CB 6 - Prioriterre

Country: FR

SUMMARY

1- Les Jardins d'Arcadie – Annecy-Le-Vieux

1/ Identification of the partner

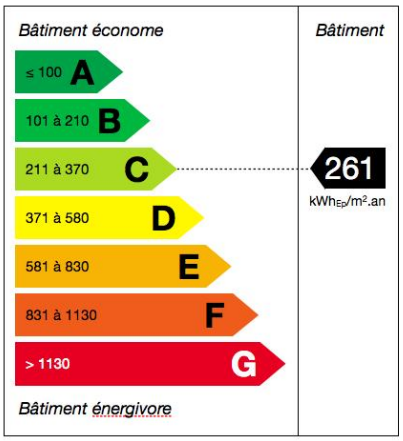
Name of RCHEP : Les Jardins d'Arcadie – Annecy-Le-Vieux

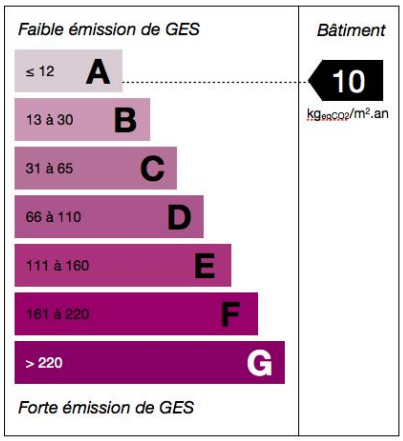
RCHEP manager : Bruno LETANG

2/ RCHEP main issues

Location	Annecy-le-Vieux
Heated surface	4 420 m^2
Year of construction	1989 - 1991

	Energy
Heating	Electricity
Hot water	Electricity
Cooking	Gas district heating
Other uses	Electricity





Average temperature : 20-21°C (average for the 10 residences : 22-23°C)

The building consumes all energies combined, 261 kWhpe/m2/year (and 106 kWhEf/m2/an). This is the 1st building of the 10 establishments observed in final energy and the 4th in primary energy.

If we consider the energy consumption per resident, the building is the 1st in final energy with 4,677 kWhEf / resident / year, and in primary energy with 11,537 kWhEp / resident / year. This can be explained by particularly efficient or restrictive behaviors of residents.

This residence is a residence for independent elderly. Each has a separate apartment. The restaurant offers lunch and dinner. Joint activities are proposed. Nurses and physiotherapists provide care assistance if needed.

The energy consumption of common rooms and all apartments is not high enough (or the energy is not expensive enough) to justify insulation work. The ventilation and lightening systems are well maintained and the air conditioning is not used. The maintenance manager is really aware of all the energy savings he can realize. The major concern is the behaviour of the elderly.

3/Action plan of RCEHP

Heating consumptions observed in the different apartments are extremely different. They range from 40 to 221 kWhEf/m2/year, the average being 84 kWhEf/m2/an. The average is very low : an apartment in a new building would be around 120 kWhEf/m2/year in Haute-Savoie, a building in 1989 would be nearly double.

This may be related to good performance of insulation but mainly to behaviour. The apartments with the highest consumption vary in their distribution by floor or orientation. Therefore, the need for heating is not due to an orientation or a specific floor, but the specific requirements of the comfortable feel of each. This may also be related to their financial resources, people with low incomes little heat.

We also observed that the apartments consuming more hot water are also those which consume most heat. This would tend in the direction of behaviour related to a high comfort temperature : these elderly can wash their hands with warm water and take frequent baths to warm up.

→ Detailed action plan in annex

4/ Energy efficiency activities implemented in the RCHEP

The RCHEP manager has evaluated the energy contracts to see if some savings are realisable. It is not exactly an energy saving but it‘s linked to the energy costs.

As mentioned before, the maintenance manager is really concerned about energy efficiency and considers it as a major criterion when an investment in new equipments is needed.

No financial investment is planned on the building renovation.

Activities: training of the technical and managerial team

Measures :

- energy saving lamps or lighting systems
- switch off electric appliances as far as possible
- switch off lamps not used, use of daylight as much as possible
- try to lower average temperature
- optimize energy contracts

Documents provided :

- a detailed action plan ;
- energy efficiency experiments in Europe.
- energy efficiency experiments in Europe;

5/ Behavioural measure for residents and visitors

Of course, the most important thing was to raise awareness and try to teach to the elderly how to save money and keep their comfort or increase it with a better use of their heating system. But in the questionnaires received, a lot of them has answered that even if they think the subject is important, they were too old to change !

