



PLAN
CLIMAT
ENERGIE
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GRANDLYON

TERRITORIAL CLIMATE AND ENERGY PLAN

Progress Report 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 4th 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

EDITORIAL

VICE-PRESIDENT WITH RESPONSIBILITY FOR THE CLIMATE PLAN



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Just a few weeks away from the COP21 in Paris, 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.

This mobilisation by cities is based on the awareness that only territories which provide adequate responses will in future be able to offer living conditions worthy of their populations. Energy efficiency, reduction in greenhouse gas emissions and adaptation to global warming are the keys to maintaining or improving the quality of life of the planet's population and citizens in particular. It is also an opportunity finally to build a mode of development which is accessible to the planet's inhabitants, while also considering future generations.

The Climate and Energy transition is also an opportunity to create or relocate large numbers of sustainable jobs. And as every city in the world is seeking solutions and looking at what is being done elsewhere, lots of opportunities for economic cooperation are being created.

I am delighted to be able to say that the Métropole de Lyon is among the most ambitious and innovative cities. 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, the number and the diversity of the actions undertaken show the dynamism of our territory. The battle against warming is pollinating the city of Lyon and generating a cascade of innovations. To continue the work already accomplished, we are launching the "Adaptation" project which will profoundly transform urban projects.

Even though it will take several years before the results are felt, the observations and measurements by Air Rhône-Alpes 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 CLIMATE PLAN IN FIGURES

PARTNERSHIP A PLAN WITH THE CIT'ERGIE LABEL ENERGY

200 PARTICIPANTS
HELPING BUILD THE "VISION 2020"

COMMITMENT

3800 CAR-SHARE SUBSCRIBERS

70 OF WOOD-FIRES
HEATING PLANTS
CONNECTED TO
THE NETWORK
MW

460 POSITIVE-
ENERGY
FAMILIES

25000 HOMES RENOVATED
TO BBC STANDARD

TRANSITION **1,4 MILLION**
JOURNEYS DAILY
ON THE TCL SYSTEM

26 ACTIONS **84** PARTNERS
63 VSE' & SME'S WITH ENERGY SUPPORT

10 YEARS **INNOVATION**
OF VELO'V

620 KM OF
CYCLE TRACKS

1 136 BUILDING PROFESSIONNALS
"RECOGNISED PROTECTORS
OF THE ENVIRONMENT"

CITIZEN **7 MILLION**
TONNES OF CO₂ : YEAR EMITTED
BY THE AGGLOMERATION

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Build exemplary new social housing

ACTION
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ACTION
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ACTION
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ACTION
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A word from the new partners

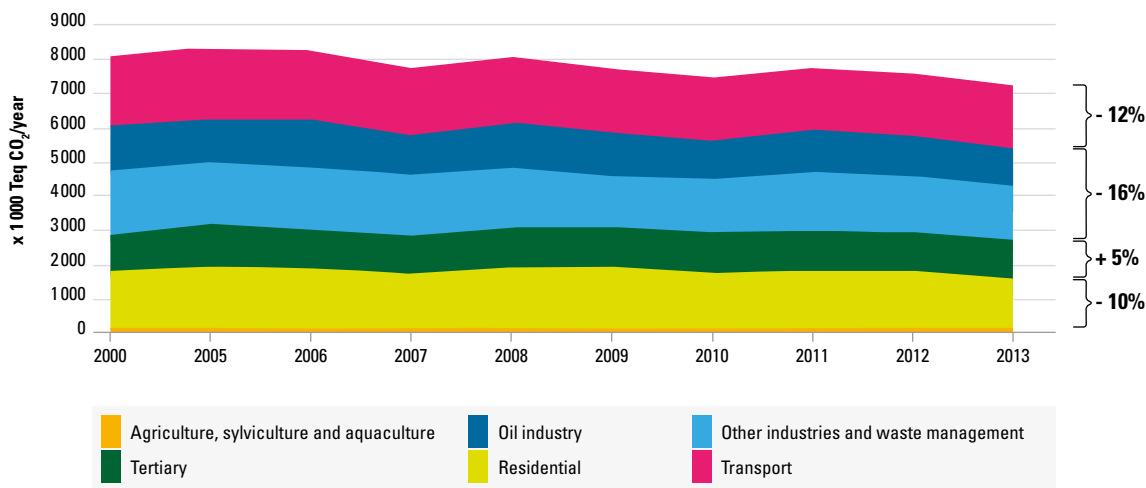
Acting for the climate: updates from the partners

IN 2015

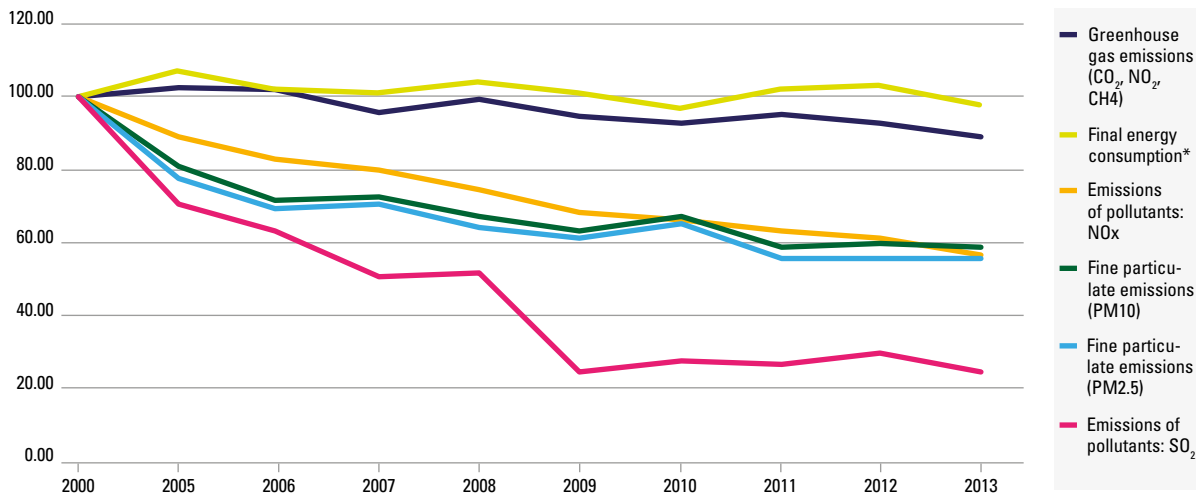
WHERE ARE WE TODAY?

CO₂ emissions in the territory have been falling steadily with **an 11% CO₂ reduction between 2000 and 2013**. Over this time, the population has risen by 10%⁽¹⁾. The measurable actions under the Climate and Energy Plan to date have allowed **an estimated CO₂ reduction of 180,000 tonnes of CO₂ / year⁽²⁾**, i.e. a fall of over 2% in the territory's emissions. In 2015, Air Rhône-Alpes checked the accuracy of calculations and was audited by an external body, the CITEPA, applying United Nations' elements of "Measurement, Reporting and Verification" to the territory's emissions (MRV, action 7.1 of the Climate and Energy Plan).

Changes in greenhouse gas emissions by sector (kteqCO₂/year)



Comparison of indicators for Air, Climate, Energy in the territory of Grand Lyon (base of 100 in 2000)



(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 therefore a minimum figure.

*The final energy consumption figures do not include data from the Feyzin refinery for reasons of confidentiality

THE CLIMATE AND ENERGY PLAN OF GRAND LYON

WHAT IS A CLIMATE AND ENERGY PLAN?

The Territorial Climate and Energy Plan (PCET) is a territorial sustainable development project, the main purpose of which is to combat climate change. Instituted by the National Climate Plan and subsequently enshrined in the Grenelle I and Grenelle II laws, it is a framework of commitment for the territory.

The PCET has two objectives:

- To mitigate / reduce Greenhouse Gas emissions. The aim is to restrict the territory's impact on the climate by reducing greenhouse gas emissions;
- To adapt to climate change. The aim is to reduce the territory's vulnerability to the impact of climate change which cannot be entirely avoided.

A PCET is characterised by target figures for the reduction of greenhouse gas emissions and by the definition of an adaptation strategy for the territory.

THE STAGES

In 2005, Grand Lyon asserted its commitment with regard to the topic of Climate and Energy, via its Agenda 21, from the perspective of the fight against greenhouse gases. In 2007, Grand Lyon initiated the implementation of a Climate and Energy Plan in its territory. Today, the Métropole is recognised at national level for its partnership approach in drawing up its Climate and Energy Plan. The plan was produced in three stages and has already given rise to **4 Climate and Energy Conferences** bringing together all the partners.

- **17/05/2005** Publication of Grand Lyon's first **Agenda 21** (2005-2007). The fight against the greenhouse effect is one of the 5 orientations and focuses on the areas of soft mobility, energy management and sustainable development. Action 39 puts in place a Climate and Energy Plan.
- **28/11/2007** Grand Lyon's deliberation, recognising the **European "3 x 20" objectives** by 2020 and "Factor 4" with a horizon of 2050.
- **2009** 1st stage of the Climate and Energy Plan - **Diagnosis**: publication of an initial study of greenhouse gas emissions, energy consumption in the territory by sector of activity and the main challenges associated with adaptation to climate change.
- **06/05/2010** 1st *Climate and Energy Conference*: putting in place the partnership approach.
- **2010/2011** 2nd stage of the Climate and Energy Plan - **Vision 2020**: in consultation with close to 200 partners in the territory, production of scenarios allowing a 20% reduction in greenhouse gas emissions to be achieved by 2020.
- **28/11/2011** 3rd stage of the Climate and Energy Plan – **the Partnership Action Plan**: signed by 60 partners, on the occasion of the 2nd *Climate and Energy Conference*.
- **2012** 1 framework deliberation and 9 deliberations on the implementation of the sections of the Climate and Energy Plan (habitat, goods transport, Chemistry Valley etc.).
- **28/10/2013** The partners of the Climate and Energy Plan met at the 3rd *Climate and Energy Conference* to share an initial progress report on the actions undertaken.
- **2015** **Launch of structural actions: local eco-renovation platform, Master Energy Plan.**
- **12/11/2015** The partners of the Climate and Energy Plan met at the 4th *Climate and Energy Conference*.

- 20% BY 2020 – HOW MUCH IS THAT?

The territory's greenhouse gas emissions were evaluated by Air Rhône-Alpes at 8 million tonnes of CO₂ / 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 CO₂ / year**. The 26 actions identified in the 5 sections of the Partnership Action Plan are quantified in order to achieve this objective by 2020.

WHO EMITS WHAT?

In the diagnosis carried out in 2009, the "emissions survey" of Grand Lyon's territory indicates to us that CO₂ emissions come principally from the sectors of industry (including energy production and waste management), transport and housing and also the tertiary sector.

Spread of CO₂ emissions over the territory of Grand Lyon by sector



Moreover, the diagnosis also showed that Grand Lyon could only act directly on 5% of CO₂ emissions in the territory via its public utilities and could influence 20% of emissions via its local policies (residential, transport, urban planning, environment). This shows the real value of the partnership action.

5%

Bilan Carbone® of the property and Services of Grand Lyon

- Public procurement
- Buildings
- Waste management
- Water service
- Official travel

20%

Emissions under the influence of current community public policies

- New homes in the ZAC (mixed development zone)
- Social housing
- Public transport
- Urban heating
- Urban development

75%

All other emissions

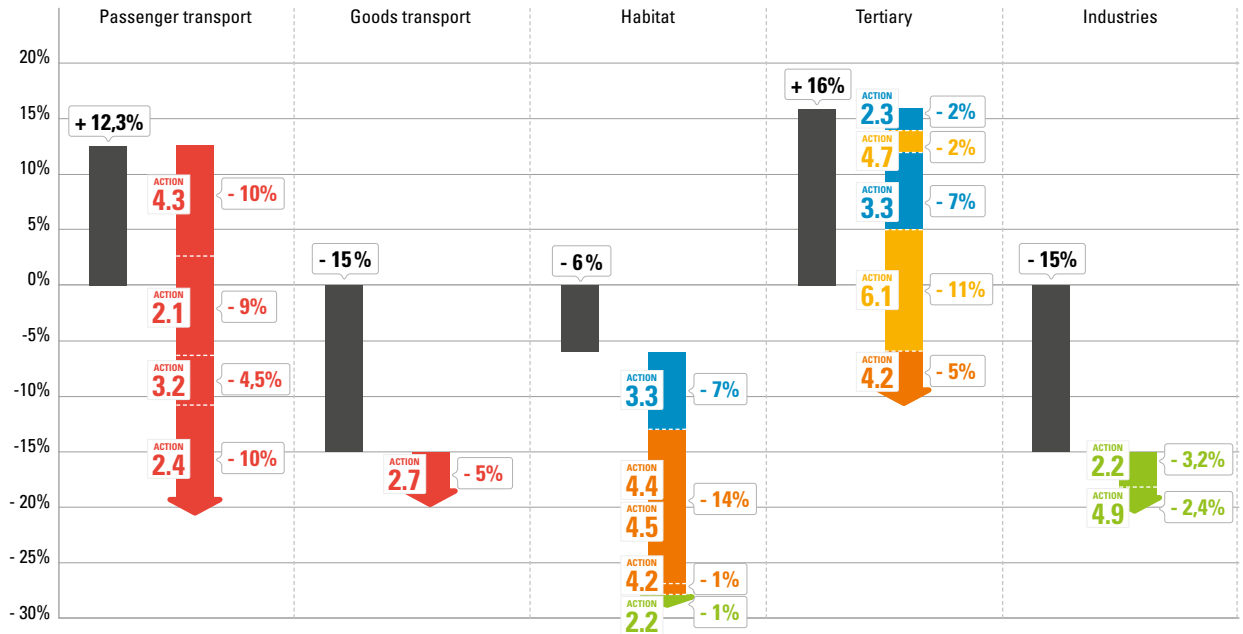
- Businesses: industrial installations, goods transport ...
- Municipalities
- Residents: private homes, transport, consumption

Source: Carbon Balance of Grand Lyon (2009) and CO₂ emissions survey (Air Rhône-Alpes, publication 2009)

VISION 2020

On the basis of this diagnosis, in 2010 and 2011 Grand Lyon and its partners worked to finalise a trajectory which would allow, by 2020, a fall in the CO₂ emissions of each sector to be achieved, leading to -20% over the whole territory.

CO₂ 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%

BUSINESSES

REVIEW OF ACTIONS

The 6 actions identified in the “Businesses” section of the Climate and Energy Plan represent a potential of 480 kT of CO2 savings per year.

The territory of Grand Lyon is highly industrial. The efforts made by the main emitters to reduce their energy expenditure thus have a big impact (action 6.2): between 2000 and 2013, these emissions fell by 16%. The Feyzin refinery thus saved 55 kT of CO2 between 2011 and 2014.

With regard to smaller businesses in the territory, the system of support for VSE's / SME's concerning energy performance started in spring 2014 and over 60 businesses have benefitted from the free support of advisors (action 4.7).

The building sector has organised itself to meet the growing demand for energy-efficient renovations in homes: in 2015, over and above the regulatory obligation to comply with the “RGE” label, 2 groups responded to the proposal by Grand Lyon and its partners to take the DORÉMI training (action 4.8). 2015 saw the end of a number of smart grid experiments (action 5.2).

Finally, among the challenges to be faced, the dynamism initiated by the Call for Projects from 30 of the industrial companies and local authorities in the Chemistry Valley constitutes a structural axis for converting this site in a logic of industrial ecology. 15 projects were selected for businesses to move in, and the total potential is for 60 hectares. The study on the use of free energy in this zone is continuing with the greater use of the recoverable potential on the ARKEMA and SOLVAY sites (action 5.1).

ACTION
4.7

LYON ÉCO ÉNERGIE

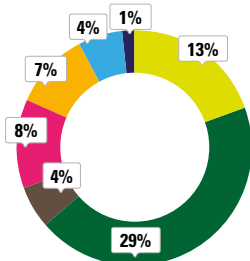
SUPPORT VSE'S / SME'S TO IMPROVE THEIR ENERGY PERFORMANCE

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Since spring 2014, two advisors have been recruited by the Lyon CCI and the Rhône CMA to meet the VSE's / SME's in the territory and help them to improve their energy balance. The "Lyon Éco Energie" system is jointly funded by the two consular chambers, the Métropole de Lyon, the Rhône-Alpes Region and

the ADEME. It has meant support for 63 businesses over 1 year of their activity. This service comprises: a diagnosis of consumption, the definition of an action plan with figures as to the gains, the provision of monitoring tools, and also one inspection per year, i.e. 4.5 days of free advice per business.

The 63 businesses supported for 1 year by the "Lyon Éco Energie" scheme



ACTION
4.8

SUSTAINABLE BUILDING SECTOR

SUPPORT THE DEVELOPMENT AND STRUCTURING OF THE PRIVATE OFFERING

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The structuring of the building sector is a big challenge for dealing with the demands of implementation in new buildings and also the growing demand for the thermal renovation of the old stock. Since July 2015, professionals must be "Recognised Protectors of the Environment" (RGE) so that their clients can benefit from State aid (Tax Credit, éco-PTZ...). This rule has boosted the training dynamic which was already in progress: today, **1,136 businesses** in the Rhône have the **RGE label**. The building and public works sector is particularly present in Grand Lyon which is home to 70% of the **37,000 employees in this sector** in the Rhône.

– Operational Energy Renovation System for Single-Family Houses) to develop the total offerings for the single-family house. In June 2015, an initial set of **17 tradesmen**, in 2 groups, took the 3-day training course in complete efficient renovation. Next stages: at the end of 2015, several inspections to be made to result in 4 training bases with households who have decided to embark on an ambitious renovation, and then an expansion of the system in 2016.

To go further, Grand Lyon and its partners have launched, in the context of the local eco-renovation platform, the **DORÉMI** experiment (Dispositif Opérationnel de Rénovation Énergétique des Maisons Individuelles

In parallel, in 2014, the partnership action steered by the Lyon Maison de l'Emploi (Job Centre) allowed **23 people to receive training for occupation integration** in the sustainable building trades (weatherproofing, heat insulation from the outside, cladding). Half the participants found permanent jobs following this programme.

BETWEEN
2014 AND
2015



professionals RGE
x 2



- Pilot: Métropole de Lyon
- Partners: CMA du Rhône, BTP Rhône, CAPEB Rhône, ALE, PACT, MdEF de Lyon

SMART CITY

DEVELOP SMART GRIDS

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The experimental smart grid projects are part of the Grand Lyon Smart City approach initiated in 2012. The management of energy consumption is one of the 4 strategic axes of the approach, alongside new mobilities, conditions of innovation and digital

services. The experiments under way aim to prove in practice the benefits of new technologies for the management of the electrical network of tomorrow, advice to consumers and the development of new economic models.

■ Project: **Watt&Moi**

Partners: ERDF and Grand Lyon Habitat

1,000 households have, for over a year now, had online access to their electricity consumption. The platform has been used by people who wish to manage their consumption. **20%** of tenants are online and 1/3 of them have then used the site on a regular basis. The system has played a role in raising awareness among other tenants, but the experiment shows that only a big increase in their bills or a lowering of their purchasing power could motivate them to use the site themselves. The functionalities offered by Watt&Moi will be developed further and diffused more generally by ERDF in the context of the roll-out of the Linky meters.

■ Project: **Lyon Smart Community**

Partners: Toshiba, NEDO

5 years of experimentation are reaching their end with, in the Lyon-Confluence district:

- **HIKARI**, a mixed energy-positive island, inaugurated in September 2015;
- **Sunmoov**, a fleet of 30 shared electric vehicles powered by solar energy, with 150 users over 2 years;
- **Consotab**, a thermal renovation project for 275 apartments in the Perrache estate coupled with the use of tablets to monitor consumption for 167 users, in place since 2014. Experience shows that awareness-raising is essential for this technology to be accepted;
- **Since 2014**, these elements have been connected to the **“Community Management System”**, a tool which allows data for a district to be monitored and used (energy, mobility, weather ...). 2 years post-demonstration are planned (2016-2018) in order to learn from it.

■ Project: **Smart Electric Lyon**

Partner: EDF

20,000 households are testing new service offerings centred on consumption management. The project has also allowed a standard connection to be developed between the “Linky” meter and various household appliances.

■ Project: **Move In Pure**

Partner: CNR

Following a test phase in 2012, the system was continued in 2014 to supply the fleet of **28 electric vehicles** in Grand Lyon with 100% renewably sourced electricity. The approach confirmed the benefit of synchronising production and consumption: on the producer’s side, the surplus energy produced by barrages is absorbed, and on the consumer’s side the use of a communal fleet allows recharging overnight and thus avoids spikes on the network.

■ Project: **Greenlys**

Partners: ERDF and Engie

The demonstrator has studied the smart grid concept by a cross-cutting approach. 400 consumers in Lyon and Grenoble were included in this programme. **40,000 curtailment** requests allowed consumption peaks to be smoothed out, with the impact on the electricity network being monitored. This experiment revealed the need to spread customers taking part in a curtailment request over several zones so as not to disrupt the network.

- Since 2014, the Métropole has also been a pilot zone for the roll-out of **Gazpar meters** by GRDF in Lyon 5 and Lyon 9 and also in Caluire. The first meters will be fitted in these sectors in 2016.

- In 2015, the new location dedicated to the **TUBÀ** innovation, located on the forecourt of the Part-Dieu Railway Station, launched the **“Remix my energy”** challenge with EDF, focussing on energy consumption and connected items.

OUR PARTNERS IN THE ACTION

**ADECCO,
ADEME,
ALE,
AXELERA,
BIOMERIEUX,
BTP RHÔNE,
CAPEB,
CARSAT RHÔNE-ALPES,
CCI DE LYON,
CMA DU RHÔNE,
CNR,
CRÉDIT AGRICOLE CENTRE-EST,
EDF,
EIFFAGE CONSTRUCTION,
ENGIE,
ERDF,
FEMAT,
GRDF,
GROUPE LA POSTE,
HÔPITAUX DE LYON,
IFPEN,
MEDEF,**

**MÉTALLURGIE RHÔDANIENNE,
RAEE,
RÉGION RHÔNE-ALPES,
SAINT GOBAIN,
SERFIM,
SIEMENS,
SNCF,
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VILLE DE DARDILLY,
VILLE DE DÉCINES,
VILLE DE GRIGNY
VILLE DE LYON,
VILLE DE OULLINS,
VILLE DE VAULX-EN-VELIN,
VILLE DE VILLEURBANNE.**

TRANSPORT & TRAVEL

REVIEW OF ACTIONS

The 7 actions identified in the “Transports” section of the Climate and Energy Plan represent potential savings of 414 kT of CO₂ per year.

To date, the actions undertaken with regard to public transport, soft modes of transport and car-sharing schemes have resulted in a gain of 108 kT CO₂ / year.

Indeed, the robust development of the public transport system has borne fruit: with an observed 24% rise in use since 2006, the objectives of the Climate 2020 Plan have almost been achieved (action 4.3).

Moreover, cycling continues to grow in popularity, having increased threefold between 2005 and 2015 (action 2.1), car-sharing is innovating with the testing, in late 2015, of “dynamic ride-sharing”, and car-sharing has won close to 4,000 subscribers to the services Citiz LPA, Bluely, Sun moov, and Watt’mobile (action 3.2). In total, a fleet of 340 shared vehicles, including 240 electric vehicles.

The partners’ actions are continuing in the “Goods Transport in the City” sector, with the development of Urban Logistics Spaces, experiments in timed road-sharing (silent night-time deliveries) and spatial road-sharing (lanes reserved for deliveries), and also gas motorisation (action 2.7).

Finally, 2015 marked the end of the Optimod’Lyon research project with the sharing of multi-modal data (action 3.1).

The challenges will consist of maintaining the development of the offering while gradually limiting speeds (action 2.4), and polluting vehicles’ access to certain zones (action 2.5). The search for new forms of motorisation (natural gas, electricity, hydrogen) is also one of the levers for improving air quality in Lyon.

ACTION 4.3

PUBLIC TRANSPORT

ENCOURAGE THE MODAL SHIFT FROM THE CAR TO PUBLIC TRANSPORT (25% INCREASE IN USE)

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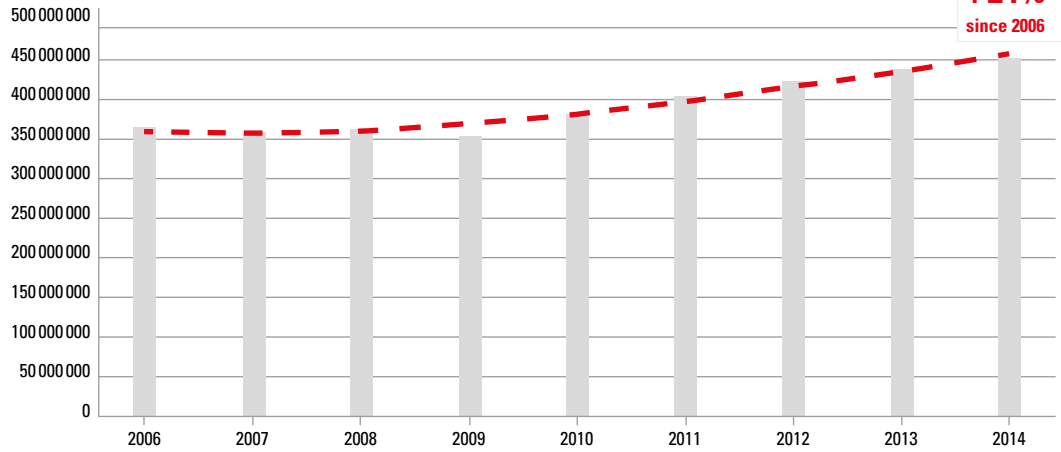
Séverine Asselot,
SYTRAL

The TCL system (Transport en commun lyonnais – Lyon Public Transport) caters for **1.4 million journeys daily** in the territory of Grand Lyon. Thus, 4 metro lines, 2 funicular lines, 5 tramway lines and 130 bus and trolley-bus lines criss-cross the territory. This public transport system is second only to Paris. 2015 marked a major change for public transport in the Rhône. In addition to the TCL system and the Optibus service (door-to-door service for people with mobility problems), SYTRAL has become the sole organising authority for the département with the networks of Cars du Rhône and Libellule in Villefranche, and the Rhônexpress shuttle serving Saint-Exupéry airport.

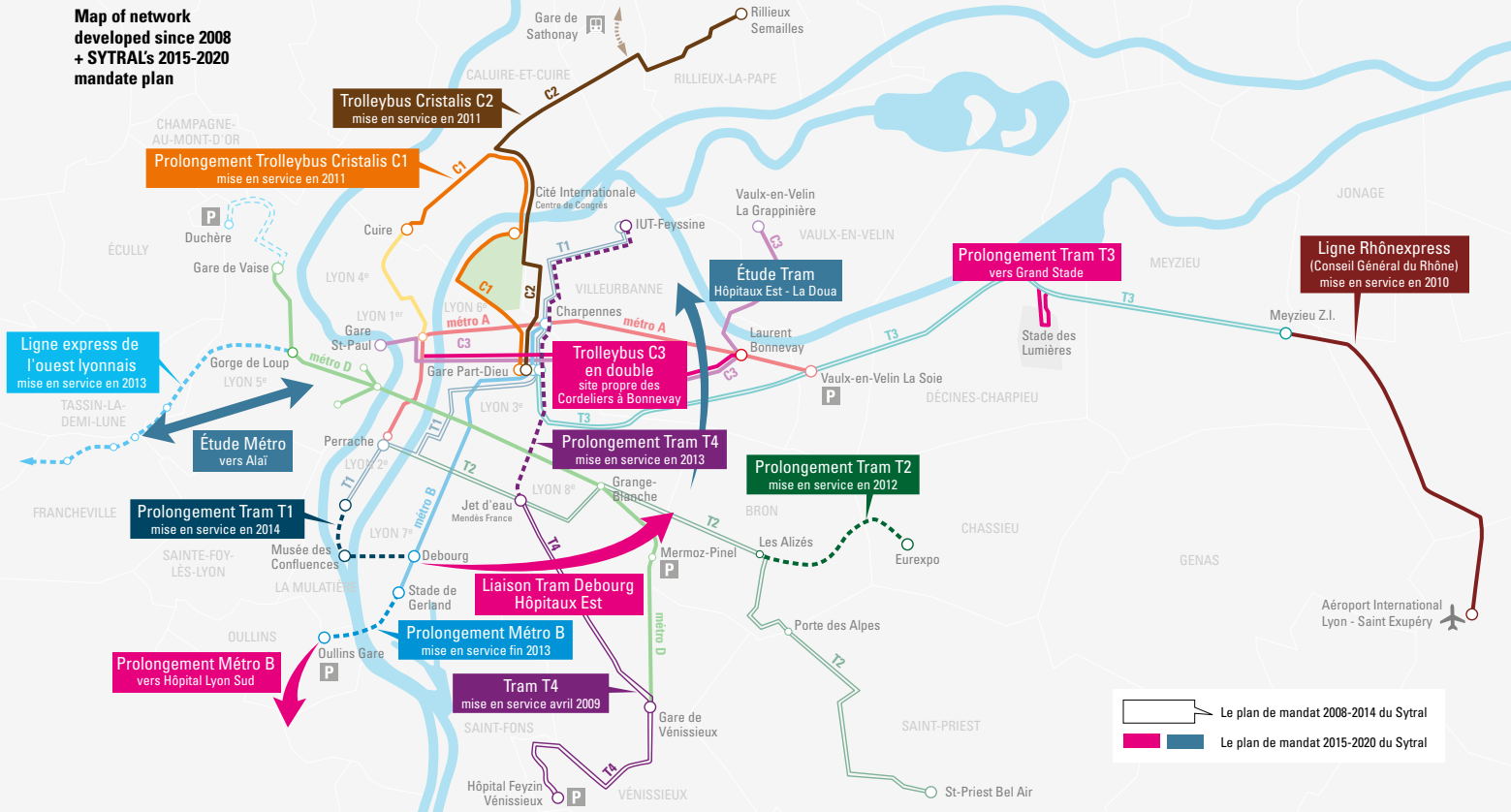
In Grand Lyon, the improvement in the public transport offering, whether by organisation and legibility (Atobus initiative in 2011) or by investment in the extension of busy lines, is bearing fruit. Usage is on the rise, with a **24% increase** in the number of passengers per year **between 2006 and 2014**, the Climate Plan objective being +25% by 2020.

