

A successful school programme in Ile-de-France



Marie-Laure Falque-Masset
ARENE Ile-de-France

Contents

- The Ile-de-France region
- The energy audit
- The electricity diagnosis
- Promotion and sensitization

The Ile-de-France region

12 672 km²

11 millions inhabitants
(19% of France)

1281 municipalities and 8
départements

80% of the land is
agricultural or natural
space

2500 hotels and 140000
beds

700 000 enterprises

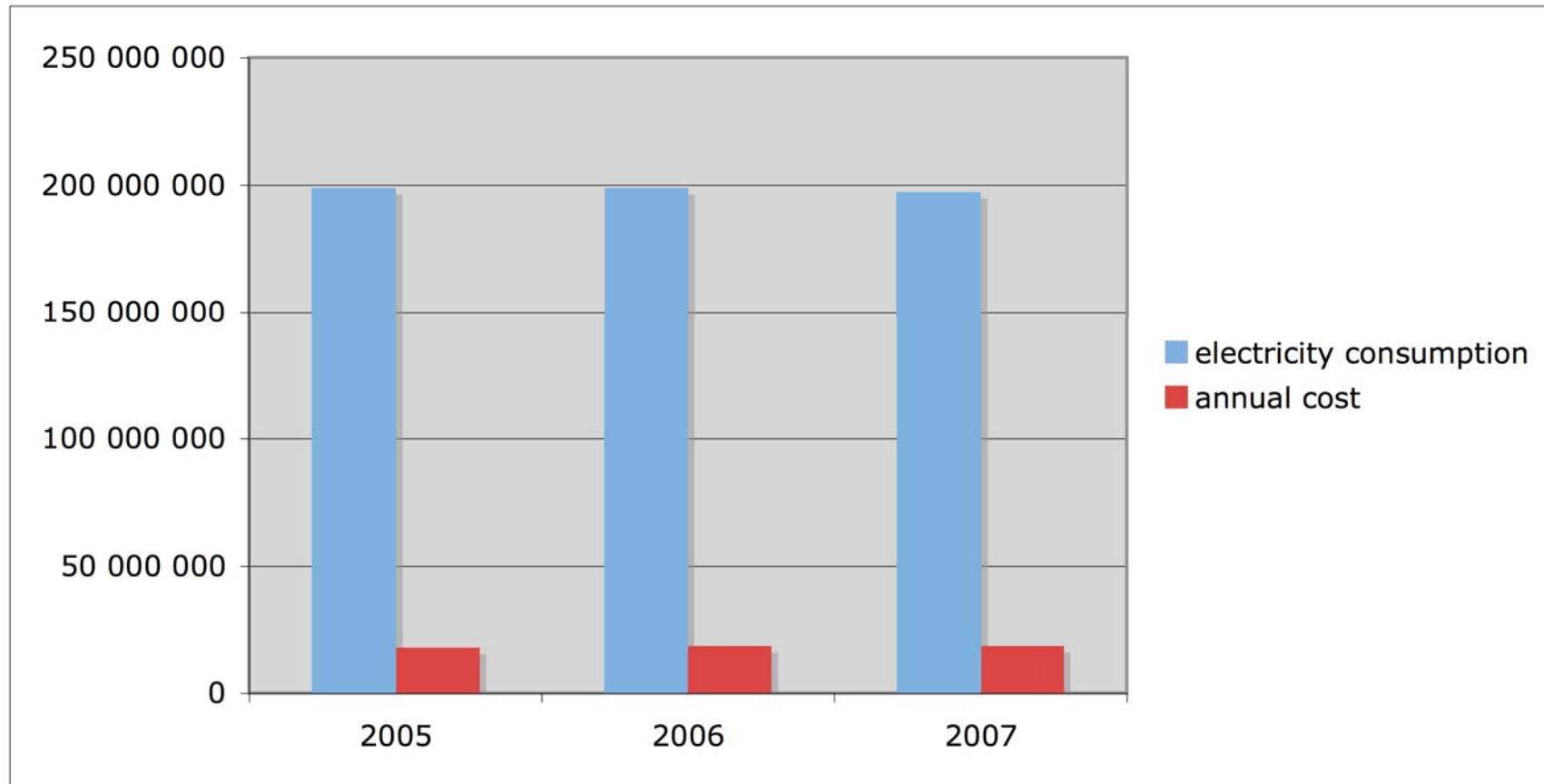
17 universities and 600
000 students



Two steps

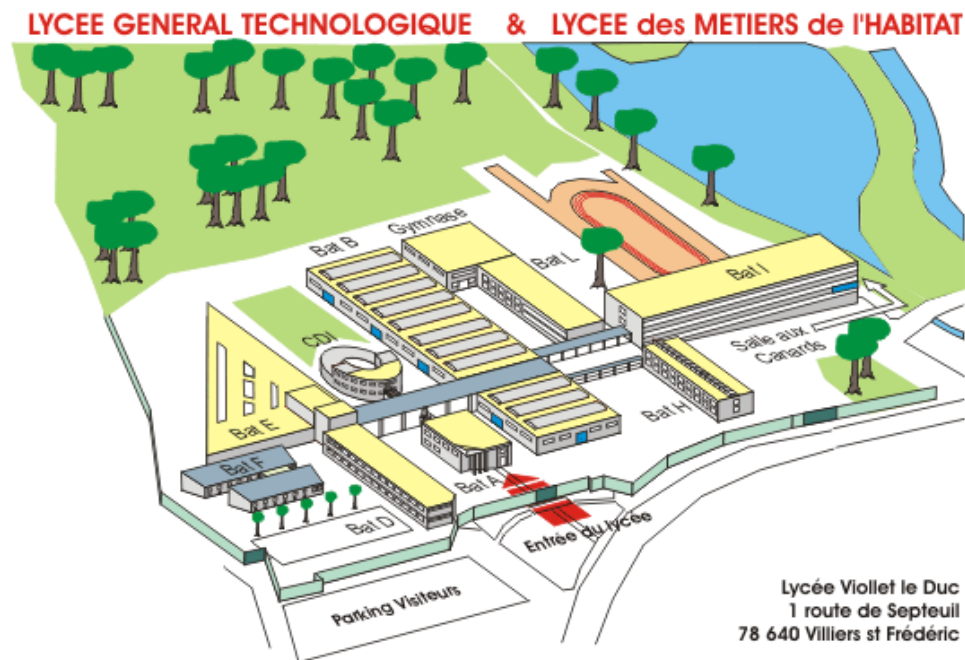
- Energy audit and sensitization of students, teachers and administrative staff
