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**RENAISSANCE PROJECT IMPACT ON EUROPEAN ENERGY
POLICIES IN ZARAGOZA**

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The beginnings

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- **URBAN PLAN**

- Town planning
- Architectural design
- Building system

- **URBAN DEVELOPMENT PROJECT.**

- Remote control system =efficiency
- Dual system separating supply and irrigation and rainwater and sewage
- Remote control system
- Pneumatic refuse collection
- Xerogardening
- Free wi-fi network

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RENAISSANCE : a CONCERTO project financed by the European Commission on the six framework programme



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Zaragoza decided to keep on this way for two reasons:

- ✓ **To show that renewable energies and energy efficiency must be a guideline in construction works**
- ✓ **To demonstrate that public institutions are aware and motivated, not only politically speaking but also financing.**



What did we do?:

1st We drew up general regulations obliging the implementation of energy efficiency and renewable energy, always having in mind Zaragoza's weather



- **Municipal regulation on Energy Eco-Efficiency and renewable energy use in buildings and facilities
24/07/2009**
- **Municipal regulation on promotion of urban restoration
25/06/2010**



- **Improvement of urban design**
- **Solar thermal energy**
- **Collective heating and cooling systems in buildings and public facilities.**
- **Recommendation: 25% of façade surface South \pm 35° oriented.**
- **District heating and cooling installation with polygeneration capabilities.**
- **Shading elements free spaces.**

More information in:

<http://www.zaragoza.es/ciudad/medioambiente/enlace/normativa/>



Municipal regulation on promotion of urban restoration

- Energy saving measures (insulation, efficiency)
- Improvements in energy costs by 25%
- Boosting renewable energies: biomass, solar...
- Water saving
- Waste reduction
- More square meters allowed if it's on improvements
- Closing of terraces facing north



2° showing that it's possible:

- PARQUE GOYA
- ECOCIUDAD VALDESPARTERA
- 0 CO₂ EMISSIONS BUILDING
- PUBLIC SCHOOL CÁNDIDO DOMINGO
- MUNICIPAL BUILDINGS INSTALLING SOLAR THERMAL AND PHOTOVOLTAIC SYSTEMS



SIN REHABILITAR

REHABILITADO

3rd: TO PROMOTE DISSEMINATION OF KNOWLEDGE

- Training for municipal workers
- Training for professionals
- Training for construction workers
- Training for teachers
- Specialization at university
- Training for scholars



Conclusions we reached after 5 years of project:

- Experience has been very useful: now there is another attitude towards energy consumption, politicians are more aware
- Citizens are more prepared
- A new labour market has merged

But ...

- There are still many difficulties, because the energy context is very complex
- In Zaragoza there is not only sun, but wind, it has its advantages and disadvantages concerning urban design

- Energy exploitation of municipal roofs
- Zaragoza Energy Plan





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Thank you for your attention !

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