



PLAN  
CLIMAT  
ENERGIE  
TERRITORIAL  
GRANDLYON

# TERRITORIAL CLIMATE AND ENERGY PLAN

Key progress in 2015

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GRANDLYON  
la métropole



# EDITORIAL

## PRESIDENT OF THE MÉTROPOLE DE LYON



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One month before the COP21, our 4<sup>th</sup> Energy and Climate Conference is especially significant. For in this agreement on international commitments, the territories have a major role to play. This progress report allows us to show how action by territories helps develop operational responses to international problems.

What is our assessment today following the implementation of our Climate and Energy Plan in 2012?

Firstly, the enormous commitment of everyone involved: 11 new partners have just joined us, bringing our number to 84. A gratifying development!

Then, results: an 11% reduction in greenhouse gases since 2000, a trend to which we have contributed by rolling out the 26 actions of our Climate Plan.

These results are encouraging. But we must persevere in our efforts to honour our commitment of a 20% reduction in emissions by 2020. By continuing to implement the actions planned. And by also adding new ones.

In the field of business, the Lyon éco-énergie system supports VSE's and SME's in their energy management. With regard to housing, the priority is the eco-renovation of existing homes, with the launch of a platform to support households with their projects. Finally, the Métropole has produced an energy planning tool, the "Energy Master Plan".

Despite worldwide efforts, a rise in the average temperature seems unavoidable. The new "Adaptation" section of the Climate Plan should allow the Métropole to build, with its partners, the tools to face the forthcoming changes.

A better prepared territory is a territory which adapts and moves forward.

**Gérard Collomb**

## VICE-PRESIDENT WITH RESPONSIBILITY FOR THE CLIMATE PLAN



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Just a few weeks away from the COP21, the States' commitments known to date unfortunately are inadequate. They will not allow warming to be limited to 2°C. Despite everything, one can but hope that the negotiations in the Paris summit will allow a credible agreement to be adopted.

Fortunately, the commitment of cities throughout the world continues to grow. On every continent, cities have become aware of their responsibility for the planet and are taking action. The number of European cities which have signed the mayors' agreement is continuing to rise (over 6,000 to date).

On the continent of America, the Mexico pact in the south and the US Mayors Climate Protection Agreement in the north have united the very numerous initiatives of the municipalities. A very encouraging factor is that major Chinese cities have joined the movement and made ambitious commitments, greater than those made by the Chinese state.

The Métropole de Lyon is one of the most ambitious and innovative agglomerations. Thanks to the work of the members of the Energy and Climate Conference, we have on the one hand together produced a realistic climate transition trajectory and, on the other, given added dynamism to our territory by the number and the diversity of the actions undertaken.

The battle against warming is pollinating the city of Lyon and generating a cascade of innovations.

Even though it will take several years before the results are felt, the observations and measurements by Air RhôneAlpes show that the reduction in emissions is gathering pace, even though many actions are only just getting off the ground, such as the city's recent launch of the home eco-renovation platform.

In the battle against greenhouse gas emissions, we are taking our place alongside the other cities that are inventing the future!

We can succeed. So, let's keep up the good work!

**Bruno Charles**

# THE 84 PARTNERS OF THE ENERGY AND CLIMATE CONFERENCE

## LINK PARTICIPANTS

- ABC HLM
- ADERLY
- Air Rhône-Alpes
- ALE Lyon
- Amorce
- Axelera
- BTP Rhône
- CAPEB du Rhône
- CCI de Lyon
- CMA du Rhône
- FRTP Rhône-Alpes
- LUTB
- MEDEF
- Métallurgie rhodanienne
- PACT du Rhône
- RAEE
- Tendance Presqu'île
- TLF
- UIC Rhône-Alpes
- UNIS