Investment in the system is continuing with **1 billion euro** planned for the next 2015-2020 mandate plan.

Number of journeys per year on the TCL system



Map of network developed since 2008 + SYTRAL's 2015-2020 mandate plan



Le plan de mandat 2008-2014 du Sytral
Le plan de mandat 2015-2020 du Sytral

ACTION 2.1

ACTIVE MODES OF TRANSPORT CONTINUE WITH THE SOFT MODE PLAN

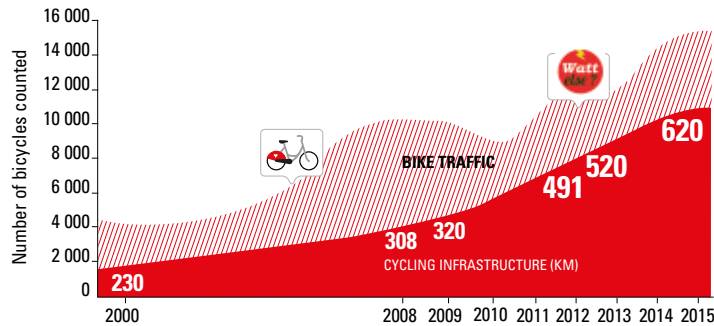
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The popularity of cycling rose **threefold** between 2005 and 2015 in the centre of the agglomeration. Indeed, the sustained development of the cycleway network has resulted in the **620 km** mark being reached by late 2015 - a good way along the path to the target of 920 km in 2020. Parking has also improved with twice as many bike racks as in 2008: today, there are 20,000 spaces on racks and 1,745 safe places in LPA and P+R car parks (TCL and SNCF).

In 2015, the agglomeration celebrated 10 years of Vélo'v with **60,000 long-term subscribers**.

These structuring developments include the "soft mode" tube of the Croix-Rousse tunnel, which opened in December 2013, and provides a link between the Saône and the Rhône for 2,000 bicycles and 350 pedestrians every day. Another feature worthy of note is the development of two-way cycle tracks, 260 km of traffic calming zones and 121 km of greenways, ideal tracks for cycling and walking. Finally, since 2015, bicycles have been allowed to go through red lights at **137 junctions** with a "give way" sign for cyclists. The current Soft Mode Plan is to become an Active Mode Plan which will include **walking**.

BETWEEN
2005 AND
2015



Source: monthly figures for 16 points on the cycling network, Highways Department of Grand Lyon (September 2015)

ACTION 3.1

OPTIMOD'LYON

ACT ON MOBILITY BEHAVIOURS: PROMOTE MODAL SHIFT AND CREATE A MOBILITY CENTRE; OPTIMISE ROAD NETWORKS

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The Optimod'Lyon project (2012-2015) allowed the territory's "mobility" database to be produced, with **20 million data per day** available in real time on the Grand Lyon Data platform. Building on this, the partner businesses have developed 4 new services:

- **Optimod'Lyon, the 1st multi-modal urban GPS on smartphone:** provided by the company Cityway, it provides access to all the agglomeration's mobility information with a real-time multi-modal calculator which includes 1-hour traffic predictions.
- **OnlyMoov: the website** which brings together on a single site all the information for going from point A to point B.
- **SmartFreight: a navigator for urban freight** developed by **Renault Trucks**, it optimises heavy goods guidance and promotes fuel-efficient driving.

- **Smart Deliveries:** a tool developed by **IBM**, it allows delivery rounds **to be optimised upstream** and reorganised depending on unforeseen events, with a time saving of up to 10% and a travel distance saving of up to 18%.

In total, the large-scale roll-out of these combined solutions could reduce the territory's emissions by **30,500 tonnes equivalent CO₂ / year**, i.e. a 2% fall in emissions in the transport sector. The dynamic continues with **Opti'cities** which aims to diffuse the experience acquired to other European cities and to establish standards for mobility data.

OUR PARTNERS IN THE ACTION

**ADECCO,
ADEME,
ADERLY,
ALE,
APRIL,
BIOMERIEUX,
BRAKE,
CARSAT RHÔNE-ALPES,
CCI DE LYON,
CMA DU RHÔNE,
CNR,
CRÉDIT AGRICOLE CENTRE-EST,
DREAL ET DDT,
EIFFAGE CONSTRUCTION,
EDF,
FRTP RHÔNE-ALPES,
GRDF,
GROUPE CASINO,
GROUPE LA POSTE,
HÔPITAUX DE LYON,
IFPEN,
KEOLYS,
LUTB,
RAEE,
RÉGION RHÔNE-ALPES,
SAINT GOBAIN,
SERFIM,
SIEMENS,
SNCF,**

**SPIE,
SUEZ EAU,
SUEZ SITA,
SYTRAL,
TENDANCE PRESQU'ÎLE,
TLF,
TNT,
UNIVERSITÉ DE LYON,
VEOLIA,
VILLE DE BRON,
VILLE DE CALUIRE-ET-CUIRE,
VILLE DE CHARLY,
VILLE DE CHASSIEU,
VILLE DE DARDILLY,
VILLE DE DÉCINES,
VILLE DE FEYZIN,
VILLE DE GRIGNY,
VILLE DE LYON,
VILLE DE MEYZIEU,
VILLE D'OULLINS,
VILLE DE PIERRE-BÉNITE,
VILLE DE RILLIEUX-LA-PAPE,
VILLE DE SAINT-GENIS-LAVAL,
VILLE DE SAINT-PRIEST,
VILLE DE STE FOY-LÈS-LYON,
VILLE DE TASSIN-LA-DEMIE-LUNE,
VILLE DE VAULX-EN-VELIN,
VILLE DE VÉNISSIEUX,
VILLE DE VILLEURBANNE.**



HABITAT REVIEW OF ACTIONS

The 4 actions identified in the “Habitat” section of the Climate and Energy Plan represent a potential saving of 244 kT of CO₂ per year.

In 2015, the priority was the eco-renovation of existing buildings, which represents the main source of savings with a potential gain of 225 kT of CO₂ per year (action 4.2 of the Climate and Energy Plan).

Following an experimental phase between 2012 and 2014 during which 1,700 social housing units and 850 private co-ownership homes were renovated to BBC standard, the support improved in 2015 with an increase in financial assistance, the reinforcement of support and the mobilisation of partners.

The dynamic of new home construction continues, with over 8,000 private and social housing units built every year. The requirements applicable for ZAC’s (mixed development zones) and social housing, via the “Sustainable Habitat” and “Sustainable Offices” reference works, go beyond the thermal regulation, extending to renewable energy production (EnR), health, choice of materials and embodied energy (actions 4.1 and 4.2).

The actions of Grand Lyon and its partners in the housing sector have, since 2012, been included in the future investment programme “ÉcoCité”: eco-renovation of 275 homes in the Perrache estate in the Confluence, 550 homes in the Jardin estate in Gerland and the planned renovation of the Tony Garnier estate in Gerland.

ACTIONS
4.1
4.2

EXEMPLARY NEW HOME BUILDING

BUILD EXEMPLARY NEW SOCIAL HOUSING
GUARANTEE THE BBC STANDARD (LOW-CONSUMPTION BUILDING)
FOR THE CONSTRUCTION OF PRIVATE HOMES AND OFFICES FROM 2012
AND ANTICIPATE THE 2020 THERMAL REGULATION (RT)

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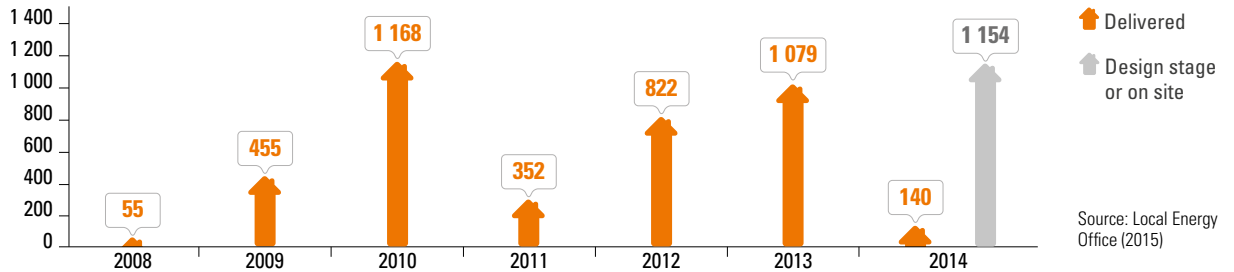
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The new-build dynamic continues apace with 8,400 new homes, both private and social, produced in the territory in 2014. Grand Lyon imposes additional requirements to the RT 2012 in terms of **the environmental quality of buildings** on land assignments, ZAC's and social housing, via its reference works (in force since 2004). The **"Sustainable Habitat"** reference work, updated in 2013, proposes three requirement levels: the **BBC +, Effnergie+** and **BEPOS** (energy-positive building). Low embodied energy materials are encouraged with a bonus for obtaining the "bio-sourced buildings" label. The **"Sustainable Offices"** reference work, updated in late 2012, concerned 80,000 m² of net floor area in 2013 and 2014. These tools are regularly updated with real-estate professionals, social landlords and the Agence Locale de l'Énergie (Local Energy Office). Finally, a **"business eco-zones"** reference work has been produced by SEPAL.

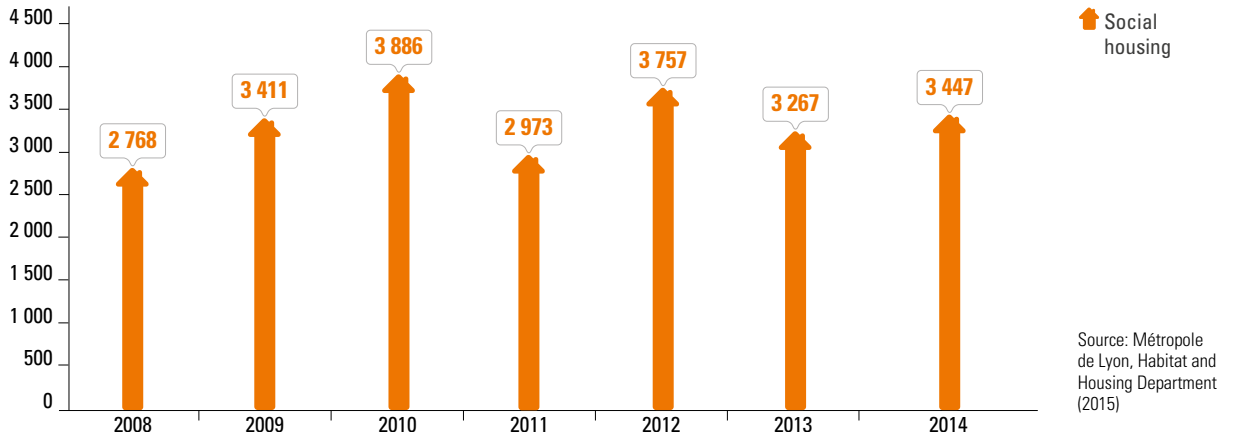
In 2015, two districts have moved on to new stages in the exemplary role of buildings:

- **In Lyon-Confluence**, the energy-positive HIKARI island was inaugurated in September 2015. This is the first mixed structure which produces more energy (112 kWh / year / m²) than its occupants use (97 kWh / year / m² for all uses combined). A cogeneration plant using vegetable oil and solar panels covers 80% of electricity needs and 90% of heating needs, an absorption machine produces chilled water to refresh the offices and shops, and geothermal energy provides cooling for the housing.
- **La Duchère**, a district which has taken sustainable development as a guiding principle in its urban transformation, is starting the first environmental evaluations in connection with the eco-district label obtained in 2013. The biomass heating plant installed when the scheme started (2007) has resulted in CO₂ emissions being reduced by 90%.

Total number of private homes built in accordance with the "Sustainable Habitat" reference in mixed zones, partnership urban projects and land assignments (according to the Local Energy Office)



New build: social housing



ACTIONS
4.4
4.5

ECO-RENOVATION IN PROGRESS

Since 2012, Grand Lyon and its partners have endeavoured to develop highly effective thermal renovations, i.e. to achieve the “**renovation BBC**” standard of 96 kWhep / year / m². During a 2-year experimental phase, social landlords and co-owners worked to renovate **1,700 homes in the social housing stock and 850 homes in the private housing stock**, thus demonstrating that these ambitious operations are possible. This experimental phase (2012-2014) allowed a saving of **6,000 tonnes of CO₂ / year** and had the benefit of the Métropole’s support to the tune of **€ 10 million**.

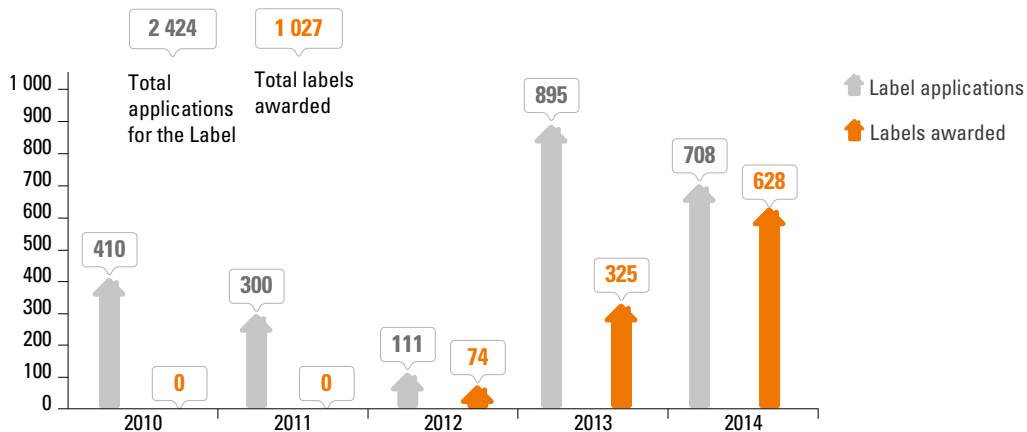
In 2015, this support became more generally available with the launch of the “local eco-renovation platform” supported by the ADEME and the Rhône-Alpes region. Financial assistance for the works is boosted by a subsidy of **€ 3,500 excl. tax / home** for reaching the BBC standard and **€ 2,000 / home** for a “voluntary” renovation, with a 35% energy saving. To support renovations in the social and private housing sector, Lyon Métropole voted in an envelope of **€ 30 million by 2020**.

With regard to coordination, **the Local Energy Office is the “one-stop shop”** for applications and is the first level of support for owners. In certain sectors, the coordination is reinforced by urban-development programmes (PIG, OPAH, Salvage Action Plans). Coordination teams carry out the diagnoses, recommend the works to be carried out, support the co-owners at meetings and put together the financial package including local and national aid.

The involvement of the partners in the Climate and Energy Plan has been requested: discussion is under way with **banking organisations** to obtain attractive loans and the **sustainable building sector** is responding (see action 4.8, page 13 of ++this document). A number of municipalities have put in place additional aid which is coherent with the Métropole’s financial assistance.

The ingredients are thus in place today to gradually improve results. Moreover, CERA also notes an increase in the number of applications for the BBC renovation label: over **1,000 labels** have been awarded in the territory of Grand Lyon.

Renovation: number of homes having applied for the BBC Renovation label in the territory of Grand Lyon

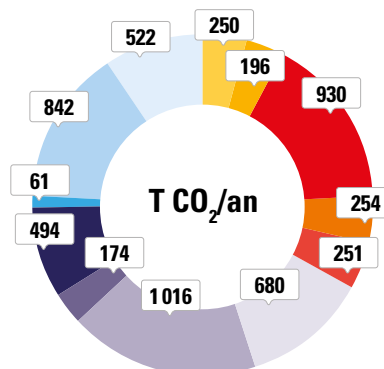


Source: RhôneAlpes Economic Cell (CERA) from BBC data - Effinergie Barometer for sustainable construction, December 2014)

Annual CO₂ gains achieved thanks to the experimental BBC renovation phase on housing in Grand Lyon

Social housing (1,700 homes)

- Grand Lyon Habitat (2 operations)
- Alliade Habitat (4 operations)
- Amalia (1 operation)
- Opac 69 (1 operation)
- Société Villeurbannaise Urbanisme (2 operations)
- Est Métropole Habitat (1 operation)
- Immobilière Rhône-Alpes (3 operations)



Co-ownership (850 homes)

- Les clochettes, Saint-Fons
- Alpes C et D, Saint-Priest
- Caravelle, Bron
- Hauts de Saint-Clair, Caluire-et-Cuire
- François Ouest, Vaulx-en-Velin

OUR PARTNERS IN THE ACTION

**ABC HLM,
ADEME,
ALE,
BTP RHÔNE,
CAPEB,
CRÉDIT AGRICOLE CENTRE-EST,
DREAL/DDT,
EIFFAGE CONSTRUCTION,
EDF,
ENGIE,
GRDF,
PACT DU RHÔNE,
RAEE,
RÉGION RHÔNE-ALPES,
SERFIM,
UNIS,
VILLE DE BRON,
VILLE DE CALUIRE-ET-CUIRE,
VILLE DE COLLONGES-AU-MONT-D'OR,
VILLE DE DÉCINES,
VILLE DE GRIGNY,
VILLE D'OULLINS,
VILLE DE PIERRE-BÉNITE,
VILLE DE RILLIEUX-LA-PAPE,
VILLE DE SAINT-PRIEST,
VILLE DE VÉNISSIEUX,
VILLE DE VAULX-EN-VELIN,
VILLE DE VILLEURBANNE.**

ENERGY

REVIEW OF ACTIONS

The 3 actions identified in the “Energy” section of the Climate and Energy Plan represent a potential saving of 120 kT of CO₂ per year.

The first lever: the roll-out of heating networks supplied by renewable energy (biomass) or recovered energy (waste incineration, free heat released by industrial processes). To date, the renewable or recovered energy share in heating networks stands at an average of 54% for the 6 networks managed by the Métropole. They serve the equivalent of 70,000 homes. By 2019, the renewal of contracts for the networks in Lyon-Villeurbanne, Bron, Givors, Vaulx-en-Verin and Rillieux-la-Pape will allow new developments. The objective is to double the number of homes connected to a heating network between 2010 and 2020 (action 2.2 of the PCET).

Second lever: consolidating the wood industry. The 70 MW of power from existing biomass heating plants currently consume around 100,000 tonnes of wood per annum: the pressure on this resource is becoming more acute. In 2015, the Métropole joined in the dynamic of the Rhône-Alpes region and its partners to found the association “Sylv’acques, des forêts pour demain” (Sylv’acques, forests for tomorrow). Via this structure, 7 forest areas in Rhône-Alpes will be putting in place management plans to bring landowners together and improve the production from their land (action 4.9 of the PCET).

The actions with very good potential for the future include the “Gaya” research platform which is constructing its first buildings in 2015 at St Fons. With its 11 partners, it aims to develop a complete biomethane production sector from biomass gasification in 2017.

PROJECT TRANSFORM FOR A DISTRICT IN TRANSFORMATION

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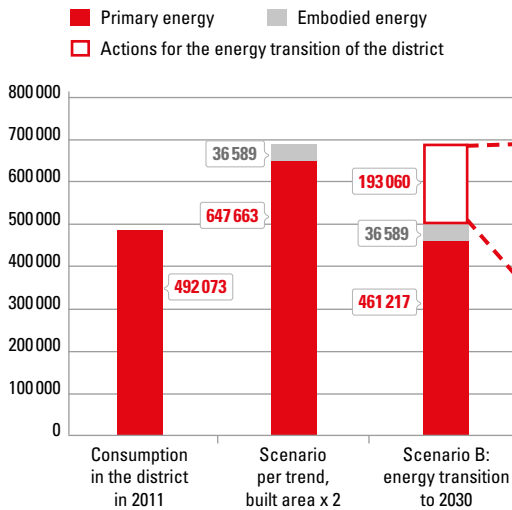
The European Transform project is now part of Grand Lyon's thinking about the city's energy planning. Indeed, while the European Concerto project focussed on energy planning for a new district (Confluence), Transform is concerned with the **urban renovation** of the existing Part-Dieu district. With a total budget of **€ 1 million**, this European project has been carried by Grand Lyon, ERDF and Hespul. The objective: to produce scenarios which would allow **a twofold increase in the built area** in the district **without increasing energy demand and by optimising the networks' share.**

Data from energy distributors have been cross-referenced with urban development data to produce

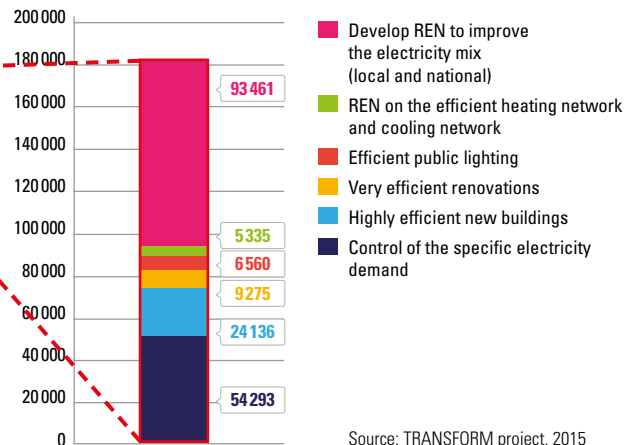
a shared diagnosis of current and future demand in the zone. **The objective can be achieved via two scenarios.** One of them, allowing the objective to be achieved by 2030, would involve:

- highly efficient new buildings,
- the thermal renovation of a quarter of the existing property,
- a 20% fall in the specific electricity consumed in offices,
- a 50% reduction in the consumption for public lighting,
- to increase the renewable energy share of the heating and cooling network to over 60%,
- a strong roll-out of decentralised renewable production solutions.

Analysis of various scenarios for the Part-Dieu 2030 project (Primary energy, Mwhep/year)



Actions for the energy transition of the district

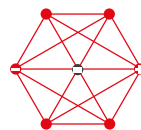


Source: TRANSFORM project, 2015

ENERGY MASTER PLAN

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In 2015, the construction of the **Energy Master Plan** for the agglomeration was commenced with an official launch on **25 June 2015** alongside 170 representatives from the territory: energy companies, businesses in the territory, associations, 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 CO₂ emissions and consumption in the territory to be devised jointly with the partners.



**SCHÉMA
 DIRECTEUR
 ÉNERGIES
 GRAND LYON**

ACTIONS
4.10
2.2

REN PROGRESS IN THE TERRITORY OF GRAND LYON

STRUCTURE AND DEVELOP RENEWABLE ENERGY DEVELOP HEATING AND BIOMASS NETWORKS

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In an urban territory such as Grand Lyon, the establishment of renewable energy sources is restricted by the available areas and by regulations. Nonetheless, the observations of the Observatoire Régional des Gaz à Effets de Serre (ORE-GES – Regional Observatory of Greenhouse Gases) and the Agence Locale de l'Énergie (ALE – Local Energy Office) reveal a roll-out of these energy sources: the **total power** in place is evaluated at **70 MW** for **wood energy** (i.e. 44% of the 2020

objective), **20 MW** for **photovoltaic solar power** and **10 to 20 MW** for **thermal solar power**. Moreover, despite a tough economic climate for the photovoltaic sector, a rise in installed power can be seen every year in the territory of Grand Lyon. However, the **objectives** of the Climate and Energy Plan for wood energy are **160 MW** connected to a heating network **by 2020**, with an intermediate stage of **90 MW in 2015**.

BETWEEN 2010 AND 2015

installed power
x 2

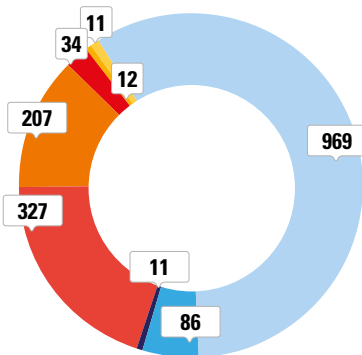


Spread of estimated production in GWH/year renewable energy in the territory of Grand Lyon at the end of 2013

REN production in the territory of Grand Lyon, end of 2013

Thermal generation

- UTVE Thermal
- Wood – automatic energy
- Wood – energy, logs
- Thermal biogas
- Thermal solar



Electricity production

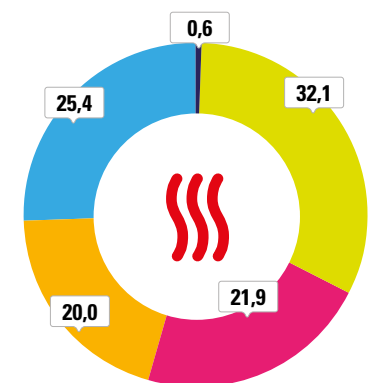
- Hydraulic
- UTVE electric
- Photovoltaic

Source: OREGES and ALE balance

Heating networks: in 2015, the Métropole took on the management of 6 networks in the agglomeration. These networks are a strong lever for supplying build-

ings with renewable or recovered energy instead of fossil energy (gas, oil).

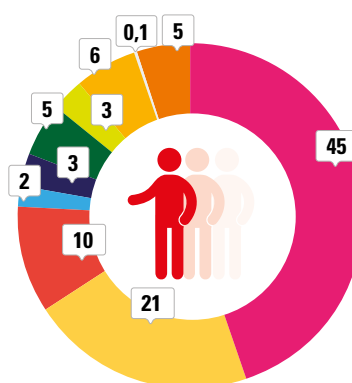
Energy mix of urban heating networks in Grand Lyon, in thermal energy produced



- Fuel oil
- Waste incineration plant (UTVE)
- Wood heating plant
- Gas heating plant with electricity cogeneration
- Natural gas heating plant

Source: Métropole de Lyon, 2014

Customers served in 2013 by a heating network (depending on the percentage of their consumption)



- Social landlords
- Co-ownership
- Communal buildings
- Regional buildings
- Metropolitan buildings
- State buildings
- Health
- Private
- Individuals
- Para-public administrations
- Other

Source: Métropole de Lyon, 2015

OUR PARTNERS IN THE ACTION

**ADEME,
ALE,
AMORCE,
AXELERA,
BIOMERIEUX,
COFELY,
CRÉDIT AGRICOLE CENTRE-EST,
DALKIA,
EIFFAGE CONSTRUCTION,
ENGIE,
GRDF,
IFPEN,
RAEE,
RÉGION RHÔNE-ALPES,
SERFIM,
SUEZ EAU,
SUEZ SITA,
TNT,
VILLE DE BRON,
VILLE DE CHARLY,
VILLE DE CHASSIEU,
VILLE DE COLLONGES-AU-MONT-D'OR,
VILLE DE DARDILLY,
VILLE DE DÉCINES,
VILLE DE GRIGNY,
VILLE DE LYON,
VILLE DE MEYZIEU,
VILLE DE RILLIEUX- LA-PAPE,
VILLE DE VAULX-EN-VELIN,
VILLE DE VÉNISSIEUX.**

CROSS-SECTORAL ASPECTS

REVIEW OF ACTIONS

The 6 actions identified in the “Cross-Sectoral Aspects” of the Climate and Energy Plan represent a potential saving of 570 kT of CO₂ per year: this lever covers very diverse domains.

They are first and foremost actions carried by the Métropole de Lyon (action 1.1) and the municipalities with regard to their property and services (action 3.6): 2015 marked the effort by a number of local authorities to gain Cit'ergie® certification, a quality procedure specific to Climate Plans.

The PLU-H (Local Urban Planning and Habitat Plan) is entering a phase of drafting of regulations which will be completed in 2017 and represents an important lever in the area of energy planning (action 2.3).

