

EL-EFF REGION

WP 2: Regional summary report

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Overview Table

Region of: Ile-de-France		2004	Remark/Explanation
Electricity consumption <u>Households</u> (domestic sector)	GWh	23 654	
Electricity consumption <u>Service Sector</u> (commerce & trade & public sector)	GWh	26 709	NCE codes 46 to 51 + public lighting
Electricity consumption <u>Industry</u>	GWh	10 002	Other NCE
Electricity consumption of the <u>Electricity Sector</u>	GWh	309	NCE codes 05 & 06
Electricity consumption <u>other sectors</u>	GWh	5 226	Agri + transport
Total Electricity consumption in the region	GWh	65 900	
Total Energy Consumption in the region	GWh		22,3 mtep
Share of electricity in total energy consumption	%	%	22%

Inhabitants	2004
Number of inhabitants	11 176 351
Number of households (most recent data)	4 777 502
Number of 1-person householders (most recent data)	35,4% 1 691 236
Number of 2-person householders (most recent data)	28,7% 1 371 143
Number of 3-4 person householders (most recent data)	27,9% 1 332 923
Number of 5 or more-person householders (most recent data)	8% 382 200
Number of persons per householders	2,3
Number of households (predicted for 2010)	5 016 377
GDP	449 billions
GDP/inhabitant	40 000

Introduction

Short description of the region

The Ile-de-France region hosts the French capital Paris. It is the most populated region of the country concentrating around 20% of the national population on only 2% of the national territory. It is also the richest region with almost 30% of the French GDP being created in here. The active population mainly work in the service sector at 80%, some 18% work in the declining industry and the rest (3%) in the agriculture. Ile-de-France is the first national tourist destination with more than 60 million overnight stays annually.



JG Jules/Aerial/Iaurif

Some key data :

- * 12672 km²
- * 11.264 million inhabitants
- * 1 281 municipalities and 8 counties
- * 80% of the land is agricultural or natural space
- * 2500 hotels and 140 000 beds
- * 602 700 businesses
- * 17 universities and 600 000 students

Existing regional energy policy targets (especially energy efficiency):

At present, French energy policy is defined by the Energy Act of 13 th July 2005 defining energy policy priorities. It is expressed in the form of four major objectives:

- 1) To contribute to national energy independence and guarantee security of supply
- 2) To ensure competitive energy prices
- 3) To protect human health and the environment, in particular by fighting against climate change
- 4) To guarantee social and territorial cohesion by ensuring access to energy for all

In order to reach these objectives, four principal areas of actions were identified in the energy programme law mentioned above:

- * To control energy demand, through a series of incentives and programmes, including an energy saving certificate scheme, standards and regulations, together with tax incentives;

- * To diversify sources of energy, by increasing the use of renewable energies, keeping the nuclear option open and, in general, by developing a high-performance energy production infrastructure;

- * To increase research into energy, because this is essential in order to meet long-term challenges, for example for bio-energies, fuel cells, clean vehicles, energy-

efficient buildings, solar energy, capture and underground storage of CO₂ , 4th-generation nuclear energy;

* To provide methods of transporting and storing energy , adapted to requirements, in particular in order to guarantee the quality of the electricity supply, reinforce the security of the gas and electricity grids and, in general, improve the safety of France's energy supply.

To provide a framework for these decisions, quantitative objectives were laid down by the Energy Act of 13 th July 2005 defining energy policy guidelines:

- * A quartering of CO₂ emissions by 2050,
- * average reduction of final energy intensity of at least 2% per year from 2015 and of 2.5% from 2015 to 2030,
- * production of 10% of energy needs from renewable energy sources by 2010,
- * incorporation of bio-fuels and other fuels of renewable origin to a level of 2% in 2006, 5.75% by the end of 2008 and 7% in 2010.

