

# DATA PROFILE: Barcelona Region, Spain



Population, City of Barcelona, 2010 .....	1,619,000
Population, Barcelona Metropolitan Region, 2010 .....	5,013,000 <sup>1</sup>
Jobs, City of Barcelona, 2011 .....	986,000
Jobs, Province of Barcelona, <sup>2</sup> 2011 .....	2,290,000
Labor Force, City of Barcelona, <sup>3</sup> 2011 .....	797,000
Labor Force, Province of Barcelona, 2011 .....	2,800,000 <sup>4</sup>
GDP, Barcelona Metropolitan Region, 2006.....	137.5 billion Euros <sup>5</sup>

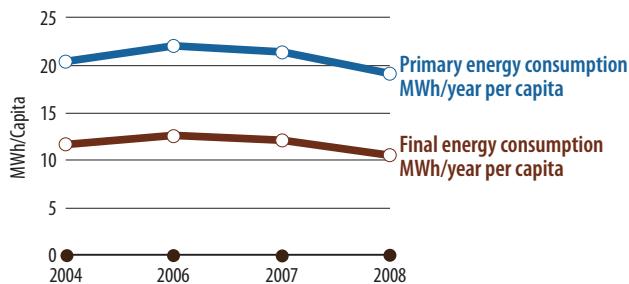
## ENERGY

### Governance

Private companies supply electricity and gas. The energy market is divided into generation, distribution and commercialization. At the national level, the Energy National Commission supervises competitiveness and efficiency in energy systems. There is also a Catalan Energy Scheme (2006-2015) and a Barcelona Energy Scheme for the 2011-2020 period.

### Energy Use per Capita

Energy Use per Capita, Barcelona City (2004, 2006 – 2008)

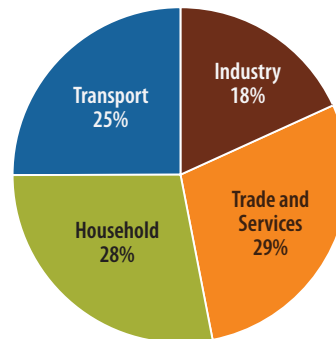


Source: Barcelona Local Energy Agency

Note: Final energy consumption excluded energy used by the energy sector.

### Energy Use by Sector

Energy Use by Sector, Barcelona City (2008)



Source: Barcelona Local Energy Agency

<sup>1</sup> Source: Statistics Department Barcelona City Council

<sup>2</sup> Province: administrative division similar in size to the Metropolitan Region

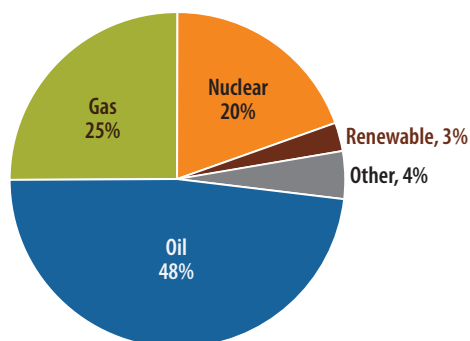
<sup>3</sup> Active population is the addition of employed and unemployed population residing in Barcelona

<sup>4</sup> Source: Statistics Department Barcelona City Council

<sup>5</sup> Source: Catalonia Statistics Institute

## Energy Sources

### Energy Sources, Barcelona City (2008)



Source: Barcelona Local Energy Agency

### 2020 TARGETS FOR ENERGY, CARBON EMISSIONS, AND AIR QUALITY IN BARCELONA CITY (PER CAPITA, PERCENTAGES ARE RELATED TO 2008)

	TREND 2020	PECQ 2020*	2020 (RELATED TO 2008)
Energy	+19%	+10%	-16%
GEH Emissions	+17%	+1%	-23%
NOX Emissions	-12%	-25%	–
PM10 Emissions	-23%	-41%	–

\*Source: Barcelona Energy, Climate Change and Air Quality Scheme. PECQ2020

## Greenhouse Gas Emissions

- In 2010, Barcelona's annual greenhouse gas emissions were 2.51 Tons CO<sub>2</sub> equivalent per capita.
- Barcelona's target is to reduce CO<sub>2</sub> emissions by 20% related to the estimated trend by 2020.

Source: Barcelona Local Energy Agency

## Energy Pricing

Energy prices are negotiated with commercial operators through the free market. By law, the Government fixes a maximum tariff LRT (Last Resource Tariff). The market will be fully privatized in 2012.