## INSTITUTIONS

- ADEME
- DREAL/DDT
- Hôpitaux de Lyon
- Métropole de Lyon
- Région Rhône-Alpes
- SYTRAL
- Université de Lyon
- Ville de Bron
- Ville de Cailloux-sur-Fontaines
- Ville de Caluire-et-Cuire
- Ville de Champagne-au-Mont-d'Or
- Ville de Charly
- Ville de Chassieu
- Ville de Collonges-au-Mont-d'Or
- Ville de Dardilly
- Ville de Décines
- Ville de Feyzin
- Ville de Francheville
- Ville de Grigny
- Ville de La Mulatière
- Ville de Limonest
- Ville de Lyon

- Ville de Meyzieu
- Ville d'Oullins
- Ville de Pierre-Bénite
- Ville de Rillieux-la-Pape
- Ville de Saint-Fons
- Ville de Saint-Genis-Laval
- Ville de Saint-Priest
- Ville de Sainte-Foy-lès-Lyon
- Ville de Tassin-la-Demi-Lune
- Ville de Vaulx-en-Velin
- Ville de Vénissieux
- Ville de Villeurbanne

## BUSINESSES

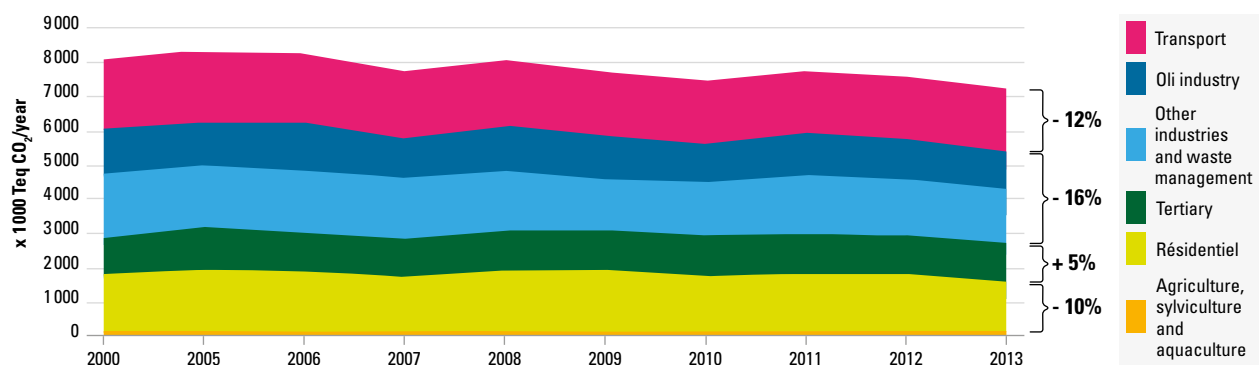
- Adecco
- April
- BioMérieux
- Brake
- Carsat Rhône-Alpes
- CNR
- Cofely
- Crédit Agricole Centre-Est
- Dalkia
- EDF
- Eiffage Construction Centre-Est
- Engie
- ERDF
- Femat
- GrDF
- Groupe Casino
- Groupe La Poste
- IFP Énergies nouvelles
- Keolis Lyon
- Saint-Gobain
- Serfim
- Siemens
- SNCF
- Solvay
- Spie
- Suez Eau
- Suez Sita
- TNT
- Total
- Veolia

# THE CLIMATE AND ENERGY PLAN OF GRAND LYON

## EMISSIONS IN THE TERRITORY

Every year, the territory of Grand Lyon emits 7 million tonnes of CO<sub>2</sub>. These emissions have been falling steadily with **an 11% CO<sub>2</sub> reduction between 2000 and 2013**. Over this time, the population has risen by 10%<sup>(1)</sup>. The measurable actions under the Climate and Energy Plan to date have allowed **an estimated CO<sub>2</sub> reduction of 180,000 tonnes of CO<sub>2</sub> / year<sup>(2)</sup>**, i.e. a fall of over 2% in the territory's emissions.