The local authorities have set up a regional energy plan for 2006-2010. It includes targets for renewable energies as well as for energy efficiency and supportive measures. One of the main target is thermal substitution through production from renewable energies. Therefore the region has set up a goal of 35 000 m² of solar thermal panels to be installed per year. The goal is supported by financial subsidies from the region. The development of geothermal energy for collective and individual heating is also planned with once again a financial support. The region also wants to promote the use of wood for collective heating with a goal of 300 000 tons per year to be consumed. They also want to implement CHP on waste burner or valorise biogas from waste. Another grant is made to promote the installation of PV panels.

As energy efficiency obligation has been enforced in 2006, the region proposes help to authorities in order to realise projects in the frame of EEC and therefore receive financial support from the obliged energy suppliers. Measures of consumption levels and energy spending in social housing are systematic. The region will also help to carry out thermal studies on the housing stock as well as “positive energy” houses. And finally the region finances information and communication campaigns; and also forecasts the implementation of 20 local energy agencies.

Also new funds are expected thanks to the energy tax reformed voted in 2006. This tax reform followed the decentralisation Act of 2004 that transfers some competencies from the State to the region. For regions to be able to face these new duties and their consequent charges a tax transfer has also been set up. The TIPP (tax on petroleum products) regarding fuel for transport is now redistributed to regions proportionally to their fuel consumption instead of being centralised. Since the first January 2007 regions are allowed to set up their own tax rate for the TIPP, and the regions has voted for the maximum rise possible and is expected to earn some 80 million euros to the 4 billions already earned because of the importance of the traffic around Paris. The funds will be partly re-allocated to energy saving and renewable energy projects.

The region could soon join the Effinergie group that promote the construction of low energy consumption buildings and the renovation of elder ones to turn them into energy efficient buildings.

The partner organisation:

The ARENE is the regional agency for the environment and new energies. It is an autonomous/independent association created by the region in 1994. ARENE is a tool for implementing sustainable development on a regional level, and it conducts territorial actions in the following fields: renewable energies, energy efficiency, sustainable mobility, employment, local agendas 21, education, eco-building, international cooperation. Main targets are local authorities, enterprises and associations. Studies, tools of communication like web site, brochures and videos, site visits, and so on are the instruments currently used by ARENE to reach its goals. Such actions involves supporting reproducible pilot projects, providing expertise and practical assistance, promoting exemplary actions and leading networks of participants.

Electricity consumption in households

Electricity represents 25% of the final energy consumption of households (degree days included). The household electricity consumption is on a rising trend (+2% in 2006 compared to 2005) contrary to the overall national demand, which has decreased of 1% essentially due to the decrease of the industrial demand. This rise is due to specific/captive use of electricity, which has experienced a rise of 4% since 2005. There are actually different trends with opposite effects; which do not offset one another leading, in the end, to a rise of the electricity consumption.

The overall energy consumption (in kWh/m²) has decreased thanks to efficiency gains regarding energy consumption for thermal use. However in the meantime a constant rise of the electricity consumption has been experienced. Specific/captive use of electricity has been multiplied by two between 1973 and 2002 from 13.3 kWh/m² to 24.6 kWh/m². Lately this captive consumption has kept on rising: + 1.5% between 2001 and 2002 and + 1.1% between 2002 and 2003. The causes of this rise are:

- The increase of new equipments (creation of new needs and electricity consumer entertainment devices). Many of the entertainment devices considered are believed to consume more when they are not in use because of the constant stand-by consumption and the low overall use period (typically the dvd player). This means that the base consumption is increasing and that consequently peaks' demand are getting higher creating a stress on the supply, the power load and the grid capacity.
- The rising penetration rate of appliances and entertainment equipments due to a dual income/structural effect: people tend to get richer, the goods' prices tend to decrease as the energy prices remain relatively low.

-Rebound effect: consumption rise offset the technological energy efficiency gains. In the end the increasing penetration rate of A-rated appliances does not offset the rising number of electrical devices present in average dwellings.