### DOMESTIC ENERGY CONSUMPTION PRICES (2010)

	ELECTRICITY	NATURAL GAS
European Union (27 countries)	0.1239 Euros/kWh	12.0556 Euros/GJ
Spain	0.1492 Euros/kWh	12.7111 Euros/GJ

Source: Eurostat

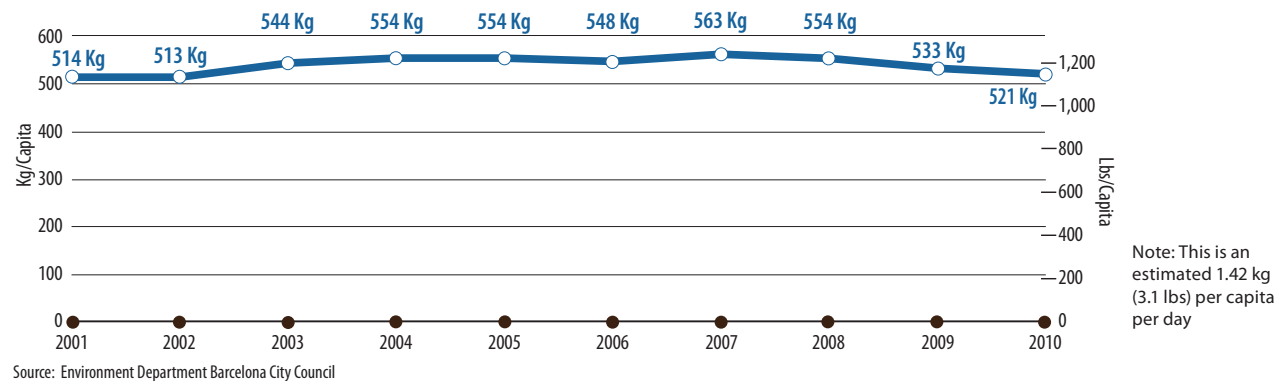
## WASTE

### Governance

Urban solid waste includes household and commercial waste. Waste collection and treatment are public responsibilities: the collection is managed by the Barcelona City Council through contracting 4 private companies, whereas waste treatment is managed by the Barcelona Metropolitan Area (BMA).

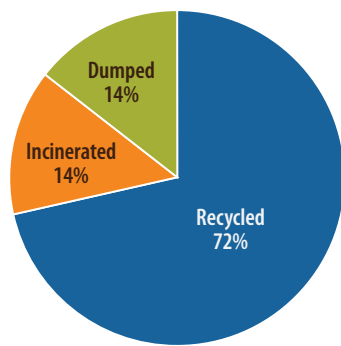
## Solid Waste per Capita

### Annual Solid Waste per Capita, Barcelona City (2001 – 2010)



## Solid Waste Disposal

### Solid Waste Disposal, Barcelona City (2010)



## Solid Waste Reduction Targets

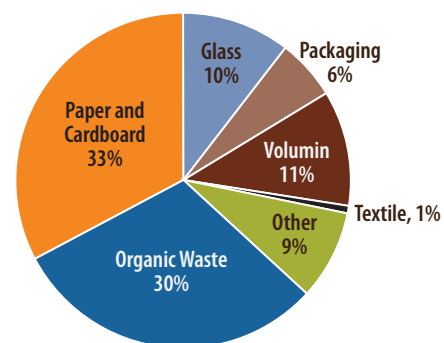
By 2018, The Catalonia Waste Prevention Scheme aims to reduce waste by 10% per capita in comparison to 2006. This goal is currently pending approval in the Barcelona Prevention Waste Plan. Barcelona is also planning an increase in ecopoints, which are household waste and recycling centers where residents can leave waste that can not be disposed of in street containers.

## Recycling Targets

	SELECTED WASTE COMPOSITION (2008)	REDUCTION TARGETS (2018)
Organic Waste	30.3%	2%
Paper and Cardboard	33.0%	2%
Glass	10.4%	1%
Packaging	5.9%	1%
Volumin (voluminous, bulky waste)	11.1%	-
Textile	0.6%	-
Other	8.7%	4%

Source: Environment Department Barcelona City Council

## Selected Waste Composition, Barcelona (2008)



## Waste Management Pricing

There is no charge for household waste collection. Waste treatment is charged separately in the water invoice as a Municipal Waste Management Environmental Tax. Companies pay a waste collection local tax.