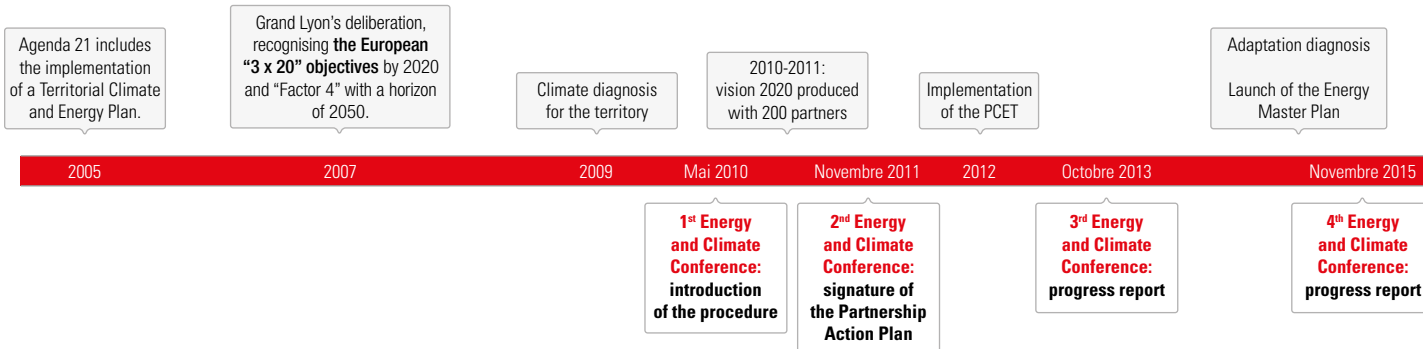
Changes in greenhouse gas emissions by sector (kteqCO<sub>2</sub>/year)



## THE STAGES OF THE CLIMATE PLAN

The Territorial Climate and Energy Plan (PCET) is a territorial project for sustainable development which has two objectives:

- to reduce greenhouse gases (GHG) by limiting energy consumption in the territory and developing renewable energy.
- to adapt to climate change which cannot be entirely avoided.

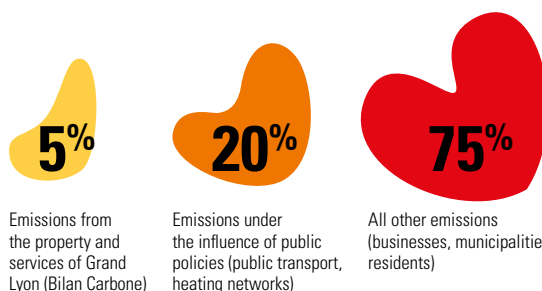


(1) INSEE figures for 1999 and 2012.

(2) This figure corresponds to the sum of the actions monitored by Grand Lyon for which there is a progress indicator. This is thus a minimum figure.

## THE PARTNERSHIP APPROACH

The initial diagnosis of the Climate Plan has revealed, since 2009, the need to act with partners in the territory to affect all the CO<sub>2</sub> emissions in the territory. By 2015, 84 organisations had signed up to Grand Lyon's PCET. They recognise Vision 2020 and undertake to roll out the 26 actions in their field of expertise.

