CaseStudy

SIMONA

schenk
Gesteuerte Horizontal-Bohrtechnik

Laying of SIMONA® cable protection pipes at solar park in the Southern Eifel by means of HDD

Top: installation of pipes using the horizontal directional drilling method (HDD). Bottom left: parallel welding in a tent of several cable protection pipe strings in the heating element butt welding process. Bottom right: SIMONA® PE 100 cable protection pipes delivered to the Moselle slopes near Bullay.

In early 2024, a project company consisting of Enovos Renewable, Stadtwerke Trier and a citizens' cooperative commissioned the largest solar park in Rhineland-Palatinate to date. The solar park, which is spread over eleven sites, is to supply 60,000 households with electricity.

The project at a glance

Project
Laying of cable ducts over 5.8 km for the Enovos Renewables solar park in the southern Eifel region, encompassing eleven individual photovoltaic installations. The cost of the project is around 150 million euros.

Requirements
- Support the regional economy
- Biodiversity is to be preserved
- Energy transition in Rhineland-Palatinate
- Cover 100 % of gross electricity consumption from renewable energy
- Reduce CO_2 emissions by around 135,000 tons per year

Client
Schenk AG Heldswil
Heldswil
Schweiz

Technical support
Christian Schmitt, SIMONA AG
Curdin Pinggera, Schenk AG Heldswil

Products used
- SIMONA® PE 100 cable protection pipes d 225 SDR 7.4 and SDR 11 in lengths of 12 metres

Duration of project
2 years

Continued overleaf ►





SIMONA® PE 100 cable protection pipes

Initial situation

In the period from 2022 to April 2024, the largest solar park in Rhineland-Palatinate (Germany) to date was created over an area of more than 2 km² in the southern Eifel region. The electricity produced at the facility was to be fed into the public power grid via a cable route spanning approx. 30 kilometres. Schenk AG Heldswil, a company based in Switzerland, was commissioned to lay the cable ducts along the Moselle, as it is one of the leading specialists in horizontal directional drilling (HDD) and was considered best suited to the challenging task of installing the protective pipes along and under the river. The cable ducts supplied by SIMONA had to be suitably robust and tension-resistant.

Task

The location of this project is by no means a coincidence, given the abundance of open space in the southern Eifel region. The solar park is spread over eleven separate sites with a total of 380,000 photovoltaic modules, which are connected by a 30-kilometre cable route.

The contrasting features of the landscape, from stony slopes, a river and agricultural fields to road crossings, pose a particular challenge when it comes to horizontal drilling. In addition, the operator of the facility was keen to lay the cable routes as quickly, efficiently and cost-effectively as possible. Last but not least, the project itself – centred around the production of renewable energy – naturally called for a sustainable installation process.

Solution

The products used included SIMONA® PE 100 cable protection pipes d 225 SDR 7.4 and SDR 11 in lengths of 12 metres. Thanks to their long-term temperature resistance, PE materials guarantee a service life of over 100 years, even when exposed to high temperatures. Additionally, they are corrosion-resistant and highly resilient to mechanical loads. The process of laying the cable ducts is fast and efficient. After installation, the pipework underneath remains fully accessible.

Drawing on its expertise in horizontal drilling technology, Schenk has been working with SIMONA for many years. The long-standing partnership, which includes coordinating the use of suitable products for special applications, and the extensive range of piping products available provide the basis for best-in-class results.

SIMONA® PE 100 cable protection pipes

Properties
- Fast and effortless laying
- Corrosion-resistant
- Additional anti-friction properties on request (protect and glide)
- Highly resistant to mechanical loads
- PE materials with long-term temperature resistance for continuous exposure to high temperatures
- Tested and independently monitored pipe quality

Fields of application
- Agriculture
- Power supply
- Drinking water pipes
- Rehabilitation

Product range
- **Design:** monoextruded
- **Materials:** PE 100, PE 100 RC, PE 100 RT, PE 100 RT RC, PP-H AP
- **Dimensions:** 10 – 1200 mm

- **Design:** coextruded
- **Materials:** PE 100, PE 100 RC, PE 100 RT, PE 100 RT RC
- **Dimensions:** 32 – 800 mm

Further information

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