



Project©Médiacité - architect© M. Jaspers – J. Eyers & Partners - photo©Y.Glavie

# Energy & sustainability

Sustainability has become a way of life. Concerns about energy consumption and pollution govern the 21st century construction industry. Public authorities looking to limit CO<sub>2</sub> emissions are strongly focused on a reduction of fossil fuel use in both private and public buildings. Energy consumption in buildings has become a major public issue!

The energy aspect of a building is a complex matter, raising many questions: How much energy do we need? How much energy will we actually consume? How can we consume less energy? Is my energy consumption level optimised?

## HOW WE CAN HELP YOU

Irrespective of the type of construction, its actual lifecycle phase and possible future requirements, we can help you find an answer to those questions. Based on our technical expertise and on the economics of your project, our contribution can cover the following roles:

- Assessment of the impact of the building concept on energy performance
- Optimisation of the building design by means of modelling and dynamic thermal simulations
- Evaluation of the opportunity for state-of-the-art solutions such as the use of renewable energy and decentralized generation of energy (with comparison between alternative solutions)
- Selection of appropriate materials for the building envelope (such as insulation), dimensioning, proper use, ...
- Dynamic hygrothermal analysis of construction details (2D and 3D thermal bridges, inside insulation, ...)
- Follow-up of execution quality through regular inspections on site
- Air tightness tests (blower door) and infrared thermography
- Analysis of test results obtained by other parties
- Checks on compliance with applicable standards and government regulations
- Assessment of rating under environmental certification schemes (such as Valideo and Breeam)
- Monitoring and analysis of energy consumption levels of existing buildings (total building or technical installations only)

## HOW WE PROCEED

The scope of our involvement is defined together with you and can include the following deliverables:

- Analysis of construction plans
- Analysis of building specifications
- Inspection visits to building/construction site
- One-off measurement of specific performance levels (e.g. airtightness)
- Long-term monitoring of specific performance levels (e.g. consumption of a gas heating boiler)
- Validation of the concepts proposed
- Compliance of installations with the applicable regulations
- Final report with recommendations

Our working methods are based on the expertise of our engineers, along with the accuracy of the measuring equipment and software used. We possess state-of-the-art building physics software that allows us to calculate and simulate energy consumption under the most diverse of circumstances, complemented by other programs developed in house.

Measurements are obtained with the equipment available in the building (connected to the MBS) or using our own measuring devices. The following parameters can be measured: air temperature, average radiant temperature, air flow, water flow, air quality, electricity meter readings...

## WHY RELY ON SECO ?

- We offer a detailed and objective analysis of all current and projected energy consumption levels. Through simulations and physical inspections, combined with our expertise as technical controllers, we are a one-stop shop when it comes to guiding you on energy performance.
- As Seco plays an active role on norms and standards committees, we keep a keen eye on new regulations. By doing so, we protect the value of your investment, now and in the future.
- We propose real alternatives, as well as providing you with the tools to make trade-offs and to optimise the return on your investment.
- Seco is a byword for innovative and long-term sustainable solutions.

## REFERENCE PROJECTS



architect & photo ©  
Philippe SAMYN and PARTNERS

Project©Résidence Palace

- Sustainability assessment comprising impact of double skin curtain wall



architect © M. Jaspers – J. Eyers & Partners  
photo © Y. Glavie

Project©Médiacité

- Guidance for the energy performance enhancement program



architect & photo © M. Jaspers –  
J. Eyers & Partners

Project©Tour Paradis

- Pre-assessment Valideo
- Assessment BREEAM

**Head Office** | Rue d'Arlon, 53 | B- 1040 Brussels | Belgium  
**Phone** +32 (0)2 - 238 22 11 | **Fax** +32 (0)2 - 238 22 61 | **e-mail** sales@seco.be  
**Offices** Belgium | Luxemburg | The Netherlands | France | Poland

[www.groupseco.com](http://www.groupseco.com)