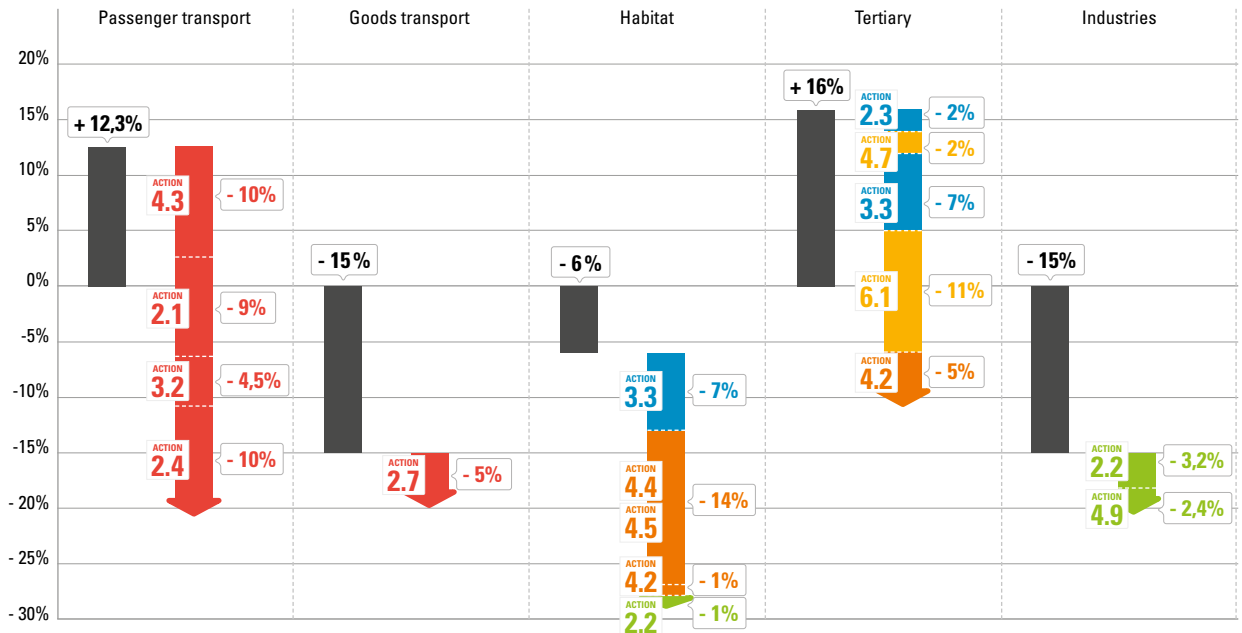


Source: Carbon Balance of Grand Lyon (2009) and CO<sub>2</sub> emissions survey (Air Rhône-Alpes, publication 2009)

## - 20% BY 2020 – HOW MUCH IS THAT?

The territory's greenhouse gas emissions were evaluated by Air Rhône-Alpes at 8 million tonnes of CO<sub>2</sub> / year in 2000. This is the reference point from which Grand Lyon and the partners in the territory have committed to a 20% reduction, which corresponds to 1.5 million tonnes of CO<sub>2</sub> / year. The 26 actions identified in the 5 sections of the Partnership Action Plan are quantified in order to achieve this objective by 2020.

CO<sub>2</sub> emission development scenario in the territory calculated for "Vision 2020"



Reference scenario: "run of river" scenario taking into account the demographic changes and the continuation of current trends.  
 Objectives to be achieved in 2020 by putting in place the actions of the Climate and Energy Plan allowing each sector to be lowered.

	Passenger transport	Goods transport	Habitat	Tertiary	Industries
Trend	Demographic change: + 12,3%	Change in engine performance: - 15%	Housing renovation trend: - 6%	Increase in population, employment level and the tertiary share of employment: + 16%	Energy efficiency, wood substitution and economic crisis: - 15%
Actions under the Climate and Energy Plan	Public transport: - 10% (ACTION 4.3) Soft modes: - 9% (ACTION 2.1) Car sharing: - 4.5% (ACTION 3.2) Densification and limitation of car use: - 10% (ACTION 2.4)	Optimisation of logistics: - 5% (ACTION 2.7)	Sobriety: - 7% (ACTION 3.3) BBC Renovation of existing stock: - 14% (ACTION 4.4 et 4.5) Efficient new buildings: - 1% (ACTION 4.2) Good level of connection to heating network: - 1% (ACTION 2.2)	Densification: - 2% (ACTION 2.3) Equipment efficiency: - 2% (ACTION 4.7) Sobriety: - 7% (ACTION 3.3) BBC Renovation: - 11% (ACTION 6.1) Efficient new buildings: - 5% (ACTION 4.2)	Continuation of energy efficiency actions: - 3.2% (ACTION 2.2) Wood substitution in urban heating networks: - 2.4% (ACTION 4.9)
Objective in 2020	- 21%	- 20%	- 28%	- 11%	- 20,6%

