planned next step is to start with connecting the new customers in spring 2020.

The local working group will support the operators in Ligest in the implementation of their activities and especially in networking. It will be crucial to have more discussions with potential customers.

Local working group – meeting 5

General Info

SHORT INFORMATION ABOUT THE LOCAL WORKING GROUP MEETING	
Country	Austria
Pilot city name	Eibiswald
Date	June 22, 2020
Location	Steiermarkhof, 8020 Graz
Number of participants/ Stakeholder groups	2 participants from DHS Eibiswald 2 participants from LWK Steiermark 2 participants from Bioenergie-Service (DHS association)
Topics(s)	Local working groups Discussion about finished optimization activities in Eibiswald Discussion about still open activities
Minutes by	LKW Steiermark

Agenda

No official agenda available.

Minutes and main Conclusions

This first physical local working group meeting after the start of the Corona pandemic of the DHS Eibiswald took place on the 22nd of June 2020 in Graz. Five persons attended this meeting:

- Thomas Krammer, DHS Eibiswald
- Alois Masser, DHS Eibiswald

- Jakob Edler, Bioenergie-Service
- Franz Moser, Bioenergie-Service
- Klaus Engelmann, LWK Steiermark
- Christian Metschina, LWK Steiermark

Thomas Krammer, the operating director of the DHS Eibiswald presented the current stage of the optimisations and the investments in Eibiswald.

Since the last physical meeting in January, the DHS Eibiswald nearly finished all the construction work. The building of the new boiler house was totally finished. Also, the new office room and control centre was finished during this time. Furthermore, the construction on the grid and the connection of new customers also has finished.

However, more and more potential new customers want to connect to the DHS grid. But the economic feasibility for some of those potential new customers is not clear, as the necessary additional grid length is too long.

In this sense, there was a discussion about short-term profits versus potential long-term development through further grid expansions.

Twinning activities

Twinning activities were not included in this meeting.

Monitor of retrofit implementation steps

Nahwärme Eibiswald showed their already done actions to optimise their DHS. Especially the newly built boiler house with completely new installations, boilers, flue gas condensations, filters, pumps, etc. The installations are now 100 percent finished. Furthermore, the newly built office building is now finished.

In terms of costs, the project exceeds the planned costs of 6 million Euros. The total costs for the project will be about 7 million Euros. There are two reasons for that. First, it was very hard to find construction companies for a reasonable price. The costs for construction was higher than expected. Second, there were some additional new customers which the DHS hasn't thought about in the beginning. Therefore, some additional grid building was necessary.

Currently the discussion is about connecting even more potential customers, even if the short-term economical connection would be economically not feasible. It was agreed that LWK Steiermark will provide a short-term economical calculation of connecting those potential customers. DHS Eibiswald will provide a grid development plan with additional future potential customers, who might connect, if the grid is available in their area.

The DHS is thinking of connecting those potential new customers, as it might give them access to even more potential customers in future.

Furthermore, it was agreed that LWK Steiermark will support the DHS Eibiswald in preparing the necessary documents for the subsidy. Additionally, Bioenergie-Service will support the DHS with a quality management program and will monitor key indicators.

Future activities of local working groups

As the project period comes to its end, there will be additional meetings of local working groups organised in order to continue above-mentioned activities in terms of achieving investments. Most of those meetings will take place virtually due to new working environment influenced by the COVID-19.

Meeting with Nahwärme Eibiswald

As the implementation of the optimisation activities in Eibiswald is more or less finished, the next meeting will be about controlling and monitoring of the optimization process. The goal is to check if the planned results from Work Package 3 and 4 could be achieved through the implementation. Furthermore, future potential expansion plans will be discussed. Additionally, a big opening ceremony was planned for autumn 2020. However, due to COVID-19, this will be postponed to 2021. The goal of this opening ceremony is also to interact with local stakeholders, like customers, municipality and other citizens.

Meeting with DHS Ligist

The implementation of new biomass boilers in Ligist is finished. The goal of the next local working group meeting is to monitor the performance of the new boiler and to adapt and optimise the settings. It is planned that the boiler manufacturer, the planning company, the DHS operators and the KeepWarm partners will participate.

In an additional meeting, also the future plans for grid expansion and connection of new customers will be discussed. Here it is very important to include potential future customers in such meetings to overcome barriers.