- 4 high schools / 470
- Management of high schools
- Management of energy in the regional Council

Electricity consumption in 2005 2006 2007



Energy audit : the method

- Analysis of invoices and contracts (purchase and maintenance)
- Site visits, checking of equipments



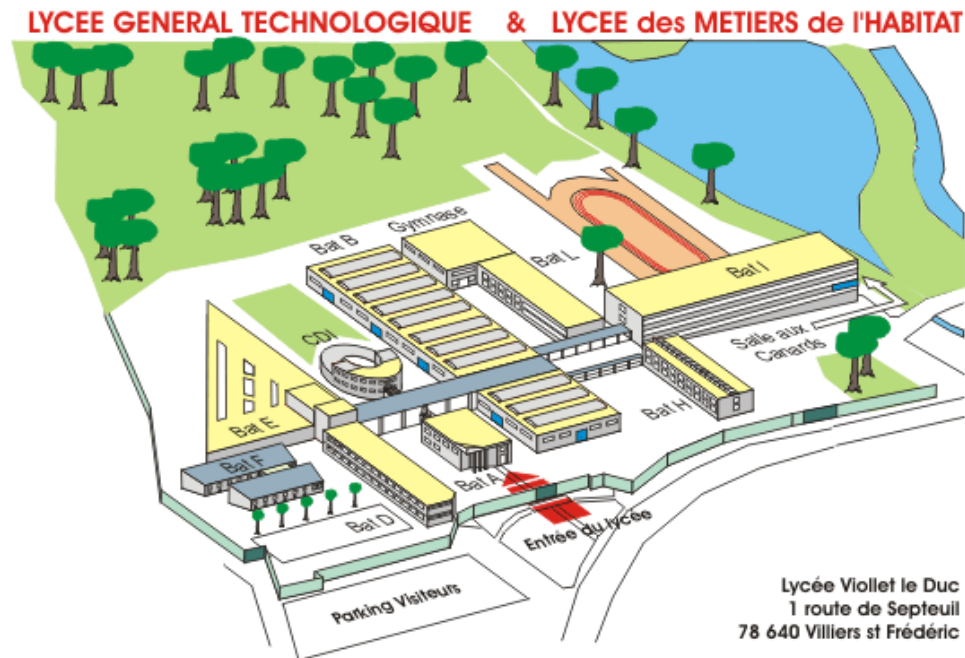
Electricity diagnosis

- Calculation of electricity consumption on the basis of the number and type of equipments and thanks to inquiries
- Simulation allows to calculate the allocation of elec demand by use and by building and to build the courbe de charge
- It allows also to determine the cost by elec use and its share in the elec invoice

