

Energy policy in Grand Lyon



URBAN PLANING AND SUSTAINABLE REFURBISHMENT

RENAISSANCE PROJECT,
Zaragoza Final Conference

June, 4-5th 2012. Zaragoza, Spain
Paraninfo de la Universidad de Zaragoza

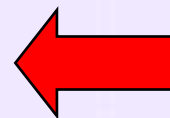
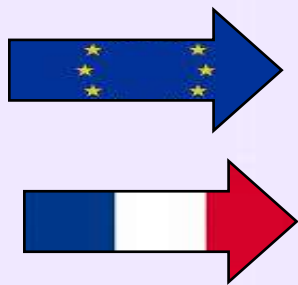
The Climate plan, base for Grand Lyon energy politiccy



Why running a policy against climate change in Greater Lyon?



The Covenant of Mayors is the mainstream European movement involving local and regional authorities, voluntarily committing to increasing energy efficiency and use of renewable energy sources on their territories. By their commitment, Covenant signatories aim to meet and exceed the European Union 20% CO2 reduction objective by 2020.



- municipalities
- public actors
- companies
- voluntary organisations
- inhabitants

CO2 emissions on urban area: Greater Lyon is not alone...

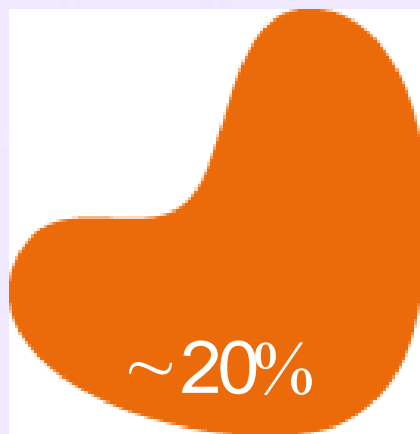
Corporate Emissions



~5%

- Buildings
- Refuses collection
- Sewage and water supply

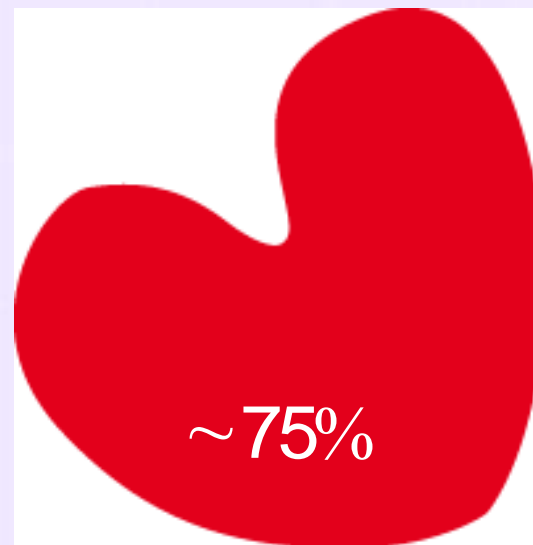
Emissions to be reduced by public policies



~20%

- Part of new buildings
- Social housing
- Urban transports
- Central Heating

Emissions without direct influence of Greater Lyon



~75%

- Companies (inc. small ones)
- Industry
- Housing
- Goods
- Cities

1. Share a « Climate Diagnosis » (2009)

What do we know ?



2. Build together a « climate vision » (2010)

What should we do? How ?



3. Commit on everyone's action fields (2011)

What are we committed to do ?