## ENERGY MASTER PLAN







2015 marked the beginning of the construction of the **Energy Master Plan** for the agglomeration with an official launch on **25 June 2015** alongside 170 representatives from the territory: energy companies, businesses in the territory, associations and researchers. This procedure will take place over **4 years** and will feed the revision of the Climate and Energy Plan: indeed, the tool developed will allow actions to be recalibrated on the basis of their impact and to be territorialised, and **a scenario for 2030** of CO<sub>2</sub> emissions and consumption in the territory to be devised jointly with the partners.



**SCHÉMA  
DIRECTEUR  
ÉNERGIES  
GRAND LYON**







# ACHIEVEMENTS IN 2014-2015

## TRANSPORT & TRAVEL

-  **1 Mazaryk Footbridge, soft modes,**  
closed to cars in 2015
-  **2 Schumann Bridge, bicycle link**
-  **3 “La Paix” Footbridge,**  
soft mode footbridge
-  **4 Décines Footbridge, soft modes,**  
2013
-  **5 Pont de la Mulatière, cycle way link,**  
prize-winning project for “Energy-Positive  
Territory” 2015
-  **6 Pont Raymond Barre, soft modes**

- 1 Banks of the Saône,**  
15 km long pedestrian trail
- 2 Soft modes tube – end of 2013**
- 3 Bicycle link – Boulevard Vivier Merle**
- 4 Bicycle link – Avenue Félix Faure**
- 5 Bicycle link – Avenue des Frères Lumière**
- 6 Green trail – right bank of the Jonage Canal**
- 7 Urban Boulevard East**