The study on the feasibility of establishing a local carbon offset fund ended in mid-2014: the viability of a fund such as this is very dependent on the dynamic around the price of carbon (action 2.6). 2015 also marked the end of the “MRV” project which aimed to certify that the annual monitoring of CO₂ emissions in our territory was in compliance with the WHO mechanism of being “Measurable, Reportable and Verifiable” (action 7.1).

The mobilisation of citizens was very strong in 2015 in connection with the COP 21: 150 Rhône-Alpes residents contributed to the “worldwide views” global citizen consultation on 6 June; Lyon hosted the world summit on territories on 2 July and two “villages of alternatives” (alternatiba) took place in May and October. To form a link between international challenges and pragmatic solutions in daily life, the associations in the territory have offered specific discussion workshops, conferences and visits (action 3.3).

The challenge going forward is to further the dynamic regarding the management of the energy demand. To do this, the Métropole can make use of its new responsibilities in the field of energy distribution to act more closely to users.

ACTION 1.1

EXEMPLARY CITY

EMBARK ON A PROPERTY AND SERVICES ACTION PLAN FOR GRAND LYON

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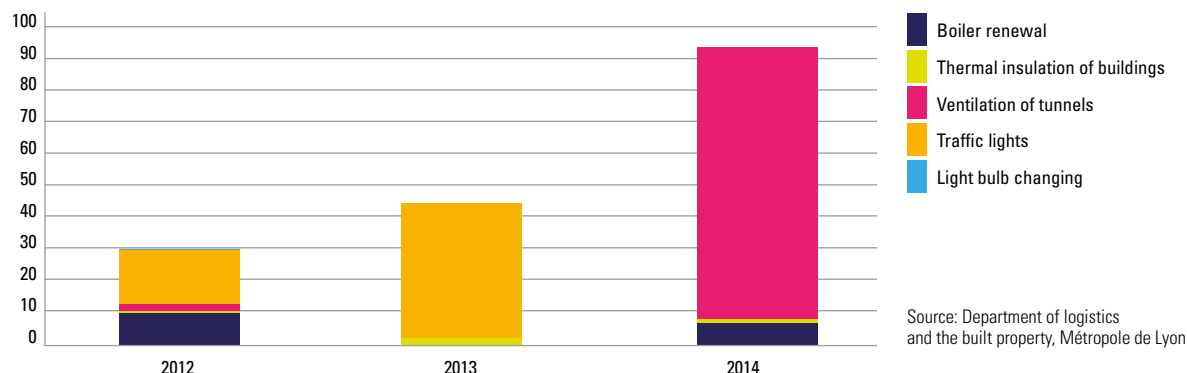
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In January 2015, Grand Lyon obtained the **Cit'ergie® certification**, the French version of the "European Energy Award" label which is based on a list of 79 actions and 54 indicators to determine the level of integration of the Climate and Energy topic in the municipality. With a **score of 62%** achieved following the audit, the municipality joins the other 51 French cities who have today undertaken this process. **Lyon, Rillieux-la-Pape** and **Vénissieux** have also embarked on this joint certification (results expected in 2015 and 2016).

The energy efficiency actions regarding the property and services allow energy savings certificates (CEE) to be filed: 34 GWhcumac were filed in 2013 by Grand Lyon and **86 GWhcumac** in 2014.

The **school rehabilitation programme** in the Métropole should also generate savings with an investment budget of **€ 8 million** earmarked for thermal renovation in 2015 to 2020.

CEE's filed between 2012 and 2014 by type of operation (GWh cumac)



ACTION 2.3

CARBON OFFSETTING

OFFSET CO₂ EMISSIONS VIA A CLIMATE AND ENERGY FUND

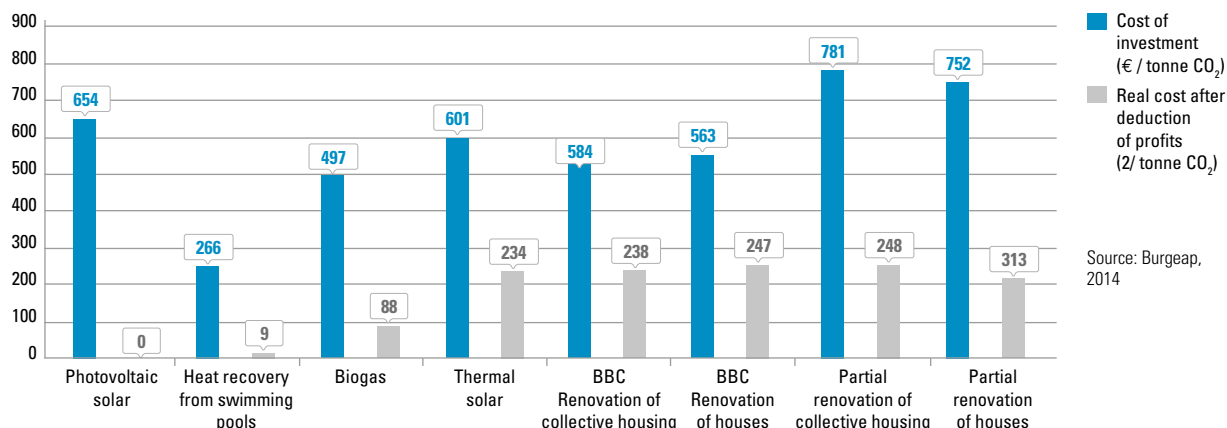
Contact

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The establishment of a local carbon compensation fund was studied in 2013-2014 so as to allow those involved to **offset with local projects**: photovoltaic and thermal solar energy, biogas, heat recovery at swimming pools, development of small heating networks, home renovations. The cost per tonne of CO₂ for these projects ranges from **€ 250 to 750 / t CO₂**, or € 0 to 300 / t CO₂ if the economic profitability already achieved by the project carrier is deducted (resale of electricity, energy savings).

However, voluntary credits can be bought internationally for around € 20 / tonne of CO₂. Thus, even accepting an effort by contributors (3), the cost of a fund such as this would be **€ 15 million / year for 180,000 tonnes of CO₂ avoided annually**. Even at this price, the economic balance is not achieved and the survey of the partners has shown a low uptake of offsetting. The decision was therefore made to give preference to direct more transparent subsidies for projects relating to the home and to seek other local offsetting possibilities.

Climate fund study: cost of a tonne of CO₂ avoided by type of project



(3) Hypothesis of a fund which would contribute 30% of the marginal costs of projects (i.e. €0 / t CO₂)

ACTION 4.6

COMMUNAL CLIMATE PLANS, AT EVERY LEVEL!

REACH 90% OF THE POPULATION COVERED BY A COMMUNAL CLIMATE AND ENERGY PLAN IN 2014 AND ACCELERATE THE RENOVATION OF THE COMMUNAL ESTATE

Contacts

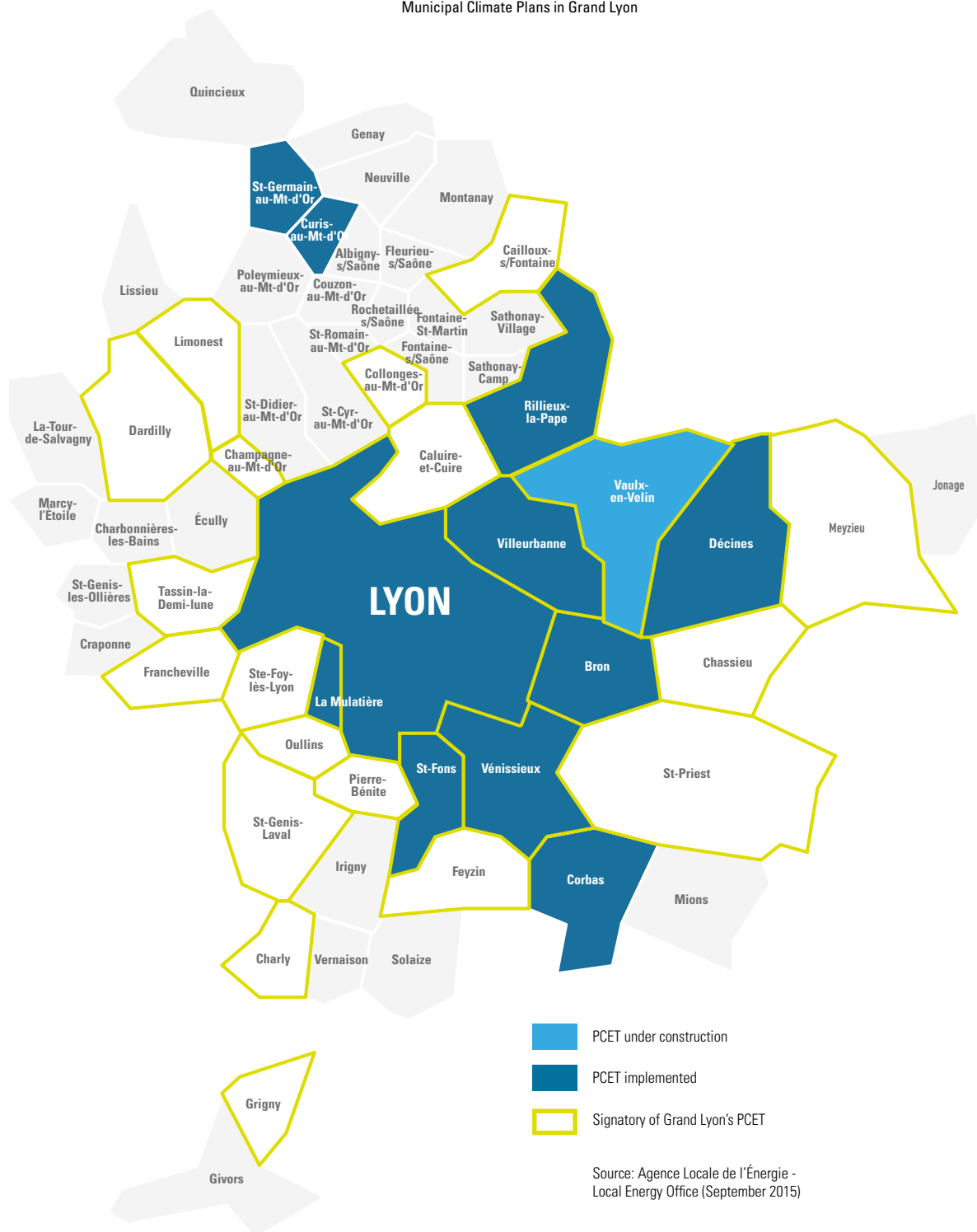
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To date, **12 municipalities** are implementing or building their Climate and Energy Plan, which corresponds to **66%** of the population. The ALE (Local Energy Office) coordinates the communal Climate Plan network which meets every 6 months to discuss latest developments, feedback from experience and

the problems encountered, with the participation of the Métropole de Lyon, the DREAL or the ADEME. Furthermore, **27 municipalities** are signatories of Grand Lyon's Climate and Energy Plan, thus covering **86%** of the territory's population.

Municipal Climate Plans in Grand Lyon



ACTION 3.3

CITIZENS IN ACTION

ENCOURAGE AND PROMOTE CHANGES OF BEHAVIOUR

Contacts

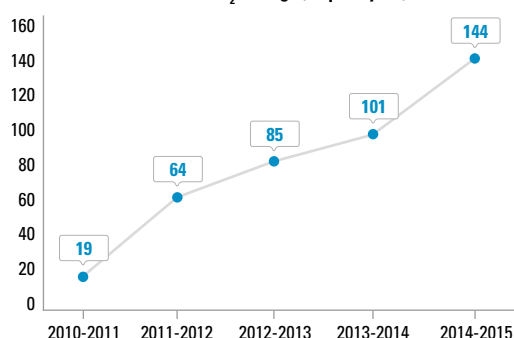
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The initiatives carried by the partners of the Climate and Energy Plan are being developed in the direction of changes in behaviour. Since the challenge was launched, **“energy-positive families”** have managed to reduce their energy consumption by 15% solely thanks to everyday acts. For the 100 families involved every year, the effect on their energy bill is in the order of **€ 200 / year**.

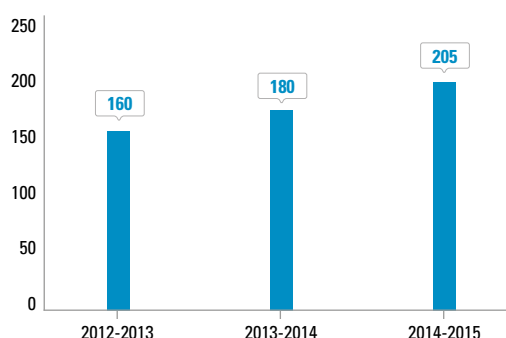
In 2015, the **“ecol’energie”** challenge brought together 205 pupils from 5 schools in the territory. The Unis-cité volunteers carried the 6th edition of the **“ordinary heroes”** project to promote citizens’ initiatives with regard to the climate.

For years to come, the challenge will consist of rolling out these actions more broadly.

Positive-Energy Families Challenge: cumulative CO₂ savings (TeqCO₂/year)



Écol’Energie Challenge: pupils taking part in the challenge



ACTION 7.1

MONITORING EMISSIONS IN THE TERRITORY: MEASUREMENT, REPORTING AND VERIFICATION

MODELLING “MEASURABLE, REPORTABLE, VERIFIABLE” EMISSIONS (MRV) IN THE TERRITORY

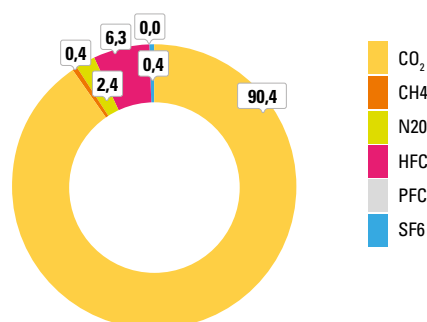
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The annual monitoring of greenhouse gases in the territory is carried out by the Observatoire Régional des Gaz à Effet de Serre (OREGES – Regional Observatory of Greenhouse Gases) on the basis of data modelled by **Air Rhône-Alpes**. Between 2013 and 2015, the accuracy of this model was confirmed and the model was audited by means of the “MRV” project alongside **Nantes, Strasbourg** and their respective air offices. The **final audit** was carried out by CITEPA, a body responsible for monitoring national emissions in the context of the **Kyoto protocol**.

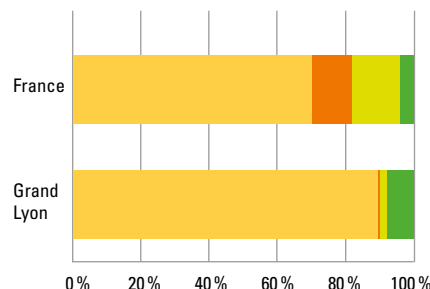
It confirmed that the quality processes put in place, the quality of the actual data and the verifications were consistent with the United Nations’ criteria. In addition to confirmation of the figures thanks to data provided by the Métropole, the study showed that **fluorinated gases (HFC, PFC, SF₆)** which are not currently counted in the balances, account for **8% of the territory’s emissions**. Small quantities of these gases are emitted by industry and air-conditioning leaks in vehicles and buildings, but their heating power is 1,000 to 23,000 times greater than CO₂!

Share of different greenhouse gases in CO₂ emissions in Grand Lyon (2012)



Source: Air RhôneAlpes (2015)

Share of different greenhouse gases in CO₂ emissions in Grand Lyon and France (2010)



Source: Air RhôneAlpes (2015)

OUR PARTNERS IN THE ACTION

**ABC HLM,
ADEME,
ADERLY,
AIR RHÔNE-ALPES,
ALE,
AMORCE,
APRIL,
BRAKE,
CMA DU RHÔNE,
CAPEB,
CARSAT RHÔNE-ALPES,
CRÉDIT AGRICOLE CENTRE EST,
DREAL/DDT,
ENGIE,
GROUPE CASINO,
GROUPE LA POSTE,
FEMAT,
FRTP RHÔNE-ALPES,
GRDF,
HÔPITAUX DE LYON,
IFPEN,
KEOLYS,
PACT DU RHÔNE,
RAEE,
RÉGION
RHÔNE-ALPES,
SERFIM,
SOLVAY,
SPIE,
SYTRAL,**

**TNT,
UNIVERSITE DE LYON,
VEOLIA,
VILLE DE BRON,
VILLE DE CAILLOUX-SUR-FONTAINE,
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 LIMONEST,
VILLE DE LYON,
VILLE DE MEYZIEU,
VILLE D'OULLINS,
VILLE DE PIERRE-BÉNITE,
VILLE DE RILLIEUX-LA-PAPE,
VILLE DE SAINT-GENIS-LAVAL,
VILLE DE SAINT-PRIEST,
VILLE DE STE-FOY-LÈS-LYON,
VILLE DE TASSIN-
LA-DEMI-LUNE,
VILLE DE VAULX-EN-VELIN,
VILLE DE VÉNISSIEUX,
VILLE DE VILLEURBANNE.**

ADAPTATION TO CLIMATE CHANGE

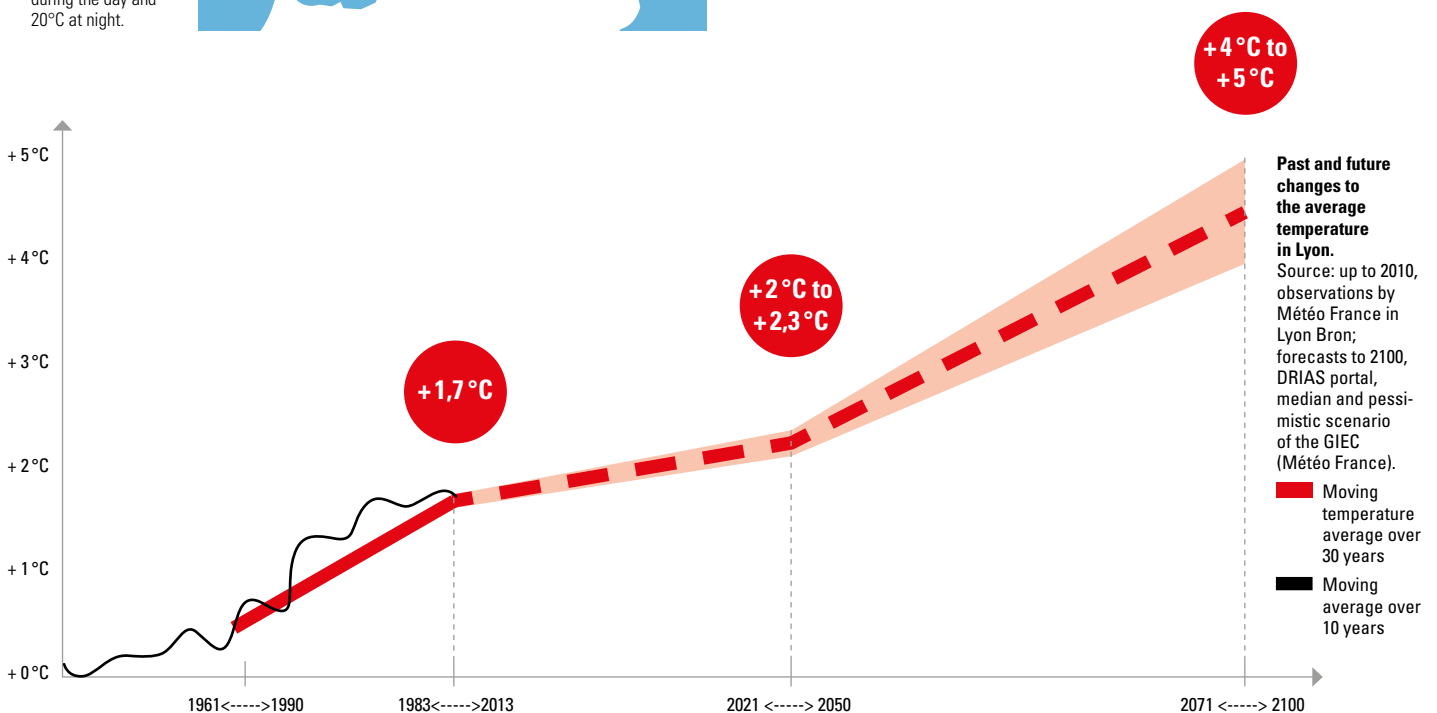
Reducing our greenhouse gases helps limit the extent of the phenomenon of global warming. However, this change is already under way and its effects will be felt locally. In 2014 and 2015, these local effects were considered in more depth and are published in the "Socle des Connaissances" ("Knowledge Base"). This is the first brick in the "Adaptation" section of the Climate Plan which is to be built with the partners.

WHAT CLIMATE TODAY, WHAT CLIMATE TOMORROW?

3 2003-2013 average annual number of days of heatwave observed in Lyon Bron (Météo France, data sheet ORECC 2014). One day of heatwave is counted when, for 3 consecutive days, the temperature has risen above 34°C during the day and 20°C at night.



The most visible expression of global warming at present is the change in average annual temperatures. Observations at the Météo France station in Bron reveal that the average temperature has risen by 1.7°C since 1960. Climatologists predict that this could be as much as +4 to +5°C by 2100, i.e. climatic conditions similar to those of Algiers today. Heatwaves will become the norm, with 28 days of heatwave per year on average by 2050: by comparison, the average today is 1.5 days / year³; the exceptional year of 2003 had a total of 12 days of heatwave and 5 days were measured in 2015.

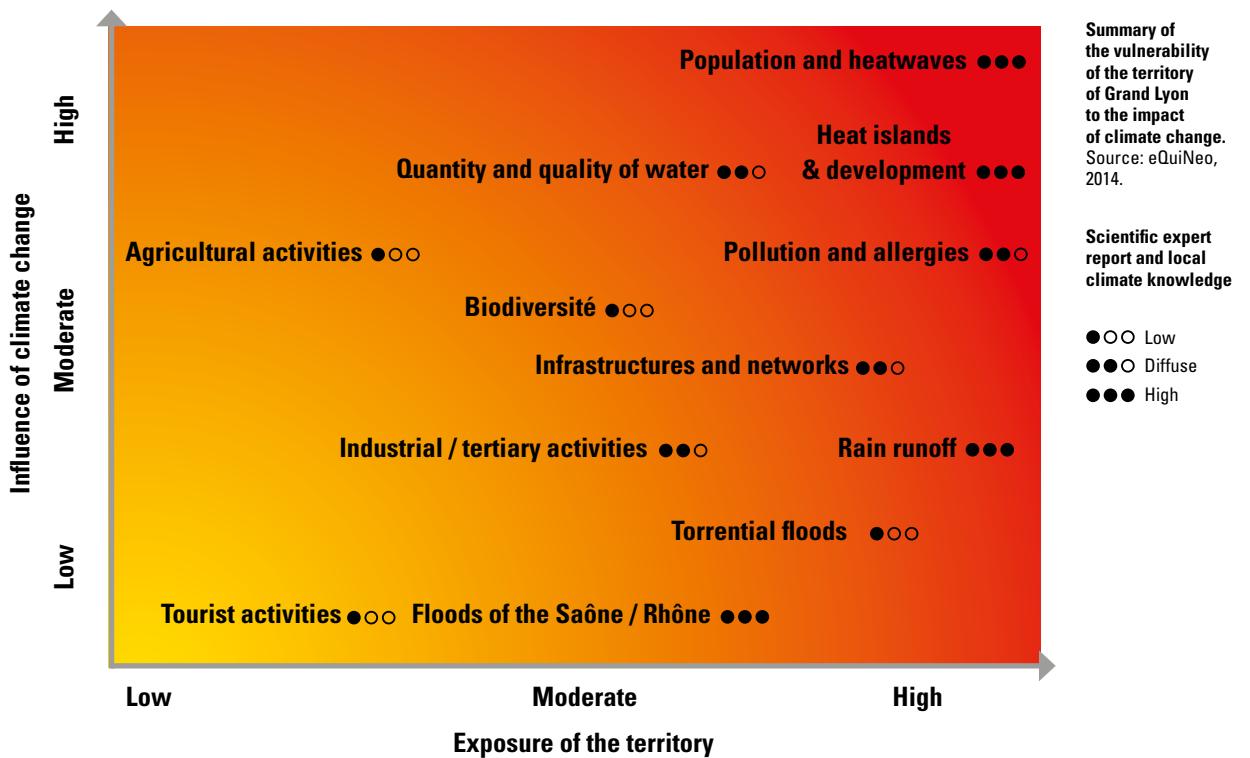
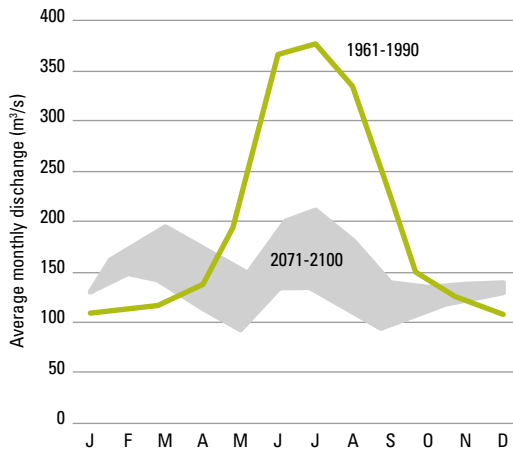


In this future climate, water will become an even more precious resource than it is today: more evaporation due to the heat, less water in the rivers in summer. The Rhône's flow rate in summer could be 40% lower.

WHAT STRATEGY FOR A DESIRABLE TERRITORY IN 2050?

The territory of Grand Lyon must therefore adapt: the most affected sectors are those for which the challenge is particularly tough for the territory (e.g. the population density) and for which climate change will change the environment greatly (e.g. heatwaves).

Monthly flow rates of the Rhône upstream of Lake Geneva in the current climate (1961-1990) and with a horizon of 2080 (2071-2100) according to the GIEC's A2 scenario. The shaded zone represents uncertainties associated with the projection. Source: Beniston, 2012.



Details of the diagnosis can be found in the "Socle des connaissances" ("Knowledge Base") published by Grand Lyon in 2015.

THE PARTNERS OF GRAND LYON'S CLIMATE AND ENERGY PLAN

WHO ARE THE PARTNERS?

The Climate and Energy Conference is an innovative setting for the governance of the territory which brings together the key players in the field of energy, transport, habitat and business. It was put in place at the time of the joint production of the "Vision 2020 for a low-carbon agglomeration" and the action plan. The partners of the Climate and Energy Plan represent 5 sectors: industry / energy producers, tertiary (habitat and buildings, transport etc.), civilian society, institutions, private and public research laboratories.

During the joint construction of the Climate and Energy Plan, around 200 participants provided their input. In November 2011, 56 partners signed the first action plan. In 2013, 18 new partners joined us, and today 11 organisations are officially signed up to the plan.

IN 2015, WE WELCOMED

11 partners joined the plan in 2015: ADERLY, Dalkia, la Fédération Régionale des Travaux Publics de Rhône-Alpes (FRTA), the towns of Grigny, Meyzieu, Pierre-Bénite and Sainte-Foy-lès-Lyon, SERFIM, Suez Eau France, TLF Rhône-Alpes (Union Transport and Logistics Businesses) and the University of Lyon.

HOW TO BECOME A PARTNER

Any organisation wishing to join this partnership project needs to send an official application in which it undertakes to comply with the "Vision 2020" scenario and indicates the actions it will put in place to actively help achieve the European objectives of 3 x 20% in 2020 translated in the Partnership Action Plan. All the partners also undertake to attend the plenary meetings and technical workshops of the Climate and Energy Plan, and also to complete a review of the actions carried out every year.

A WORD FROM THE NEW PARTNERS

THEY JOINED US IN 2015



**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. ”



**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. ”



**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. ”



**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 21st 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 Morage,
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. ”



ACTING FOR THE CLIMATE

BUSINESSES / TRANSPORT & TRAVEL
HABITAT / ENERGY / CROSS-SECTORAL ASPECTS

COMPANIES





● INTERNALLY

Setting an example: in 2014, definition of an environmental performance policy.

Transport & travel:

- Ride-sharing site: around 150 people registered per month on average. Over 4,000 people have used the site since it was set up in 2012.
- Participation in European Mobility Week from 15 to 19 September 2014: internal competition to promote travel by more eco-responsible means, survey on home-work commuting habits, promotion of ride-sharing and new mobility offerings (Citiz LPA, Bluely...)



Buildings: the group moves into its new premises in late 2016 on the site in the Lyon-Carré de Soie business area. They meet thermal standard RT 2012 and the BREEAM environmental certification.



● INTERNALLY

Transport & travel:

- Participation in the Mobility challenge organised by ADEME and the Rhône-Alpes Region:
 - over 960 employees took part in this challenge and arrived otherwise than alone in a car,
 - close to 4,000 km were covered in a different way.
- On the occasion of the second edition of APRIL's Green Day on 5 June 2014:
 - Promotion of Bluely,
 - Creation and promotion of the APRIL ride-share community amongst employees in Lyon,
 - TCL and Téciély: promotion of Lyon's public transport system with subscription offers for people signing up for the first time.
- Reduction in CO₂ emissions from the APRIL Group's vehicle fleet in the context of the introduction of the "Car policy": 2/3 of vehicles have a CO₂ ceiling level of 120 g/km and 1/3 are limited to a CO₂ level of 130 g/km.