Buildings / Homes	2004
Share of owners	46,5%
Housing stocks	5 247 948
Main dwellings	4 777 502
Main dwellings : individual houses	27,8%
Main dwellings : flats	70,2%
Number of rooms/ home in main homes	3,4
Number of rooms/house in dwellings	4,8
Number of rooms/house in flats	2,9
Main dwellings : built <1949	30,7%
Main dwellings 1949-1998	65,5%
Main dwellings built >1998	3,8%

The building stock of the region has been mainly built before 1975 that is to say before the first thermal regulation and about 25% of the dwellings are heated with electricity. The number of “all-on-electricity” dwellings is consequent because of historical energy issues. After the first oil shock when France decided to go for nuclear, a too high number of power plants was built by EDF. It then became necessary to find outlets for the production, and projects with buildings running only on electricity, including thermal purposes, rose. This is now becoming a real issue because of its relation to fuel poverty; and could soon be even worse because of the market liberalisation for households planned for July 2007. For the moment the market opening for other sectors has led to a rise in prices that is expected in the household sector as well by pundits. For the same reason electricity is also largely spread for heating water at around 40%, and mainly in individual houses.

The Ile-de-France region benefit from a geothermal resource located in its subsoil through the water table of the Dogger. It supplies 34 heating grids all over the region and provides 950,000 MWhth to 150,000 dwellings equivalent for space and water heating. This represents 10% of the supply to heating grid, and even 50% in one of the department (Val-de-Marne). It allows the saving of 150,000 tons of CO2. 55% of such installations are equipped with CHP plants. Although those figures are encouraging, most of the installations have been realised in the 70s and 80s when energy prices were at their peak. The national and local authorities have recently announced a new plan to relaunch such projects by providing subsidies and tax incentive. However the modalities of this support has not yet been made public.

Policy measures in the household sector

Measures implemented in 2006:

- RT 2005: the new building thermal regulation has enforced new standard for the new build with an energy efficiency increase of 15% compared to the

former RT 2000 regulation from 130 kWh/m² to 110 kWh/m². The government has planned a revision of the RT every 5 years to set more demanding goals.

- Implementation of the EPBD directive with the rating of houses' consumption
- Implementation of the Energy Efficiency Certificates. Even though the process has been set up lately, the investment made the energy supplier should in the end benefit the consumers like households. At the moment they essentially promote help for the design of houses renovation.
- Sustainable development account: this account allows the mobilisation of dwellings savings to finance energy conservation works in houses.
- The tariff of PV electricity has been increased (for individuals selling it to the grid) to 55c/kWh if building-integrated.

A tax credit for energy saving and renewable energies was introduced on 1st January 2005 and reinforced in 2006. The tax credit rate has been increased:

- from 40% to 50% for energy production equipment using a renewable energy source and certain types of heat pump;
- from 25% to 40% for condensing boilers and thermal insulation materials under certain conditions.

Measures that should be implemented in 2007:

- A building thermal regulation should be enforced for the rehabilitation of existing buildings.
- Banks have announced they will put in place specific loan rate for energy conservation works on buildings and low energy consumption building projects thanks to the "sustainable development account".
- More energy advice centres will be open to face the rising demand.
- National and regional subsidies for geothermia development.
- Efficient appliances: campaigns to subsidy the change of appliances to A++ (in exchange of the elder one to avoid rebound effect i.e. increase the number of appliances per household, especially fridges). For instance the difference of prices can be spread on the electricity bill of the individual so that the bill stay the same until the dwelling has reimbursed the difference; he would afterwards benefit from the savings. That way the investment surplus, that is still describe as a barrier to such purchases by households, is made « painless » for their budget.
- Stop the standby: raise awareness on the importance of properly switching off equipments that can be (TV, computer screens...); the possibility to use « multiplugs » with switches to have an easy control on the numerous equipments on stand-by; the purchase of energy saving equipments (energy star label for computers but also hi-fi with energy-saving option...)
- Low energy light bulbs (with an emphasis on where is the right place to use it). Campaigns have been carried out all over the country in many occasion to distribute free or extremely cheap low consumption light bulbs.

