

Anillo Verde de Granada: Green Belt for Climate Resilience and Community Engagement

Granada - Spain

Short description

The Anillo Verde de Granada Local Green Deal (LGD) focuses on creating a sustainable green belt around Granada through reforestation, biodiversity conservation, and green infrastructure development. This transformative initiative contributes to Granada's ambition of becoming a European Green Capital, tackling climate change, enhancing urban resilience, and fostering community participation. With a target of planting 200,000 trees by 2030 and engaging multiple local and international partners, the LGD is a flagship project supporting ecological restoration, CO₂ sequestration, and environmental education.



Industry/Sector

- Construction & Built Environment

Parties of LGD/Participating parties

- City Council of Granada
- Plant-for-the-Planet (NGO)
- University of Granada
- Fundación La Huella Verde de Granada (NGO)

Scope of LGD

- The LGD supports the creation of the "Anillo Verde" (Green Belt) around Granada by planting 200,000 trees to absorb approximately 200,000 tons of CO₂ over 40 years. The project also promotes biodiversity by restoring native species and creating ecological corridors. It integrates green infrastructure into urban planning while engaging citizens, schools, and local organizations in educational activities and reforestation efforts. The LGD accelerates climate action, improves urban quality of life, fosters social cohesion, and boosts ecotourism, positioning Granada as a leader in sustainability.

Concrete measures/commitments

City Council of Granada commits to:

- Providing 800,000 m² of public land for reforestation
- Facilitating permits, ensuring long-term land protection (50+ years)
- Supporting tree ownership, maintenance, monitoring, and reporting
- Raising awareness and engaging the local community
- Funding source: Public funding
- Timeline: Maintenance commitment in perpetuity

Plant-for-the-Planet commits to:

- Leading reforestation and biodiversity restoration
- Managing €3 million in funding from private, public, and EU sources
- Conducting scientific monitoring with Crowther Lab (ETH Zurich)
- Organising educational programs and workshops for youth
- Timeline: Until 2030

University of Granada commits to:

- Providing scientific support, including native species selection
- Conducting biodiversity monitoring and performance evaluation
- Engaging students in research and capacity-building activities
- Timeline: Until 2028

Fundación La Huella Verde de Granada commits to:

- University of Granada commits to:
- Providing scientific support, including native species selection
- Conducting biodiversity monitoring and performance evaluation
- Engaging students in research and capacity-building activities
- Timeline: Until 2028.

Renewable Energy Communities – Empowering the Alhambra’s Neighbourhoods

Granada - Spain

Short description

The Local Green Deal (LGD) “Renewable Energy Communities” supports the establishment of energy communities across Granada, beginning with the historic neighbourhoods of Realejo and Albaicín. It promotes solar energy production through photovoltaic installations on municipal buildings, fostering community-led renewable energy generation. The initiative combines climate action, social equity, and cultural heritage preservation, reducing carbon emissions while empowering local residents and businesses to manage and benefit from clean energy solutions. This LGD contributes to Granada’s Urban Agenda and energy transition goals, with a strong focus on energy democracy and inclusiveness.



Industry/Sector

- Energy & Renewables

Parties of LGD/Participating parties

- City Council of Granada
- CEBA (Comunidad Energética de los Barrios de la Alhambra)
- OSCE-OTC (Social Office of Energy Communities)

Scope of LGD

- The LGD focuses on deploying renewable energy communities to support Granada's energy transition. It enables the generation of solar energy from municipal rooftops, with 100 kW of photovoltaic capacity planned for the first phase. Energy democracy is at the heart of the project, with 5% of the energy allocated to vulnerable families and 5% of the revenues reinvested into community projects. The LGD promotes social inclusion, reduces energy poverty, and enhances Granada's resilience while respecting the city's cultural heritage.

Concrete measures/commitments

CEBA (Energy Community of Alhambra's Neighbourhoods) commits to:

- Implementing a photovoltaic park with a nominal power of 100 kW across selected municipal buildings
- Target: Generate approximately 160,000 kWh annually, offsetting 56 metric tons of CO₂ emissions per year
- Funding source: Private contributions and support via installation rights (IRU) on public buildings
- Timeline/Deadline:
 - Permitting and Approvals: April 2024
 - Design and Procurement: May–November 2024
 - Installation and Commissioning: December 2024 – April 2025

OSCE-OTC (Energy Communities Social Office) commits to:

- Providing free technical, legal, and organizational support for the creation and operation of energy communities
- Target groups: Local citizens, vulnerable families, small businesses, and municipalities interested in renewable energy communities
- Funding source: Public and EU funds (IDAE, Next Generation EU)
- Timeline/Deadline: Support throughout the project lifecycle until May 2025

City Council of Granada commits to:

- Offering municipal spaces (rooftops) for the photovoltaic installations
- Ensuring regulatory support, monitoring, and transparency
- Supporting community engagement through workshops and outreach initiatives

- Funding source: Public (via rights to use municipal buildings), with minor energy return to the City (5% of production)
- Timeline/Deadline: Ongoing commitment in line with project phases.

Water Infrastructure Improvement Fee for Decarbonization

Granada - Spain

Short description

The Local Green Deal (LGD) “Water Infrastructure Improvement Fee for Decarbonization” focuses on achieving energy self-sufficiency and carbon reduction in Granada’s integrated water cycle. Through the implementation of biogas cogeneration, hydroelectric power, and photovoltaic energy systems, the initiative aims to produce 116% of the water sector’s energy needs by 2025, turning Granada’s water infrastructure into an energy-positive and climate-resilient system. The LGD is underpinned by a dedicated 15-year funding mechanism (“Canon”), ensuring stable financing through a transparent fee structure included in water bills. This collaboration between the City Council of Granada and EMASAGRA accelerates the city’s sustainability objectives while enhancing operational efficiency, resilience, and environmental stewardship.



Industry/Sector

- Energy & Renewables

Parties of LGD/Participating parties

- City Council of Granada
- EMASAGRA (Granada Water Company)

Scope of LGD

- The LGD supports Granada's strategy for climate neutrality by transforming the water management system into an energy-positive sector. The focus is on deploying biogas cogeneration at EDAR Vados, hydropower plants at Canales and Quéntar, and photovoltaic systems at key sites. A legally established Infrastructure Improvement Fee funds the development, ensuring long-term financial sustainability without impacting municipal budgets. This approach guarantees measurable decarbonization results while strengthening Granada's resilience and operational self-sufficiency.

Concrete measures/commitments

EMASAGRA commits to:

- Developing biogas cogeneration at EDAR Vados
- Installing hydropower systems at Canales and Quéntar
- Deploying photovoltaic installations at Depósito Conejeras, Bajo Cartuja, and EDAR Vados
- Achieving energy self-sufficiency (116% of operational needs) by 2025
- Reducing carbon emissions and contributing to climate neutrality
- Funding source: Dedicated infrastructure improvement fee (Canon) via water bills
- Timeline/Deadline: 2024–2025

City Council of Granada commits to:

- Providing regulatory and legal oversight of the fee mechanism and project execution
- Ensuring alignment with regional and national sustainability objectives
- Conducting public consultations and maintaining transparency throughout the project lifecycle
- Monitoring project progress and compliance
- Timeline/Deadline: 2024–2025 (with Canon fee collection continuing until 2039)].