Awareness-raising:

- On the GREEN DAY awareness-raising day, organisation:
 - of a lecture on the responsible acts to be done in daily life: 50 participants registered,
 - a stand for the LE RELAIS association to raise employees' awareness about sorting and recycling donated clothing,
 - a stand with our partner TRI-Rhône-Alpes responsible for recycling and processing the Group's IT equipment which is formatted and reintegrated in the solidarity economy circuit in order to help break down the social digital divide.
- Twelve employees from April Santé Prévoyance signed up to the "Energy-Positive Family" Challenge, resulting in an 8% reduction in energy consumption for the team. Stand manned by these employees so as to share the good initiatives they learnt and implemented during their participation in the "Energy-Positive Family" Challenge.



ACTING FOR THE CLIMATE



● INTERNALLY

Setting an example: energy savings for the Marcy l'Étoile site:

- installation of freeze-dryers working with liquid nitrogen. Saving of 440,000 kWh/year,
- replacement of cooling towers by new-generation refrigeration units. Saving of 2,935,000 kWh/year.

ACTION
6.1

Energy: Marcy l'Étoile and Craponne sites: electricity supply contract guaranteeing 50% of the sites' electricity consumption from renewable sources for the period 2013-2015. In 2014, this energy consumption represented 14,505 MWh.

ACTION
4.10

Transport & travel:

■ Home – Work:

- subsidy for employees' TCL passes. 123 people have benefitted from this,
- group teleworking policy introduced in 2013: 163 people are affected, i.e. over 7,000 commutes avoided over the year,
- participation in the mobility challenge.

■ Business travel:

- electric vehicle for intra-site travel at Marcy l'Étoile;
- group car policy limiting CO₂ emissions to 140 g/km.

ACTIONS
4.3
2.1

Awareness-raising: raising awareness among employees on the sites during the national sustainable development week and European mobility week.

● Craponne :

- April 2014 – 4 DD flashes (household waste, eco-energy, water saving, ride sharing),
- planned for 2015: paper recycling flash (improvement with re-sorting), bio-waste.

● Marcy :

Sustainable Development Week 2014:

- around 300 participants in a QUIZ,
- around 40 participants in a guided tour of the site's wastewater processing installations,
- participation in the Special WEEE Elimination operation,
- communication campaign against food waste in the canteen (around 800 meals).

ACTION
3.3

○ OVER THE TERRITORY

Transport & travel: remote provision of services to customers using the IT solution VILINK™.

ACTION
3.2



● INTERNALLY

Transport & travel:

- Organisation of a national mobility challenge in early June 2015 and participation in the Rhône-Alpes mobility challenge in 2014.
- Training drivers in fuel-efficient driving.
- Improvement in the vehicle fleet:
 - testing of a hybrid delivery truck in Lyon in autumn 2015 (estimated saving of 23%, to be confirmed at the end of the test),
 - capping of the entire truck fleet at 85 km/hr in 2014-2015, renewal of the fleet of light-duty vehicles with lower-emission vehicles.
- In 2015, carrying-out of a second home-work commute survey in the context of the renewal of the Bilan Carbone® (scope 1 to 3).



○ OVER THE TERRITORY

Transport & travel:

- Roll-out of the Company Mobility Plan:
 - registration on the inter-company transport schemes of Techlid and Lyon Sud-est,
 - encouragement to ride-share by on-site events (e.g. promotion of the Grand Lyon Ride-Share site),
 - a charter for good meeting practices and encouragement to use video-conferences,
 - communication about the business' acceptance of costs for public transport passes.
- Participation in the Steering Committee on "Goods Transport in the City" steered by Grand Lyon.



Buildings: building: building project for the new headquarters in the Techlid zone in 2015.



● INTERNALLY

Setting an example: carbon balance updated again in 2015.

Transport & travel:

- Preparation for the teleworking experiment from June 2015 (30 people for 1 to 2 days per week). Start of teleworking in June 2015.
- Establishment of a car fleet which allows inter-departmental pooling of vehicles and travel with a view to making savings and reducing CO₂ emissions (63 private vehicles and 28 company vehicles). CO₂ emissions between 79 g/km and 119 g/km.



Awareness-raising: Sustainable Development Week from 1 to 7 April 2014. Raising awareness about refuse sorting, mugs handed out to each agent to reduce the use of plastic cups. Tour of the Carsat waste-sorting centre in December 2014. Sustainable Mobility Week from 1 to 22 September 2014, promotion of bicycle use and of walking. Raising awareness of the MOCS system (video-conferencing), 32 participants.



ACTING FOR THE CLIMATE



Buildings: scheme to rehabilitate the Flandin building (headquarters of Carsat) in progress. Preliminary studies (Asbestos Diagnosis – Structural BET – Design of façades and Survey missions) have been carried out. Particular Technical Specifications, choice of an assistant to the contracting authority in the context of an EPC scheme and study of relocation of personnel.

ACTION
6.1



OVER THE TERRITORY

Energy:

- Commissioning of the wood-fired heating plant in Vaulx-en-Velin (2013).
- Commissioning of the wood-fired heating plant in Rillieux-la-Pape.

ACTION
2.2

Buildings:

- Energy performance contract for the Saint-Priest communal buildings, commitment to an 18% reduction in consumption (works + operation).
- Energy performance contract for state buildings, commitment to a 23% reduction in consumption (works + operation).

ACTION
6.1



OVER THE TERRITORY

Transport & travel:

- **HYWAY:** the project consists of industrialising hydrogen kits which can be included in the Kangoo ZE, thereby giving them 300 km autonomy in the urban cycle. This operation is made possible by the introduction of two hydrogen distribution stations in Lyon (Édouard Herriot Port) and Grenoble. Vehicles will be multi-customer and multi-use, which will allow a feedback of experience on the vehicle / station interaction.
- **MOVE IN PUR:** this electricity supply offering allows the batteries of the Métropole's 250 Bluely to be recharged with 100% renewable energy (hydro + solar + wind).
- **PORT MANAGEMENT:** as developer and operator of the Édouard Herriot Port since 1938, CNR is developing its multi-modal infrastructures in order to encourage businesses to use river transport. By its business installation strategy, it allows access to flexible and efficient port logistics services (multi-loaders, multi-goods).

ACTION
2.5

ACTION
2.7

Buildings: electricity supply for the Stade des Lumières entirely from renewable sources (hydro + solar + wind).

ACTION
6.1

Adaptation: creation of the **OBSERVATOIRE DES FLEUVES (RIVER OBSERVATORY)** in residence at the Musée des Confluences and presided over by Erik Orsenna. Think Tank on the study of the economic, environmental, cultural and ethnological contribution of 14 major rivers in the world (including the Rhône) supported by a scientific pole. Support in defining the southern line of the "Via Rhôna".

A

Setting an example: contribution to the COP 21 with the "CNR's 9 Climate Commitments" positioning CNR as "A laboratory for the energy of the future".



● **INTERNALLY**

Transport & travel:

- Continuation of the inter-company transport plan (PDIE) for the headquarters at Champagne-au-Mont-d'Or: 16 electric bikes available, 60 people used them over 4 years.
- Establishment of a Company Mobility Plan:
 - TCL / CACE agreement, exchange with Techlid to maintain services to the bus stops near the administrative site in Champagne. 197 employees with TCL passes.
 - opening of a Bluely station with the Municipality of Champagne at the entrance to the Campus Crédit Agricole site, Bluely Pro subscription for Carré Bellecour consultants.
- Inclusion of four electric cars in the company vehicle fleet.
- Optimisation of the network supply organisation, 94% reduction in the greenhouse gas emissions from freight compared to 2011.
- Creation of a "Campus Crédit Agricole" community on Grand Lyon's ride-share site.
- Development of video-conference systems and e-learning training to limit employee travel, 25% reduction in kilometres travelled for business purposes.

Setting an example: the third Bilan Carbone carried out in 2014: 13% reduction in greenhouse gas emissions compared with 2008, Scope 3 perimeter excluding customer travel.



○ **OVER THE TERRITORY**

Transport & travel: proposal of "Electric vehicle package" combining a 1% car loan and reduced insurance for any purchase of an electric vehicle.

Buildings:

- Support for social housing projects in Grand Lyon, in particular in the context of the Project entitled "Vie Grande Ouverte avec Habitat et Humanisme" (Life Wide Open with Habitat and Humanism). Unique financier for some twenty projects representing 150 homes + 30 VGO (Life Wide Open) homes with 40 and 50 year finance terms.
- Partnership with several BBC and BEPOS buildings in Grand Lyon. Free funding of Promelia programmes (AMALLIA) in progress in the sum of € 21 million for average terms of 25 years.
- Support for renovation programmes. We have free funding in the sum of € 15 million with the OPH GLH and € 10 million with the Rhône OPAC.
- First distribution of the eco-PTZ (interest-free eco-loan) with over € 1.2 million for Grand Lyon in 2014, and one of the regular contacts for the territory's private habitat energy renovation platform.

Energy:

- Crédit Agricole Centre-Est finances the heating network of a municipality of Grand Lyon.
- Funding for over 3,000 projects since 2009, including 10 methanisation factories in the CACE territory (Ain, Rhône, Saône et Loire, Nord Isère, Nord Drôme and Nord Ardèche).
- Implementation of the European Energy Efficiency Directive and implementation inter alia of the energy audit of the 70,000 m² site in Champagne-au-Mont-d'Or. A project for the remote management of energy consumption is at pilot stage.
- Partnership for the Smart Electric Lyon experiment conducted by EDF.



ACTING FOR THE CLIMATE



Services centred
on environmental
and energy efficiency

● INTERNALLY

Setting an example:

- Maintaining the certification to ISO 50001 for Energy Management for energy management contracts: Dalkia France ISO 50001 certification.
- Development of a responsible purchasing policy with partners (suppliers and subcontractors): 60% of framework contracts had a Sustainable Development clause in 2014.

○ OVER THE TERRITORY

Energy:

- Promoting local, renewable and recoverable energy to our customers: share of renewable and recovered energy in the energy mix, share of biomass in the energy mix.
- Helping preserve natural resources: volume of primary energy benefitting from the optimisation system.
- Reducing CO₂ emissions: carbon performance of combustion installations (kg CO₂ / MWth), 2.4 million tonnes of CO₂ saved in 2014.
- Controlling the significant environmental impacts of our activities: EMS roll-out levels, level of performance of risk analyses and compliance of installations over 20 MW.
- Using this know-how for our customers: level of roll-out of the energy utilisation optimisation system at the Dalkia France headquarters (DEL = Dalkia Energy Live).
- Improving the energy efficiency of customers' installations via the DESC (Dalkia Energy Savings Centre) based in Vaulx-en-Velin.

ACTION
4.10

ACTION
2.2



Electricity production and supply

OVER THE TERRITORY

Transport & travel:

- Involvement in the creation of an inter-company transport scheme for Part-Dieu in the context of the Business Club.
- Partner in the “Blue Ring” project on the roll-out of solutions based on soft modes of transport (Décines footbridge).

ACTION
3.2

ACTION
2.1

Energy: steering of the Smart Electric Lyon project, experiment on services promoting better energy management and emergence of an industrial energy management sector (20,330 households with consumption monitoring, 93 households equipped with 10 different industrial solutions, 32 tertiary sites equipped, 1 public lighting zone).

ACTION
5.2

Buildings: fight against fuel poverty by means of contracts with landlords, CCAS City of Lyon, PIMMS of Lyon, Vaulx-en-Velin and Villeurbanne.

ACTION
4.5

Businesses:

- Support for the FEEBat system and agreement with the Lyon Chamber of Trade and Industry (CCIL) for support to businesses (of any size) in the area of energy performance.
- Creation and coordination of the Smart Energy Competition: 3 editions (2012 - 2013 - 2014) / 14 partners / 130 projects submitted / 27 prize-winning projects / 9 experiments rolled out = 9 start-ups supported.
- Launch of the “Remix My Energy” project in the context of the TUBÀ: formation of mixed student teams (developer, designer, business, data analytics etc.) given a prototype for the acquisition of energy data / consumption to develop innovative domestic services.

ACTION
4.8

ACTION
4.7

ACTION
5.2

ACTING FOR THE CLIMATE



Concessions and public-private partnerships, construction, public works, energy and metal

● INTERNALLY

Transport & travel: implementation of the PDA (Administration Transport Plan) produced in 2009:

- raising the awareness of employees to ride-sharing by means of themed days,
- raising the awareness of subcontractors to ride-sharing,
- use of video-conferencing and / or teleworking systems.



ACTION
3.2

Setting an example: roll-out of ISO 9001 Quality, ISO 14001 Environment and OHSAS 18001 Safety certifications.

Energy:

- Reduction in energy consumption in our site installations with more efficient worksite cabins (external insulation, timer, clock, windows with contact rebates, low-energy light bulbs, movement detectors).
- Feasibility study on the installation of solar panels on the worksite cabins.
- Versatile accommodation: novae programme now being marketed.



ACTION
4.8

ACTION
4.10

ACTION
4.5

ACTION
3.3

Awareness-raising: continuous raising of awareness among site partners on electricity management (awareness-raising with posters, an environmental welcome booklet ...).

○ OVER THE TERRITORY

Energy:

- Construction of wood-fired heating plant (Vaulx-en-Velin) with innovative technologies.
- Lyon's heating network - Production of a high-temperature urban heating network using high-pressure hot water for ELVYA:
 - 118 km of network – 400 substations,
 - total connected power of 300 MW.
- Promotion of energy-saving certificates: 264.6 GWH for our customers in the context of renovation contracts and Eiffage real estate in the Centre Est region.



ACTION
2.2

ACTION
4.5



Production and supply of natural gas and electricity
Energy architect.

OVER THE TERRITORY

Energy:

- **GAYA:** the objective is to allow the production of a green gas, known as 2nd generation gas, which can be transported in the current networks or can be used directly for CNG vehicles, using an innovative production process, methanisation, and from waste such as wood, straw etc.
- **VALENTHIN:** the objective of this structuring project is to study new ways and technologies for the recovery and thermal and electrical use of free energy, and the ways of storing and exchanging energy within and between businesses, and in the long term, supplying it to municipalities.

ACTION
4.10

ACTION
5.1

Businesses:

- **GREENLYS:** the main objective of the GreenLys project is to analyse and quantify the economic, environmental and social creation of a smart electrical system in its entirety with a horizon of 2030. This cost / benefit analysis (CBA) is carried out on the concrete basis of the GreenLys demonstrator thanks to the collaborative work of the players in the Consortium who represent the electricity system in France.
- **Energy performance of SME's and VSE's:** energy audit, implementation of progress plans, management of energy and technical services, energy performance contracts, smart management of technical installations, systems for supervision and user information, support in certification procedures: ISO 50001, HQE® Operation, BREEAM®, LEED.
- **IDEEL:** an energy transition institute, IDEEL works to develop innovative solutions to reduce energy and raw material consumption and the production of waste and refuse, to replace a portion of fossil fuels with renewable resources, and to recycle to provide secondary raw materials or new energy sources.

ACTION
5.2

ACTION
4.7

ACTION
5.1

Buildings:

- **VERTUOZ:** the objective is to facilitate multi-fluid management in buildings. This means the benefits of collective heating with individualisation of charges, direct billing to the occupant for their natural gas consumption and the monitoring of energy consumption in accordance with the 2012 Thermal Regulation.
- **LYON SMART COMMUNITY:** environmental engineering works carried out for the Hikari project, an energy-positive mixed island located in the new district of Confluence.
- **ÉCOCITÉ:** renovation of the garden town of Gerland with an analysis of the replicability of the operation and the procedure.

ACTION
4.4

ACTION
4.2

ACTION
6.1

Awareness-raising: J'APPRENDS L'ÉNERGIE (I'M LEARNING ABOUT ENERGY),

a free multi-disciplinary tool, focussing on energy and its challenges for National Education. Primary and secondary schools will be helped to understand, experiment and apply the operation of the energy chain at <http://www.japprends-lenergie.fr>

ACTION
3.3

ACTING FOR THE CLIMATE



Manager of the public electricity distribution network over around 95% of mainland France

● INTERNALLY

Buildings: the offices of the Sillon-Rhodanien ERDF Regional Directorate and the Lyon Métropole ERDF Territorial Directorate, located in the district of Part-Dieu, are to be completely rehabilitated. The works will improve the energy quality of the building while at the same time optimising the available area.

ACTION
6.1

○ OVER THE TERRITORY

Awareness-raising: December 2014, very positive conclusions of the **Watt&moi** experiment based on the use of data from the Linky meter. The tenants have had the benefit of a free website and support including comparisons and advice for monitoring and better understanding their electricity consumption. 85% of beneficiaries are satisfied with the service. Presented at a press conference by Ségolène Royal, the Minister for Ecology, Sustainable Development and Energy, and at the London Energy Forum in March 2015, the functionalities arising from Watt&moi are to be rolled out nationally and will be accessible via ERDF's customer space.

ACTION
5.2

Energy:

- **GREENLYS project:** thanks to three years of accelerated innovation and continuous adjustments, the developments from the GREENLYS experiment have faced real-life conditions in the field. Industrialisable solutions strengthen ERDF's ability to support the Energy Transition of Urban Territories.
- **TRANSFORM project:** to establish the energy diagnosis of Part-Dieu 2030, ERDF has produced an innovative modelling tool based on a detailed description of the buildings allowing the load curve of a building, an island or the entire district to be estimated. By a sampling process, these results were compared with actual data. It will thus be possible to simulate the energy projects of the Métropole de Lyon so as to study the impact on the electricity distribution network.

ACTION
5.2



Materials & solutions for the efficient building

○ OVER THE TERRITORY

Awareness-raising:

- Definition of a behavioural charter relating to the use of efficient buildings in collaboration with the INSA in Lyon.
- Passive educational House Project.

ACTION
3.3

Buildings: approved training centre for eco-construction and efficient building trades: insulation (RGE, Feebat), wind tightness and ventilation. We train independent tradesmen and also employees of large building groups.

ACTION
4.8



Natural gas distribution network

● **INTERNALLY**

Transport & travel: conversion of 30% of the GrDF fleet to dual-fuel petrol / CNG vehicles to achieve a significant reduction in particulate emissions and a saving of 10 tonnes of CO₂ per year thanks to a 70% level of use of CNG (Compressed Natural Gas).



○ **OVER THE TERRITORY**

Transport & travel:

- With the partners of the ADEME-Grand Lyon-GrDF Agreement, putting in place of a **CNG / bio-CNG** delivery station in Villeurbanne.
- Launch of a call for projects for an HGV CNG / bio-CNG station in the agglomeration.
- Support for goods transport project carriers (such as the delivery by 15 Elio vehicles of meals to school canteens in the city of Lyon and the logistics of the final kilometre) and a feasibility study on the Métropole's household waste skips.



Buildings:

- **Connection of 5,300 new homes per year**, combining efficient structures and efficient condensation boilers regularly coupled to solar power (thermal and photovoltaic).
- Promotion to landlords and developers in the Métropole of information about gas and renewable energy solutions, in new and renovated buildings.
- Roll-out of an offer for improving houses with a guaranteed minimum 25% performance improvement after the works.
- In the context of **ÉcoCité Jardin**, production of an urban renovation methodology based on the principles of sustainable development, including the user and the energy issue throughout the decision-making process.



Energy:

- Construction of an optimised approach to heating system renovation (**Optichaufferie** offering).
- Pilot roll-out of the **GAZPAR** smart meter in 2016 in the Linky arrondissements and consultation of stakeholders (local authorities, concessioning authorities, consumer associations, low-cost housing organisations and tenants' associations, landlords, the State, energy suppliers).
- Support to the Métropole in seeking optimisation of the energy system (identification of potential and biomethane injection projects, Master Energy Plan, TRANSFORM project).



Awareness-raising:

- Instrumentation with the ALE (Local Energy Office) and its partners for Gas Heat Pumps (Gas HP's) in particular at the CHARCOT residence, the BEPOS-standard building, to demonstrate performance under real-life conditions.
- Awareness-raising operation with regard to the energy challenges, carried out at Décines-Charpieu with the Town Hall and Local Energy Office and based on a high-definition thermography by drone of 250 houses and support with regard to the technical and financial renovation solutions at the time of restitution (end of 2014).



ACTING FOR THE CLIMATE



Shop, supermarket

● INTERNALLY

Transport & travel:

- Fleet of 13 CityGreen Piek nitrogen vehicles. The group is making a saving of 20 tonnes of CO₂ per year per Piek nitrogen truck.
- In 2015, 10 vehicles powered by Liquefied Natural Gas (LNG), using 100% biogas, were brought into circulation. The environmental impact of this new system will be calculated over the course of 2015.
- Since November 2014, the putting in place of swap bodies for deliveries, so that the approach distances in isolated zones can be limited. More particularly, two swap bodies are in place for our Alpine services.
- Certibruit label procedure since 2013 and launch of tests for the transfer of daytime deliveries to night-time deliveries in Lyon since June 2014. In 2014, the Casino supermarket in Bron and Casino Shopping in Lyon (Avenue des Frères Lumière, Lyon) were certified.

ACTION
2.7

Buildings:

- Since 2012, implementation of an energy renovation policy for all new and existing shops based on the use of low-consumption equipment and fittings. 100% of shops will be renovated by the end of 2015.
- In 2014, implementation of 3 Energy Performance Contracts in the Casino supermarkets in Lyon Bachut 2, Lyon Gambetta and Lyon St-Rambert, i.e. an energy saving of 220.59 MWh for the whole of 2014.
- In 2015, roll-out of 8 EPC's in the Casino supermarkets in Bron, Genas, Gabriel Péri, Lyon Marc Bloch, Lyon Baraban, Mions, Neuville-sur-Saône and Vénissieux, and the Monoprix shops at Croix-Rousse and Valmy.
- The EPC's help an energy saving to be made of around 25% per shop and per year (installation of doors and lids on refrigerated retail furniture, renovation of air-conditioning systems, improvement in building insulation, use of latest-generation lighting and awareness-raising of in-shop teams about energy savings).

ACTION
6.1

○ OVER THE TERRITORY

Transport & travel:

- Participation in the Steering Committee on "Goods Transport in the City" steered by Grand Lyon, and in the night-time delivery experiment.
- Participation in the LUTB working groups to identify new environmentally sound schemes, in particular concerning urban deliveries.

ACTION
2.7

Awareness-raising: continuing with carbon labelling on 470 Casino-brand products. This labelling takes into account three environmental criteria over the entire life-cycle of the product:

- greenhouse gases,
- water consumption,
- aquatic pollution.

ACTION
3.3



Parcel mail services, bank ...

● INTERNALLY

Transport & travel:

- Continuing with training actions for postal workers in fuel-efficient driving in 2014 and 2015. End of 2014: 90% of postal workers in the Métropole have received training in fuel-efficient driving. Every year, 50 postmen and postwomen have the benefit of continuous training actions.
- The percentage of postal deliveries using soft modes of transport rose from 55% in 2012 to 70% by the end of 2014 in the Métropole. La Poste's electric fleet for the same area has risen from 60 electric cars at the end of 2013 to 94 at the end of 2014. 41 additional electric cars are expected in 2015. There are 9 electric Quadricycles (6 at the end of 2013) and 60 more stable electric tricycles are expected between 2015 and 2016.

Setting an example: in 2015, the Mail / Parcel arm of the group will recycle 100% of its recyclable waste (plastic ties and film around pallets, boxes, paper, WEEE). The office paper collection and recycling solution for the smaller sources (SME's / VSE's, Smaller Communities) was adopted by 136 customers in 2014 in the Métropole (Recy'go offering). This paper collection and recycling solution is based on inverse logistics (use of existing postal circuits), inclusion by economic activity (sorting before recycling carried out by a one-person business) and circular economy (paper recycled in France).

Buildings:

- Study in progress for introducing an operational EPC on the group's largest tertiary site in the Rhône-Alpes region, the Hôtel des Postes de Lyon (2nd *arrondissement*). This site is also registered in the Cube 2020 competition (actions relating to eco-gestures), 2015 edition.
- Production in 2014 of a specification for renovating the property stock, to include an improvement in energy efficiency. This specification is being tested, before being rolled out more generally, on the tertiary site of the Hôtel des Postes de Lyon. In this context, after putting in place a site heating regulation in 2014, major works relating to the changing of joinery, weather-proofing and the installation of double-glazing for the 800 windows in the 22,000 m² occupied by La Poste (of the building's total of 34,000 m²) will be carried out in 2015.

○ OVER THE TERRITORY

Transport & travel:

- Participation in the Steering Committee on "Goods Transport in the City" steered by Grand Lyon and the CDU project.
- Introduction of the first ELU (Urban Logistics Space) of the La Poste Group, bringing together on the mail platform in the 2nd *arrondissement* all the parcel / express / press delivery activities carried out by the various arms and / or subsidiaries of the group in the centre of Lyon. The mail / parcel / express / press deliveries for the entire hypercentre will be made by a soft mode of transport (on foot, by bicycle) or in electric vehicles.

ACTION
3.3ACTION
2.7ACTION
6.1ACTION
2.7

ACTING FOR THE CLIMATE



New energies

● INTERNALLY

Transport & travel: management of the car fleet:

- 50% reduction in the fleet size since 2003 (from 76 vehicles to 38 by the end of 2014).
- reduction in the average CO₂ emission level (108 g at the end of 2014 compared with 174 g in 2006). IFPEN has four electric vehicles and six hybrid vehicles.
- subcontractors encouraged to reduce their CO₂ emissions. In 2015, five electric vehicles of outside businesses (catering, handling and multiservice) circulate on the site daily.

ACTION
2.5

Energy:

■ Waste sorting at the restaurant

In 2013, in accordance with the legislation, IFPEN had studied the feasibility of sorting waste in company restaurants in order to increase their level of recycling. In partnership with its service provider responsible for waste management, the solution of recycling by the methanisation of restaurant waste was selected and has been operational on the Lyon site since October 2014.

■ Feasibility study on co-generation by gas engine

In summer 2014, IFPEN embarked on a feasibility study on a cogeneration installation. This would involve replacing part of the winter heat production (hot water which supplies about fifteen buildings), from two gas heating plants, by heat cogenerated by a natural gas engine. At the same time, it would produce heat and electricity. The heat produced – which should, according to current hypotheses, cover around 70% of demand in winter for the zone concerned – would be used in the existing networks, while the electricity produced would be reinjected in the external electricity network and sold to the EDF, at a controlled price.

ACTION
4.10

Awareness-raising: the replacement of multifunctional copiers

In mid-2014, IFPEN replaced all its multifunctional copiers and rolled out a new print management tool comprising in particular a system of authenticating users by their badge (or ID) which should allow paper consumption to be reduced in line with IFPEN's eco-responsibility procedure. **For reference:** In 2006: 7,000 sheets / year / employee. In 2013: 3,400 sheets / year / employee. In 2014: 2,670 sheets / year / employee.

ACTION
3.3

Buildings:

■ Renovation of the ambient ventilation in laboratories

Replacement works commenced in the final quarter of 2014. Around 225 engines need to be replaced – with motors using a more advanced technology – by spring 2015. This project has a double objective: on the one hand, to guarantee the best operating availability of the laboratories, while reducing the energy consumption by changing extraction flow rates using variable-flow engines. On the other, with the minimum new air flow rate having fallen from 5 V/h to 2.5 V/h, after tests and with the agreement of the HSE Department, a 50% saving on energy consumption is expected. Furthermore, this would mean that the emission of 597 tonnes of CO₂ could be avoided.

■ Improvement in the technical building management tools (TBM) on IFPEN sites.

Each site has a set of supervisory tools for the daily monitoring of consumption and the control of energy production and distribution equipment. On the Lyon site, operation is actually in place. In 2014, the objective was set of improving the efficiency of all its systems. The optimum operation of these tools is one of the main objectives for 2015.

ACTION
6.1



○ OVER THE TERRITORY

Transport & travel:

- **GECO:** free app developed by IFP Energies Nouvelles (www.geco-drive.fr) in partnership with the Métropole de Lyon and the Association pour le Développement Durable de la vallée de la chimie (ADDVC – Association for the Sustainable Development of Chemistry Valley). Second edition of the Inter-Business Fuel-Efficient Driving Challenge, from 1 to 16 October 2015. It has a double objective: to have the greatest possible number of drivers adopt a more economic driving style (up to 15% fuel saving) and to allow businesses, thanks to the GECO energy tracker, to evaluate and to help reduce the ecological footprint of their employees.
- Participation, in October 2014, in the travel survey of employees' home – work commute in the context of the PDIE (inter-company transport plan). The objective for the results of the survey is to improve the existing transport offering (public transport, ride-sharing and car-sharing, cycling and attended car parks).



Awareness-raising: research and innovation

Publication of the compilation "Transition énergétique : 10 analyses phares pour éclairer le débat" ("Energy Transition: 10 key analyses to enlighten the debate").



