

INP Reference

Planning of river water heat pump system

LOCATION: Bremen, Germany

SERVICES: Pre-project planning and tendering, Basic-engineering and pre-

engineering

INDUSTRY BRANCH/TYPE OF PLANT: Green Energy

CLIENT: swb Services GmbH

ACTIVITY PERIOD: 12/2023 to approximately 2027

Project description

swb Services AG & Co. KG is planning to build two river water heat pump systems in the "Vordere Neustadt" district of Bremen, each with a thermal output of 2×5 MWth and 2×2 MWth. The aim is to use environmental energy from a tributary of the Weser River or the Weser itself with the help of heat pumps and feed it into the municipal district heating network. INP was commissioned with the project-related planning in order to review and supplement existing urban development preliminary plans and convert them into plans that are suitable for approval and tendering.

INP was commissioned to verify and supplement the existing preliminary investigations. This included, among other things, the planning of the inlet and outlet structures, the dimensioning of the heat pumps, the routing of the media supply lines, the connection to the district heating network, and coordination with the approval authorities and specialist planners. In addition, the tender for the plants was to be structured and prepared. The collaboration took place in close cooperation with the swb project management team.

INP Services

INP provided the following services:

- Review of existing planning statuses for technical and regulatory suitability
- Planning and dimensioning of heat pump systems, including selection of possible technologies
- Planning of inlet/outlet structures with dyke crossing
- Route planning for river water and district heating pipeline
- Preparation of tender packages, including lot structure for:
- Heat pump systems (including EMSR and electrical engineering)
- Operating buildings, including building services, air conditioning, and ventilation
- Heat storage
- Inlet/outlet structures with filters, pumps, and shut-off valves
- Support for approval planning by providing planning documents and coordinating with experts and authorities
- Detailed cost planning

POINTS OF CONTACT



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