- Energy diagnosis : thermal needs, power
Electricity diagnosis
Recommandations: feasibility, cost,
planning of actions

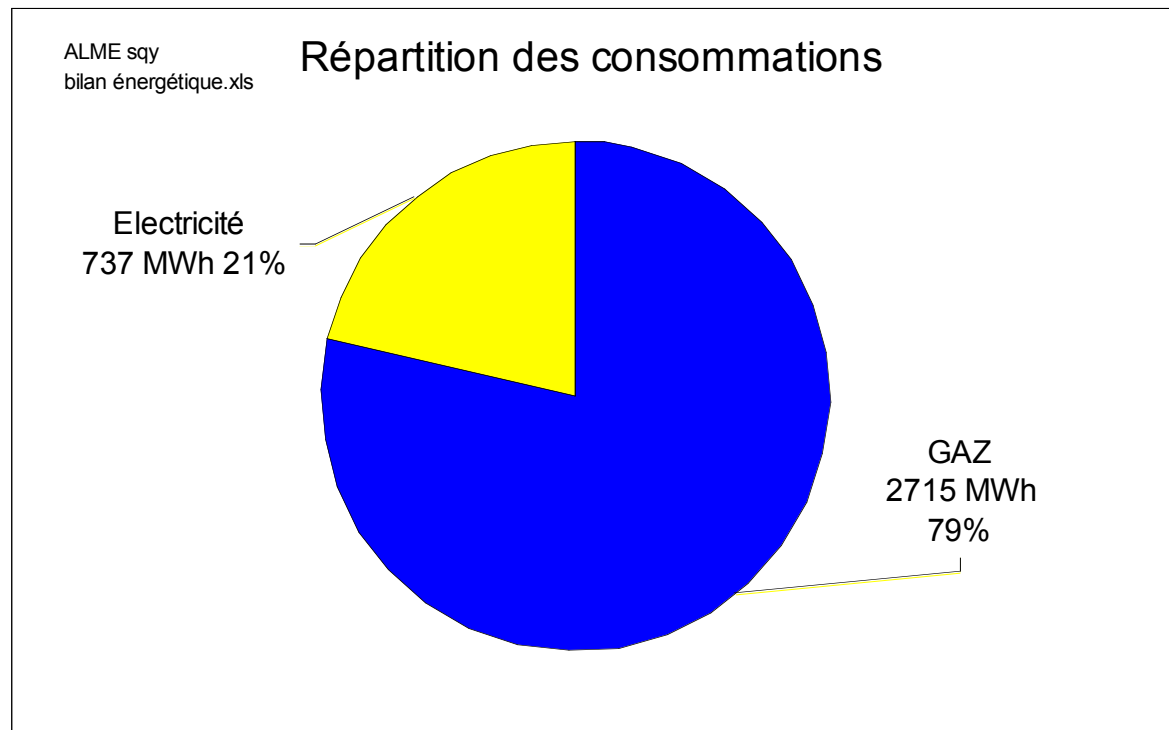
Energy diagnosis

- Example: Lycée Viollet Le duc
 - 1000 students, 120 teachers, 100 other staff
 - 18 000M2, 10 buildings