Delegated Operator of the TCL system

● INTERNALLY

Setting an example:

- Roll-out of a resource-saving project (water, gas, electricity, diesel, paper) in the context of the EFQM procedure (European Foundation for Quality Management).
- Bilan Carbone® calculated initially in 2006 and then updated every year from 2010.
- Putting in place of a centralised remote reading system for electricity consumption in the building, and water, gas and temperature sensors in the workshops.



Energy:

- Introduction of a diesel fill-up counter and control system at the pump.
- Operations carried out for the energy optimisation of buildings and stations as assistant to the contracting authority on behalf of SYTRAL: thermal insulation, renewal of boilers and windows, renewal of lighting, lights turned off in metro stations etc.
- Optimisation of existing systems: reduction of heating temperatures in workshops, detection of compressed air leaks, programming of times when lighting and heating are on in the workshops.



Transport & travel:

- Fuel-efficient driving of thermal buses: roll-out of fuel-savers and managerial support on a pilot line in early 2014. 11 bus lines fitted in 2014.
- Introduction of a Keolis Lyon ride-share community on the Grand Lyon site, for the attention of the network employees.
- Introduction of electric bikes for employees' business travel.



ACTING FOR THE CLIMATE



○ OVER THE TERRITORY

Awareness-raising: customer information about the reduced carbon impact of public transport: CO₂ display (grams / km) in all the vehicles and stations, and CO₂ calculator on the tcl.fr site.

ACTION
3.3



Distribution of building materials for professionals in the construction sector

● INTERNALLY

Transport & travel:

- Continuation of the employee fuel-efficient driving training scheme.
- Study in progress to develop natural gas trucks – final furlong.

ACTION
2.7

Buildings: energy diagnosis of the real-estate park in progress.

ACTION
6.1

○ OVER THE TERRITORY

Transport & travel: participation in the Steering Committee on “Goods Transport in the City” steered by Grand Lyon + GNV.

ACTION
2.7

Businesses: continued partnership with the CAPEB to promote the ECO Artisan® brand.

ACTION
4.8



SERFIM GROUPE
DEPUIS 1875

Public Works and Infrastructures, Environmental Trades, and Information and Communication Technologies

● INTERNALLY

Setting an example:

- Certification to and renewal of ISO 14001 for all the group companies
- Certification to ISO 50001 by the end of 2015 for the company SERFIM TIC.

ACTION
4.8

Energy: use of REN on our pollution clean-up sites: project in progress, ADEME funding.

ACTION
4.10

Transport & travel: increase in the clean vehicle share of our fleet for passenger transport, household waste collection and urban cleaning vehicles.

ACTION
2.7

Awareness-raising: prize for the company SERPOLLET in the SERVAL ErdF GrDF “A Pallet for the Planet” Challenge.

ACTION
3.3

Buildings: construction of new premises for several of the group companies to RT 2012 with REN and energy-saving systems.

ACTION
4.2



OVER THE TERRITORY

Energy:

- Design, build and operation of biomethanisation plants.
- Waste recycling and production of secondary raw materials: plaster, wood, windows.
- SERDEX, Grand Lyon’s partner for the collection, processing / recycling of wood from the waste collection centres of the Urban Community of Lyon (18,000 tonnes per year).



Awareness-raising:

- Grand Lyon’s Fuel-Efficient Driving Challenge: 2014 Winner (10 to 15% fuel saving over the referenced trips).
- 2014 “Diversity and Business” prize for Progress in the context of the management and processing of furnishing waste.



Transport & travel: involvement in the development of sustainable mobility (hydrogen vehicle stations, natural gas stations, electric charging terminals, bicycle terminals at car-share sites).



Businesses:

- Development and trials with e-paper industries (digital screen without energy supply).
- Use of LED technology to reduce electricity consumption and improve the lighting environment, for urban furniture and rolling stock (SYTRAL for bus shelter frames and other national transport operators).
- Design and installation of automated professional waste collection centres encouraging sorting, reducing the associated expense and transport producing CO₂.
- Creation of a SERFIM Mécénat endowment, to develop a pro-active CSR policy to provide input for social and environmental challenges: support for the e-grain association (association for education in sustainable development intended to give rise to and grow joint and responsible initiatives, across all generations).



SIEMENS

Infrastructures, towns and cities, industries, energy and health

INTERNALLY

Transport & travel: member of the Lyon Technology Park association which is setting up the inter-company transport scheme. Use of Grand Lyon’s ride-share offering. Roll-out of working from home: 76 people from the Saint-Priest site, i.e. 5,168 commutes saved per year.



Buildings: Agence Régionale Siemens Centre Est at Saint-Priest certified to HQE. Photovoltaic panels on the building.



ACTING FOR THE CLIMATE



Railway operator

● INTERNALLY

Setting an example:

- CISO 14000 certification of industrial sites; management of waste and fluids, mindful consumption.
- Continuation of the modernisation of the railway rolling stock park.
- Continuous improvement of the environmental management system in the various departments (especially the Technicentre-type industrial sites). Goals set.

Transport & travel:

- Extension of the company mobility plan to all the entities in the territory.
- Creation of a fleet of electric bikes.

ACTION
4.3

Buildings:

- The Incity Tower is now home to entities and the regional headquarters: HQE, BBC.
- Installation of a living roof on the Technicentre in Gerland.
- Eco-responsible renovation of the ICF Habitat estate. BBC standard.

ACTION
6.1

○ OVER THE TERRITORY

Transport & travel:

- Promotion of bicycle use by means of better accessibility: multi-modal platform and development of bicycle stations (Tassin, Givors, Oullins, Écully and all the railway stations in Lyon).
- Participation in the Steering Committee on “Goods Transport in the City” steered by Grand Lyon.
- Contributions to the development of the rail bypass around Lyon (CFAL). Studies and organisation of meetings.
- Production and gradual implementation of the “Door to Door” project for a better coordinated public transport offering.

ACTION
2.1

ACTION
2.7

ACTION
4.3



World leader for specialty chemical products

● INTERNALLY

Energy: mobilisation of fund 5 of the Climate CDC.

ACTION
5.1

Awareness-raising: continuation of the Solvay Way initiative: awareness-raising among personnel, organisation of sustainable development days, system for recognising best practices.

ACTION
3.3

Setting an example: continuation of the Solvay Plan (2013 -2020) with a view to reducing greenhouse gases and energy by 10% with a horizon of 2020 compared to 2012. Reduction in CO₂ emissions: - 18 kt of CO₂ compared to 2012 i.e. -9%.

ACTION
6.2

○ OVER THE TERRITORY

Energy: following an initial phase of identification of free heat recovery potential, start of the “Valchim 2” project with the Métropole de Lyon: a feasibility study on recovery and transfer to the urban heating network. Duration of the study: 2 years.

ACTION
5.1



Multi-technical services
in the fields of energy
and communications

● **INTERNALLY**

Buildings: procedure in progress to optimise the occupation of buildings and associated energy consumption.

ACTION
6.1

Transport & travel:

- Electric vehicles: continuation of the procedure to provide electric vehicles to employees. On the Feyzin site, a 3rd self-service vehicle will be brought into use, for employees travelling in the city. As they are thermal vehicles, consumption is monitored to encourage fuel-efficient driving.
- The internal ride-share software put in place to optimise personnel travel will form the subject of improvements relating to mail and tool transport.

ACTION
3.2

Awareness-raising: procedure of eco-gestures by means of “GINKGO”: a collaborative project in which each person is involved with a view to reducing energy consumption.

ACTION
3.3

○ **OVER THE TERRITORY**

Buildings: support for private and public customers in the design, implementation, operation and maintenance of more energy-saving and more environmentally sound installations.

Examples: Energy Performance Contracts for -40% energy (gas + electricity) thanks to building works, CVC and lighting for the two schools:

- Lycée Camille CLAUDEL in LYON,
- Lycée Les Canuts in Vaulx-en-Velin.

ACTION
6.1

Transport & travel: electricity terminals: the IRVE offering (Electric Vehicle Charging Infrastructures): audit and recommendations, installation and connection, supervision, electronic payment, maintenance, operation and steering of charging policies.

ACTION
2.7

ACTING FOR THE CLIMATE



Water distribution
and sewerage

● INTERNALLY

Setting an example: procedure for ISO 50 001 certification commenced.
Result in November 2015.

Transport & travel:

- Launch of a company mobility plan and encouragement of Suez managers (Rillieux-Caluire sites) to use less polluting vehicles.
- Use of electric vehicles and bicycles at the STEP in La Feysine (100% of the park).

ACTION
3.2
ACTION
2.5

Buildings:

- Planned replacement of fluorescent lighting by LED lighting on the Rillieux-Caluire sites.
- Project to put in place twilight detectors with motion detection in all the common parts of buildings (Rillieux-Caluire sites: 5,000 m² of offices).
- Transformation of the heating system in a building by a reversible air-conditioning system to reduce fuel oil and electricity consumption by 50%.

ACTION
6.1

Energy:

- Study on installing photovoltaic solar collectors on the building.
- Implementation of a teleworking scheme to reduce employees' commute to the company.

ACTION
4.10
ACTION
3.2

○ OVER THE TERRITORY

Energy

- Study on the use of the biogas produced at La Feysine: study of implementation possibilities.
- Regulation of the compressors in the aeration tanks at the STEP in La Feysine by control using nitrogen.

ACTION
4.10

Transport & travel: putting in place of an ash disposal sector with 2 objectives: recovery of phosphorus from the ash and reduction in transport (Saint-Étienne instead of Germany).

ACTION
2.7



Waste management and recycling

● INTERNALLY

Transport & travel:

- In September 2013, 8 100% electric skip trucks were brought into circulation – zero emissions for the collection of household waste in Grand Lyon (22% of SITA Lyon's active HGV park - roll-out in Presqu'île-Confluence and Lyon 6). The 8 electric skip trucks used 6 days per week allow an average saving of 2,500 litres of diesel / week while sparing the environment the annual discharge of 350 tonnes of CO₂. The skip trucks had been in use for 12 months in 2014. A street-type satisfaction survey will be carried out among residents in the course of 2015.
- Euro 5 standard for the entire rest of the active park (28 household waste trucks, 1 crane, 2 skip trucks).
- Dry washing of half the HGV park subcontracted to an SME in Lyon.
- Reduction in travel thanks to the relocation of the bases: Saint-Genis- les-Ollières --> Saint-Fons (sept 2013) and Décines --> Villeurbanne (July 2014): around 500 tonnes of CO₂ avoided per annum.

ACTION
2.7

ACTION
3.2

○ OVER THE TERRITORY

Energy:

- **VALORLY:** energy recovery plant based at Rillieux-la-Pape for the processing of and energy recovery from 40% of household waste from Grand Lyon. Every year, the electricity supplies 37,000 residents.
- **AMBREA:** biomass plant installed on the Valorly site since the end of 2013. 90% of heat production from renewable energy (wood) and recovered energy (recovery of energy produced by the incineration of household waste as currently). It has allowed an 80% drop in CO₂ emissions thereby guaranteeing more environmentally friendly and more economic heating for 8,000 homes in Rillieux-la-Pape.
- **LIGNATECH** at Meyzieu: milling of salvage wood (from waste collection sites in Grand Lyon) and conversion into fuel for local cement works.

ACTION
4.10

ACTION
2.2

ACTION
4.9

ACTING FOR THE CLIMATE



Express delivery of parcels and documents

● INTERNALLY

Energy: 12% of TNT's electricity in France comes from a renewable energy source.

ACTION
4.10

Transport & travel:

- Participation in the Rhône-Alpes Mobility Challenge.
- Annual organisation of a responsible driving challenge (fuel-efficient driving, road safety and health / safety) for TNT car and van drivers.
- Training in fuel-efficient driving and road safety for delivery drivers and the field sales force.
- Modernisation of the vehicle fleet to guarantee the use of less polluting and less fuel-hungry vehicles. At least 85% of the fleet meets Euro V and Euro VI standards.

ACTION
3.3

Awareness-raising: organisation of the European sustainable development week at national level and a special event in Lyon. Raising awareness to soft mobility solutions. Putting in place of a DD village about responsible consumption.

ACTION
3.3

○ OVER THE TERRITORY

Transport & travel:

- Participation in the Steering Committee on "Goods Transport in the City" steered by Grand Lyon.
- Involvement in the consultation via the LUTB working groups in 2014 and membership of the Rhône-Alpes Logistics Cluster in 2015.
- Eco-rounds: 10 rounds in clean vehicles in the city (scooters and / or electric vehicles). Deliveries to 300 addressees every day in the 2nd, 3rd and 6th *arrondissements* of Lyon.
- Optimisation of rounds and the transport network (optimisation of kilometres travelled and of the load, development of IT tools etc.).

ACTION
2.7



TOTAL

Raw material transformation industry

● **INTERNALLY**

Setting an example: reduction of 55 kt CO₂/year, i.e. -4.4% of greenhouse gas emissions in 2014 compared to 2011: objective achieved.

ACTION 6.2

Energy:

- Maintenance of energy efficiency of a combustion furnace carried out during the major shutdown in 2013 (end of 2013) / yield of furnaces concerned improved since early 2014.
- Continuation of the maintenance plan for energy equipment (strippers and furnaces).
- Energy management system in place (AMPERE project), control and monitoring of energy balances per unit, monitoring and adjustment of furnace output.
- Energy efficiency audit scheduled for 2015.
- Continuation of the development of the advanced control of the units, allowing the optimisation of the units' energy consumption.
- New hot-fluid recovery circuit put in place in 2013: use of the new circuit in 2014 and 2015.
- Project identified for improving insulation on the hot product storage.

ACTION 6.2

ACTION 5.1



Management of environmental services for local authorities and businesses: water, energy, waste

● **INTERNALLY**

Transport & travel: fuel-efficient driving (reduction in fuel consumption).

ACTION 2.5

○ **OVER THE TERRITORY**

Adaptation:

- Start of roll-out of the m2ocity network for the remote reading of water meters in Grand Lyon.
- Initial steps in pooling the network for energy-efficiency programmes with local authorities.
- Taking biodiversity in to account in all our projects.
- Between 2012 and 2014, testing of a roadway humidification pilot to cool Rue de la Buire (Lyon 3). In 2013 – 2016, modelling study of cooling provided by plant and water solutions on 3 sites in Part-Dieu.

ACTION 4.6

A

Transport & travel:

- Air quality (reduction in atmospheric emissions from our trucks with an average age of the park, the switch to Euro 6 and the capacity of our vehicles increased from 19T to 26T).
- Partner in the MUG project (Urban Modelling in Gerland): systematic modelling of the impact of development schemes on air quality.

ACTION 2.7

ACTING FOR THE CLIMATE

BUSINESSES / TRANSPORT & TRAVEL
HABITAT / ENERGY / CROSS-SECTORAL ASPECTS

LINK PARTICIPANTS



Social landlord organization

OVER THE TERRITORY

Buildings:

- Continuation of the trials of exemplary renovations to BBC standard (low-energy building): the rehabilitation works to achieve BBC standard have been undertaken on 14 buildings, i.e. 1654 homes. Some schemes have been delivered. The works scheduled for each building allow an energy consumption to BBC Effinergie Renovation standard to be achieved (consumption below 96kWhEp/m² net floor area/year). The forecast average saving is 150 kWhEp/m² net floor area / year or an average 64% reduction in conventional energy consumption. The next stages in the trial relate to the monitoring of consumption and the evaluation of the benefits of eco-renovation for tenants.
- Continuation of the improvement of the existing company park and its energy section (labels D, E, F, G, with level C being the minimum). In parallel with the progress in rehabilitation campaigns conducted by the HLM, ABC HLM develops and provides operational tools to affordable housing organisations: vade-mecum of the rental consultation, professional exchange workshops (in the context of a partnership with the ALE (Local Energy Office).
- Social landlords apply the “Sustainable Habitat” reference guide, 2013 edition. The initial passive habitat operations, in particular Oikos (client: Grand Lyon Habitat) with a Minergie P certification are in progress in Lyon.

ACTION
4.4

ACTION
4.1

Awareness-raising:

- At the level of the Métropole, ABC HLM is working on the management and recycling of bulky waste (study for the introduction of the agglomeration’s waste sorting and recovery centre. Development of pre-sorting projects on 3 buildings in the agglomeration. In the territories of Vaulx-en-Velin and Vénissieux, the resource centres for the local personnel have coordinated various projects:
 - 4 workshops for raising awareness about eco-gestures in 2 educational apartments in Vaulx-en-Velin,
 - the organisation of sorting workshops with Eco Packaging for employees via the Resource Centre at Vaulx-en-Velin,
 - 3 information sessions and tours of the urban heating plant regarding energy control for HLM employees at the Vénissieux Resource Centre,
 - 1 awareness-raising campaign among HLM tenants in Vénissieux on refuse management,
 - 2 awareness-raising sessions about eco-gestures for the young public with HLM employees.

ACTION
3.3

ACTING FOR THE CLIMATE



ADERLY
Economic development
agency

● INTERNALLY

Setting an example:

- Bilan Carbone carried out in 2013: 610 TeCO₂ linked to the travel item. Objective of -20% with a horizon of 2020, thanks in particular to the development of soft modes of transport.
- Offset with associations in the event of targets being exceeded associated with greenhouse gas reduction (Bleu Blanc Cœur association for the 2013 balance).
- Sustainable and responsible purchasing: buying locally and working with suppliers who are sensitive to the topic of sustainable development.
- Sorting and recycling: paper sorting, collection of used batteries for recycling and use of recyclable coffee capsules.

Transport & travel:

- Provision of TCL tickets (public transport tickets).
- Provision of Bluely and Citiz LPA subscriptions free of charge to employees.
- Reduced travel by promoting telephone conferences and video-conferences.

Awareness-raising: raising awareness of employees about reducing water and electricity consumption by internal communication operations.

ACTION
2.1

ACTION
2.6

ACTION
3.3

ACTION
4.3

ACTION
2.4

ACTION
3.2

ACTION
3.3

○ OVER THE TERRITORY

Businesses: systematic offer of an energy diagnosis to our businesses in the territory.

ACTION
4.7



Air quality monitoring

○ OVER THE TERRITORY

Exemplarité : the “**Barometer**” of energy consumption and greenhouse gas emissions by the Métropole de Lyon made more reliable: the MRV project (run jointly with Strasbourg and Nantes plus their Air Monitoring Offices) allowed an evaluation of fluorinated greenhouse gases and also the collection of additional local data (in particular regarding real estate). The new inventory audited by the CITEPA (national body responsible for national inventories) at the end of 2014 meets MRV criteria and will feed reports for the Mayors’ Agreement. In 2015, promotion of the MRV project among the Climate Plan partners in the form of a communication medium.

ACTION
7.1



A local resource which helps with decision-making, support in the development of good local practices, place for exchanges between all energy stakeholders, resource, information and training centre, resource for advice, expert assessment and training

● INTERNALLY

Transport & travel: participation in the annual “**mobility challenge**” competition, work subscription to Vélo’v and Citiz LPA, provision of public transport tickets.

ACTION
2.1

Setting an example:

- Offices: T5 fluorescent tube **lighting** fully renewed (by the tenant) and purchase of 100% renewable electricity (Enercoop); office heating and air-conditioning by water-table CAP
- **Eco-purchasing:** choice of recycled paper, local organic and seasonal produce for events, selection of service providers (cleaning, caterer etc.) on the basis of social and environmental criteria. The ALE has had the Lyon City Fair and Sustainable label since 2011.

ACTION
6.1

ACTION
3.3

○ OVER THE TERRITORY

Awareness-raising:

- Involvement in the European **SMERGY** programme which aims to support young people (18 – 30 years old) to make energy savings in their homes.
- Organisation of the **Écol’Énergie challenge** (7 classes over 6 municipalities in 2013-2014 and 8 classes over 4 municipalities in 2014-2015).
- Organisation of the 2014-2015 **Energy-Positive Families** competition in its 5th year (110 families in the Rhône in the 4th edition).
- Organisation of the “**Climate on our plates**” action to promote local and seasonal food in its 3rd edition on 23 November 2014 (11 teams).
- Support for the **municipalities’** measures in the context of the **Climate and Energy Plan:** 2 half-yearly meetings organised every year and individual support for about 20 municipalities every year. Training session for local elected representatives in the 1st half of 2015.
- Education in low-energy behaviours by residents in the **Smart Grids** projects (Watt&Moi, Greenlys, Smart Electric Lyon) with ERDF, GLH, EDF and ENGIE:
 - home visits on low-energy eco-gestures for the Greenlys programme,
 - feedback of experience by sociologists and enrichment of the Watt&moi awareness-raising approach,
 - communication actions and events planned with Smart Electric Lyon.
- Organisation of 60 events per year including a dozen visits to **exemplary sites**, both new ones and those undergoing renovation.

ACTION
3.3

ACTION
4.6

ACTION
3.3

ACTION
4.8

Businesses: co-organisation of the “**5 to 7 of eco-construction**” (4 per year) with CAPEB, CMA, DDT, BTP Rhône, Fibois and HESPUL.

ACTION
4.8

ACTING FOR THE CLIMATE



Buildings:

- Technical support to Grand Lyon in updating the **Sustainable Habitat** reference guide (late 2014 and early 2015). Continuation of the monitoring of indicators connected to reference guides on sustainable building for housing and offices, hotline for clients and contractors responsible for applying the reference guides.
- Agreement with **social landlords** and group (ABC, GLH, EMH, IRA, OPAC69, Dynacité and Alliage Habitat): feedback of experience, real-estate approach, training of employees and awareness-raising for tenants. Support to eco-renovation trials for social landlords in Grand Lyon.
- Around 3,000 requests for advice from the residents of Grand Lyon handled by the **Espace Info Énergie** in 2014, around 90 cases of co-ownership support, organisation of training sessions (e-learning and classroom) for union advisors and management agents.
- Technical support to Grand Lyon in the context of the filing of the response to the AMI of the private stock **eco-renovation platform**. Continued coordination of Villeurbanne's system to encourage External Insulation (ITE) and audits in co-ownership homes.
- Production of scoping notes for developers for the integration of renewable energy in their buildings. Follow-up of problems with renewable energy installations, involvement in the work of OREGES. Setting up of a **profit-sharing photovoltaic investment** project with a citizens' association for the municipality's real estate.

ACTION
6.1

ACTION
4.4

ACTION
4.5

ACTION
4.10



Assistance to local authorities with regard to energy management and the development of renewable energies, heating networks and waste

OVER THE TERRITORY

Awareness-raising: the network of elected representatives and technicians means that each one has the latest and most relevant information available. The association also represents its members before French and European institutions in order to defend their interests and their proposals.

Energy:

- 12 interventions with regard to energy and heating networks including one at Rillieux-la-Pape (at the request of Hespul, in the context of a day on the opening of markets).
- 4 information sessions about energy for elected representatives, including one session in Lyon.

ACTION
4.6

ACTION
4.6



Coordination of stakeholders from industry, research and training in the field of chemistry and the environment

OVER THE TERRITORY

Businesses:

- Two years after its launch, the **VALENTHIN** project is moving forward in line with its initial objectives and is making progress with the creation of a chain for recovering low-level industrial thermal discharges. PSPC project (project to structure competitiveness poles) in the context of the PIA (future investment programme), with a global budget of €16 million over 5 years, 13 partners, carrier of the ENGIE project.
- A study of the thermal energy sources available in the Vallée de la Chimie (**VALCHIM** project) has prompted a feasibility study for putting in place an industrial heat recovery system, led by the Métropole de Lyon with two industrial companies involved (Solvay and Arkema).
- The collaborative innovation platform **AXEL'One** has opened its second site and is home to more than 10 SME's. The collaborative projects have been put in place, providing the first pooled tools.
- The institute for energy transition, **IDEEL**, a collaborative and shared R&D centre, with a global approach from the industrial process to the industrial territory of the future, has continued its development and had 25 employees by the end of 2014, 2 laboratories, €2 million of investment and 5 departments, including one dedicated to energy (energy efficiency, CO₂ recycling). IDEEL has embarked on 23 R&D projects with a total budget of €50 million, including its own budget of €16 million.
- Partner of the international congress **ATMOS'FAIR** on air quality.

Energy:

- Launch of the **VALCO2 II** project which focusses on the chemical recycling of and energy recovery from CO₂ by the development of large-scale CO₂ transformation processes and the setting-up of a French observatory of available industrial sources of CO₂. The challenge is to use CO₂ as a non-fossil carbon raw material, as an alternative to the use of petrochemical substances. The 4-year FUI 17 project, carried by SOLVAY with 5 partners for a €4 million budget.
- Launch of the **SCOT** project (Smart CO₂ transformation), a European collaborative project (FB7). SCOT brings together 5 European regions and has the objective of defining the European strategic agenda in the field of CO₂ recycling. To date, it has allowed a survey of CO₂ recycling in Europe, including the mapping of the main players and a socio-economic analysis of the main CO₂ recycling methods.
- Partner of the CO₂ Forum, on CO₂ recycling.

ACTION
5.1

ACTION
4.10

ACTION
4.10

ACTING FOR THE CLIMATE



Federation of Building and Public Works Contractors in the *Département* of the Rhône and the Métropole

○ OVER THE TERRITORY

Buildings: promotion to private individuals for the energy renovation of their homes: March 2015, a campaign aimed at the general public in the press and on the radio and internet: "Today is the right time to do the work".

ACTION
4.5

Businesses:

- **Climate Plan:** participation in the building sector working group.
- **Eco-renovation platform:** member of COPIL and COTECH, in particular a partner in the **DORéMI** action.
- **RGE:** Recognised Protector of the Environment:
 - promotion and development of the professional qualification, in particular RGE quality symbols for businesses (at the end of February 2015: 25% of BTP RHÔNE businesses were RGE, and as many again are in the process of gaining this qualification,
 - identification and highlighting of RGE businesses (creation of a directory at www.rge-rhone-alpes.fr).
- **FEEBat** – Training of building businesses in energy savings: promotion of training modules intended for the entire profession (from July 2014, average of 2 sessions per month for 10 to 12 participants).
- **Thermal evaluation:** development of a software package (OREBAT) which is a simulator of works, so as to evaluate the agreed consumption after works. Promotion, training in the use and free provision of the software to RGE businesses in the course of 2015.
- **Groups of businesses:** support in the creation and development of organised groups of businesses, with a global offering of energy renovation works, intended for public and / or private developers. Signature of a partnership agreement with the RHONE-ALPES ÉCO-ÉNERGIES CLUSTER (September 2014) – at the end of 2014, 3 groups of BTP RHÔNE businesses were being supported.
- **CEE** – Energy Saving Certificates: support for members in CEE procedures. Development and promotion of the PRIM'3E tool, helping professionals be CEE vectors to their clients.
- **BIM** - "Building Information Model": development of a support service with a view to promoting better knowledge and appropriation of the digital model by the profession.

ACTION
4.8



Confederation
of tradesmen and
small businesses
in the building sector
of the Rhône

OVER THE TERRITORY

Buildings:

- Member of the selection panel and participation in the joint meetings of energy renovation platforms.
- Participation in the working groups of the Sustainable Building Plan in Rhône-Alpes.

ACTION
4.5

Businesses:

Over the *département* of the Rhône:

- 6 information meetings on RGE qualification (approx. 150 businesses reached),
- 1 technical meeting on energy savings for plasterers / painters,
- 3 information meetings on the RT 2012 (approx. 75 businesses reached),
- 2 information meetings on the maRA system (craftsman joinery in Rhône-Alpes),
- 1 information meeting about DORéMI,
- Around one hundred businesses advised individually about the RGE qualification,
- 12 training courses entitled "Energy renovation workshops" (approx. 130 businesses trained),
- 80 "Feebat 1+2" or "Feebat Rénove" courses (= RGE training) (over 800 businesses trained),
- 10 Feebat 5.2 courses (one hundred businesses trained),
- 1 "Feebat Old Buildings" course (12 businesses trained),
- 4 maRA courses (craftsman joinery in the Rhône-Alpes) (29 businesses trained),
- 1 Sustainable Development course (7 businesses trained),
- Launch in 2015 of the University Diploma "Estate and Sustainable Management" in partnership with Lyon II University,
- 4 files for the purchase of painting equipment washing stations,
- Development project study for a web platform reselling materials and site equipment (circular economy),
- 2 "Batiscan"-type or "R of eco-construction"-type events at shows,
- Co-organisation of the 5 to 7 of eco-construction (one event per quarter),
- 4 visits to exemplary sites,
- 6 articles written about eco-materials in the specialist press,
- A regional project under the impetus of CAPEB to develop the hemp construction sector in Rhône-Alpes,
- 6 trade data sheets on air-tightness,
- Diffusion of the RA DREAL's communication campaign on works resulting from Technological Risk Prevention Plans,
- 3 businesses have had the benefit of a preliminary environmental diagnosis,
- 2 businesses have had the benefit of project support.

ACTION
4.8

ACTION
3.3

ACTION
4.5

ACTION
4.7

ACTING FOR THE CLIMATE



Public business establishment

OVER THE TERRITORY

Energy: study of the energy supply to business and industrial zones in 2014 on the Corbas industrial zone (pilot site).

