terranets bw

Hydrogen for Baden-Württemberg
A terranets bw initiative

RHYN INTERCO

A joint hydrogen project between badenova and terranets bw

Cross-border hydrogen pipeline » from France to South Baden

www.terranets-bw.de/rhyn_interco

For a secure supply of energy. Today and tomorrow.

Germany is on its way to climate neutrality by the year 2045, Baden-Württemberg by the year 2040 already. Hydrogen will constitute an essential pillar in this energy system and will be used both by industry and to generate heat and electricity in the future. With a hydrogen-ready infrastructure and by connecting it to European transport routes, we are creating conditions for a climate neutral supply of energy to Baden-Württemberg and are thus securing its thriving economy for the future.

Together with the distribution network operator Badenova NETZE and the French gas infrastructure operator NaTran, we at terranets bw are working on a cross-border transmission network for hydrogen: RHYn Interco. By implementing the required hydrogen infrastructure, which is achieved as far as possible by repurposing existing gas pipelines, we will connect Baden-Württemberg with the Grand Est region in France from the year 2029.

RHYn Interco – a cross-border connection

RHYn Interco is to connect industrial customers in Baden-Württemberg with the Grand Est region in France from the year 2029. It is planned for the hydrogen network to then be extended to the Offenburg and Kehl area from the year 2035.

The Franco-German hydrogen project derives its name from this cross-border connection across the Rhine: “RHYn“ is an acronym for “Rhine HYdrogen Network“ and “Interco“ stands for “Interconnection“ in the sense of “mutual connection“.

The project partners are responsible for repurposing pipelines or building new pipelines in their respective network area. With its project “RHYn“, the French gas transmission system operator NaTran is implementing the hydrogen network in the Grand Est region (France). With their project “RHYn Interco“, terranets bw and Badenova NETZE are responsible for repurposing and constructing new pipelines in South Baden (Germany).

This will give the Upper Rhine region access to a pipeline network in Baden-Württemberg that will transport one hundred per cent hydrogen. This means that hydrogen produced in France and imported hydrogen can be delivered to industrial and mobility customers throughout the whole region. CO_2 emissions can thus be sustainably reduced in the long term.

RHYn Interco is part of the German core hydrogen network

By the year 2032, a 9.040-kilometre hydrogen transport network is to be created that will connect production and consumption hubs.

RHYn Interco will connect the Freiburg i. B. area with hydrogen production in France as the first one hundred per cent hydrogen network in Baden-Württemberg.

Repurposing with potential, step by step

Step 1: Connecting the Freiburg i. B. area from 2029

Industrial customers of Badenova NETZE near Freiburg i. B. will be connected by constructing new pipeline to France and repurposing existing gas pipelines.

A new, approximately 15-kilometre-long hydrogen pipeline built by terranets bw will create a connection to France and will therefore cross the Rhine between the Fessenheim area on the French side and the Bad Krozingen area on the German side. The newly constructed pipeline will be connected to an existing, approx. 20-kilometre-long gas pipeline owned and operated by terranets bw that stretches to March-Buchheim. This pipeline will be repurposed for transporting hydrogen. Customers will be connected via the Badenova NETZE network in the Freiburg i. B area.

Step 2: Connecting Offenburg/ Kehl from 2035

By repurposing an additional section, the hydrogen network can be extended from Freiburg i. B. to Offenburg, connecting further industrial and mobility customers. By repurposing an existing 60-kilometre-long gas pipeline owned and operated by terranets bw, the hydrogen network can be extended to the Offenburg area. Hydrogen pipeline constructed by Badenova NETZE will connect customers to the Rhine port in Kehl.