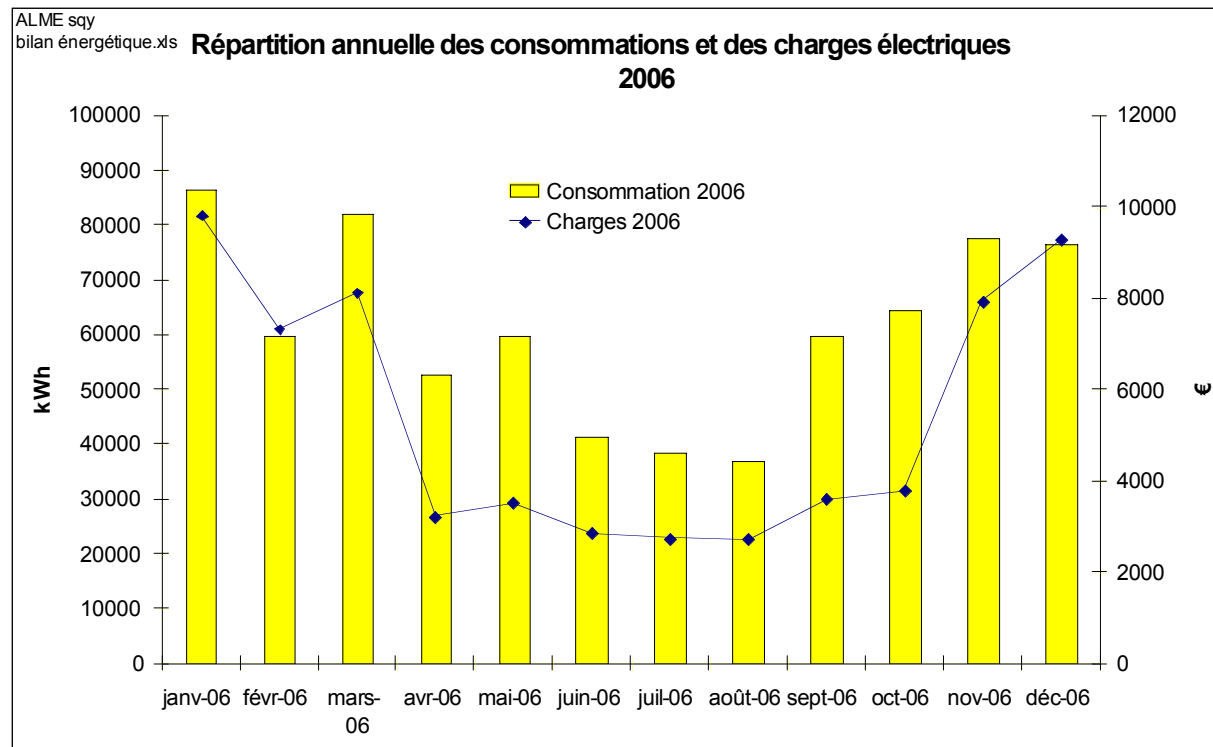
Energy diagnosis

- Distribution of energy consumption