ACTION
5.1

Businesses: involvement in the roll-out of the LyonÉcoÉnergie system:

- recruitment of an energy advisor,
- organisation of a number of information meetings:
 - “Improve the energy performance of your business”, 06/02/14 at Corbas;
 - “Promotion of CEE’s”, 10/04/14 at Corbas;
 - “How to reduce my energy bill”, 08/10/14 at Corbas;
 - “Environmental Measures in the Business”, 25/04/14 at Chassieu;
- two East Lyon Energy Club meetings at Meyzieu.

ACTION
4.7

Transport & travel:

- Participation in the Steering Committee “Goods Transport in the City” run by Grand Lyon and organisation of a seminar on urban river logistics at the Édouard Herriot Port of Lyon in November 2013 (100 participants).
- Eco-mobility meeting on 10/12/14 at Chassieu.

ACTION
2.7

ACTION
3.2

Awareness-raising: CCI Business Eco-Building, 03/06/14, at Corbas.



Training consultants to businesses, service to trades in the *département*

OVER THE TERRITORY

Transport & travel:

- Participation in the Steering Committee on “Goods Transport in the City” steered by Grand Lyon.
- Experiments on delivery diagnostics to refine the operating hypotheses for craftsmen and tradesmen (Presqu’île and Neuville, for example) and help with the partners’ work.
- Reflection on the development of the city-centre delivery platforms.
- Support in maintaining city-centre activities.
- Provision of expertise in preparing the PDU (Urban Travel Plan).

ACTION
2.7

ACTION
4.3

Businesses:

- Involvement in the deployment of the LyonÉcoÉnergie system: Recruitment in 2014 of an employee dedicated to supporting businesses in the territory. This allowed a significant increase in the CMA’s capacity to support businesses:
 - 2012: 19 energy inspections,
 - 2013: 10 energy inspections,
 - 2014: 37 energy inspections.
- Joint meetings on the issue of energy saving in the territory, with our partners.
- Co-organisation of meetings of the “5 to 7 of eco-construction” (4 per year).
- Since 2014, participation in the Métropole’s thinking about the implementation of a “local eco-renovation platform” and signature of the **DORéMI** agreement.

ACTION
4.7

ACTION
4.8



- Integration of the **PUMA** project: study of the impact of the regulatory changes in the central areas of Lyon on businesses
- Maintenance of support to printing businesses to move towards a more environmentally sound process and to obtain the **IMPRIMVERT Label**.
- Since 2013, the CMA has been involved in the waste steering committee with the Métropole and ADEME, and proposes a waste reduction action, targeting repair trades: **REPAR'ACTEUR**. Putting in place, in 2015, in the Métropole of a directory of repair businesses.
- Since 2013, active participation in writing the **revision of the PLU-H** (Local Urban Planning and Habitat Plan). Upstream, the CMA has also given advice and recommendations about the SCOT (Smart CO₂ Transformation) in order to promote the specific aspects of craftsmen and tradesmen being taken into account. In 2014, the CMA diffused the white book of business real-estate.

ACTION
3.3

ACTION
2.3

Awareness-raising: formation of a working group within the General Affairs Commission with the CMA elected representatives to discuss the issues of vehicle use, mobility and business travel in order to highlight the constraints and needs of craftsmen and tradesmen and to come up with ideas for stakeholders to ensure that trials and other projects properly include all the economic entities and in particular those which create connections, local jobs and a local service. Project in 2015 to put in place an awareness-raising of and training in fuel-efficient driving.

ACTION
3.3



Public Works

OVER THE TERRITORY

Setting an example: creation / establishment of an Infrastructure Service Quality Observatory (ORQUASI).

Transport & travel:

- Promotion of the eco-comparators SEVE and CANOPEE to businesses and developers to encourage the evaluation of environmental options allowing, inter alia, a reduction in transport volumes and distances.
- To promote, with the support of the INDURA cluster, and in the context of the call for projects entitled "Road of the future", infrastructures connected to vehicles (traffic management system) which allow congestion and greenhouse gas emissions to be reduced.

ACTION
2.7

ACTION
3.1

Businesses: to promote the OMEGA TP software to public works businesses: methodological tool for evaluating greenhouse gases from Public Works activities. To promote to businesses, developers and engineers the industry guide: to carry out an environmental study on Public Works. BEGES organisation and site analysis. This publication is the fruit of a partnership initiative with FNTP, scientific and technical stakeholders in the context of an ADEME call for applications.

ACTION
3.3

ACTING FOR THE CLIMATE



LES PÔLES DE
COMPÉTITIVITÉ

Research and development on the goods and passenger transport system in the urban environment.

● INTERNALLY

Transport & travel: all the Cluster's projects are organised around 5 collaborative research and development programmes:

- Mobility modelling and management,
- motorisation and powertrain,
- security and safety,
- vehicle architecture,
- smart transport system.

17 think tanks were held in 2014 on these topics. Two LUTB-RAAC seminars addressed the problem of CO₂ emissions linked to local mobilities and then the security of connected vehicles.

ACTION
2.7

○ OVER THE TERRITORY

Transport & travel:

- The application demonstrators in operational phase: 5 LUTB-member businesses are involved in the **experiments on night-time and silent deliveries** launched by Grand Lyon in partnership with the Déméter Club. The businesses organise their deliveries at staggered times, i.e. between 10 p.m. and 7 a.m., with the exception of the darkest hours between 2 and 4 a.m. They only use equipment guaranteeing a decibel threshold equivalent to the noise level of a conversation between two people. This experiment helps make environmental savings thanks to a shorter travel time of goods to their delivery destination and by also helping to reduce congestion at peak traffic times.
- Labelling and technical support for the **Citylogistics project** which aims to concentrate goods on the periphery of agglomerations by means of an Urban Distribution Centre (CDU) and thus to combine delivery circuits. For distribution in the final kilometre, gas and hybrid electric / hydrogen motorisations are used to keep the environmental impact as low as possible.
- Labelling and coordination of the scientific section of the Equilibre project which aims to evaluate the relevance of the gas sector for regional goods transport. For one year, CNG vehicles (compressed natural gas), used at real-life conditions, will be monitored in order to evaluate the operating costs of CNG vehicles depending on different uses. This will allow the pertinence of the replacement of diesel by CNG to be assessed from the economic and environmental viewpoint. The demonstrator will be ready in autumn 2015.
- Participation in the **"GNVolontaire Rhône-Alpes"** procedure. The purpose of this procedure is to bring together under one banner all the private, public and institutional stakeholders which are taking concrete action in favour of the Compressed Natural Gas (CNG) sector.
- The app for the **OPTIMOD Lyon** project, awarded the label by LUTB, was brought into use for androids in early 2015. This app, the outcome of a collaborative project with Grand Lyon, Cityway and 12 other partners, is an all-modes real-time navigator allowing its users' travel times to be optimised in the territory of Grand Lyon and thus the carbon impact to be reduced.

ACTION
2.7

ACTION
3.1



Information, advice and support for member businesses and professional sectors

OVER THE TERRITORY

Businesses:

- Promotion of the LyonÉcoÉnergie system.
- Organisation of information and discussion meetings on the topic of energy in collaboration with experts and other professional organisations (MEDEF Lyon-Rhône):
 - 22 October 2014 – “Green gases: new opportunities for businesses?”
 - 10 April 2015 – “Energy efficiency: the right time to launch a big rethink!”
 - 16 June 2015 – “MEDEF action in view of COP 21”.
- June 2015 – Writing and diffusion of the MEDEF guide: “Climate change – understand and act”.

ACTION
4.7



Non-profit organisation serving residents and their habitat

OVER THE TERRITORY

Setting an example: recruitment and training of two young people in the jobs of the future, to become Energy Efficiency Ambassadors, with the support of the TOTAL Foundation in particular.

Awareness-raising:

- Raising the awareness of households to energy savings, in co-ownership homes in difficulty in Vénissieux, Bron (with the installation of an eco-kit ...)
- **System to combat fuel poverty:** walk-in service and information for modest households, identifying and preventing fuel poverty, diagnosing the socio-economic situation and housing, proposal of support and renovation actions. This system was integrated in the energy renovation platform in 2015, in close and constant collaboration with the ALE (Local Energy Office).
- Participation in the **DORéMI** system from the time it was put in place by the Métropole in 2015.
- In 2013/2014: close to **2,000 households provided** with information in Grand Lyon, including almost 300 which have been supported in an energy renovation project.
- 8 June 2015: participation in the organisation of a regional inter-association symposium on fuel poverty.

ACTION
3.3

ACTION
4.5

Buildings:

- **A post-works qualitative survey conducted** on modest households, in the context of a research project with INSA: diffusion of results in a round table organised by our association in May 2014 on fuel poverty.
- **Support for co-ownership households in difficulty, for BBC Renovation** in the context of coordination missions outsourced by Grand Lyon: works in progress at Saint-Fons Les Clochettes, Saint-Priest Les Alpes, works approved at Bron Terrailon (protection plans), works to be approved in 2015 / early 2016 for two co-ownership properties in Vénissieux (Energy PIG [programme in the general interest]).
- **Villeurbanne: joint action with the ALE** in the context of an agreement with the town of Villeurbanne to facilitate the energy renovation of modest households in co-ownership homes and single-family houses.

ACTION
4.5

ACTING FOR THE CLIMATE



Association providing advice to local authorities and the public tertiary sector in the area of energy, promotion of renewable energies and environmental protection

● INTERNALLY

Setting an example: ISO 14001 certification since 2008.

Since late 2013, move to a new location in Villeurbanne:

- heating by the Villeurbanne heating network, with 50% of heat coming from renewable energy,
- purchase of green electricity,
- maintaining the objectives of stabilising emissions due to travel,
- reduction in the amount of waste produced and in water consumption, and increase in the share of responsible purchasing.

Transport & travel: participation in the Rhône-Alpes **Mobility Challenge:**

I go to work alternatively.

ACTION
6.1

ACTION
3.3

○ OVER THE TERRITORY

Energy:

- Partner in the **Greenlys** project (demonstrator project for smart electricity grids in Lyon and Grenoble).
- Supply of data about energy production balances, energy consumption and greenhouse gas emissions (as a **technical structure of OREGES**) to the Métropole de Lyon and the municipalities in the territory – help in calculating the territory's energy bill.
- Making energy consumption and greenhouse gas emissions balances reliable thanks to the use of real-life data from energy partners to produce the OREGES balances in conjunction with Air Rhône-Alpes.
- Support for the **wood industry in Rhône-Alpes** (coordination, training, website, regional working group, mapping), ensuring the security of supplies of wood for energy regionally and involvement in Grand Lyon's working group on this topic.
- Support to local authorities for the development of heating networks.
- Development of the biomethane sector and injection in the natural gas networks.
- Development of bio-CNG at regional level.

ACTION
5.2

ACTION
4.6

ACTION
7.1

ACTION
4.9

ACTION
2.2

ACTION
4.10

Awareness-raising:

- Monitoring the implementation of the **CEP service** (Shared Energy Advice) offered by SIGERLY to the municipalities of Grand Lyon.
- Information and support of the municipalities about the systems of **CEE** systems (Energy-Saving Certificates) and **CPE** (Energy Performance Contracts).
- **Regional Observatory of the Effects of Climate Change (ORECC):** Rhônalpénergie-Environnement and Cerema are technical organisations of the ORECC.
- Promotion and support for the implementation of sustainable public procurement (**Bonuses** Project).
- Coordination of the Regional Eco-Responsibility and Sustainable Development Network (**RREDD**).
- Organisation of a cycle of 5 conferences for Grand Lyon and other municipalities on consideration of sustainable development in the markets of office automation / IT equipment, lighting, building, vehicles and green electricity (European **Buysmart +** project).

ACTION
4.6

ACTION
3.3



Transport & travel:

- Contribution of expertise in the area of eco-mobility for the municipalities and coordination of a regional eco-mobility network (PUMAS project).
- Promotion and support for the implementation of alternative fuels and motorisation.



Buildings:

- **Strategy for the plan to renovate the existing building stock:** support for the Region in managing the energy performance of secondary schools and in the functioning of School Energy Agencies, coordination of the Rhône-Alpes Shared Energy Advisory Network.
- Founding member of **Effinergie**, a partner to the **BBC** regional observatory, provision of expertise to achieve BBC objectives (construction and renovation of social housing, offices, private homes).



Businesses: training for businesses via the CCI (Chamber of Trade and Industry) on taking sustainable development into account in electricity markets (European Buysmart + project).



Adaptation: participation in the working group on “Participatory climate research”, coordinated by Lyon University, associated with the Planning Study for a Local Climate Observatory – the **EPOC**.



Association supporting the economic development and management of Lyon city centre

OVER THE TERRITORY

Transport & travel:

- Participation in the Steering Committee on “Goods Transport in the City” steered by Grand Lyon and enquiry into deliveries to the Presqu’île.
- Involvement in the European PUMAS project (steered by the CCI of Lyon) which aims to offer improvement solutions for city-centre deliveries, in consultation with citizens and all the institutional and economic stakeholders.
- Support for a bicycle delivery service to city-centre customers (FREE DOM). 50 courses carried out every month and 20 shops which participate regularly.
- Coordination of the PDIE (inter-company transportation plan) (since 2008). Raising the awareness of 44 new shops in 2014. 161 employees have a Citypass at a reduced rate (direct agreement for Tendance Presqu’île with SYTRAL for < 20 employees).



ACTING FOR THE CLIMATE



Goods transport

OVER THE TERRITORY

Transport & travel:

■ Signature of the CO₂ charter (DREAL/ADEME/PREFECTURE/AFTRAL)

This charter is the practical reflection of the sector's intention to work against climate change and more precisely to reduce its CO₂ emissions. For the signatory businesses, the voluntary commitment charter CO₂ Objectives represents: a reduction in fuel consumption / better fuel management thanks to the introduction of a dashboard for monitoring consumption / a commitment to an organised approach, a source of personnel mobilisation and motivation / the image of a modern business, respectful of the environment, within a perspective of sustainable development.

■ Development of CDU's (Urban Distribution Centres) at St-Étienne, Lyon, Annecy and Grenoble, means of transport using CNG and electricity, night-time deliveries.

■ Development of alternative solutions: multimodal, river and rail transport.

■ At national level:

- preparation for the **environmental conference** held in Paris from 27 to 28 November 2014. The TLF Union has been able to participate actively in the production of an environmental road sheet from the government, comprising 74 measures grouped into 22 objectives, including a number regarding the promotion of rail freight, financial assistance to combined transport, improvement in the river logistics chain and with regard to road transport, the creation of a CO₂ Objective label in addition to the commitment system of the CO₂ Charter in the sector.
- **Energy Audit** – TLF is currently working to put in place an industry guide which should allow businesses in the sector a better understanding of the regulatory framework with regard to the specific factors of transport and logistics activities.

ACTION
2.7



Brings together and supports industrial businesses in the field of chemistry and associated activities in Rhône-Alpes

OVER THE TERRITORY

Transport & travel: organisation of meetings with stakeholders about alternative modes of transport to road (rail transport, river transport) in order to facilitate discussion about problems which could brake the development of multimodal transport.

Businesses: information and awareness-raising for businesses: information meeting on 04/02/2015 about energy in business (audit, certification ISO 50001, competitiveness lever).

Energy: involvement in the VALCHIM study (carried by Axelera).

ACTION
2.7

ACTION
4.7

ACTION
5.1

METALLURGIE



Brings together
and supports metallurgy
businesses in the Rhône

OVER THE TERRITORY

Businesses

- Energy inspections for businesses: partnership with the CMA and the CCI for the promotion and roll-out of energy inspections in businesses (LyonEcoEnergie)
- Support for businesses: partnership with the association of industrial businesses in the region of Meyzieu, Jonage, Pusignan (AIRM) for the roll-out of an offering for the promotion of CEE's (Energy Economy Certificates).

ACTION
4.7

Awareness-raising:

- Organisation of information and discussion meetings on the topic of energy in collaboration with experts and other professional organisations (MEDEF Lyon-Rhône):
 - 20 March 2015: improve your energy performance,
 - 10 April 2015: energy efficiency: the right moment to start an in-depth reflection!
- Publication of alerts and information about energy challenges (end of controlled energy tariffs, energy audit, energy economy certificates, good practices ...).

ACTION
4.7



Management of
co-ownership associations,
building management,
real-estate transaction
and rental, real-estate
expertise

OVER THE TERRITORY

Buildings:

- Participation in the private habitat working group.
- Membership of the Rhône-Alpes Éco-Énergies Cluster in 2015. Awareness-raising of members to energy management, the development of renewable energy in buildings and energy performance.

ACTION
4.5

ACTING FOR THE CLIMATE

BUSINESSES / TRANSPORT & TRAVEL
HABITAT / ENERGY / CROSS-SECTORAL ASPECTS

INSTITUTIONS



Ville de Meyzieu



ADEME



Agence de l'Environnement
et de la Maîtrise de l'Énergie

Implementation of urban
policies in the areas
of the environment,
energy and sustainable
development

OVER THE TERRITORY

Buildings:

- Support in the implementation of the **Local Renovation Platform** for private housing in the territory of the Métropole de Lyon over the period 2015 to 2017, including preparatory work on financial engineering (facilitating use of the eco-PTZ [interest-free eco-loan] from banks).
- Support for the first **Energy Performance Contract** (CPE) for the BBC Renovation of offices (CARSAT in Lyon Part-Dieu)
- Winners of the **calls for BBC Renovation projects**: building known as the “BBC” of La Française by CIRMAD/GFC Construction in Lyon, buildings of La Foncière AFFINE in Lyon, renovation of Hector Berlioz school in Lyon to put in place a deaf school by OVE in Lyon.
- Continuation of action in the districts of Lyon for the absorption of **noise black spots** by thermo-acoustic treatment, via an ADEME/Grand Lyon agreement (in connection with the platform).
- **Jobs:**
 - support for the **“green jobs” section** of the PCET (Territorial Climate and Energy Plan) via the MDEF; for example, trials on returning to work in the area of wood cladding by the business GIROL,
 - raising the awareness of the public to the integration in green growth jobs with the **PRAO** (Pôle Rhône-Alpes d’Orientation).
- Support for the actions of the link professional associations BTP Rhône and CAPEB:
 - funding of the territorial project manager for the Rhône,
 - support in collective actions: Build Clean, Recycled Gravel, etc.
- **PRAXIBAT** educational platforms:
 - production / support for new education platforms for the training of apprentices (cases in progress in 2015): CUZIN School at Caluire, CFA at Dardilly, FCMB in Lyon 3, AFPA in Saint-Priest, planned “Efficient Lighting” platform for the Métropole de Lyon with the Light Cluster,
 - training for trainers in the two technologies “Opaque Walls” and “Ventilation”,
 - use of 4 operational platforms for the initial and continuous training of the “Building” sector.
- Support for the **professional show “BEPOSITIVE” (2013 and 2015 editions)** at Lyon Eurexpo by GL EVENTS.
- Energy monitoring and commissioning for the two **DEFFIBAT 2014** prize-winning projects (OVE, AFFINE).
- **HIKARI island** in Lyon Confluence: support for performance modelling and monitoring studies.
- Support for the **Smart Electric Lyon** smart grid project (coordinator: EDF); via Investissements d’Avenir [investments for the future], which aims to develop on a large scale a range of products and services downstream from the meter.

ACTION
4.5

ACTION
4.8

ACTION
6.1

ACTING FOR THE CLIMATE

A D E M E



Agence de l'Environnement
et de la Maîtrise de l'Énergie

Energy:

- **Wood for energy:** to ensure a supply of the right quality and quantity, to develop heating plant and heating networks.
 - Wood heating plant and heating networks: extension of the heating network (2.5 km) at Vénissieux with an additional 6 MW wood heating plant (2015 file).
 - Survey on wood-fired heating in the Métropole's area (AACT-AIR call for projects) for 2015.
- **Geothermal energy:** mobilise the potential and support implementations.
 - Geothermal energy from the water table: Grand Stade (Foncière du Montout), offices in Lyon (RTE) and Vaulx-en-Velin (Cardinal Group).
- **Methanisation:** mobilise the potential and support the methanisation units, favouring injection in the gas network.
 - Principle of launching a study to produce a methanisation development scheme (2015).
- **Solar:** to promote thermal solar, organise the improvement of skills by professionals, support implementations and trial photovoltaic on-site use.
 - ADOMA (residence Saint Cyr, 163 m²), Est Métropole Habitat in Villeurbanne (residence INSA, 22 homes each of 35 m², residence Albert Thomas, 69 m²).

ACTION
4.10

Businesses:

- Support for CCI / CMA link actions: funding for two project managers to support businesses in energy management actions from 2014 for 3 years (**LyonEcoEnergie**),
- Collective operation "**Optim'énergie**" for energy management: SEPR (2013/2014), DUPESSAY (2015/2016).
- **CAPENERGIE** collective action (supported diagnosis for SME's).
- Publication with Grand Lyon of a special issue of the Décision Durable (Sustainable Decision) Magazine on the occasion of POLLUTEC 2014: spotlight on innovative businesses in Grand Lyon and the Region.
- Winners of the **INNOV'R** call for projects (Region, BPI, CDC, ADEME, municipalities including Lyon Métropole): EMD (Freegone project: scooters), DELTALYS (Biogas processing solution), FUL (Lyon Urban Farm), etc.
- Launch in 2014 of a feasibility study on the **recycling and re-use of bulky waste in buildings** in the social housing sector and waste centres with ABC HLM, Lyon Métropole, the Caisse des Dépôts and the DIRRECTE, with a view to creating sorting / recycling platforms with the target of 80% recycling and re-use, and 44 re-integration jobs.
- Winner of the **AAP for a waste collection, sorting and recycling installation:** LIGNATECH (creation of a wood waste preparation unit with a view to energy recovery).

ACTION
4.7

ACTION
4.10

A D E M E



Agence de l'Environnement
et de la Maîtrise de l'Energie

Transport & travel:

- Support to Citiz LPA Lyon Parc Auto to promote a combined TER + car-share offering (2015).
- Support for the **OPTIMOD Lyon** programme via Investissements d'Avenir [Investment for the Future] (the collection, centralisation and processing of all urban mobility data on a single service-creation platform).
- Winner of a call for projects for 2 schemes:
 - DYNACOPE project: promotion of organised hitchhiking at the Genay Industrial Zone and Val de Saône, and pedestrian route calculator for Lyon.
 - promotion and evaluation of teleworking at the Part-Dieu business club and the association of businesses in Chemistry Valley for Sustainable Development.
- Support for the job of Éco-Mobilité project manager at the Lyon CCI with joint funding from Lyon Métropole and the Rhône-Alpes Region (2015 / 2016 / 2017).
- Delegated project management in the context of the **Regional Mobility challenge** of the ADEME and the Rhône-Alpes Region (5th edition) on 4 June 2015.
- Agreement relating to support for **CNG** in Grand Lyon: roll-out of filling stations, support in vehicle purchasing, information to businesses.
- **Citylogistic:** Urban Distribution Centre, the 15 trucks of which will run entirely on bio-CNG by the end of 2015.
- Involvement in the roll-out of goods transport in the city (Site Consolidation Centre).
- Promotion of the **CO₂ Charter** to road passenger and freight transport operators.
- Support for the **"Equilibre"** (Balance) project on road transport's energy transition to compressed natural gas (CNG): MAGNIN, MEGEVAND, PRABEL and SOTRADEL) and two major groups (Jacky PERRENOT and TRANSALLIANCE).

ACTION
3.1

ACTION
2.7

Awareness-raising:

- **CITERGIE:** continued support for Grand Lyon Integration and the 3 municipalities (Lyon, Rillieux La Pape, Vénissieux), with Grand Lyon being awarded the CITERGIE label in 2014.
- Encouragement to respond to the **TEPCV** ministerial call for projects in 2014: Grand Lyon was announced as the successful candidate in January 2015.
- Support for actions by the ALE [Local Energy Office] (Energy Information Space / PRIS, project support) in the context of an annual agreement.
- Involvement in the actions of the Urban Development Agency: **revision of the PLU-H (Local Urban Planning and Habitat Plan)**, study of urban "BBC" forms, etc.
- Participation in the Operational Committee of the **"Call for 30"**.

ACTION
4.6

ACTION
2.3

ACTING FOR THE CLIMATE



Population of 39,371

● INTERNALLY

Setting an example: production of an annual summary of energy consumption in building and lighting (via the SIGERLY's CEP [Climate and Energy Plan]).

ACTION
4.6

Buildings: plan for the thermal renovation of the municipal estate over the period 2015 – 2018.

ACTION
4.6

Energy:

- Continued low-energy and efficient management of urban lighting (2013 - 2014)
- Fitting of municipal buildings with energy consumption reduction systems (thermostat-controlled electric convectors etc.).

ACTION
4.6

Transport & travel: strengthening of the municipal PDA (Administration Transport Plan): development of the number of employees affected by the employer's participation in home-work commutes, provision of TCL tickets for duty travel, development of the company car fleet, purchase of 4 electric vehicles – in 2013 and 2014 – bicycle safety course – in 2012, 2013 and 2014, fuel-efficient driving course – in 2014 and 2015.

ACTION
3.2

Awareness-raising:

- Development of organic and / or local produce in the municipal food services. Today: organic accounts for 10% of purchases by volume, thus showing a clear improvement in three years (from 5 to 10%). The produce concerned is principally dairy, cereals and preserves.
- Participation in the "Energy-Positive Families" challenge: number of Municipal employees taking part: 6 in 2014-15.
- Continuation of concrete actions to raise awareness about sustainable development, carried out in the ZUS districts (sensitive urban zones). Since the end of 2011: Alliage Habitat has put in place an educational apartment in Terrailon. A permanent, educational and fun exhibition, which allows residents to learn and find out about simple things they can do to reduce their energy bills, maintain their homes better and thus reduce their ecological footprint. This resource centre is the fruit of a partnership approach.
- Personnel training in sustainable development on a daily basis (bicycle safety courses; fuel-efficient driving; monitoring and evaluation of Agenda 21; awareness-raising day for municipal employees on reducing waste ...).

ACTION
3.3

Adaptation:

- Continuation of the renovation and extension of centralised sprinkling management integrated in green spaces (Action extending from 2012 to 2015).
- Choice of plants and techniques which do not call for much sprinkling, which helps achieve sprinkling-water savings for green spaces (water consumption divided by 5 from boreholes for integrated sprinkling, between 2005 and 2014).
- Leading the reflection on the optimisation of areas to be sprinkled in the green spaces.

A



OVER THE TERRITORY

Setting an example: production in 2013 of an energy consumption and greenhouse gas emission balance for the territory.

ACTION
7.1

Transport & travel:

- Installation of secure bicycle parking facilities at the start of 2014, in front of the Town Hall (7 individual spaces).
- Creation of “park and ride” sites to reduce car use in the town. Creation at the Porte des Alpes (boundary of Bron and Saint Priest) and scheduled opening of a park and ride site for cars and bicycles close to the Mermoz Pinel station in autumn 2015.
- Promotion of car-share schemes via rental and the creation of stations. 2015: 3 Bluely stations already created in Bron, 1 having a boundary with Lyon 3. Short-term plans: 1 additional Bluely station and 1 Citiz LPA station.
- Development policy helping to reduce private car use (new 30 zones, central reservation, chicane, speed bumps ...).
- Contribution to transforming expressways into urban routes, such as for example by making the A43 into an urban boulevard in 2010 – 2011 from the point it enters Bron on the Mermoz – Pinel side to Rue Lionel Terray (600 lm).
- Installation of educational radar. Since 2012 – 2013, 4 educational radar traps have been moved around the town on a regular basis.

ACTION
2.1

ACTION
3.1

ACTION
3.2

ACTION
2.4

Energy:

- Feasibility study for the recycling of fermentable waste from the central kitchen and school canteens. 3 “pilot” composting operations to “get the ball rolling”: Le Centre Aéré (school-goers), La Résidence Marius Ledoux (the elderly) and Lyon 2 University, on the boundary with Saint-Priest (students – Association: solidarity).
- Putting in place of a solar energy promotion strategy. Inventory of all the roof-mounted solar panels fully installed in the entire territory as at the start of 2015, in connection with the RAEE and the ALE.

ACTION
4.10

Adaptation:

- Promotion of family, joint and shared vegetable gardens (social centres, schools etc.), via the “Bron en Fleurs” (Bron in Flowers) competition (for adults) and “Graine de Fleurs” (Flower Seed) competition (schools), events such as “Les Printanières de Bron” (Springtime in Bron), inter-generational family gardens etc. Encouragement to develop collective and shared gardens with the projects in Terrailon (with, since 2014, Copro Terrailon and the Résidence des Sapins). Formalisation of a plan for the differentiated and mindful management of green spaces in the course of 2015 (alternative weed-control, natural meadows, re-use of pruning waste in composting on site, etc.).
- Preservation of the existing green zones and public gardens in accordance with the PLU (Local Urban Development Plan). In the context of the revision of Lyon Métropole’s PLU.
- Continuation of the development and safeguarding of the Public Park of Bron Fort to provide optimum access to the public.