## TOWN AND CITY CENTRES IN 30 ZONE AND TWO-DIRECTION CYCLE WAYS

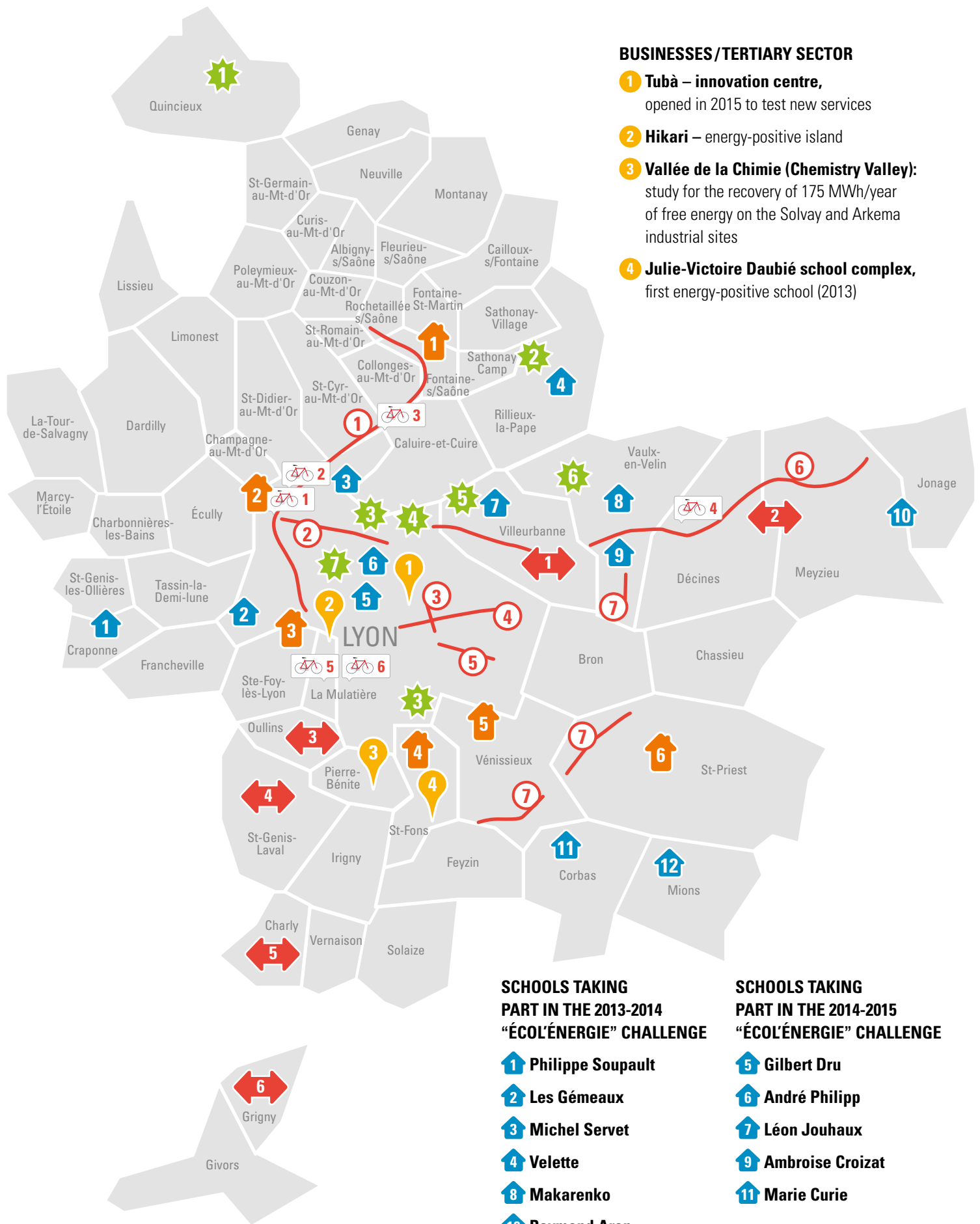
-  **1 Grandclément 30 Zone,**  
with two-direction cycle way
-  **2 Meyzieu 30 Zone,**  
with two-direction cycle way
-  **3 Oullins 30 Zone,**  
with two-direction cycle way
-  **4 St-Genis-Laval 30 Zone,**  
with two-direction cycle way
-  **5 Charly 30 Zone,**  
with two-direction cycle way
-  **6 Two-direction cycle way,**  
Grigny town centre

## HABITAT

-  **1 Chateauroy, social park,**  
132 homes renovated to BBC standard
-  **2 “La Duchère” eco-district,**  
awarded label in late 2013
-  **3 Les Fontaines, social park,**  
55 homes renovated to BBC standard
-  **4 Copropriété des Clochettes,**  
272 homes renovated to BBC standard
-  **5 Copropriété Grandes Terres des Vignes,**  
301 homes renovated to BBC standard
-  **6 Copropriété Alpes C and D,**  
90 homes renovated to BBC standard

## ENERGY

-  **1 Solar power plant, 10 mW,**  
Quincieux joined Grand Lyon in 2015,  
the territory is home to the agglomeration’s  
largest solar farm: a shade installed over  
the staff car park
-  **2 Wood-fired heating plant,**  
**Rillieux-la-Pape,**  
5.5 MW in place since late 2013
-  **3 TRANSFORM**  
To plan the energy plan for a district
-  **4 Agence Locale de l’Énergie,**  
2,850 contacts at the Espace Info Energie  
in 2014, a record year
-  **5 New compressed natural gas station  
(CNG)**
-  **6 Wood-fired heating plant,**  
**Vaulx-en-Velin,**  
22.5 MW in place since late 2013
-  **7 Lyon smart community,**  
the smart grid for an entire district
-  **8 Gaya, biomethane platform,**  
launch of the site in May 2014



