

Case | Grundfos MIXIT in France

Energy-efficient housing renovation with MIXIT

Speed, energy savings and comfort in French public housing

As part of a building renovation project, a collaboration between a public housing organisation, district heating provider and Grundfos resulted in a MIXIT installation in a new substation that optimises energy use and improves residents' comfort.

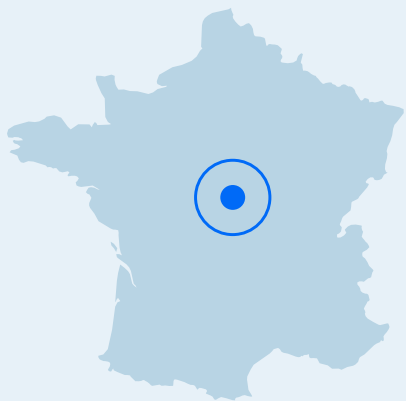
GRUNDFOS 

Possibility in every drop

A public housing complex in Cosne-sur-Loire, France, underwent significant renovations aimed at improving the buildings' energy efficiency and enhancing the living conditions for its residents. Public housing provider Nièvre Habitat, district heating provider ENGIE Solutions and Grundfos collaborated on the installation of a new, efficient heating system for the renovated buildings based on the innovative all-in-one MIXIT solution. The result is an energy-optimised housing complex and a mixing loop with remote monitoring possibilities.

The situation

Nièvre Habitat, a public housing organisation with over 8,000 properties in the department of Nièvre, central France, initiated a major project in the Saint-Laurent district of Cosne-sur-Loire involving the renovation of 136 apartments and the demolition of two buildings.



This demolition needed the removal of an old substation, requiring a new, more efficient substation to be installed.

Éric Billy, a technician from Nièvre Habitat, describes the challenge: *“The demolition of these buildings means we have to remove a substation, which is why ENGIE, our district heating provider, is involved. The plan is to install a new substation for the 136 apartments we are renovating.”*

The renovation aimed to enhance the buildings' energy efficiency by insulating the exterior and upgrading the windows, striving to achieve BBC (Bâtiment Basse Consommation – low energy building) standards. A key objective was to decrease costs for tenants while significantly improving their living conditions.



The housing complex in Cosne-sur-Loire, managed by Nièvre Habitat, which has undergone significant renovations aimed at enhancing the living conditions for its residents.



Éric Billy, Agency Technician, Nièvre Habitat.



Eric Gobe, Technical Operations Manager, ENGIE Solutions

“I opted for this solution for the benefit of Nièvre Habitat’s tenants and our client.”

“I found it very simple to implement in terms of substation design, operation, and configuration.”

Eric Gobe, Technical Operations Manager
ENGIE Solutions

The solution

ENGIE Solutions, long-time partners of Nièvre Habitat, were tasked with designing and installing the new substation for 80 apartments. ENGIE’s Eric Gobe approached Grundfos, who recommended the MIXIT all-in-one mixing loop solution due to its simplicity and effectiveness.

MIXIT combines up to 12 traditional mixing loop components including valves, thermometers, heat meters and non-return valves into a single unit, coupled with an energy-efficient secondary pump, in this case the highly advanced, intelligent MAGNA3 D twin circulator pump.

The sales engineer at Grundfos France, elaborates on the benefits: *“The MIXIT system is simple to install as it creates a mixing loop with just two elements. It’s also easy to commission with a step-by-step guide, and it includes integrated energy optimisation features that allow ENGIE to monitor and optimise consumption.”*

MIXIT’s integrated support for Modbus and BACnet protocols enables future connectivity to BMS systems for ENGIE to manage and monitor the installations as required.

The highly energy-efficient, intelligent MAGNA3 D twin circulator pump completes the installation.



The MIXIT unit combines up to twelve traditional mixing loop components into an all-in-one solution.



The outcome

The collaboration between Nièvre Habitat, ENGIE Solutions and Grundfos in renovating the buildings and deploying the MIXIT solution will significantly enhance living standards within the Cosne-sur-Loire housing complex, aligning with the project goals of achieving BBC (low-energy building) status and improved tenant comfort.

The straightforward design, installation and commissioning process of MIXIT ensured a smooth transition to the new, energy-efficient heating system, which will lead to numerous benefits for both Nièvre Habitat and the newly-renovated apartments' residents.

MIXIT's inbuilt energy optimisation and connectivity features will result in lower energy use across the housing complex, reduced costs for the residents, and the possibility for ENGIE to closely monitor energy consumption and make necessary adjustments.



The renovation project includes insulating the buildings' exterior, changing the windows, and trying to improve tenant comfort as much as possible to approach BBC (low-energy building) standards.

“I found MIXIT very simple to implement in terms of substation design, operation and configuration. I chose this solution for the benefit of the tenants and our client.”

Eric Gobe, Technical Operations Manager
ENGIE Solutions

“It’s a system that’s easy to install – with just two elements, we create a mixing loop!”

The Grundfos Sales Engineer
in charge of Nievre Habitat

Grundfos supplied

1 MIXIT UNIT

1 MAGNA3 D twin circulator pump

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MAGNA3 D twin circulator pump



MIXING UNIT

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