### WASTE COLLECTION COMMERCIAL ACTIVITIES TAX RATES

WASTE KIND	COEFFICIENT	SMALL(€)	MEDIUM(€)	IMPORTANT(€)
Group A	1	135.5	160.67	320.12
Group B	1.5	203.25	241.005	480.18
Group C	2	271	321.34	640.24
Group D	2.5	338.75	401.675	800.3
Group E	3	406.5	482.01	960.36

Source: Environment Department Barcelona City Council

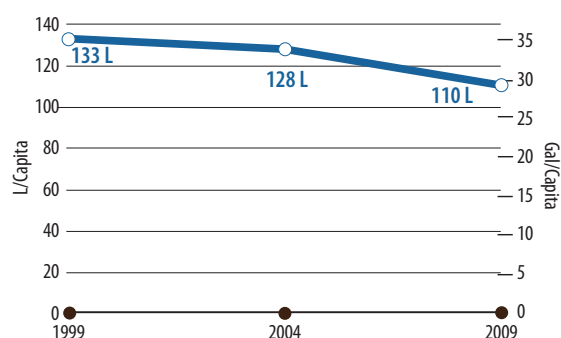
## WATER

### Governance

Water supply is managed by a private company: AGBAR. Sewage treatment and stormwater drainage are managed by CLABSA, a company with public participation by the City Council. The Barcelona Metropolitan Area is also in charge of sewage treatment. The Catalan Water Agency (ACA) is the public entity of the Government of Catalonia acting as the hydraulic authority in the region, in charge of the governing policies concerning water and based on the principles of the Water Framework European Directive.

### Water Consumption per Capita

#### Water Consumption per Capita, Barcelona (1999, 2004, 2009)



Source: Provided by Barcelona City Council

Note: Water consumption rates are for household consumption, excluding industrial and commercial uses.

### Water Use Reduction

Barcelona City Council has an Alternative Hydro-Resources Scheme with the goal of covering 90% of water needs for municipal services through alternative water resources such as freatic water (groundwater), purifying plants, etc. Currently, Barcelona's sources of drinking water include: The Llobregat basin (52%), the Ter basin (46%), the Besós basin (2%), and since July 2009, the Mediterranean Sea.

Source: Agbar Web

### Water Quality Targets

The city's Rainwater Cisterns Network significantly improves the quality of water for non-drinking uses.

## Drinking Water Pricing

To encourage water conservation, the unit price of water consumption (€/m<sup>3</sup>) varies according to use. The system has a fixed service quote dependent on housing type, and a variable component dependent on use:

### HOUSEHOLD WATER USE: 3 SECTIONS TARIFF – SERVICE FEE:

TYPE OF HOUSING	UNIT PRICE
A	2.03 €/month
BiC	5.10 €/month
DiE	8.11 €/month
F	11.60 €/month
G	18.81 €/month
H	27.20 €/month
I	41.17 €/month

	CONSUMPTION	TARIFF
section 1	Includes the first 6 m <sup>3</sup> /month	0.4657 €/m <sup>3</sup>
section 2	Consumption 7 to 12 m <sup>3</sup> /month	0.9315 €/m <sup>3</sup>
section 3	More than 12 m <sup>3</sup> /month	1.3971 €/month

TYPE OF HOUSING	NOMINAL FLOW OF HOUSEHOLD
A	0.25 m <sup>3</sup> /h
B	0.40 m <sup>3</sup> /h
C	0.40 m <sup>3</sup> /h
D	0.63 m <sup>3</sup> /h
E	0.63 m <sup>3</sup> /h
F	1.00 m <sup>3</sup> /h
G	1.60 m <sup>3</sup> /h
H	2.50 m <sup>3</sup> /h
I	4.00 m <sup>3</sup> /h

Source: Environment Department of Barcelona City Council and Agbar web

The information in this data profile was compiled by the Barcelona City Council with edits and modifications by the IRBC Secretariat for space and content. For any questions regarding the information provided here, please contact:

*Àngels Santigosa,*

*Research Manager*

*Economic Promotion*

*Barcelona City Council*

*angels.santigosa@barcelonactiva.cat*



International Regions  
Benchmarking Consortium

**Secretariat:**

Puget Sound Regional Council (PSRC)  
1011 Western Avenue, Suite 500  
Seattle, WA 98104 • USA  
Tel: +1-206-464-7090 • [www.psrc.org](http://www.psrc.org)

Trade Development Alliance of Greater Seattle  
1301 Fifth Avenue, Suite 2500  
Seattle, WA 98101 • USA  
Tel: +1-206-389-7301 • [www.seattletradealliance.com](http://www.seattletradealliance.com)

For more information, visit [www.internationalregions.org](http://www.internationalregions.org)