A

ACTION
2.3

A

ACTING FOR THE CLIMATE



Awareness-raising:

- Putting in place of thermographic surveys.
List of co-ownership properties having had the benefit of this service in BRON:
In 2013: Les Cyclamens (des Essarts) and Les Tours d'Isère,
In 2014: The residences "Bellevue" and "Brossolette",
In early 2015: Le Rafour I and II.
-> Energy renovation works, target of -25%, approved for Les Cyclamens (des Essarts) co-ownership property in 2015.
- Introduction of "vegetable baskets" by the CCAS in conjunction with charitable associations and AMAP's (Smallholding Preservation Associations).
- Participation in the "Energy-Positive Families" challenge: 23 participants in 2012-13, 6 in 2013-14 and 5 in 2014-15.

Buildings: feasibility study for a sustainable district on the Rabi *gendarmerie* tenement.

Adaptation: support for the development of AMAP (2 AMPs and one "Alter Conso" based in BRON).

ACTION
4.5

ACTION
3.3

ACTION
2.3

A



Population of 2,546

● INTERNALLY

Buildings:

- 2014: windows in the presbytery changed.
- 2015: insulation of the primary school attics.
- 2015: insulation of the presbytery attics.
- 2015: insulation of the communal building attics on the Place de l'Église (business premises).

ACTION
4.6



Population of 42,075

○ OVER THE TERRITORY

Setting an example:

- Attendance at the meetings of the "Communal Climate Plans" network steered by the ALE (Local Energy Office).
- Participation in the Steering Committee on "Goods Transport in the City" steered by Grand Lyon.

Transport & travel:

- Establishment of a new wildlife trail (in addition to the existing 7 trails).
- Extension of the controlled parking area.

Buildings:

- Collaboration with the OPAC for the energy renovation of two residences (including the Résidence du Stade).
- Organisation of an Atelier Reno Copro (Co-owned Building Renovation Workshop) with the ALE on 03/03/15.
- First payment of the exceptional communal subsidy in the context of the energy renovation plan PISTACHE (Les Hauts de St-Clair).

ACTION
4.6

ACTION
2.7

ACTION
2.1

ACTION
2.4

ACTION
4.4

ACTION
4.5



Population of 5,276

● INTERNALLY

Buildings: works to insulate a school roof terrace in 2014.

Energy: carrying out of a public lighting system audit by the company Cobalt in 2014 and 2015.

Continuation of actions to put in place public lighting using LED's: Boulevard de la République and Rue Pasteur in 2014, Rue CHOL in 2015.



Population of 4,611

● INTERNALLY

Energy:

- Feasibility study for installing solar panels on the roof of the primary school.
- Setting up of profit-sharing for the heating service provider on 4 sites (2014 / 2015).
- Public lighting turned off: 6-month experiment from 01/06/15 from 11.30 p.m. to 5.30 a.m.

Buildings: in 2014, opening of the cultural cluster at the Domaine Melchior Philibert, BBC standard, DEFFIBAT winner (wood-fired heating); 20% cover by REN consumption.

Awareness-raising: putting in place of an extra-municipal working group on eco-gardening and change of behaviour.

Adaptation: subsidy for putting in place rainwater recovery approved once again for 2015 (20% of the cost of the installation, up to a maximum of 500 euro).

○ OVER THE TERRITORY

Transport & travel:

- Establishment of 30 Zones for the entire municipality, diagnosis in early 2015 with Grand Lyon.
- Putting in place an extra-municipal working group to look at problems relating to public transport and soft modes of transport.
- Start of works in mid-2015 to create the economic cluster at the Domaine Melchior Philibert, creation of a teleworking centre on the urban periphery.



ACTING FOR THE CLIMATE



Population of 9,876

● INTERNALLY

Setting an example:

- Attendance at the "Communal Climate Plans" meeting steered by the ALE.
- Finalisation of the Estate Climate and Energy and Internal Skills Plan, approved by the Town Council on 21 May 2015. 5 main lines: steering, estate and energy, mobility, estate, low-carbon administration. Duration: 2015 - 2020.
- Continuation of fluid consumption monitoring (water, energy).
- Strategic evaluation of the 2009-2014 Agenda 21 in June 2015: towards a version 2, in conjunction with the Climate and Energy Plan.

ACTION
4.6

○ OVER THE TERRITORY

Energy:

- Continuation of subsidies for the installation of solar panels and a water recovery system.
- Public lighting: continuation of re-lamping, putting in LED's and 100W SHP bulbs (Place Coponat, Parc du Rotagnier...).
- A third of the park of control cabinets in the town brought up to standard.
- Systematic installation of astronomical clocks.

ACTION
4.10

ACTION
4.6

Transport & travel:

- Continuation of the installation of bike racks (programme over several years).
- Creation of a ride-share car park at Place Roosevelt in 2014.

ACTION
2.1

ACTION
3.2



Population of 3,906

● INTERNALLY

Energy: installation of solar panels on the gymnasium: 20,000 kWh per year.

ACTION
4.10

Buildings:

- 3 meetings / year of COTECH on energy in the municipality's buildings.
- Survey in progress in 2014 and 2015.

ACTION
4.6

○ OVER THE TERRITORY

Buildings:

- Eco-district project mobilising a group of residents since 2012. Tour of an eco-district by the Municipal Council in 2014.
- 3 BBC social housing programmes (each comprising 30 homes).

ACTION
4.2

ACTION
4.1

Awareness-raising: meetings of the "GT A21 habitants", eco-responsibility, 2 to 3 / year. Survey in progress in 2014 and 2015.

ACTION
3.3



Population of 9,014

INTERNALLY

Setting an example: strategic balance of Agenda 21.



Buildings:

- Creating an energy performance MAPA for maintaining heating installations.
- Renovation with the aim of the Renovation BBC of the final two buildings of the Grégoire school campus.



Energy:

- Wood pellet heating plant with a particular recovery system at the Grégoire school complex, serving 6 schools.
- Creation of a CPE (energy performance contract) for public lighting with profit-sharing and investment, and public lighting off from 1 to 5 a.m. in certain areas.
- Purchase of portable electrical equipment (reduction in noise nuisance) for green spaces.



Transport & travel: purchase of 2 ZOE + 2 electric Kangoo.



OVER THE TERRITORY

Transport & travel:

- Installation of movable, educational speed radar traps.
- Subsidy for the purchase of electric bicycles. Amount: 25% with a ceiling of 250.



Buildings: eco-citizen subsidies for energy-saving works (2014).



Awareness-raising:

- Sustainable development fortnight, theme for 2015: sorting, being green and eating better. Programme: "FAITES DES FLEURS" (MAKE FLOWERS), Exhibition and demonstration of eco-traps to control box caterpillars and processionary caterpillars, Giant pistou soup, Tour of the Véolia Plant, Tour of Natural Water Reserve, Open Gates to "Kitchen Gardens and Orchards" and presentation of beehives, Tour of an Eco-District, Fair Trade and Vegetarian Meals, Raising Awareness about Waste Sorting, "TWIRIBO" SPECTACLE, FAITES DE LA PROPRETÉ (BE CLEAN).
- Encourage private planting by offering one tree for every planning permission application approved.



ACTING FOR THE CLIMATE



Population of 26,221

● INTERNALLY

Setting an example: attendance at the meetings of the “Communal Climate Plans” network steered by the ALE.

ACTION
4.6

Transport & travel:

- The city's participation in the Mobility Challenge and the European Sustainable Development Week.
- Subsidy for TCL passes in the context of the PDA [Administration Travel Scheme] (since 2009).

ACTION
3.3

ACTION
4.3

Buildings: renovation of the La Soie school with HQE and BBC labels awarded and also a biomass boiler.

ACTION
6.1

○ OVER THE TERRITORY

Transport & travel:

- Creation of green trails (cycle track for access from the south) and walking trails.
- Creation of a new 30 Zone in the city centre.
- Creation of ride-share areas.

ACTION
2.1

ACTION
2.4

ACTION
3.2

Awareness-raising:

- Thermography operation over a district of low-density housing (Champblanc district) funded by GRDF in partnership with the ALE; thermography from the air (by a drone) and on the ground.
- Proposal of the ALE's booklet on renewable energy for planning permission applications and prior declaration – consideration in progress regarding the creation of a first-level energy reference guide for the municipality.

ACTION
4.5

ACTION
4.10

Buildings:

- Construction of a crèche in the context of the RT 2012 (BBC).
- Attendance at consultation meetings in the context of the PLU-H (Local Urban Planning and Housing Plan).

ACTION
6.1

ACTION
2.3



Regional Department for the Environment, Development and Housing
Departmental Territorial Directorate

● INTERNALLY

Awareness-raising:

- Continuation of the fuel-efficient driving programme with priority going to employees travelling over 5,000 km per year in the context of their work. Over 200 employees have now been trained over the period from 2011 to 2014. The training takes place in real-life conditions, with internal trainers and an on-board IT tool.
- The DREAL's participation in the Mobility Challenge organised in June by the Region and the ADEME, and also European Mobility Week.

ACTION 3.3

Transport & travel:

- Under the DREAL's PDE (company mobility plan), the production in 2014 of itinerary sheets to encourage personnel to use the train, followed by public transport, bicycle or walking to go to other departments located in the main large cities in the region and the purchase of electric bikes to supplement the park of department bicycles at the head office. The bike garage at the head office, which has 62 rack spaces, is used to 90% of its capacity over the whole year.
- Reduction of the department's car fleet by 24 cars. Strict policy of allocation of car-parking spaces for the employees at the head office.
- 90% users of soft modes of transport among the employees at head office in the context of the home-work commute.

ACTION 3.3



Population of 9,403

● INTERNALLY

Awareness-raising:

- Annual participation in the regional mobility challenge.
- Internal awareness-raising about waste.

ACTION 3.3

Setting an example:

- Attendance at the communal climate plan meetings.
- Reinforcement of the climate and energy section of Agenda 21 around an "Objectives 21" programme of actions.
- Annual monitoring of fluid consumption in municipal buildings.

ACTION 4.6

Adaptation: integration of the orientations of the green and blue framework in urban development projects.

ACTION 2.3

Transport & travel: SYTRAL / town agreement: employees encouraged to use public transport.

ACTION 4.3

○ OVER THE TERRITORY

Transport & travel: participation in and contribution to the Vallée de la Chimie PDIE (inter-company transport plan).

ACTION 3.2

Awareness-raising:

- Provision of a communal composter in a district of the town.
- Raising the awareness of associations about eco-gestures via the eco-event guide.

ACTION 3.3

ACTING FOR THE CLIMATE



Population of 13,238

● INTERNALLY

Setting an example: continuation of the Climate and Energy Plan approved in 2012 and annual monitoring of the energy consumption in buildings.

ACTION
4.6



Population of 9,201

● INTERNALLY

Setting an example: for green spaces, 100% differentiated management. In January 2014, commitment to the Regional Charter of "Zero Pesticides in our Towns and Villages" (no pesticides in green spaces, gradual reduction until none by 2018 in the cemetery and stadium).

ACTION
4.6

Buildings:

- General energy audit carried out in 2010 by SIGERLY for all the communal buildings and supplemented by an audit of the heating plants in 2011. The heating plant audit ended with the support of SIGERLY on the revision of the maintenance contracts for heating and cooling installations; the new contract started for the heating season of 2012 / 2013.
- Annual monitoring of consumption put in place by the intermediary of the Shared Energy Council agreement. Revision of energy supply contracts (gas in 2014, electricity in 2015) via the SIGERLY control group.
- For work on the existing estate, the choice of more environmentally friendly materials is more widespread (wood, low-VOC materials, low-energy bulbs etc.).
- Renovation of a nursery school completed in 2012 (DéfiBat). The objective: to divide primary energy consumption by 6. 2-year energy monitoring study (readings and economic balance), with a 40% subsidy from ADEME.
- Development in 2013 of offices for municipal services to a standard equivalent to BBC on the ground floor of a building completed in 2012.
- Grigny is one of the 10 municipalities in the Rhône-Alpes which are founding shareholders of the SPL "Energy Service Operator". In this context, in late 2013, the municipality commissioned two feasibility studies for energy-efficient renovations of two primary schools. In 2014, the Joliot-Curie primary school was selected to continue the studies.
- Feasibility study for the energy-efficient renovation of the Pasteur primary school / Arboras crèche cluster (PPE).
- The town collects the CEE generated by the renovation works wherever possible.
- Development of green roofs (media library, sports ground, Agora).

ACTION
4.6

ACTION
6.1

ACTION
4.6

Energy: public lighting: consumption reduction programme with SIGERLY by changes to materials, and restriction on the operating ranges of installations in some public spaces (Parc de L'Hôtel de Ville, Esplanade de l'Agora, etc.).

ACTION
3.3

Transport & travel: mobility: provision of two bicycles to municipal employees for their business travel.

ACTION
2.4



OVER THE TERRITORY

Awareness-raising:

- In 2013, creation of a “Climate and Energy” section on the municipal website and a link to information on the Energy Info Space (EIE).
- In the context of the Town Policy (Sensitive Urban Zone of Le Vallon), in 2013 creation of an educational apartment with the landlord Alliaide to promote energy savings in the home.

ACTION
3.3

ACTION
4.5

Transport & travel: in partnership with Grand Lyon, development every year of roads in order to safeguard, standardise and ensure the continuity of pedestrian routes. Generalisation of 30 Zones and meeting zones in the town centre and secondary roads with developments at their entrances / exits. Establishment of permitted right-turns for bicycles when the traffic lights are on red at suitable junctions (2013), creation of two-direction cycle ways in the 30 Zones and meeting zones (2014).

ACTION
2.1

Adaptation: in 2012, signed up to the Tree Charter of Grand Lyon which aims to take trees into consideration in urban development and to integrate the requirements of sustainable development by applying the principles of diversification of species, improvement in the conditions trees need for life (water, soil, maintenance etc.) and awareness-raising of citizens about the life of urban trees.

A

Energy: feasibility study carried out by SIGERLY for a heating network supplied by a wood-fired heating plant. It would concern over 60% of the municipality’s property. The network would also be intended to supply social landlords, and the planned future real-estate programmes in or around its perimeter.

ACTION
2.2

ACTING FOR THE CLIMATE



Hôpitaux de Lyon

University Hospital Centre

● INTERNALLY

Setting an example: publication (in late May 2013) of the Bilan Carbone®, scopes 1, 2 and 3. An action plan to reduce emissions resulted, with a targeted reduction of 20% of emissions by 2020.

Transport & travel:

- Development of training without employees travelling (e-learning, on-site training etc.). In 2013, 11,600 people trained without travelling, i.e. 49%.
- Development of video-conferencing: 2,700 hours in 2013.
- Optimisation of delivery circuits from HCL logistics platforms (UCPA, Stérilisation Centrale, laundry in St-Priest and central pharmacy in St-Genis-Laval).
- Continuation of the PDE [Business Travel Plan] (4,800 with TCL-PDE passes, i.e. 20% of personnel).

Awareness-raising:

- Information / awareness-raising of personnel to alternative modes of transport to the private car.
2013 : Villon site, “Mobility Challenge” on 6 June, organisation of information stands by P. Garraud, Charpenne, A. Chariol, and F. Dugoujon. 2014: information stand, 15-day TCL pass offered and raising awareness about alternative modes of transport (GH South on 9/1, GH North, GH East, and GHEH on 15/2 and 29/2, G HEH on 3/6 and 4/11.
Annual information campaigns to promote the ride-share site.
- Training of personnel on eco-gestures, publication of the eco-gestures guide in September 2014, awareness-raising on the sites in November 2014, 2,000 people.

Buildings:

- On the GHE – HLP temporary rehousing units: 14 HQE targets identified and planned, including 5 very energy-efficient targets.
- On the GHEH – new building H: 14 HQE targets identified and planned, including 7 very energy-efficient targets.

ACTION
3.2

ACTION
2.7

ACTION
4.3

ACTION
3.3

ACTION
6.1



Population of 3,471

● **INTERNALLY**

Buildings:

- A general energy audit carried out in late 2013 on the municipality's entire estate
- Optimisation of heating plants in the primary school and nursery school via the introduction of new regulations, allowing more precise management of temperatures in the premises (carried out in 2014).
- Optimisation of hot water production systems (sports ground and function room done in 2014).
- Insulation in the attics of the Valantin house (in 2014) and complete renovation of the function room.

ACTION
4.6

Energy:

- Photovoltaic installation on the roof of the school complex in Rue Jeanne Filieux brought into service in 2012 (production between 25 and 30 MWh per year). Educational support to raise the awareness of children in the schools to energy consumption and savings.
- Public lighting – the entire public lighting park has been changed and is turned off between midnight and 5 a.m., and all the control cabinets are fitted with astronomical clocks.

ACTION
4.6

ACTING FOR THE CLIMATE



Population 496,343 (2012)

● INTERNALLY

Setting an example:

- Launch of the Cit'ergie certification procedure with a view to being awarded the label in autumn 2015.
- Approval of the building action plan in 2014.
- Since 2012, the Public Lighting Department (DEP) of the City of Lyon has been working towards ISO 14001 certification. It offers a framework for putting in place actions to manage environmental impacts, in a logic of continuous improvement. In 2014, the DEP was proud to be granted an extension of its certification to all its activities, thereby acknowledging the commitment of its 100 employees in areas such as energy savings and waste management.

ACTION
4.6

Transport & travel:

- Putting in place of a bicycle pool. It comprised 118 bicycles and 36 electric bikes in 2014.
- The city's vehicle fleet is being reduced: down 6% since 2007.

ACTION
2.1

ACTION
2.4

○ OVER THE TERRITORY

Adaptation: revision of the communal PCET (Territorial Climate and Energy Plan) with an extension beyond scopes 1 and 2. Deliberation planned in September 2015. Putting in place of version 2 of the Territorial Climate and Energy Plan, including an attenuation section and an adaptation section. Update of the Carbon Balance for reference year 2013, in the context of the improvement of the City of Lyon's PCET: objectives of the "3 x 20" by 2020 and "Factor 4" by 2050.

A

Transport & travel: consultation with the town and city halls of the *arrondissements* to improve delivery zones.

ACTION
2.7

Awareness-raising:

- Raising awareness about energy savings and global warming, for the City employees initially, and then users of Establishments Receiving Members of the Public (ERP).
- Participation in the "Energy-Positive Families" competition and challenge.
- Delivery of the study on Adaptation to Climate Change to the experts in the territory: Métropole de Lyon, ALE [Local Energy Office] and many municipalities in the agglomeration.

ACTION
3.3

Energy: delivery of an energy-positive school and a sports hall covered with solar panels.

ACTION
4.10

Setting an example: limited use of tropical wood as preference given to the use of locally produced wood.

ACTION
4.9

Public establishment of intercommunal cooperation, population of 1.3 million.

● **INTERNALLY**

Awareness-raising:

- In 2014, a team of employees of Grand Lyon took part in the ALE's Energy-Positive Families challenge and achieved a 10% saving on the energy consumed compared to the previous winter.
- In 2014, two Energy training sessions were held internally (20 employees took part).
- In June 2015, participation in the Mobility Challenge (384 participants / 5,150 km travelled other than alone in a car).

Setting an example:

- Award of the Cit'ergie label for the PCET with a score of 62% (5th local authority in France).
- Consumption monitoring: testing of the Ubigreen interface at the Departmental Institute for Childhood and the Family (IDEF) to improve day-to-day fluid monitoring. Afterwards, the possible roll-out to schools in the Métropole and office premises, in conjunction with awareness-raising for personnel and users.
- Energy performance of schools: in 2013, delivery to the Christiane Bernardin school in Francheville of a very energy-efficient 140 m² photovoltaic installation (15kWc), and rainwater management; restructuring of the Jean-Philippe Rameau school in Champagne-au-Mont-d'Or with thermal insulation from the outside, modernisation of networks and change of joinery (delivery 2016).

Transport & travel:

- In the space of one year, a 17% reduction in the number of personal vehicles, as a result of the move towards pool vehicles.
- Park of 28 electric vehicles powered with "Move in Pure" renewable electricity (CNR).
- Pool of 55 bicycles (195 users in 2014). Majority use of the electric bicycle.

Energy:

- Participation in the national research project MURE. Highways are testing, on a site in Villeurbanne, the use of a recycled warm mix asphalt (three cycles of re-use of the same material).
- Re-cutting of kerbs (of the 10,000 m of pavement kerbs laid each year, 4,300 are recovered from old kerbs).
- Consideration of methanisation: study on the possible use of gas from La Feyssine, a study of the stock of recyclable waste.
- In 2015, with the "Heating Networks" skills acquired by the Métropole, the alignment of contracts and centralisation of data. Of the 70,000 housing equivalents connected, 45% are rented, 22% co-owned, 27% are public buildings and health care buildings and 6% are private.

Adaptation:

- Cleaning: in 2014, two months of testing the complete halting of road cleaning with the wash-out hydrants to check on acceptability. By June 2016, removal of 6,000 of the current 11,000 wash-out hydrants (starting with the least used ones) and then full fitting of "timer" meters for the remaining 5,000 hydrants.

ACTION
1.1

ACTION
1.1

ACTION
1.1

A

ACTING FOR THE CLIMATE



- Water: in the context of the new potable water DSP (public service delegation), the objective is to achieve, in 2015, 85% of network output (5,000 sensors to detect leaks, volume measurement used for washing and fire-fighting).
- Adaptation:
 - initiation of a thesis on the brakes and opportunities for alternative rainwater management,
 - preparation of a “permeable city” guide to systematise highway development works in order to provide a better quality of life (cooling, planting) with costs kept under control,
 - purchase of a mobile weather station to take thermal comfort measurements in the urban environment,
 - participation in the EPOC research project: Preliminary Planning Study for a Climate Observatory (Labex IMU).

ACTION
1.1

OVER THE TERRITORY

The Métropole de Lyon is involved in all the actions identified by the Partnership Climate and Energy Plan.

Ville de Meyzieu



Population of 31,493

INTERNALLY

Setting an example: production of a local climate plan with a number of scenarios, the most ambitious moving towards compliance with the “3 x 20”.

ACTION
4.6

Buildings:

- Halving of the electricity consumption of the Town Hall between 2008 and 2015.
- 4 buildings fully equipped with instrumentation for detailed consumption monitoring, control settings ... and general electricity meters fitted in 14 other buildings.
- Concession of works for 6 photovoltaic installations: renovation of roofs and installation of photovoltaic solar panels.

ACTION
4.6

ACTION
4.10

Energy:

- Multi-sports equipment (new building): heating and hot water provided 100% by a wood pellet fired boiler. Installation of photovoltaic solar panels on the roof.
- Public lighting: production of a 5-year action plan aiming to reduce electricity consumption for this purpose by 25 to 30% (clocks, change of sources, bi-power ballast ...).
- Gradual replacement of fuel oil heating plants with gas-powered ones.
- Promotion of energy saving certificates: around € 20,000 per year on average.
- Membership of the SPL OSER.
- For the future:
 - to continue energy saving actions, in particular electricity savings, thanks to information collected by meters,
 - study of a mini wood-fired heating network in the sector of Le Carreau, in the context of the rehabilitation of the school complex,
 - very thermally efficient rehabilitation of the Jean Poperen Space in collaboration with the SPL.

ACTION
4.10

ACTION
4.6

ACTION
6.1

ACTION
4.6

Ville de Meyzieu



Transport & travel: purchase of 5 electric bikes for travel by employees for work purposes.

ACTION 2.1

○ **OVER THE TERRITORY**

Businesses: study on free heat recovery from an industrial site in collaboration with the AIRM: the industrial company will in the end use this heat for its own purposes.

ACTION 4.10

Awareness-raising: taking part in 2 CM2 classes of the écol'nergie challenge and organisation of thermographic surveys with the ALE.

ACTION 3.3



Population of 25,514

● **INTERNALLY**

Transport & travel: two electric vehicles for car-sharing.

ACTION 3.2

Energy: energy consumption monitoring in buildings, putting in place of Centralised Technical Management for heating installations.

ACTION 4.6

Adaptation: positioning of the city in favour of keeping grassed and planted hearts of islands, including at the stage of consideration of planning permission applications.

A

○ **OVER THE TERRITORY**

Transport & travel:

- Creation of a “soft modes of transport” working group involving elected representatives, technicians, associations, groups and users.
- Development of the place of the bicycle in the territory (circulation, parking):
 - creation of two-way cycle 30 Zones throughout the town centre,
 - increase in the number of bike park locations.
- 4 pedibus lines operating to Oullins.
- Use of “soft modes of transport” in preference to the metro:
 - creation of cycle ways on the Avenue du Rhône and Edmond Locard,
 - bicycle parks at the railway station in operation and very well used.
- Increase in the bicycle parking offering:
 - number of sites (2013): 25 sites, providing around 97 spaces,
 - number of sites (2014): 36 sites, providing around 220 spaces.
- Bringing into operation of the multimodal pole in January 2014: metro, train, bus.
- A Bluely station brought into service in January 2015.
- Creation of 2 ride-share sites at the entrances to Oullins.
- Increased use of electric vehicles in car-share schemes available for the Town’s employees.

ACTION 2.1

ACTION 3.1

ACTION 3.2

ACTING FOR THE CLIMATE



Awareness-raising:

- “Travel alternatively” forum on 19 September 2014. Raising the awareness of multi-modality among people working in the territory.
- Fête de l’Iris (Iris Festival):
 - eco-event which aims to limit its impact on the environment (sorting of waste, water management, noise nuisance, limits on travel, soft modes of transport ...),
 - cultural event which offers visitors a number of events to raise awareness about Sustainable Development.
- Participation in the “Energy-Positive Family” challenge for the first time in 2014 – 2015: an Oullins team of 13 families took part.

ACTION
3.3

Energy: support by the Town for the company Voltalis to develop diffuse curtailment in the municipality by fitting units in private homes.

ACTION
5.2

Adaptation: development of the Sanzy Nature Park (2014). Rainwater recovery on the space available for family gardens.

A



Population of 10,071

● INTERNALLY

Energy: profit-sharing on energy savings in heating plant operation contracts.

ACTION
4.6

Setting an example: differentiated management in the green spaces.

Transport & travel: purchase of electric bikes..

ACTION
2.1

○ OVER THE TERRITORY

Setting an example: participation in Agenda 21 for the Vallée de la Chimie and launch of an Agenda 21 for the entire municipality.

ACTION
4.6

Buildings: renovation of homes with the “Companion Builders” and “Oikos” associations.

ACTION
4.5

Transport & travel:

- Provision of premises for a workshop on bicycle repair and recycling.
- Involvement in the Vallée de la Chimie PDIE (inter-company transport plan).

ACTION
2.1

ACTION
3.2

Awareness-raising:

- Distribution of laying and composting hens
- Participation in the “Energy-Positive Families” challenge.
- Creation of a local farmers’ market so as to reduce goods transport.
- Participation in sustainable development week.
- Environment commission of the Municipal Children’s Council.

ACTION
3.3



OVER THE TERRITORY

Buildings: Eco-renovation platform AMI.

Businesses: LyonÉcoÉnergie.

Setting an example: hosting the Climate and Territories world summit on 1 and 2 July 2015.

Awareness-raising: 2015 call for Rhônalpins Écocitoyens projects.

Buildings:

- Sustainable Building Plan, working group for stakeholder training.
- 2015-2016 call for Positive Building projects.
- 2015-2016 call for DEFFIBAT projects.

Businesses: 2015-2016 calls for projects on Renewable Energy and Innovations.

Awareness-raising: coordination of the regional climate and energy network

Adaptation: support for ORECC: production of Territory Climate Profiles.

Transport & travel: eco-mobility support policy.

Setting an example: Energy and Climate Contribution to regional opinions on the SCOT and PLU.



Population of 30,140

INTERNALLY

Setting an example: the town has embarked on the Cit'ergie certification procedure, with a view to reaching the first stage of the Cap'Cit'ergie label in June 2016 and Cit'ergie no later than in 2019.

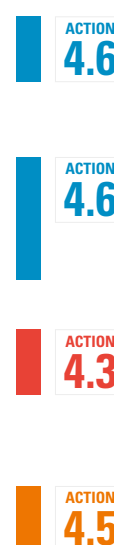
Buildings:

- Since July 2012, a CEE promotion campaign with SIGERLY was started at the same time as the Conseil en Énergie Partagé (CEP – Shared Energy Council).
- Completion of the Paul Chevallier School and the Hacine Chérifi gymnasium.

Transport & travel: PDIE (inter-company transport plan) implemented (TCL, SNCF, fleet of bicycles for travel for work). Fleet of around forty CNG vehicles.

OVER THE TERRITORY

Buildings: continuation of the policy to combat fuel poverty: creation of a model apartment, the Maison Econ'Home, in partnership with the social landlord Dynacité.



ACTING FOR THE CLIMATE



Energy:

- Since October 2013, the “Ambréa” wood-fired heating plant adds to the diversity of energy sources for urban heating, with an annual production of around 13 GWh. The whole network serves 8,000 housing equivalents.
- Classification of the heating network in December 2013.
- Launch of an AEG on the quasi-totality of the municipality’s estate in mid-2015.