RHYN INTERCO

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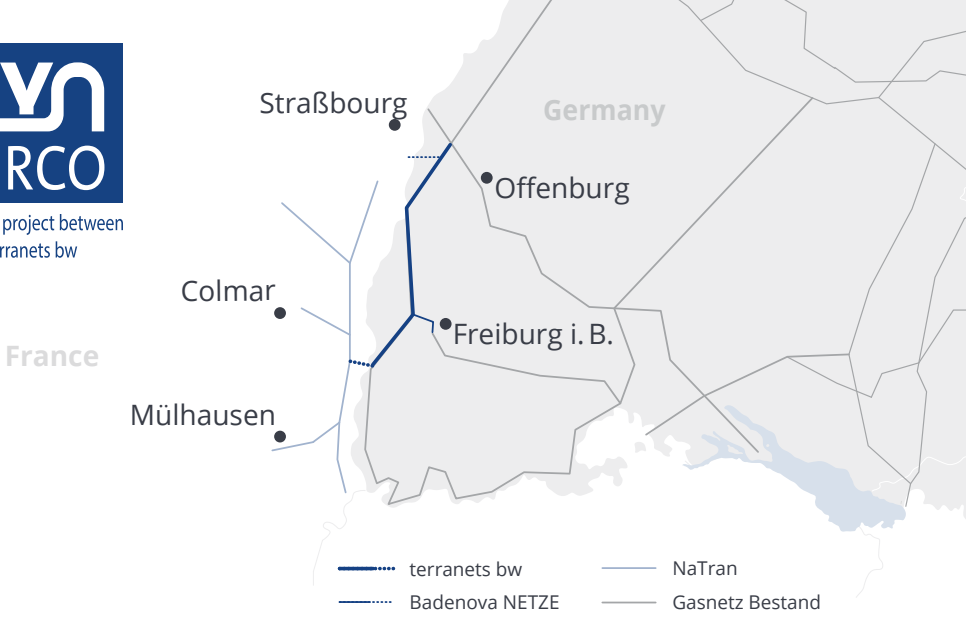

Dates and facts

from 2029
connecting Freiburg i.B. area

from 2035
extending to Offenburg/Kehl

73 %
repurposing of existing gas pipelines

100 %
hydrogen transport

Careful planning with consideration for people and nature

Throughout planning and construction works, the route that makes most sense for people, nature and the environment is sought and selected. Existing routing principles are always adhered to. The terranets bw planning team check very carefully: What is the best possible solution for the region? How can pipeline construction works be implemented in the most compatible way?

In a feasibility study, possible pipeline routes from the section of the Rhine between Hartheim a. R. and Neuenburg a. R. to the connection point with the existing pipeline in the Bad Krozingen area are determined.

Along the anticipated route, the environment and existing nature are surveyed along with the condition of the soil.

Open dialogue and a transparent approach are especially important in this process. terranets bw regularly informs representatives of the region and the municipalities, authorities and interest groups affected as well as citizens about the current planning status and provides targeted opportunities for information and dialogue throughout the single project phases. At local events and in direct dialogue with owners, the farming community and citizens, terranets bw collects information for the planning process.

Based on assessment results and in-depth planning, terranets bw draws up a detailed route proposal, which is part of the approval application for constructing and operating RHYn Interco.

For the repurposing of existing pipelines to transport hydrogen, terranets bw conducts a comprehensive integrity assessment. This means that all components are tested for their suitability for hydrogen.

From planning to implementation

In the planning approval procedure, the competent authority, the Freiburg Regional Council, weighs up all matters affected by the planning. Public bodies and stakeholders are able to submit their comments as part of this procedure.

Parallel to the commencement of the approval procedure, terranets bw begins to acquire the rights of way and pipeline rights for the new pipeline section because terranets bw is dependent on using third-party land for constructing and operating its pipelines.

With the planning approval decision, the authority approves the route application, which is submitted in detail, plot by plot. With this approval, the authority grants authorisation to construct and operate RHYn Interco.

Pipeline construction can begin when all preparatory measures have been completed and all authority approvals and pipeline rights and rights of ways have been submitted. terranets bw plans to begin construction work on the new, approx. 15-kilometre-long hydrogen pipeline in the year 2028.

Components will be replaced to repurpose terranets bw´s existing 20-kilometre-long gas pipeline to transport hydrogen. The adjustments are expected to be implemented by the end of 2029.

About terranets bw

As a transmission system operator, security of supply is a top priority for terranets bw - today and in the future. With a gas grid, which covers 3,000 kilometres, terranets bw ensures a secure supply of heat and electricity from Lower Saxony to Lake Constance. At the same time, terranets bw has its sights set on a climate-neutral future and is already building an high-performance hydrogen network today.

With its ”H_2 for BW“ initiative, terranets bw is committed to connecting Baden-Württemberg with the German and European hydrogen infrastructure.

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