Electricity consumption in the public sector

These sector includes :

Branch	GWh
Administration	3 805
Public lighting	536

The public sector includes the energy consumption of local authorities.

Consumption is divided into buildings for 56% and public lighting and others for 44%.

In buildings, the share of energy is the following : 34% for schools, 21% for cultural and social buildings, 15% for sport, 10% for swimming pools, 13% for administrative buildings. Public lighting represents 8% of the overall consumption and has a great potential. The solutions exist but are not spread, like electronic ballasts.

Some administrations have taken action to impact the energy consumption, especially electrical one, coming from their administrative buildings. For instance, Paris carried out an energy audit in its city hall in 2002 or the town of Les Mureaux built a new city hall based on the environmental construction label regarding energy efficiency and the use of renewables. Schools have started to be tackled because of the energy saving potential they represent but also because it allows to couple it with information and educational campaigns towards children or teenagers, but also adults including teachers and people working within the school administration.

Electricity consumption in the service/tertiary sector/SMEs

These sector includes :

Branch	GWh
Commerce, hotels, pubs and restaurants	5 878
Education (from schools to universities)	934
Health sector	1 012
Commerce	9 080
Other professional uses	5 464

75% of the headquarters of the country are located in the region. Office and trade are the main consumers followed by restaurants and health sector.

Electricity is the first energy source of the tertiary/service sector.

The rise of consumption in tertiary and in residential sectors is due primarily to the rapid development of electric heating in France and more recently to the expansion of air conditioning.

The heated area has grown by 15% since 1990 leading to an increase of energy consumption of 18%.

In tertiary sector three main reasons can explain this rise:

- progression of IT equipment in offices and in other branches
- in the commerce branch, increase of the hypermarkets and consequently of cold consumption for fridges: refrigeration for food conservation is responsible

for 56% of the consumption of a supermarket. Lights are responsible for 27% of the electrical consumption (excluding thermal use) because of the poor use that is made of natural light and the marketing purpose of some of the lightings meaning an extremely high power load per metre square for lightings.

- development of medical imaging in the healthcare sector

Electricity consumption in industry

These sector includes :

Branch	GWh
Minerals,	360
Production and distribution of electricity and gas	309
Water and district heating	1 301
Food and agricultural industries	880
Iron and steel	925
Non ferrous metals and transformation of steel	31
Minerals and material of construction	641
Mineral chemicals	401
Organic chemicals	311
Pharmaceuticals, perfumery	376
Metallurgy and metals	425
Mechanical plant and equipment	287
Electrical and electronic plant and equipment	903
Shipbuilding, aerospace and railways	1 446
Wood and paper	199
Not determined	1 044
Building and civil engineering	472

Since 2000, electricity has been the main source of energy of the sector due to automation and mechanisation and to the development of electricity in the thermal uses and in industrial processes.

The repartition of electricity consumption by end-use is 3,535 MWh for driving force; 652 MWh for thermal use; and 857 MWh for other electric use in the biggest companies i.e. those employing more than 100 persons.

In 10 years, the number of industrial enterprises has decreased by a third and consequently the energy consumption also. Therefore the decrease in consumption of the sector is mainly due to a structural effect of a declining sector rather than a large amelioration of the energy intensity. Still because of the carbon market and white certificates enforced at the beginning of 2006; some gains have been realised regarding the energy efficiency of the sector and the energy intensity. Also the tremendous electricity price rise experienced by the companies that have chosen to switch energy supplier have led to energy efficiency works and measures to be

carried out. This last reason concern a small number of companies as most of them remained with the historical supplier: EDF.

Some companies have carried out pioneer actions regarding renewable energy use. For instance Prologis a company working on logistic has opened this year a warehouse in the south of the region with 20,000 m² of PV panels for 7 MWp.

Not far away, in Sénart the only wind turbine of the region has been set up, with a power of 132 kW, two and a half years ago.

