

FUNDING SYSTEM FOR DISTRICT HEATING IN AUSTRIA

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1



The Austrian DHC Funding System

- Based on the EU Energy Efficiency Directive (2012/27/EU) the **Federal Energy Efficiency Package (BGBl. [Federal Law Gazette] I Nr. 72/2014)** was issued.
- **The Federal Energy Efficiency Package (BGBl. [Federal Law Gazette] I Nr. 72/2014)** is the core element of the Austrian funding scheme encompassing legal regulations with the aim of fostering DHC.
 - „Federal Law on Securing the Operation of Highly Efficient CHP-Plants via CHP-Points“ [**CHP-Points Act, KPG**]
 - „Federal Law on Supporting the Construction of Grids for Transporting District Heating and Cooling“ [**Heating and Cooling Network Expansion Act, WKLG**]
 - „Federal Law Providing New Rules on Combined Heat and Power.“ [**CHP Act**]
- **Additional environmental funding schemes concerning DHC are provided by the Kommunal Kredit Public Consulting (KPC)**
- **The nine Austrian Federal States also provide funding especially for the construction of rural district heating systems based on biomass.**

Funding schemes I

Funding in line with the Heating and Cooling Network Expansion Act (WKLG)

- DHC expansion projects, infrastructure projects, projects for the utilization of industrial waste heat are funded
- Funded by **investment grants**.
- **The funding extent** for DHC expansion projects amounts for **max. 35 % of the total investment costs** and **max. 50 % of the environmentally relevant additional costs**. At maximum 200.000 €/MW.
- The performance-based funding limit is not valid for district cooling projects..
- Totally public funds of 60 Mio. €/a are at disposal.

Funding schemes II

Funding in line with the CHP-Act

- Aim is fostering the construction of a new CHP-plant as well as the renewal of CHP-plant with a maximum capacity above 100 kW.
- Funded are plants for the generation of process heat or for the operation of public district heating which are contributing to primary energy savings and CO₂-emission savings compared to separate electricity and heat generation. The plants have to fulfill the in § 8 (2) defined efficiency criteria.
- Funded by **investment grants**.
- Max. 30 % of the investment costs (excl. property costs) immediately necessary for the construction of the CHP-plant as well as max. 60 % of the subsidizable additional costs are funded.
- Totally 12 Mio. €/a until 2020 are at disposal in this funding scheme. Thereof 7 Mio. €/a have to be used for funding CHP-plants.

Funding schemes III

CHP-Points Act, KPG

Enactment in line with the Federal Energy Efficiency Package (BGBl. [Federal Law Gazette] I Nr. 72/2014) .

- **Aim** is the support of energy generation with **highly efficient CHP-plants for the public district heating supply for securing the operation** for reasons of environmental protection and supply security.
- Industry regulations regulate that the endusers are obliged to buy CHP-Points from operators.
- The purchase obligation is independent from the consumption. It is dependent on the network level of the main connection.
- *The obligation per year and meter point for the endusers is rated as follows:*
 - *Network level 1 bis 3: 9.820 CHP-Points*
 - *Network level 4: 8.080 CHP-Points*
 - *Network level 5: 1.015 CHP-Points*
 - *Network level 6: 130 CHP-Points*
 - *Network level 7: 10 CHP-Points*
- *According to the industry regulation the **minimum price per CHP-Point has to be 0.5 € plus VAT** . The **maximum price is fixed by 1 € plus VAT**.*

This act is not yet in force. The EC currently proofs this act, if it is in line with EU terms.

Funding schemes IV

Environmental funding schemes concerning DHC (Part 1)

Heat recovery for companies

- Subsidized are plants for heat recovery , transport pipelines for grid integration, grid expansion, heat pumps for temperature raising.
- **Basic condition** for generating the subsidy is beside others an annual **CO₂-saving** of 4 t as well as a **total efficiency 75 %** of the grid.
- Funded by **investment grants**.
- Max. 30 % of the subsidizable investment costs.

District Heating fo companies

- Subsidized are transfer stations, integration in the heating system, pipe installation, pumps and outlets, storage facilities and construction works.
- **Basic condition** for generating the subsidy at a connected load of $\geq 400 \text{ kW}_{\text{th}}$ a minimum **CO₂-saving** of 4t/a.
- Funded by **investment grants**.
- Max. 30 % of the subsidizable investment costs.

Funding schemes V

Environmental funding schemes concerning DHC (Part 2)

District heating on the basis of renewable energy carriers

- Subsidized are rural district heating plants based on biomass, new construction, expansion and consolidation of district heating networks based on biomass, geothermics or waste as well as the optimizing of rural district heating plants, biomass CHP, renewal of boilers in existing plants, geothermic plants for rural district heating.
- Basic conditions: overall efficiency has to be mind. 75 %, net return temperature max. 55 °C, investment sum of min. 10.000 €, annual CO₂-saving of min. 4 t
- Funded by investment grants– varies according to the action which should be subsidized between 10 up to 30 % of the investment costs.

Example for funding at Federal State Level

Climate and environment package of the Federal State of Salzburg (KLUP)

District Heating offensive*

- Subsidized is the switch from an oil fueled heating system or a heating system fueled with solid fossil fuels to a district heating using renewable energy carriers, CHP or waste heat.
- The subsidy is paid-out as a De-minimis benefit dependent on network deployment costs.
- The following flat-rates are paid-out:
 - Max. 50 % of the network deployment costs.
 - Max. 25 €/kWh network deployment costs.
 - At maximum 20,000 € per project are granted

District Heating grid expansion**

- Subsidized are district heating network expansion projects for developing new service areas or for connecting existing service areas.
- Basis for granting the benefit are the environmental relevant additional investment costs.
- The benefit is calculated based on the CO₂-saving achieved by realizing the project.
→ 300 €/t CO₂
- The overall subsidy is capped at 50,000 € per project.

*additional programme to the state environmental funding scheme.

**additional programme to the WKLG

Indirect funding regarding to district heating

Residential building subsidies

- The residential building subsidies foster the construction or renovation of residential properties and are regulated at Federal State level.
- A matter of residential building subsidies is **fostering alternative energy generation systems in the housing sector.**
- In line with that residential building subsidies in Austrian Federal States foster the implementation of district heating in housing.
- The change from a fossil fueled heating system to district heating is also fostered.
- Often a basic condition for generating the subsidies is that the district heating stems from highly efficient KWK, waste heat or has a share of 80 % renewable energy in its generation mix.
- In some Federal States the residential building subsidy guidelines proposed that district heating has to be used in the housing sector if a building will be or is near a district heating plant, respectively grid. If this is the case other heating systems are only fostered if the connection to the district heating grid is economically and technically not feasible.

→ such measures indirectly subsidize district heating in Austria.

Conclusions

Funding schemes in Austria

- The Austrian funding schemes can be divided into funding at national level and Federal state level.
- Federal State level funding frequently is an addition to the national programmes or is co-financed by national programmes.
- Funding is frequently connected to achieving a certain CO₂-emission saving and/or specific technical parameters such as connected load, return temperature.
- Funding is also connected to applying a district heating system which uses a certain rate of renewable energy carriers, CHP and/or waste heat.
- Indirect fostering of district heating via other funding schemes such as the residential building funding scheme of the Federal States.

Future perspective

- Designing funding schemes should not only focus on a single end energy carrier (heat, electricity, gas,...) of the energy system – all components of the energy system should be taken into account to design a „good working“ funding system.
- An ex-post evaluation could help to measure if the funding scheme works as it is intended to.
- There is often a claim towards a easier excess to the different funding opportunities.

THANK YOU FOR YOUR ATTENTION

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