**BUSINESSES/TERTIARY SECTOR**

- 1 **Tubà – innovation centre**, opened in 2015 to test new services
- 2 **Hikari – energy-positive island**
- 3 **Vallée de la Chimie (Chemistry Valley)**: study for the recovery of 175 MWh/year of free energy on the Solvay and Arkema industrial sites
- 4 **Julie-Victoire Daubié school complex**, first energy-positive school (2013)

**SCHOOLS TAKING PART IN THE 2013-2014 “ÉCOL’ÉNERGIE” CHALLENGE**

- 1 Philippe Soupault
- 2 Les Gémeaux
- 3 Michel Servet
- 4 Velette
- 8 Makarenko
- 10 Raymond Aron
- 12 Germain Fumeux

**SCHOOLS TAKING PART IN THE 2014-2015 “ÉCOL’ÉNERGIE” CHALLENGE**

- 5 Gilbert Dru
- 6 André Philipp
- 7 Léon Jouhaux
- 9 Ambroise Croizat
- 11 Marie Curie

# THE 26 ACTIONS OF THE TERRITORIAL CLIMATE AND ENERGY PLAN

## BUSINESSES

- ACTION 4.7** Support VSE's/SME's to improve their energy performance
- ACTION 4.8** Support the development and structuring of the private offering (in particular of the sustainable building sector)
- ACTION 5.1** Recover industrial free heat
- ACTION 5.2** Develop smart grids
- ACTION 6.1** Promote the construction and renovation of exemplary tertiary premises
- ACTION 6.2** Bring together the main emitters of greenhouse gases in a club and promote their emission-reduction actions

## TRANSPORT/TRAVEL

- ACTION 2.1** Continue with the plan for soft modes of transport
- ACTION 2.4** Organise the city to control car usage
- ACTION 2.5** Optimise the motorisation of private vehicles
- ACTION 2.7** Optimise motorisations and improve the organisation of goods transport
- ACTION 3.1** Act on mobility behaviours: promote modal shift and create a mobility centre; optimise road networks
- ACTION 3.2** Develop alternative uses to the private car (ride-sharing and car-sharing options)
- ACTION 4.3** Encourage the modal shift from the car to public transport (25% increase in use)

## HABITAT

- ACTION 4.1** Build exemplary new social housing
- ACTION 4.2** Guarantee the BBC standard [Low-Consumption Building] for the construction of private homes and offices from 2012 and anticipate the 2020 Thermal Regulations (RT)
- ACTION 4.4** Ensure the thermal rehabilitation of the social housing stock
- ACTION 4.5** Develop the rehabilitation of private homes

## ENERGY

- ACTION 2.2** Develop heating and biomass networks
- ACTION 4.9** Help structure the regional wood industry
- ACTION 4.10** Structure and develop renewable energy

## CROSS-SECTORAL ACTIONS

- ACTION 1.1** Embark on a Property and Services Action Plan for Grand Lyon
- ACTION 2.3** Create a Local Urban Development Plan compatible with "3 x 20" and "Factor 4"
- ACTION 2.6** Compensate CO<sub>2</sub> emissions with a Climate and Energy Fund
- ACTION 3.3** Encourage and promote changes of behaviour
- ACTION 4.6** Reach 90% of the population covered by a communal Climate and Energy Plan in 2014 and accelerate the renovation of the communal estate
- ACTION 7.1** Model "measurable, reportable, verifiable" emissions in the territory



# LYON WELCOMES ITS NEW PARTNERS



**Jean-Charles Foddis,**  
Executive Director of ADERLY

“ Nicknamed LUCIE, the Economic Development Agency of the Lyon Region, governed

by Grand Lyon and the Lyon Chamber of Trade and Industry, naturally signed up to Grand Lyon's Climate Plan. ADERLY adopts best practices and undertakes to innovate to blend economic dynamism with sustainable development in order to promote the territory of the Métropole de Lyon. ”



