

Solution



District heating for towns and communities.

From farmer to award-winning energy entrepreneur, Energiewerke Ilg tells a remarkable success story.



Case study District heating 2025

EnergieWerk Ilg GmbH

Energy is at the heart of the Ilg family's businesses. What began as a traditional farm has grown over time into a diverse portfolio of enterprises.

Summary

The idea was to strengthen the local economy with regional biomass, secure regional value creation, and actively contribute to climate protection - implemented with two Reversepowerplants from SYNCRAFT.

- ✓ Replace fossil fuels, securing a reliable energy supply, and taking an active role in climate protection.
- ✓ A customized solution that can flexibly adapt to demand and peak loads.

EnergieWerk Ilg

System type: CW700-200+ | CW1800-500

Commissioning: 2014 & 2019

Overview

- ⚡ Our systems convert around 30% of the wood chips into renewable electricity - less than 1 kg of wood generates over 1 kWh of power.
- 🌀 Custom heat concepts according to demand. Around 40% of wood chips are converted into renewable heat at 95°C, with up to 180°C available on request.
- 🌱 Reversepowerplants generate energy and green carbon, typically with around 90% carbon content and a calorific value of 29 MJ/kg.
- ☁️ If Green Carbon is reused in such a way that it becomes a permanent CO₂ sink, negative emissions, i.e., minus CO₂, are created, generating CO₂ certificates and economic added value.



syncraft.at

SYNCRAFT GmbH
Alte Landstraße 7
6130 Schwaz, Austria
T +43 (0) 5242 62510
office@syncraft.at

Challenge

Cities and municipalities face the challenge of providing heating that is reliable, sustainable, and affordable. The Ilg Biomass Farm aimed to meet this challenge as a heat supplier by replacing fossil fuels, ensuring a secure energy supply, and addressing the increasing demands for climate protection. A key priority was finding a solution that could flexibly respond to fluctuating demand and peak loads.

Solution

In partnership with SYNCRAFT, EnergieWerk Ilg first introduced a Reversepowerplant that transforms regional biomass into clean heat and electricity, while capturing green carbon as a permanent CO₂ sink. Building on this success, the Ilg family expanded their efforts rapidly: just four years later, a second SYNCRAFT plant was commissioned to meet Dornbirn's growing demand for climate-friendly heating even more efficiently.



SYNCRAFT develops and builds Reversepowerplants that generate renewable energy and Green Carbon from forest residues and energy wood in a resource-efficient way. With this innovative technology, our clients make use of renewable residual materials while actively producing negative CO₂ through Green Carbon. Reversepowerplants contribute directly to defossilization and decarbonization - true to our motto: Reverse is Forward.

Feedback



Tobias Ilg
Owner & Managing Director, EnergieWerk Ilg

„From the very beginning, we have enjoyed a trusting and friendly partnership with the SYNCRAFT team, built on excellence and collaboration at the highest level.“

Result

With Reverspowerplants from SYNCRAFT, EnergieWerk Ilg now feeds renewable heat directly into the district heating network. Municipalities benefit from reliable supply, stable costs, and measurable climate protection. In recognition of this pioneering spirit, the Ilg family has received numerous honors and awards - a clear testament to his leadership in driving the energy transition forward.

700 kW
electricity

1.040 kW
heat

560 t/a
carbon

Do you have any questions?

Your contact person will be happy to assist you.



Thomas Besendörfer
Technical Sales Manager
+43 524 262 510 - 300
thomas.besendoerfer@syncraft.at

Reverse is Forward.