Accounting 20% of the national population means collecting almost as much garbage, which is a real issue for the region. In 2004, 5,700,000 tons of waste have been collected. There are 19 incinerators coupled to heating grid to valorise those wastes; some of them are also used to produce electricity. In 2002, it supplied heating grid with 4.65 million de MWh and the electricity grid with 0.8 million MWh. Biogas is also emerging in this waste valorisation frame; 4 methanisation plants are providing 155,620 MWh of electricity.

On the production level, the Ile-de-France region has 8 power plants for an installed power of 4,642 MW. Five of them function on coal, two on oil and one on gas. They only provide 3% to 10% of the region needs on peak; most of the demand is provided by nuclear and hydro power plants located in the region nearby.

Electricity prices & market liberalisation

	Price per kWh in Euro	Year	Remark
Typical electricity price household including all taxes (<u>not</u> "special" tariffs for domestic hot water/heat pumps/electric heating etc.)	0,1311 (<18 kVA) 0,1074 (>18kVA) 0,1083 without the subscription (52,80/year) but 13,2% local tax (TLE) included	2006	2 tariffs typical rise on 15/08/06: +1,7%
This price consists of:			
Contract / fixed charges	subscription	2006	Not included afterwards
Energy costs	0,041234	2006	53% of 0,0778
Grid charges (transport - delivery)	0,036566	2006	47% of 0,0778
Charges/levies for green electricity/CHP etc CSPE	0,0045	2006	CSPE = "contribution to the electricity public service"
Other taxes (CO2 etc.) local taxes (TLE)	10% on 80% of the excl. price of the contract & consumption 0.0062	2006	The rate depends of the city.... Around 10%
VAT 19,6%	$(0,0778+0,0045+(0,0778*80%*10%)) *19,6%$ =0.0174	2006	On consumption & services (i.e cspe) & TLE on consumption & services)
VAT 5,5%	-		On the contract (fixed charges) & TLE of the contract / fixed charges
Typical electricity price household	0,1201	2005	Cons = 3500 kWh/year (typical household)
Typical electricity price household	0,1201	2004	-
Typical electricity price household	0,1185	2003	-
Typical electricity price <u>service sector</u> (price range for commerce & public sector), including all taxes	0,643 (Paris City Hall) 0,1083 (commerce)	2006	
Typical electricity price <u>industry</u> (price range), including all taxes	0,531-0,691	2006	

Relevant special tariffs (e.g. heat pumps, electric heating) - please specify:..... Household	“Peak” hours: 0,1074 “Empty” hours: 0,0654	2006	Subscription is more expensive but cheaper to run; 8h of cheap time																
	Peak day effacement	2006	There are 22 peak days between November and march during which electricity is extremely expensive, but during the rest of the year the price is close to “empty” hours tariff. You’re warned a day before. It is not open for subscription anymore.																
	<table border="1"> <thead> <tr> <th colspan="4">Tempo</th> </tr> <tr> <th></th> <th>bleu</th> <th>blanc</th> <th>rouge</th> </tr> </thead> <tbody> <tr> <td>Hc</td> <td>0,0452</td> <td>0,0922</td> <td>0,1709</td> </tr> <tr> <td>hp</td> <td>0,0561</td> <td>0,1092</td> <td>0,4781</td> </tr> </tbody> </table>	Tempo					bleu	blanc	rouge	Hc	0,0452	0,0922	0,1709	hp	0,0561	0,1092	0,4781	2006	The day is divided in “peak” & “empty” hours + days are rated depending on the demand, which gives 6 possible tariffs.
Tempo																			
	bleu	blanc	rouge																
Hc	0,0452	0,0922	0,1709																
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	First necessity: 30% to 50% discount depending on individuals situation	2006	Cheaper subscription and first 100 kWh for people in receipt of benefits																

Electricity prices and market liberalisation.

The French electricity market is not entirely liberalised yet; and consequently prices experience a different evolution depending on the consumers’ category and the regulating authority in charge: the government or the market.