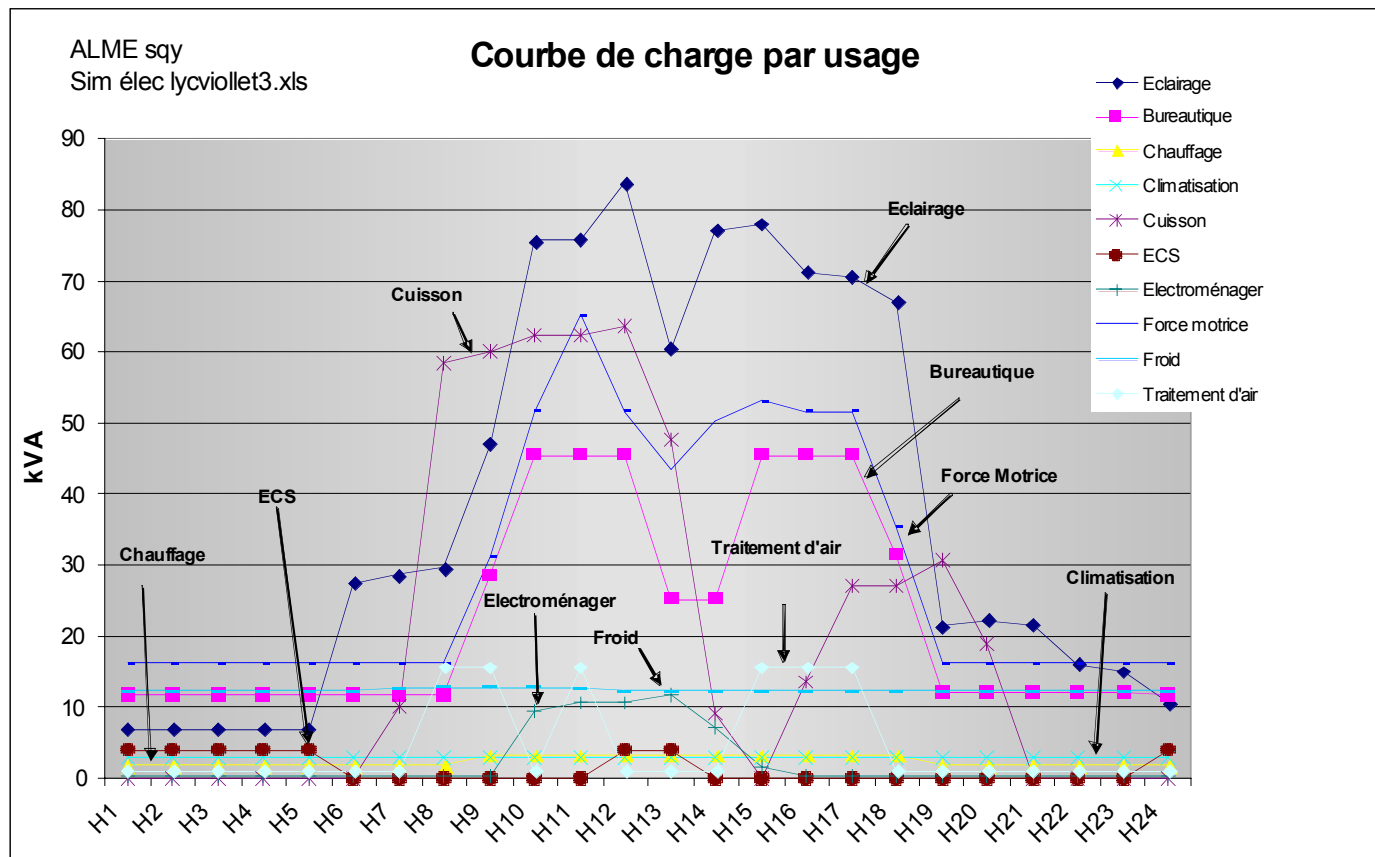
Electricity diagnosis

- Study of electricity invoices : distribution of consumption and costs