ACTION
2.2



Population of 21,291

INTERNALLY

Energy:

- Reduction in consumption: following the development of a strategy for monitoring and controlling electricity costs, the measures taken in the field resulted in a 15% reduction in overall consumption by the local authority from 4,402 MWh in 2020 to 3,826 MWh in 2012 (2,177 MWh in buildings and 1,649 MWh in public lighting), the downward trend being confirmed in 2014 by a figure of 3,854 MWh (2,192 MWh in buildings and 1,662 MWh in public lighting).
- LED lighting equipment for the entire Aubarède Gymnasium other than the large halls in 2014.
- In the context of the renovation of the media library, the choice was made to use LED lighting (end of works scheduled for October 2015).
- Investment in 2014 of 5,230 € for the LED illuminations: change to the crossing on the main road. Fitting in 2014 of 41 LED light points on the Chemin de Moly (part of the road) and 5 LED wooden posts on the Chemin de Moly on the soft mobility section.

ACTION
4.6

Transport & travel:

- Acquisition in 2014 of a new electric vehicle. In total, the municipality has one hybrid vehicle, two electric vehicles and four LPG vehicles, i.e. seven clean vehicles of the town’s 44.
- Since January 2014, provision of TCL passes to employees travelling to Lyon and its environs served by the TCL for meetings and / or training.

ACTION
2.5

ACTION
4.3

Adaptation: creation of rainwater retention tanks at the Mouton gymnasium (60 m³) in 2014 and the new Maison de Quartier (60 m³) in 2015, in addition to the Square Auboyer (60 m³), the Jardin Passerelle (60 m³), the historic park of Beauregard (60 m³), the Equinoxe gymnasium (60 m³) and the town hall (30 m³), i.e. a total of 420 m³.

A

OVER THE TERRITORY

Transport & travel:

- Creation of a cycle way on the Chemin de Moly in 2014 (300 linear metres).
- Provision of several car parks to encourage ride-sharing in addition to the park and ride at Sainte Eugénie (Foch car park / Gadagne car park) – January 2014.

ACTION
2.1

ACTION
3.2

Adaptation: raising awareness to the use of rainwater recovery tanks with notifications on the town’s website and in the newsletter – February 2015.

A



Population of 43,017

● INTERNALLY

Setting an example:

- Attendance at the meetings of the “Communal Climate Plans” network steered by the ALE.
- Participation in the Steering Committee on “Goods Transport in the City” steered by the Métropole du Grand Lyon.

Buildings: member of the SPL OSER.



ACTION
4.6



ACTION
2.7



ACTION
4.6

○ OVER THE TERRITORY

Buildings: introduction in 2015 of a system of aid to residents for the rehabilitation of homes (in conjunction with the Métropole, PACT ARIM and the ALE).



ACTION
4.5



Population of 22,108

● INTERNALLY

Buildings:

- In 2010, carrying out of an energy audit on the municipal buildings and display of energy labels. In 2015, adoption of a multi-year plan for the energy renovation of the municipality’s estate with the aim of halving the estate’s total consumption by 2003, while increasing the comfort of users and employees.
- Inclusion of environmental criteria in choosing new municipal equipment and use of renewable energy: in 2014, inauguration of a socio-cultural pole bringing together bio-climatic construction and renewable energy (gas-absorption geothermal heat pumps, photovoltaic solar panels, green roofs, semi-underground construction ...) and a new swimming pool aiming to achieve low energy consumption (thermal solar panels, LED lighting, ozone water treatment ...).



ACTION
4.6

Energy:

- Implementation of the public lighting renovation plan, the objective being to reduce light pollution and energy consumption by 10% to 20% in the space of 3 years.
- Since 2008, the integration of a profit-sharing clause for energy savings in the heating plant operation contract.



ACTION
4.6

Transport & travel: the will to reduce the environmental impact of travel by municipal employees: promotion of alternative transport (ride-sharing, public transport), and provision of an electric bike for travel in the course of work.



ACTION
2.1

Awareness-raising: promotion of eco-responsible behaviour by municipal employees (diffusion of a practical guide on energy savings, constitution of a team of employees as “sustainable development facilitators”) and diffusion of practical guides entitled “Les Cahiers de Dédé” addressing the eco-gestures of energy saving, sorting, less printing ...



ACTION
3.3

ACTING FOR THE CLIMATE



OVER THE TERRITORY

Transport & travel:

- Development of soft modes of travel: Pedibus lines and development of bicycle parks in the municipality's amenities, raising the awareness of residents to the use of soft modes of transport (in 2015, organisation of events on the topic of the road safety and eco-mobility).
- Promotion of ride-sharing (in 2014, installation of two ride-sharing sites) and car-sharing of 100% electric vehicles (opening of the Bluely station in 2015).

Awareness-raising: raising the awareness of residents to the challenges of energy and climate: in 2015, the organisation of a conference on energy savings in the home, involving a number of partners (Métropole de Lyon, ALE, local co-ownership properties, CEREN).

ACTION
2.1

ACTION
3.2

ACTION
3.3



Organising authority
of transport in
the agglomeration
of Lyon

INTERNALLY

Transport & travel: new buses fitted with a fuel-efficient driving module called I-DRIVE (190 vehicles fitted by the end of 2015). In addition, a continuous training module raises drivers' awareness to "rational" driving.

Awareness-raising:

- Consideration in the establishment of PEN's (Nominal Operating Programmes) and the purchase of a simulator to evaluate the impact of changes in operating programmes.
- Measuring tools put in place for water and gas consumption and for monitoring the workshop temperatures.

Setting an example:

- In 2013, award of an environmental label (Label vert™) to all the maintenance sites. An EFQM-type quality procedure guides and evaluates these actions.
- Definition of a responsible purchasing policy.

Energy: signature of an agreement with the tramset manufacturers for a programme of studies, measurements and experiments over two years to optimise energy on tramway transport (recovery by over-capacities on the ground and on board). The objectified results known in mid-2015 will allow SYTRAL to define an energy recovery strategy.

ACTION
3.3

ACTION
3.3

ACTION
3.3

ACTION
5.1



● OVER THE TERRITORY

Transport & travel:

- Creation of secure parking spaces for bicycles in a number of P+R sites (556 spaces) with information about free spaces in the P+R (end of 2015).
- In the context of the implementation of public transport projects on their own sites, the systematic creation of cycle ways where there are none.
- Putting in place of a far-reaching working procedure with bodies which coordinate with Grand Lyon's services allowing consistency to be ensured at all times between future PDU's and PLU-H's (Urban Travel Plans and Local Urban Planning and Habitat Plans).
- Thoughts about the use of public transport infrastructures: an analysis of the service to the Part-Dieu shopping centre has been shared with Grand Lyon's services.
- Provision of information in real time (timetables and disruptions) in the context of the Optimod'Lyon experimental platform.
- Improvement in the performances of the urban public transport system by extensions to important lines. Delivered:
 - extension of the T4 to Doua (September 2013),
 - LEOL clean bus site (November 2013),
 - extension of the metro B line to Oullins (December 2013),
 - extension of the T1 to Debourg (February 2014),
 - extension of T3 to Panettes (June 2014),
 - creation of bus lanes.
- Purchase of 65 Euro 6 buses and trials with hybrid buses: trials between September 2013 and June 2015 of 6 hybrid buses using 3 different technologies. The objectified results will allow SYTRAL to define a purchasing strategy.

ACTION 2.1

ACTION 2.3

ACTION 2.7

ACTION 3.1

ACTION 4.3



Population of 20,292

● INTERNALLY

Buildings: establishment of an energy renovation works programme extending over several years.

Energy: procedure for monitoring and analysing energy consumption.

ACTION 4.6

ACTION 4.6

● OVER THE TERRITORY

Transport & travel:

- Study on putting in place an electric bike rental system for use by residents.
- Study on the reworking of the car park plan with a view to organising vehicle parking on the basis of use.
- Introduction of a green disc to authorise free parking for non-polluting vehicles in the municipality.
- Creation of a Bluely station and a Citiz LPA station in the municipality's territory.

ACTION 2.1

ACTION 2.4

ACTION 3.2



Higher education
and research

● INTERNALLY

Setting an example: The members of the University of Lyon are affirming their social responsibility by embarking on an energy transition project for the entire Lyon Saint-Étienne university site.

The establishments are already working on this individually and are carrying out ambitious energy rehabilitation and development projects. They are also taking part in large partnership research projects in the territory which mobilise the scientific strengths and businesses on the site. The energy transition procedure is reflected by the mobilisation of all the university stakeholders via a **transversal and multi-themed approach** which will take place between 2015 and 2017, and which will result in an action plan for energy transition at the end of the process. The actions under the PCET promote joint actions by the establishments and supported by the University of Lyon, or steered at the level of the site's campuses.

Buildings: the University of Lyon, via the Lyon Cité Campus and the CPER, has embarked on an ambitious renovation programme on its campuses over the period 2012-2020:

- **The LyonTech-la Doua Campus** (22,000 students): a flagship rehabilitation scheme with a CREM contract (CREM: design, implementation, operation, maintenance) concerns the improvement in the energy performances of scientific districts with 22 buildings to be rehabilitated, i.e. 140,000 m² net floor area. The works are scheduled to start in the course of 2016 for a period of 4 years. A 40% reduction in heating consumption (including the process), with HQE certification (High Environmental Quality) of the buildings concerned is expected. 6 new buildings also scheduled.
- **Charles Mérieux Campus, Site des Quais** (20,000 students): energy renovation works will be carried out from 2016 to 2019 over around 68,000 m² net floor area. The existing buildings are allocated to the Lyon 2 and Lyon 3 Universities. The overall energy saving target stands at 18% per year. The works are focussed on the envelope of the building and on the regulation of heating and ventilation installations.
- **Charles Mérieux Campus, Sciences-Po Lyon** (1,700 students): energy renovation works were carried out on 4,200 m² net floor area in 2014. The targets for energy savings from heating are 25% for the 2,000 m² administration building and 16% for the 2,200 m² library building.
- **Porte des Alpes Campus** (15,000 students): project engineering is being rolled out from 2015 to build a campus redevelopment strategy. Its aim is the long-term programming of the transformation of around 70,000 m² of premises so that the campus meets the environmental and educational challenges of tomorrow. The issues of energy and mobility will lie at the heart of the thinking, for a site inaugurated just a few years before the 1st oil crisis.
- **Santé Lyon Est Campus** (11,500 students): an operation taking place over a number of CPER's (from 2010 to 2022) aims to completely rehabilitate the site, in particular the faculty of medicine (56,500 m² net floor area). This rehabilitation comprises a section for improving the energy performance of the historic Rockefeller building, in order to bring it up to the standard of the 2005 Thermal Regulations. A Sustainable Development charter applicable to all the successive tranches of requalification of the building complex has been adopted.

ACTION
6.1



- **Vaulx-en-Velin Campus** (1,700 students): a rehabilitation scheme for the lecture theatres with the installation of an adiabatic humidification plant was carried out in 2014. An energy renovation scheme on a mixed education / office / research building (2,800 m²) is in progress.

Energy:

■ **Energy optimisation and less primary energy:**

LyonTech-la Doua Campus: creation of mini heating network (600 kW of power generated at full power) by the recovery of calories produced by the servers of the CNRS/IN2P3 computer centre to heat the new Chemistry and Biology building. This scheme (2017) will cover at least 60% and up to 100% of the heating demand in the future research building. This energy saving may potentially represent, over the lifetime of the building, the equivalent of more than one third of its initial construction cost.

■ Charles Mérieux Campus, Site des Quais, building allocated to Lyon 2 and Lyon 3: the objective of the University of Lyon is to supply 80% of the buildings from the urban heating network. Currently, 60% of buildings are already connected to the urban heating network and 40% are heated with gas.

ACTION
2.2

Transport & travel: the cleantech concept of the LyonTech-la Doua Campus is being brought up to the mobility standard with the objective of a **“calmed” campus in terms of car use:**

- limit on the number of car parking spaces within the campus and development of a car parking offering on the campus periphery (on the Feyssine side),
- work on the road grid, in particular with the Métropole de Lyon (with a view to handing over the arterial roads to the local authority) on the basis of a programme highlighting the development of cycle ways,
- development of the Vélo’V service offering. The Vaulx-en-Velin campus has embarked on the production of a master plan aiming to reorganise the sharing of the space between cars and pedestrians and reinforcing its integration in the town centre which is being restructured.

ACTION
2.1

Awareness-raising: raising the awareness of users (students, researchers, employees) to eco-gestures, responsible measures and the optimisation of use of premises.

ACTION
3.3

Adaptation: the LyonTech-la Doua campus is pursuing an “eco-campus” objective with in-depth consideration about the quality of the environment:

- rainwater management (EP), with the objective of zero rainwater going to the urban network which today is saturated in periods of heavy rainfall. Various recovery solutions are being rolled out by the establishments on the campus.
- plant species requiring minimal maintenance and no sprinkling.

A

○ **OVER THE TERRITORY**

Businesses: participation in the **improvement in skills of building professionals** and the public in an occupational insertion procedure by anticipating and inserting social inclusion clauses in contracts (CP, CREM ...) and contracts for works, targeting the sustainable building trades (weatherproofing, thermal insulation etc.) and an initial and continuous training offering for these trades.

ACTION
4.8

ACTING FOR THE CLIMATE



Energy: Research / Innovation

The research teams on the Lyon site are acting to respond in particular to the challenges of energy efficiency via excellence in research and contributions to R&D projects:

- materials (labex iMUST, Institut Carnot Ingénierie @ Lyon),
- diversification of resources in particular for biomass (Institut de transition énergétique IDEEL, Provademse),
- storage and distribution (ITE Supergrid),
- Valenthin project on the energy recovery of industrial thermal waste which brings together industries, research organisations and laboratories,
- Smart Electric Lyon project, developed within the LabEx IMU in partnership with the EDF, ADEME and a number of designers / fitters of electrical and home automation equipment. The aim of this project is to design and develop interactive solutions to optimise energy efficiency.

- ...

These axes of scientific research on the site correspond to the buoyant economic sectors of the Métropole with strong links to the competitiveness clusters of Axelera, LUTB and ViaMéca. Numerous major projects and trials with regard to energy and ecological transition are thus being conducted in Lyon.

Transport & travel: participation in revising the Urban Travel Plan steered by SYTRAL.

Diagnosis of current travel over the entire university community: the first sustainable travel orientations “on” and “between” the various campuses should see the light of day by 2017.

Awareness-raising:

■ Coordination of a citizens' consultation on the climate

since September 2014, among the residents of Lyon and Villeurbanne. This involves feeding scientific research by exploring the representations, experiences and knowledge of residents about climate change and understanding local adaptation possibilities, in the face of heatwaves and other climate risks. The results will serve in particular to feed the creation of a Local Climate Observatory modelled by the LabEx IMU (Intelligence des Mondes Urbains - Intelligence of Urban Worlds), in partnership with the Métropole.

■ The Lyon CROUS hopes to extend selective sorting to all its restaurants.

Awareness-raising of users and employees about waste sorting and also wastage by means of facilitators in the restaurants. All the disposable supplies at the food services sites are bio-degradable. The CROUS wishes to develop short circuits in the context of its supplies so as to lower the carbon balance.

ACTION
5.1

ACTION
3.2

A

ACTION
3.3

Buildings:

■ Programme of 1,400 additional homes built and delivered by 2017

The Lyon CROUS is continuing its quality approach of house building and reduction in energy consumption and is prioritising the development of non-fossil energy (installation of solar panels on the roofs of residential buildings). The Lyon CROUS is proposing an innovative operation on the Bron campus following a study of student behaviours.

ACTION
4.1

■ Rehabilitation for 830 homes by 2018

The Lyon CROUS is continuing with its procedure of the quality renovation of its housing and the reduction in energy consumption: thermal insulation on the inside or outside, double glazing, installation of efficient heating, option: solar hot water. Raising the awareness of users to selective sorting and responsible behaviour with regard to energy savings ensured by facilitators in residential buildings.

ACTION
4.4

vaulx*envelin*

Population of 43,298

● INTERNALLY

Transport & travel: PDA (administration travel plan) in the town's departments:

- in 2015, purchase of ten bicycles and provision of a secure place for municipal bicycles and those of employees,
- approx. 50% reduction in the town's car fleet,
- signature of an agreement between the town and SYTRAL in progress.

ACTION
3.2

Setting an example:

- Communal Climate Plan adopted in February 2015.
- Renovation of the municipality's estate:
 - BBC-standard rehabilitation of the primary school building in the Wallon school complex restructuring project, evaluation mission, delivery in December 2015,
 - complete rehabilitation of the envelope (insulation from the outside, replacement of joinery, etc.) for the Croizat and Grandclément school complexes, delivery in the course of 2017,
 - BEPOS objective for the construction of integrated equipment at René Beauverie (school complex, CLSH, equipment for little children), 5,300 m² new, delivery in the 2nd half of 2017.
- Signature of performance contracts with consumption reduction targets for 13 municipal buildings (targets of a 14% reduction in consumption, 5-year contract) via a steering and optimisation platform with continuous consumption control and analysis (Desc de Dalkia).

ACTION
4.6

○ OVER THE TERRITORY

Transport & travel:

- Creation of a large number of cycle ways: Avenue De Gaulle, Avenue Gabriel Péri, Avenue Salvadore Allende, Rue Duclos, Anneau bleu north and south, BUE.
- Installation of a large number of bike racks in the municipality. Around fifty new racks are planned for 2015-2016.
- 29 give way signs for bicycles at red lights were installed in 2015, and 14 more will be added in 2015.
- All urban projects include the establishment of 30 Zones on new or redeveloped roads. A large 30 Zone has been created in the northern part of the Village.
- Installation of a large number of speed bumps.
- 2 blue parking zones were created in 2008, and new zones should be put in place in 2015-2016 in particular around the multimodal pole of La Soie.
- The Citylogistics urban distribution centre based at Vaulx-en-Velin, allowing the optimisation of delivery truck circulation (most of them running on CNG).

Energy: since May 2014, construction and operation of a biomass heating plant.

Awareness-raising:

- Organisation of workshops for European sustainable development week: raising awareness about gardening methods which are kind to the environment (local species, species which do not require a lot of water, composting workshops, “zero pesticide” workshop etc.).
- Post-Rescue Plan Monitoring Mission for 13 co-ownership properties in the Cervelières Sauveteurs district: educational work, awareness-raising of residents in co-ownership properties as to the energy costs associated with heating and hot water, support in actions to manage their consumption.
- In the context of Local Social and Urban Management, actions undertaken by social landlords to raise the awareness of residents about eco-gestures (educational apartments) and green kit operations used by the GLH.

Buildings:

- Sustainable home and office reference guides taken into account in the development of the Grappinière ZAC (mixed development zone), delivered in 2014-2015. Due to the proximity with the Crépieux-Charmy catchment area, the developments and structures need to comply with a strict specification in order to limit the impact on the water table.
 - Planting will be developed over all private and public spaces and will help in particular with thermal regulation, water management, bio-diversity, wind breaks etc.
 - Bio-climatic construction will be required for all new buildings.
- Inter-generational cooperation project for residents currently under discussion.
- Renovation of the Vernay Verchères district. Start of works in 2012, end scheduled for 2015.
- François Quest: rehabilitation in the context of the OPAH (Programmed Home Improvement Scheme) of the same name, the target standard being BBC.

ACTION
2.1

ACTION
2.4

ACTION
2.7

ACTION
2.2

ACTION
3.3

ACTION
4.1

ACTION
4.2

ACTION
4.4

ACTION
4.5



- Woopa (Carré de Soie) – The building, measuring 11,000 m², produces more energy than it consumes. For the first time in France, a single place brings together 12 partners in the cooperative movement from the areas of ethical finance, affordable housing, the engineering sector, advice and food distribution.



Adaptation:

- Study of the municipality's Green and Blue Framework.
- Adoption of the Zero-Pesticide Charter for maintaining communal green spaces by the Town Council in February 2015.



Population of 60,744

● **INTERNALLY**

Setting an example:

- Consolidation of the operational objectives of the 2015/2020 PCET (Territorial Climate and Energy Plan).
- Launch of the Cit'ergie certification procedure with a view to being awarded the label in 2016.



Energy: development of renewable energy in the town's estate (25% of renewable energy in the heat consumption of buildings in 2014) with, for example, the construction of a heating installation fired entirely by wood pellets for the Jules Guesde School Complex (2014).



Transport & travel:

- Training of 140 employees in fuel-efficient driving.
- Vehicle fleet comprising two electric vehicles.



Buildings:

- Promotion of CEE since 2011.
- Monitoring of consumption in the municipality's estate: steady reduction.



○ **OVER THE TERRITORY**

Energy:

- Urban heating network: 53.4% of renewable energy production since 1 January 2015 (bio-fuel), then 58% (3rd biomass heating plant) from 2017 in the context of the new DSP (public service delegation).
- Reduction in consumption by public lighting (switch to LED's), 5% down in 4 years.



Transport & travel: training in eco-gestures and fuel-efficient driving: awareness-raising about eco-gestures for users in all the gymnasias and stadiums in 2013, awareness-raising among users (mostly children) of external centres by the distribution of "eco-gesture" bookmarks (4,500 annually planned for 2 years) in 2014, awareness-raising at schools in 2015.



ACTING FOR THE CLIMATE



Buildings:

- Reinforcement of energy efficiency: for example, rehabilitation of the Moulin à Vent school complex in 2014 (replacement of joinery and internal insulation), connection to the Centralised Technical Management of the Municipal CTM.
- Facilitation of a “Fuel Poverty” PIG (general interest programme) since 2013. Single-family houses: 22 inspections carried out, 13 owners signed up, 1 file completed. Co-ownership properties: 23 diagnoses, 18 awareness-raising actions, 10 energy audits carried out, 4 programmes of works being considered.

ACTION
4.6

ACTION
4.5

Awareness-raising:

- Participation in and putting in place of the “Energy-Positive Family” challenge for the residents 3 years in succession (from 2012 to 2015). In 2014, the Vénissieux team was the first in its category.
- The town carried out for the residents (in the context of the PIG or DD actions of schools) 8 infra-red thermography surveys in 2014 and 5 already in 2015.

ACTION
3.3



Population of 146,578

INTERNALLY

Setting an example:

- 2nd Bilan Carbone® P&C carried out in November 2014: greenhouse gases 5% down in total, and 8% down for a constant scope.
- Deliberation of 30 March 2015 for the launch of the PCAET procedure (Territorial Climate, Air and Energy Plan) and for signing up to the Mayors’ Agreement on adaptation to climate change.

ACTION
4.6

Buildings:

- roll-out of the programme and a steady fall in consumption figures since 2010:
- 3 schools with thermal renovation,
- photovoltaic panels on the Saint-Exupéry school complex inaugurated in June 2015 + wood-fired heating plant in the Chamagnieu Outdoor Recreation Centre (scheduled to be brought into service in October 2015),
- putting in place of composting for the school food services at the Saint-Exupéry school complex in May 2014,
- implementation of the planting plan for the façades of municipal buildings.

ACTION
4.6

Transport & travel: updated PDA survey (administration travel plan) during summer 2014, production of a preliminary diagnosis in early 2015 for an update of the PDA in late 2015 / early 2016.

ACTION
3.2

Awareness-raising: 3 eco-gesture training courses for employees in March 2014.

ACTION
3.3

OVER THE TERRITORY

Buildings:

- Continuation of assistance to social landlords: 731 homes renovated to BBC standard.
- Continuation of the “Energy System” for private individuals with AMO [project-management assistance] of the PACT and the ALE (Local Energy Office).
- Involvement in revising the PLU-H (Local Urban Planning and Habitat Plan).

Transport & travel:

- Putting in place of a “mobility” platform in September 2014: the Filoguide.
- Participation in the working groups for the revision of the PDU (Urban Travel Plan) steered by SYTRAL.

Awareness-raising: continuation of the procedure favouring eco-establishments (Establishment Agenda 21) for technical workshops, crèches, cemeteries, outdoor recreation centres, swimming pools, Chamagnieu Outdoor Recreation Centre.

Adaptation:

- Work on the climate framework of Villeurbanne with the “Tribu Environnement” office.
- Maintenance of “Zero pesticides” for DPN (Landscape and Nature Department) and for cemeteries.
- 2nd national “100% zero pesticide” prize in the category “population over 30,000”.
- Signature of the FREDON Charter.
- Launch of work on a future municipal bio-diversity plan.
- Implementation of Solidar’été procedures and improvement in the “air quality” alert information.
- Putting in place of two district composters in autumn 2014, in the context of the Grand Lyon programme: the Buers district and the Gratte-Ciel district.

ACTION
4.4

ACTION
4.5

ACTION
2.3

ACTION
3.1







ACTION
4.3

ACTION
3.3

A







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

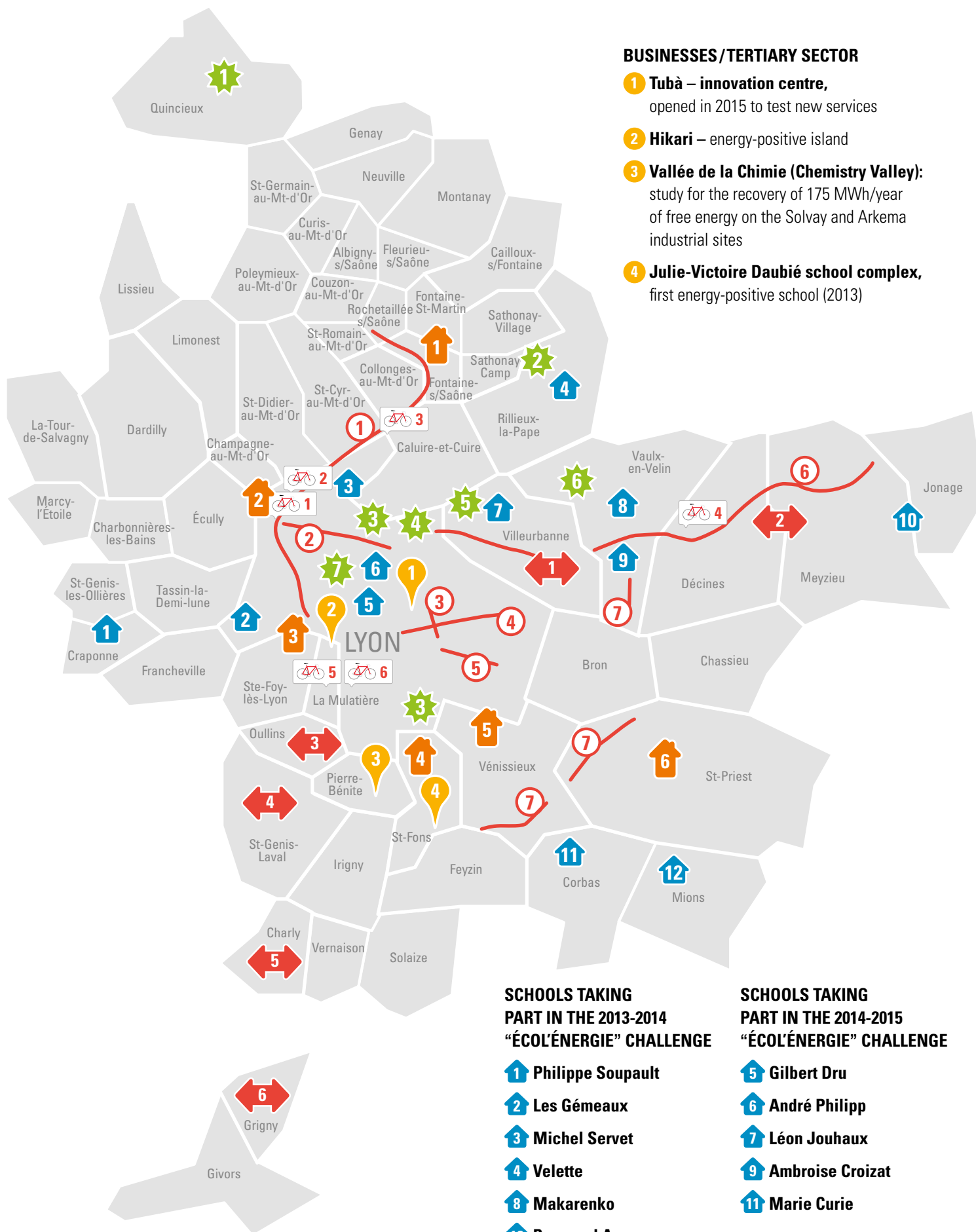
-  **1 Grandclément 30 Zone,**
with two-direction cycle way
-  **2 Meyzieu 30 Zone,**
with two-direction cycle way
-  **3 Oullins 30 Zone,**
with two-direction cycle way
-  **4 St-Genis-Laval 30 Zone,**
with two-direction cycle way
-  **5 Charly 30 Zone,**
with two-direction cycle way
-  **6 Two-direction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





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