**Jérôme Aguesse,**  
Director, Dalkia Centre-Est

“ Consuming less and better has become a major challenge for all of us. Dalkia has thus

positioned itself as the reference for energy savings over the entire territory by offering its customers environmentally friendly lower-energy solutions. The Climate and Energy Plan naturally structures Dalkia's actions in the face of the challenge of climate change! Hence Dalkia undertakes to help to progress towards the European objectives by pursuing its action centred on a local climate and energy policy. ”



**Jean-Marc Cornut,**  
President of the Fédération Régionale des Travaux Publics Rhône-Alpes

“ Sustainable development

lies at the heart of any infrastructure project. Public Works provide solutions to growing environmental demands: reduction in greenhouse gases and energy consumption, the conservation of natural resources, the preservation of biodiversity, and the sustainable city. Public Works are thus drivers of sustainable growth and are a major player in the green economy. ”



**Xavier Odo,**  
Mayor of Grigny

“ With the “3 x 20”, the town of Grigny and its residents will provide their input to the principal

challenge of the early 21<sup>st</sup> century: the preservation of the environment. Our ambition: to build a human and sustainable town in a European metropolis. ”



**Michel Forissier,**  
Senator and Mayor of Meyzieu

“ We have been working for several years now to reduce our environmental impact by

managing energy consumption in our buildings and by our public lighting, and also by doing without pesticides in our green spaces. Environmental protection is everyone's business and there is everything to be gained by thinking about it at the level of a territory such as the Métropole: a transversal and partnership approach, synergy of actions, exchange of good practices, technical support... This is why we are happy to sign up to the Territorial Climate and Energy Plan. ”



**Jérôme Moroge,**  
Mayor of Pierre-Bénite

“ Acting for the climate and energy savings is today a necessity shared by a very large number

of Pierre-Bénite's residents. The Town Hall decided to launch a communal Agenda 21 so that it could implement concrete initiatives and unite the residents around this objective. Signing up to the Partnership Climate Plan will enable us to strengthen links with the actions developed by neighbouring municipalities, the Métropole and all the stakeholders in the territory contributing to this approach. ”



**Véronique Sarselli,**  
Mayor of Sainte-Foy-lès-Lyon

“ Conscious of the climate and energy challenges, the town of Sainte-Foy-lès-Lyon is acting,

via its Agenda 21, to achieve an energy transition. We are convinced that joining the Métropole's Climate and Energy Plan will add to the scope of our commitment, thanks to the sharing of experiences and the alignment of our actions. Together, we will move towards a more sustainable future. ”



**Guy Mathiolon,**  
CEO of SERFIM

“ Serfim, an innovative medium-sized business, being concerned for today's social

and environmental challenges, is anticipating and diversifying its offering to mesh with the development of the society of tomorrow. ”



**Cyril Courjaret,**  
Director of Suez, Eau France, Rhône-Alpes-Auvergne

“ Committed to protecting the resource and developing

the circular economy, the teams at Suez, Eau France, in the Rhône-Alpes-Auvergne region, wish to sign up to Lyon Métropole's Climate and Energy Plan. ”



**Dominique Di Bello,**  
Rhône-Alpes President, Union des Entreprises de Transport et de Logistique de France

“ Given the large number

of environmental challenges, road transport must continue to stay within the virtuous circle of sustainable development. Taking up the energy and environmental challenges, and developing the requirement for complementarity in modes of transport is the only responsible attitude. ”



**Khaled Bouabdallah,**  
President of the University of Lyon

“ The members of the University of Lyon are affirming

their social responsibility by embarking on an energy transition project for the Lyon Saint-Étienne university site. As crucial stakeholders in the education of decision-makers and creators of tomorrow, in innovation and the development of knowledge and know-how, we wish to contribute our efforts to those already taken in the territory by signing up to the Métropole's Climate and Energy Plan. ”

**Métropole de Lyon**

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