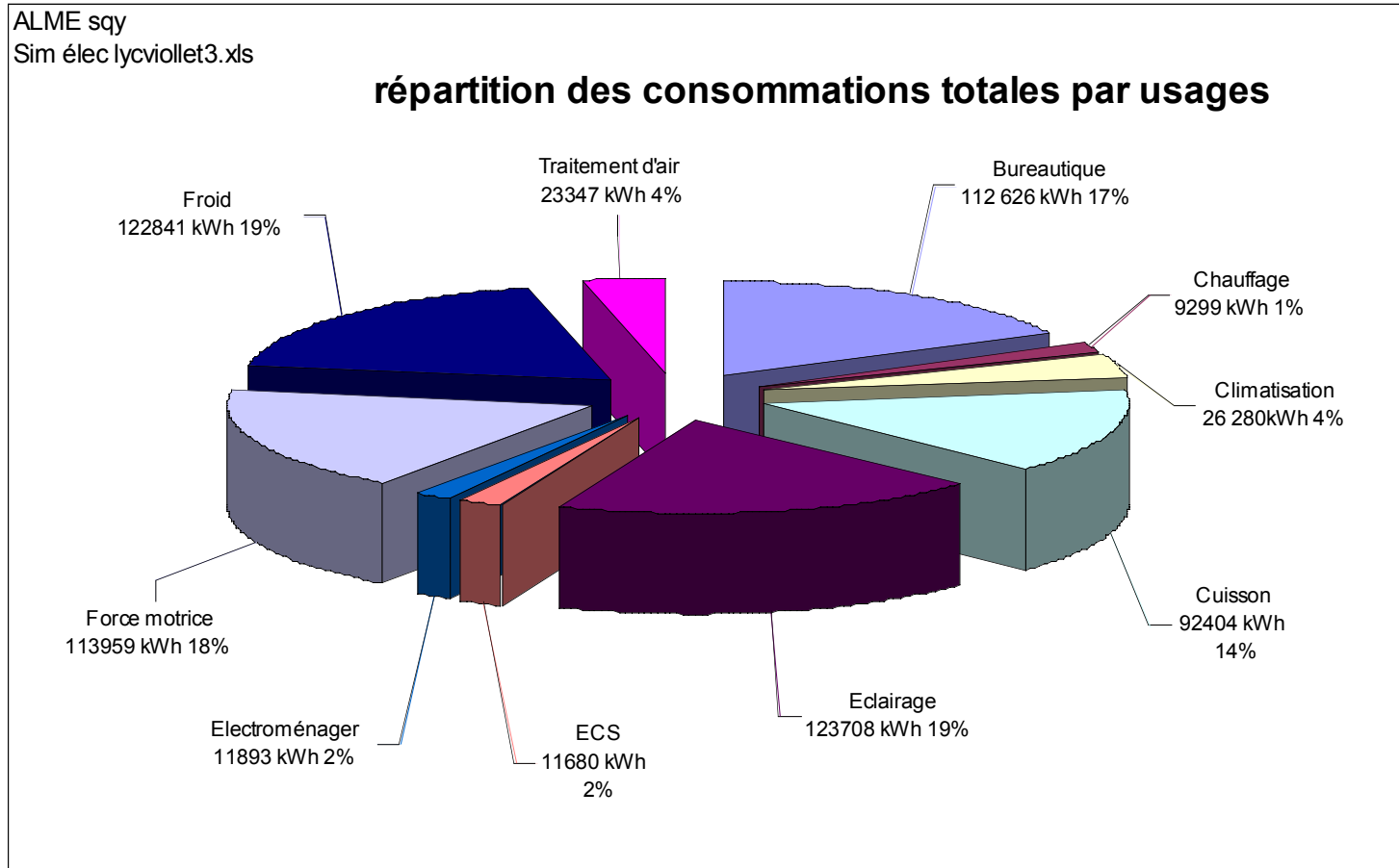


Electricity diagnosis

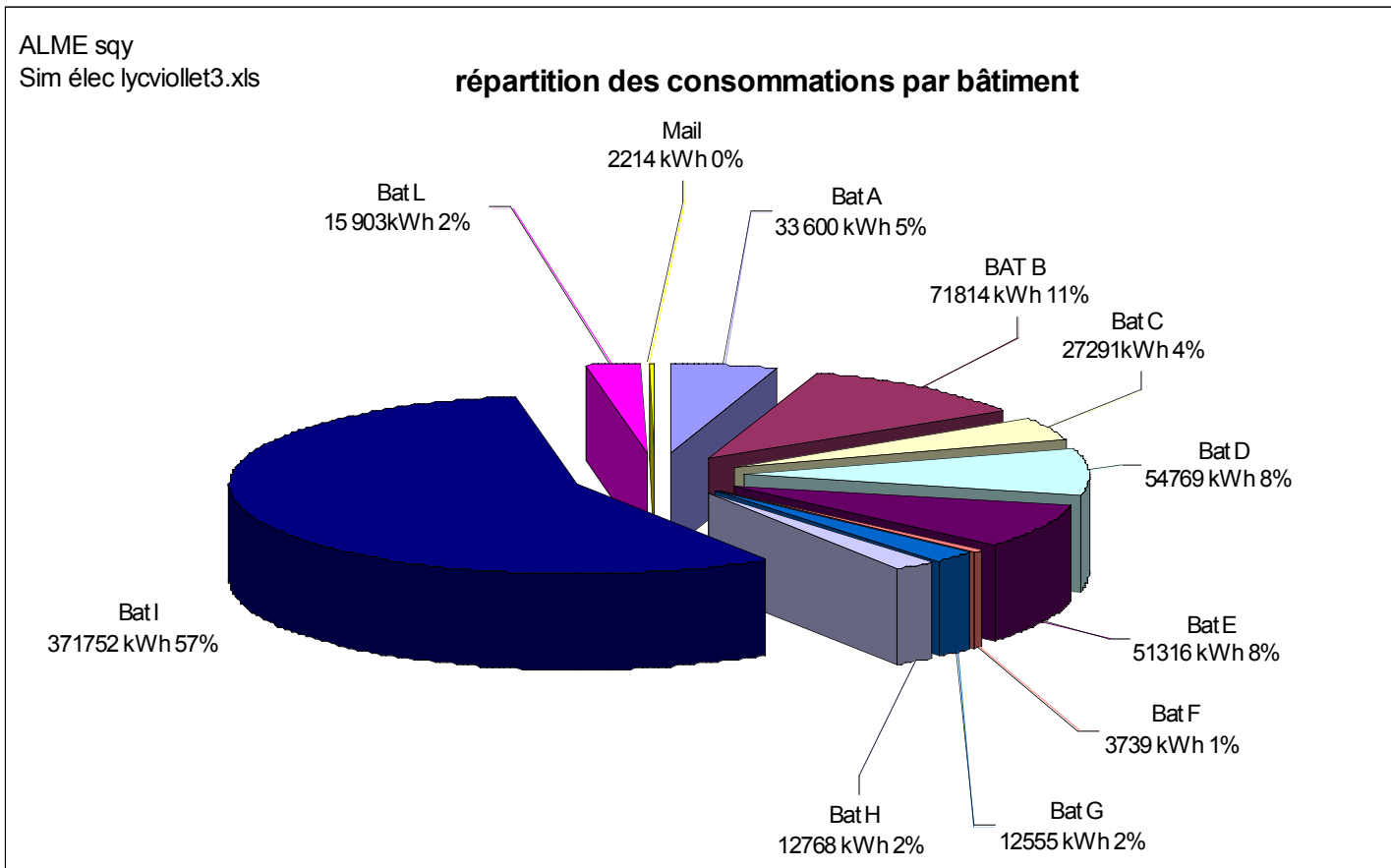