Greater Lyon

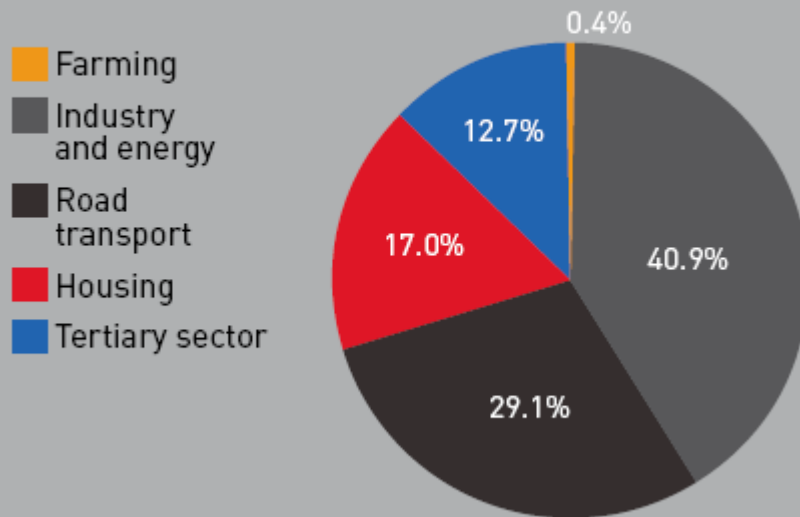


Action plans of
companies,
governements, NGOs, ...

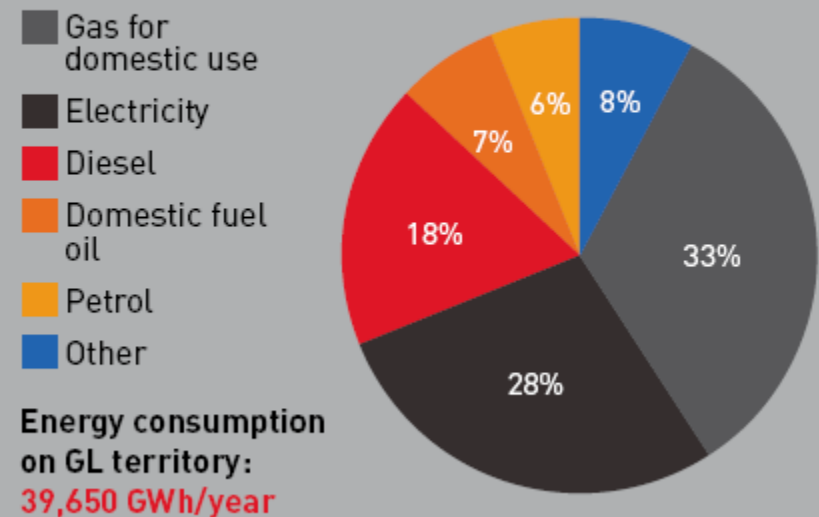
Cities actions plans

Distribution of CO₂ emissions and energy consumption within Greater Lyon

Distribution of CO₂ emissions within Greater Lyon by sector in 2003 (COPARLY, 2006)



Distribution of energy sources consumed in Greater Lyon in 2006 (COPARLY 2009)



CO₂ emissions: 7.6 millions tCO₂/y

A shared vision, a collaborative approach that involves all local stakeholders to drive an agreed program at their respective level

By 2020 « 3 X 20 »

- ✚ Reduce green house gas emissions by 20% : from 7.5 to 6.1MtCO₂ in 2020
 - ▶ + 300 000 journey/day on public transport (+25%) ▶ use of bicycles x 3
 - ▶ + 50 000 car sharing ▶ Reduce by 5% the use of trucks
- ✚ Reduce energy consumption by 20%
 - ▶ Private companies: 6 Mm² to be renovated (1/2 energy consumption)
 - ▶ 120,000 private housing and 40 000 social housing to be renovated
- ✚ Increase the use of renewable energy source by 20%
 - ▶ +120 MW biomass energy

By 2050 : « Factor 4 »

- ✚ Reduce GGE by 75%



« Build together a Climate vision »



The 5 colleges of « Conférence Énergie Climat » (local climate governance)

Institutions	Industrie et énergie	Service et Tertiaire	Société civile	Recherche, enseignement supérieur, innovation			
Grand Lyon							
<ul style="list-style-type: none"> • Élus et services + experts 	<ul style="list-style-type: none"> • Industries sous contrainte carbone • Industries non contraintes • Fournisseurs d'énergie 	<ul style="list-style-type: none"> • Bâtiment • Transport • Tertiaire public • Habitat • Secteur bancaire 	<ul style="list-style-type: none"> • Conseil de développement • Associations 	<ul style="list-style-type: none"> • Pôles de compétitivité • Labos de recherche • Grandes écoles... 			
Communes							
<ul style="list-style-type: none"> • Élus et services + habitants 							
Autres							
<ul style="list-style-type: none"> • Chambres consulaires • Syndicats • Collectivités • État... 							

