

CASE STUDY



Loos in Transition

Loos-en-Gohelle replacing coal-mining with renewable energy sources!

"We cannot build the future if we reject the past." Jean-François Caron, Mayor of Loos-en-Gohelle

The Summary

Loos-en-Gohelle is a small town of 7 000 inhabitants located in the North of France. The city, just like its surrounding area, was deeply affected by coal mining industries, active from the 1850s until their closure in the 1980s. Thanks to strong political support from its mayors, the town has since chosen the road towards renewable energy sources and strong citizen involvement in the cities' future. It is considered as a "pilot city for sustainable development" in France, and in 2015 it joined the network "100% Territoires à énergie positive" (100% RES communities) aiming to have 100% of their electricity coming from renewable energy sources by 2020 and to rely 100% on renewables by 2050.

The Context

Loos-en-Gohelle was one of the main mining cities in France's northern "Nord-Pas-de-Calais" coal mining basin. In this former agricultural village, 7 mine shafts and 8 spoil tips had transformed the landscape since the 1850s. When the mining activities stopped in the 1980s, they left a legacy of damage on two levels: environmental and social. Mining companies were not only providing

jobs to a large part of the population, but they also influenced most of the mining communities' lives, because of a very paternalistic management tradition.

The Challenges

The city had to take a very important decision: they could either try to attract other industries to replace coal-mining, thus repeating the same old dynamic that caused the crisis they had to deal with, or they could try a **whole new path**. They decided to choose the most forward looking option, and today Loos-en-Gohelle is a textbook case on how a city can free itself from its dependency on fossil energy.

Many challenges had to be confronted, but the biggest one has been totally re-inventing itself as a community, upgrading the old identity while involving all local stakeholders in the process. Indeed, after more than a century of coal-mining industry running their lives, citizens had to rediscover their capacity to drive actions and personal initiatives.



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The Model

The actions taken encompassed all sectors, from building renovation, to tourism, green technology and renewable energy generation.

All new initiatives were (and still are) carried out with the dual objective of breaking with the existing model and taking a "concrete steps" approach. This has led to the development of eco-construction (for social housing and municipal buildings) and, more broadly, new approaches to urban planning and the environment (water infiltration on the plot, greenbelt, differentiated management of green spaces, etc.). Initially carried out "on an ad hoc basis", these actions have gradually developed a coherent framework. As they have grown, they have created bridges between the various fields of intervention, thereby introducing a real transversal approach to the management of the municipality.



Résidence Chenelet. Credits: Mairie de Loos-en-Gohelle

Loos' political project has been nourished by a profound reflection on the need to restore perspective to the territory and its inhabitants.

Considering the municipality's complex heritage, but also seeing the town as a human, economic and cultural ecosystem, the municipality has chosen to pursue a societal mode in which everyone can find their place. In concrete terms, they wanted to transform a territory wounded by the unsustainable development of the mine into a model of sustainable development.

The twin mining heaps known as 11 and 19 are a testimony of Loos-en-Gohelle's mining past. For the past 20 years, the city's administrations have been striving to make them a showcase of the city's future, thus symbolizing its transition.

Registered as a UNESCO World Heritage site since 2012, base 11 and 19 has been converted into a cultural and sustainable development centre. The area hosts several cultural premises and R&D centres: CERDD (Resource centre for sustainable development), CD2E (creation and development of eco-businesses) and Apprentis d'Auteuil (training centre for jobs in the eco-building sector).



Credits: Mairie de Loos-en-Gohelle

Loos-en-Gohelle's strategy to be 100% renewable for electricity by 2020 relies mainly on solar energy. The first solar project developed by the city was St Vaast church. In the beginning of the 2010s, the town church's roof had to be renovated for security reasons. After considering different options, it has been decided during the renovation process to set up a **photovoltaic solar central on the church's roof**, with photovoltaic cells replacing slates. They have been operating since 2013.



St-Vaast church. Credits: Mairie de Loos-en-Gohelle



Learning from this first successful experience, the city is developing a new solar project: a solar plan, in which citizens have a significant role. The aim of this plan is to set up photovoltaic solar panels on 12 public buildings. The first 4 buildings will be equipped with their solar panels from January 2019 onwards. For the second step in July 2020, 4 other buildings will be equipped. A public-private society will be created to finance and operate this project. As of October 2018, the city is still looking for a private operator that will invest in the society as shareholder and take care of the construction work as well as operating the devices. The rest of the shares will be bought by the municipality, citizens and other local actors.



The People Behind

Many actions carried out in Loos-en-Gohelle were made possible by the strong political support of the city's mayor, Jean-François Caron, and the very dynamic city's administration and services.

Loos-en-Gohelle inhabitants are very involved in the city's actions: during the period 2008-2014, about 200 public meetings have been organized in order to involve citizens in the implementation of local projects as steering committee members or simply to allow them to express their opinion. The "50-50" programme was also launched by the city for citizens' projects. Any association, group of citizens can apply and have their project financed. In the same vein, in the solar plan, currently developed by the city, citizens have a central part: they are both investors and ambassadors of the project.

Finally, associations and private companies also play a role; associations such as CD2E, located on Base 11 and 19, that helps local businesses in the field of sustainable development, launched a pedagogical platform solar energy called "LumiWatt". A private operator will finance and

take care of construction work of the solar plan, and it will also operate the solar panels.

The Money

The church's renovation with solar panels actually enabled to save EUR 16 103 on the global renovation costs in comparison with a classic renovation with slates on the roof, thanks to subsidies from the French state and EU funding (ERDF). The produced electricity is sold to ENERCOOP (an energy cooperative) for EUR 0.13/kWh. Thanks to the church, the city earns now EUR 5 000 a year.

As for the solar plan, the first phase (first 8 installations) will cost about EUR 500,000. It will be financed by the public-private company created especially for it.

"There will be no ecological and social transition without an economic transition and a democratic revival." Jean-François Caron, Mayor of Loos-en-Gohelle

The Replication Potential

Energy transition in coal-mining regions is a burning issue in the European Union. Other cities in different countries such as Greece, Spain and Bulgaria are now facing the challenges that Loos faced in the 1980s. Loos' journey is inspiring and gives a methodology to follow.

The Impact

This strategy produces results that go beyond the usual development indicators of a territory and academics and journalists report that a new type of local ecosystem is beginning to form.

Change is driven by practice and concrete actions and Loos-en-Gohelle became a laboratory to experiment new solution. The city, now a hub of collective intelligence, is showing the right path. And its many experiments, combined with its



strong desire to share the results (good or bad) through an innovative policy for the interpretation of the territory, have granted Loos-en Gohelle the status of “Pilot City for sustainable development”.

The Figures

- ✓ 11 and 19 are the twin mining heaps, now symbols of the city's past
- ✓ 153 photovoltaic cells of 234 m² each decorate both sides of the church's roof;
- ✓ 334 kWh expected to be produced by the first 8 installations of the solar plan;
- ✓ 50% of the energy consumption in the 40 public buildings covered by the first 8 installations of the solar plan
- ✓ 5000 EUR earned by the city each year thanks to the solar roof of the church

The Next Steps

The city is looking for a private company to invest in its solar plan. The first phase will be finished by 2020. Then the second phase will be initiated. Once finished, the city public buildings' energy consumption will be covered 100% by renewable energies.

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