

# The Vision

By 2050, the North Sea Region has achieved a fair, sustainable, and community-driven energy future built on aquathermal energy (AE).

**Energy** is no longer a product sold for profit but a service provided as a human right. Communities own and manage their local heating networks through non-profit cooperatives. These networks are decentralized but interconnected, ensuring resilience: if one system falters, another supports it. People feel unburdened, knowing their warmth is secure, clean, and affordable.

The **transformation** was driven by cross-sectoral cooperation. Municipalities, housing cooperatives, waterboards, and activists worked alongside investors and philanthropists to pioneer early projects. Research institutions and policymakers standardized AE knowledge, creating open and transparent frameworks. By making heat extraction free and penalizing waste, governments ensured resources were used wisely.

**Technology** has advanced to the 10th generation of heating networks. These open-source systems connect rivers, aquifers, wastewater, and storage technologies. Smart management and high energy density make them efficient, while environmental safeguards ensure harmony with ecosystems.

**Markets** have shifted. Fossil fuel subsidies vanished, and taxes moved from gas to electricity. Instead of ownership, service models like Heating-as-a-Service became the norm. Investments follow Donut Economy principles: equitable, long-term, and ecological.

**Culturally**, people embrace inclusiveness and collective achievement. Energy festivals celebrate local milestones. Youth, educated from an early age in sustainability, now lead innovations. Sharing resources is natural, reconnecting society with nature.

The North Sea Region in 2050 shines as a living vision of eco-positive energy, where technology, policy, and culture align to provide warmth for people and the planet.



*Artificial intelligence image of the interreg north sea co-vision*