The 96/92/EC directive on energy market liberalisation has been transposed in the French legislation in February 2000. The law made consumers of over 16 GWh per year eligible i.e. free to choose their supplier. In 2003 the law extended its application to consumers over 7 GWh. France has implemented the second directive on gas and electricity in 2004. The market is open since that date for all non-household

customers. A second law, adopted in November 2006, stipulates notably the opening to households for the 1st July 2007.

Electricity prices for households are still administrated and have only slightly increase over the past few years. This increase has been way too low to impulse any particular energy conservation behaviour of the consumers or energy efficiency works.

However the context is somehow different for eligible consumers, especially those who have left EDF, the historical operator. Indeed, if they benefited from the forecasted but slim price decrease between 2000 and 2002, they suffered an unprecedented rise of 36% in two years between 2002 and 2004, cancelling all the savings made before and threatening their financial health and competitiveness. This is particularly true as many of the companies concerned are big electricity consumers from the industry.

The main reason for the decrease in the first place was the production over-capacity. Nevertheless the constant increase of electricity consumption and the under-capacity of production in some European countries has led to a rapid rise of the MWh price on Powernext (+40% between October 2002 and October 2003) as the market foresaw an upcoming shortage. Even though many deals are still done over the counter and not directly on the market, the used prices follow the forward market prices in their trend.

Interestingly enough the prices practiced in France do not translate the French electricity production specificities. The rise of electricity prices in Europe is partly due to the rise of oil and gas prices, which are used for electricity production but this hardly concerns the 80% nuclear France. Many countries lack means of production contrary to France, which is in surplus and exports. Still market prices are made through the confrontation of the European offer and demand, therefore French operators and European ones operating in France fall into line with those prices and not their production costs, as they are not representative. A direct consequent is a competitive advantage to EDF that remains largely in monopoly and a disadvantage for consumers that left the historical operators. In July 2006, the market-share of EDF competitors was 4.8% of eligible sites mainly for big consumers. This market-share was close to zero for small and medium companies and foreign suppliers. Actually, 50% of the eligible consumers do not know they can switch suppliers (July 2006 report). The low impact of market opening is partly due to the remaining of administrated prices lower than market price, which prevents the entrance of new suppliers to the benefit of the historical operator.

Stakeholders

Electricity traders	<p>POWEO Direct Energie EDF Electrabel Suez Enercoop (French co-operative of green electricity)</p>
Main administrative and institutional bodies	<p>RTE Founded in 2000, Rte is the French electricity transmission system operator (STO) responsible for maintenance and development</p>
French Energy Regulation Commission	<p>CRE Commission de Régulation de l'Energie</p>
Distributors : extract the electricity for delivery to customers connected to their grids	<p>ERD EDF Réseau Distribution = EDF distribution network</p> <p>SICAE Agricultural enterprises of electricity created at the beginning of 20th century – There are 3 SICAE in the region IDF. -SICAE des Cantons de la Ferté-Alais et limitrophes -SICAE de la Vallée du Sausseron -SICAE Ely</p> <p>There are 2 other local distribution companies in the region that are “régies” (buy and sell electricity) -Coopérative d'électricité de Villiers-sur-Marne -Régie Communale de Distribution d'Electricité et d'Eau de Mitry-Mory - R.C.E.M</p>
Syndicates of electrification (groups of local authorities that have subcontracted the distribution of electricity)	<p>SIPPEREC Syndicat intercommunal de la périphérie de Paris pour l'électricité et les réseaux de communication SIGEIF (syndicat intercommunal pour le gaz et l'électricité en IDF) 176 cities FDSE (federation départementale des syndicats d'électrification de Seine et Marne) ...</p>
Professional associations	<p>GIMELEC French industry association for electrical equipment, instrumentation and control systems SERCE French professional association of electrical engineering companies FFIE (represented by CSEEE in the region)</p>