- Load profile by use



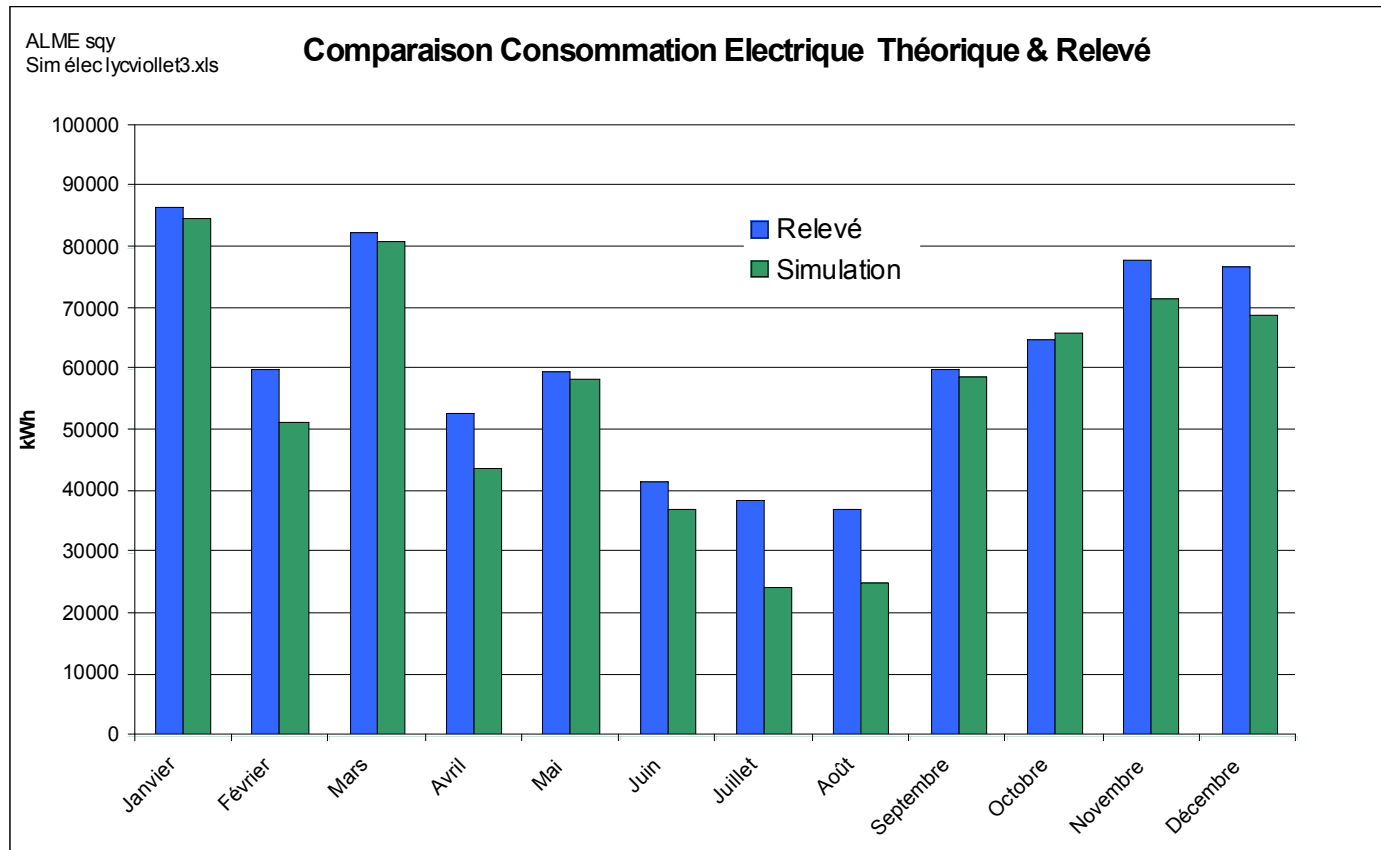
Distribution of electricity consumption by use