~100 organisations and 58 cities are taking part to the Conférence Énergie Climat.





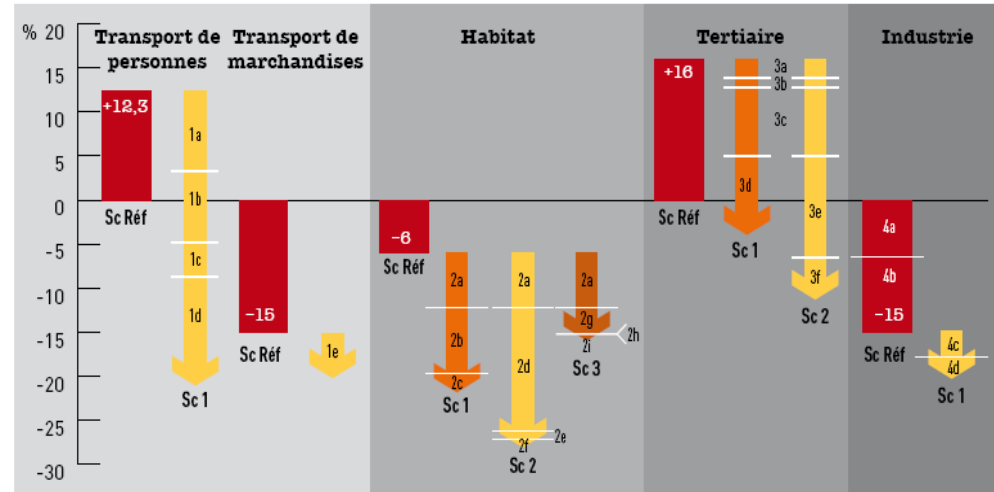
→ a **vision** for the GL's energy future

→ Done & shared by **all the partners** of Conference Energie Climat



→ 57 « actions partners »:
→ 26 actions

Graphique 2. Bilan des scénarios étudiés



Sc Réf : scénario "fil de l'eau" prenant en compte l'évolution démographique et la poursuite des tendances actuelles.



Emissions to be reduced by public policies : energy efficiency of buildings



Reminder of objectives established in WP 1.1 "Urban and energy planning" :

- + make the most of all innovation opportunities that arise (due to the large scale of this operation) with regard to energy policy;*
- + incorporate the results of this exemplary operation into local and national policies, in order to enable the immediate replication of results;*
- + share acquired experience with other developers and promoters.*

Standards in Greater Lyon :



- ➔ V2. local sustainable new housing standards (2006)
- ➔ Creation of new office building standards based around the feedback and experience gained through the Concerto office projects
- ➔ Adoption of environmental quality program and extra-funding for social housing by Rhône-Alpes Region and Greater Lyon
- ➔ Result : 12.534 housing units, 268.250 m² office floors



«Eco-renovation» pilot project for existing private housing in Sainte blandine neighbourhood

Eco-renewal" in the Sainte-Blandine neighbourhood

- ✚ A working group with core members from the Concerto project (Hespul, ALE, Enertech, SPLA Confluence and Grand Lyon): investigating how to implement an eco-renewal project at neighbourhood level.
- ✚ Aim: to conduct a pilot renewal project with “factor 4” energy efficiency.
Objective: open the way for the scheme to be rolled out on a wider scale.
- ✚ A quick overview of the tools and financial support available demonstrated the limitations of the current system and highlighted the need to offer an innovative, “all-in-one package” that offers technical expertise, operational solutions and suitable sources of funding.
- ✚ This scheme will be carried out in conjunction with a number of volunteer co-owners, and will involve the provision of technical and financial support for a number of operations.

Heating network :

Wood-fuelled heating : changing perceptions on the use of wood-fuelled heating in urban areas.