	French electrical contractors association
R&D	EDF R&D CEA (Commissariat à l'énergie atomique)
Consumer organisations	CLCV (consommation, logement et cadre de vie) CNL (confederation nationale du logement)
Green certificates	OSBERV'ER (French institute for green certificates) GREEN ACCESS (French producers of green electricity sending green certificates)
Promotion, communication, information	ADEME, ARENE, EIE (energy efficiency information points)

Selection of the "second sector"

The service sector is the biggest consuming sector of the region, however it encompasses a large number of sub-sector and therefore cannot be tackled at once in a single manner. The ARENE has chosen as a second sector "social residences" meaning homes for elderly or handicapped persons. The reasons that motivate this choice are numerous. The Ile-de-France population is getting older and this trend should keep on on the long run. Then this rising sub-sector has not been tackled yet and little information is available on the actual consumption of such buildings. According to the survey of the Insee (the national statistics institute) in 2005 16.1% of the Ile-de-France population was over 60 years old. This rate is expected to rise continuously until 2050. At the moment in France one person out of five is aged over 65 years old. In 2050, a rise of 80% should change this ratio into one person out of three i.e. over 23 million people. Baby boomers alongside longer life expectancy will be the main causes for this ageing of the population. Also a modification is expected within the elderly age class with the increase of very old people i.e. over 80 years old. This trend raises issues regarding old people's dependency and their accommodation. As a consequence the number of social residences should increase dramatically in the region and therefore the electricity consumption related to their functioning.

Nevertheless, social residences for the elderly encompass a various range of flats and accommodations. There are actually 3 types of residences: the most known or classical are probably the "old people's homes" where the elderly live collectively with a number of facilities (accommodation, food and specific services) and have their own room. The second ones are the "flat-residences": people live in autonomous flats (one or two-roomed apartments) with facultative collective facilities. The third option are the "long medical care services": those services are part of hospitals and receive old people who have lost their autonomy and need a permanent medical care. All these residences can have three different legal statuses: public, private non-for-profit

or private-commercial. There are almost 1,000 social residences in Ile-de-France region with a majority of old people's home.

The different actors in the sector are first the sanitary and social delegation of the region (DRASS) and its departmental delegations (DDASS) as well the social action centre of Paris (CAS), the regional council, the 8 departments' councils and the regional health observatory (ORS). The DRASS are in charge of observing and analysing needs as well as programming spending in the social and medical sector. DDASS and the Paris CAS have in charge the observation on a smaller territory as well as the implementation of social politics. Public social residences are in charge of the departments' council but there are numerous associations managing social residences with non-for-profit purposes. However private-commercial companies manage the majority of social residences.

Regarding their electricity consumption, they benefit from the same tariffs that of the service sector which they are assimilated to. The consumption of such institutions is believed to have increased in the last few years, since the 2003 heatwave. Indeed, after the death of more than 10,000 old people, the generalisation of air conditioning has been demanded. Nowadays all the social residences have at least one room where air conditioning is provided. However the consumption of social residences is also believed to be heterogeneous as the three types of residences are quite different. Flat-residences will be closer to the household sector. On the other hand, the consumption of old people's home will be peculiar as it encompasses a number of facilities from the everyday life that will add some commercial sector consumptions type to the bill (hairstylist...).

Summary/conclusions

Electricity demand in the Ile-de-France region has been rising continuously and this trend is expected to continue. The main explanation factors are the demography with a rise of the population, economic growth and the increase of electricity consuming devices despite energy efficiency gains. This trend concerns the households and the service sector, but not the industry that keeps on declining while realising energy intensity gains. The region is experiencing this rise in a context of rising prices and market liberalisation that is believed to have utilities prices rising again.

In order to tackle this consumption rise and its social and environmental potential consequences; it is necessary to take action by involving all the stakeholders from local authorities to electricity suppliers as they can all provide deeper information for the analysis of the consumption and its trend as well as providing the necessary impetus for a significant change towards more sobriety and efficiency regarding electricity consumption.