Distribution of electricity consumption by building



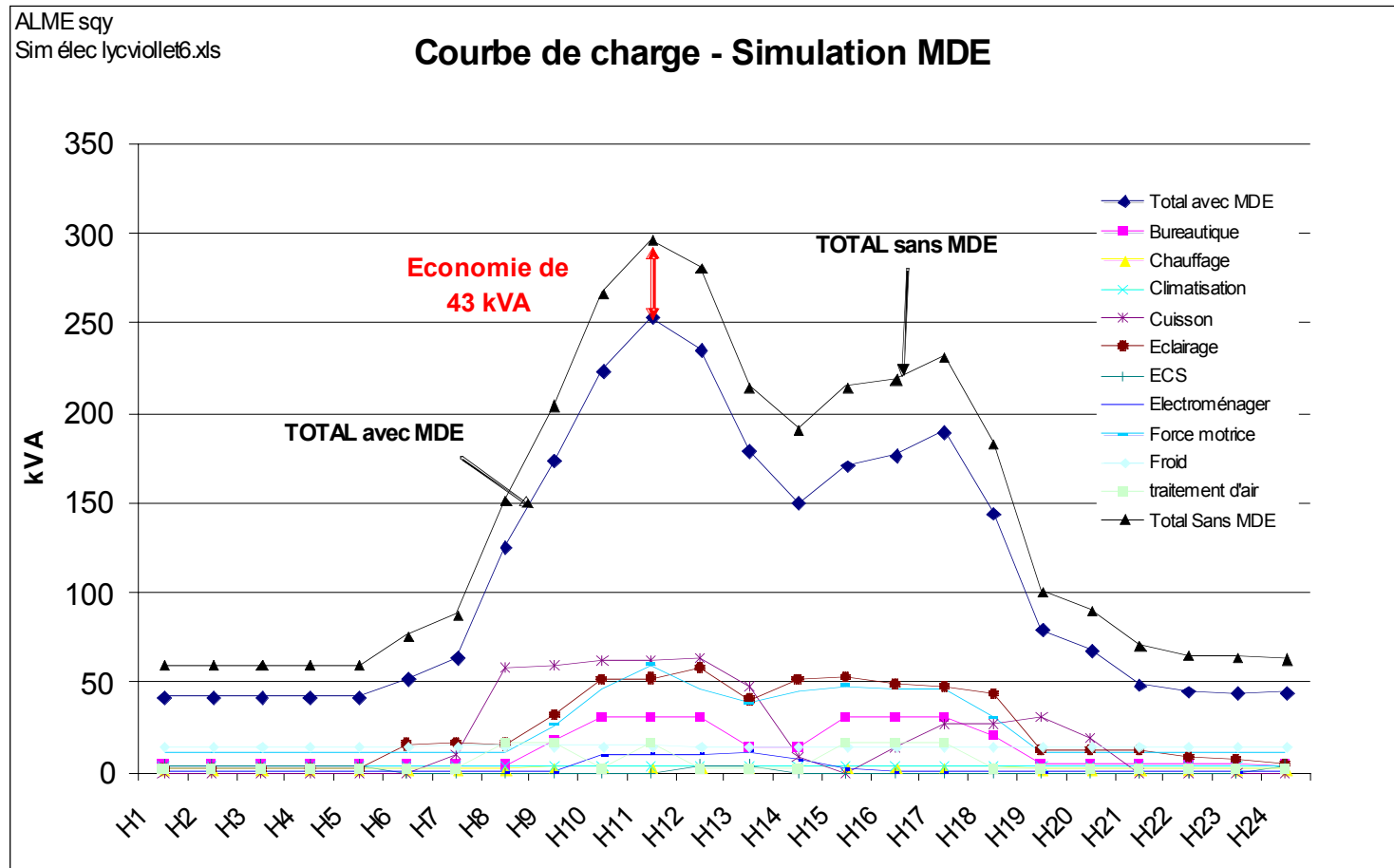
Monthly consumption : real and theoretical



Recommendations

- Stand-by for computer, printer,...
- Purchase of electrical and electronical equipment
- Lighting
- Motors

Simulation of DSM actions

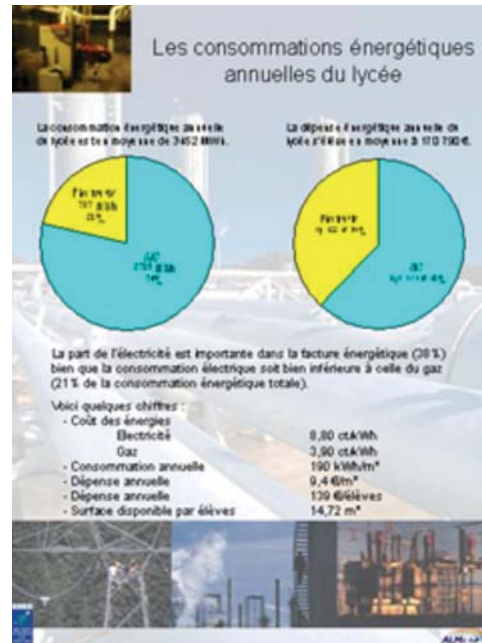


Energy label for the 4 high schools

	Energie primaire en kWh/m ² .an				Emissions de CO ₂ en kg CO ₂ /m ² .an			
	Jean Perrin	Clément Ader	Louis Blériot	Viollet le Duc	Jean Perrin	Clément Ader	Louis Blériot	Viollet le Duc
<p>Économe</p> <p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p> <p>F</p> <p>G</p> <p>Peu économe</p>						C		
		D			D		D	D
		F		F				
			G					
	314	216	333	302	40	33	45	41

Energy week

- General sensitization
- Technical courses
- Stand, posters
- Debates
- Conference
- video



Thank you for your attention

www.arenidf.org

Contacts :

Marie-Laure Falque-Masset : ml.falquemasset@arenidf.org

Judith Cazas j.cazas@arenidf.org