



Press release  
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## Geothermal energy: Vélizy-Villacoublay and ENGIE Solutions\* commit to transitioning the town's heating network to zero-carbon energy

Vélizy-Villacoublay and ENGIE Solutions have signed a contract for the SAS ENR company Véligéo, which will enable a geothermal facility to be built for the Vélizy heating network. Over 50% of the heat provided by this network will then be derived from renewable energy sources.

To develop geothermal energy in the Vélizy area, the first S.A.S ENR (Simplified Joint-stock Company for Renewable Energy) in the Ile-de-France region has been created. This company cements the local partnership between ENGIE Réseaux (80% shareholding) and the Vélizy-Villacoublay Council (20% shareholding).

For 28 years, this local company will provide heat for the Vélizy district network and for local industrial firms. Over 50% of the energy generated will be derived from renewables. The initial stages of the project's construction will start in September 2020, in tandem with the conversion of the network to low pressure. Geothermal energy production is due to be commissioned in the winter of 2021. Investments in the project total 22 million euros, including over 8 million euros of subsidies attributed by ADEME and the Ile-de-France Region.

The Vélizy network is currently 18 km long and provides heat for the equivalent of 15,000 housing units via 124 delivery points. Building a geothermal facility and using this natural, local, renewable resource will enable the town of Vélizy-Villacoublay to enjoy the benefits of heating with low environmental impact, thus stabilizing heating prices for future customers.

### What does geothermal energy entail?

A geothermal plant captures heat from below the Earth's surface or from groundwater - where the water temperature is between 50 and 95°C - then turns it into energy. The captured heat is transferred to the district network to provide heating or domestic hot water for the buildings within a neighbourhood. The water is then reinjected back into the groundwater.

To enable this process, the so-called “doublet” technique is used: an extraction well allows calories to be captured from geothermal water and a reinjection well allows the full volume of extracted water to be returned underground.

The Vélizy geothermal exploration will be the first project in France to apply multi-drain drilling technology to a deep geothermal facility. This will facilitate the capture of a heat source at 64°C using heat pumps, thus generating over 16 MW of power.

### About ENGIE Solutions

ENGIE Solutions is an umbrella brand bringing together ENGIE Ineo, ENGIE Axima, ENGIE Cofely, ENDEL ENGIE and ENGIE Réseaux.

ENGIE Solutions employs 50,000 people in France, all with varied skills, who can act together alongside your organisation, providing you with the solutions you need to take up the challenge of the energy transition. Improving performance in factories, comfort in buildings and making regions more attractive are central to ENGIE Solutions’ value proposition, with a zero-carbon goal.

*\*The ENGIE Solutions brand will be completely effective as of 1 January 2020*

### ENGIE Réseaux:

Specializing in heating networks, ENGIE Réseaux deploys its expertise to produce and distribute renewable and reclaimed energy locally. ENGIE Réseaux, a subsidiary of ENGIE, designs, funds, constructs and operates district heating and cooling networks. The company partners with local authorities to help these customers implement their energy transition, by offering them effective solutions for renewables and energy efficiency. Over 50% of distributed energy is derived from local, renewable sources. ENGIE Réseaux manages 50 district heating and cooling networks in France, employs 700 people and generates €500 million in turnover.

### About Vélizy-Villacoublay

Vélizy-Villacoublay, located in the Yvelines region, is populated by 22,000 residents and 50,000 company employees; it is a dynamic, innovative, family-oriented town. To maintain its attractive image, the municipality lends its support to many experimental projects around the town, and pays particular attention to maintaining a high-quality environment. These include a Wind Tree, the removal of 20,000 m<sup>2</sup> of concrete to create an eco-district, and the development of electric vehicles. To ensure each resident’s well-being and maintain their quality of life, Vélizy-Villacoublay takes special care of its parks and gardens. It is one of the three towns in the region to be awarded the “4 Flowers” label.

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**[Mots-clés]** geothermal energy, Engie Solutions, district heating network, renewable energy, Vélizy-Villacoublay, zero-carbon, energy transition, local partnership

**[URL conseillée]** [www.engie-solutions.com/en/press/engie-solutions-to-power-Velizy-Villacoublay-heating-network-with-geothermal-energy](http://www.engie-solutions.com/en/press/engie-solutions-to-power-Velizy-Villacoublay-heating-network-with-geothermal-energy)

**[Balise <title>]** Engie Solutions to use geothermal energy to power the Vélizy-Villacoublay heating network

**[Balise <description>]** Vélizy-Villacoublay and ENGIE Solutions have formed a joint company, Véligéo, to build and operate a geothermal facility for the Velizy heating network. Over 50% of the heat provided by this network will then be derived from renewable energy sources.