This has served to encourage wood-fuel strategies in other urban development projects in the Lyon area.

Emissions to be reduced by public-private partnership



- Energy efficiency as a driver for the innovation policy
- An integrated and articulated approach : Climate plan, Clean tech, ICT strategy
- A shared vision, a collaborative approach
- Launching the dynamic with pilot projects
- Speeding up the extension to a largest scale with the support of the European smart cities program



- The European Consortium :
 - cities: Amsterdam, Copenhague, Hambourg, Vienne, Gènes et Grand Lyon
 - private partners

- The french partners :
 - Grand Lyon
 - HESPUL
 - ERDF

- Local éco system :
 - ALE, agence d'urbanisme, GRDF, Ville de Lyon, Etc...



- Transition toward « smart » cities implies a heavy change of paradigm to address energy issues
 - > Description of the transformation process
- 2 scales:
 - Town scale -> strategic energy Planning = to be done with all partners in order to define the Transition Agenda
 - Demonstration area (Part Dieu district): operational action plan (quantitative and planned objectives, business plan, etc...)

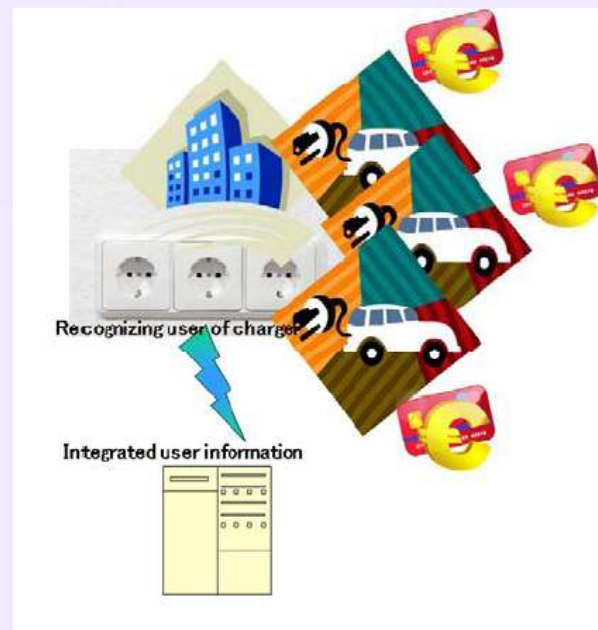
+ Partnership with NEDO and Toshiba

- 3 pilot projects implemented in Lyon Confluence area (45 M € investments) :
 1. Zero emission building
 2. PV charging system for a shared electric car pool Intelligent energy management
 3. Energy management system



+ Partnership with EDF

- EDF associated to a companies consortium
- Pilot project on domestic energy monitoring (household electrical appliance and household management)
- In the scope of ADEME call for tender
- On a large scale of 50,000 to 100,000 housing
- 100 M€



- Extensive and dynamic public transport: **25% of journey : subway, trams, trolley buses and buses**
- “REAL”: **Inter-modality between regional railway and urban transport**
- Mobility centre: **Multi-modal route calculator on smart phone**
- “Autolib”: **Shared car and self service**
- Smooth mobility: **bicycle path from 300km in 2008 to 900 km in 2020**
- Vélo’v : **4 000 bicycles on self service basis**
- Pédibus: **The walking school bus: 2,000 pupils**



Next steps about energy



Skills to be acquired gradually identified:

- Contributing to the control of energy demand, integrating renewable energy (1 January 2012)
- In parallel, launch preparation of a Master of Urban Heat Network for the subsequent decision of a competent heating network
- Joint development of master plans of affected municipalities district heating / Metro: Villeurbanne Lyon Bron, Venissieux, Vaulx-en-Velin, Rillieux-la-Pape, Lyon Duchère et Givors

Objective: To gain proficiency heating network in the medium term

In the long term development of the energy blueprint of agglomeration and taking responsibility for organizing authority electricity and possibly gas.



CONCERTO is co-funded by the European Commission



Contact

Nombre
Correo electrónico