Activities : training of the employees to raise awareness

Documents provided :

- a guidebook for employees and visitors ;
- visible signs for a information campaign.

6/ Monitoring when available

No monitoring available (separated appartments). It has been difficult to have the same sample of apartments and no improvements have been noticed. The elderly have a lot of issues understanding how to read their bills (these are not the same from one energy provider to another, and contracts can be different too : monthly bills, yearly bills, supposed consumption adjusted every 6 months, real consumption…).

For the commons areas, no monitoring available. The energy consumption is recorded yearly (bills), but not in detail, and the datas are global for all the building. These datas are hardly evaluable for a manager on his own, without the Heating Degree Days for example. It has been done during the program but the difficulty is to continue after.

7/ Conclusion

Main difficulties: working on elderly behaviours. This program helped us to identify this kind of difficulties and we are going to work on this in several french programs in 2013-2014.

Main success: an already aware maintenance manager.

Further activities to be implemented: we are going to propose to each of the participants to continue to follow the consumption of the building by joining one of our other program (E3 : Energy Efficient Establishments)

2- Résidence Béatrix de Faucigny – Cluses

1/ Identification of the partner

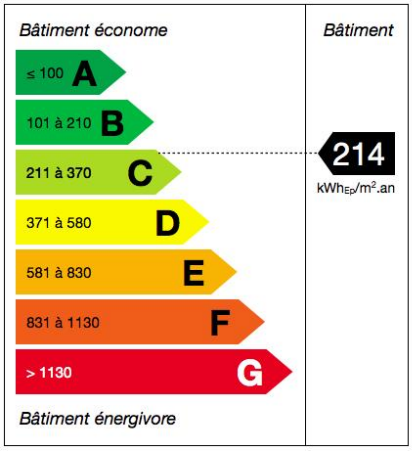
Name of RCHEP : Résidence Béatrix de Faucigny – Cluses

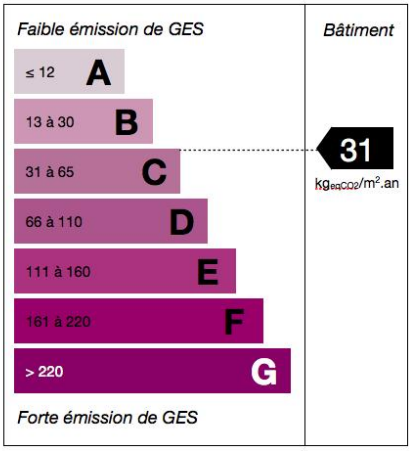
Name of contact : Yvon ROSAY (now retired)

2/ RCHEP main issues

Location	Cluses
Heated surface	3 839 m^2
Year of construction	2001

	Energy
Heating	Gas district heating
Hot water	Gas district heating
Cooking	Electricity
Other uses	Electricity





Average temperature: 22-23°C (average for the 10 residences : 22-23°C)

Energy costs / Total costs : 1,5%

The building consumes all energies combined, 214 kWhpe/m2/year (and 156 kWhEf/m2/an). This is the 4th building of the 10 establishments observed in final energy and the 3rd in primary energy.

If we consider the energy consumption per resident, the building is the 2nd in final energy with 10,778 kWhEf / resident / year. But the 1st, Les Jardins d'Arcadie is a residence of apartments for independent elderly. As a RCHEP, this residence has the lowest consumption.

The building is a concrete construction, isolated according to the standards of thermal regulation in 2001. The property, due to a good summer comfort related to the high inertia of the building does not use air conditioning.

The frames of the common areas, as well as those of the residents bedrooms are in aluminum. These are not standard size, and the too important weight of the windows creates air infiltration. But because of the age of the building, no investment is planned for the moment.

3/Action plan of RCEHP

The most important issue is due to the frames, but the problem is that to solve it, the size of the windows has to be reduced, which is it highly expensive. We oriented the measures on low investments or changes of behaviour.

→ See detailed action plan in annex

4/ Energy efficiency activities implemented in the RCHEP

The RCHEP manager has evaluated the energy contracts for hot water and worked with EDF, a French energy provider, to improve the contract and the installation.

No financial investments will be done on the building renovation.

Activities : training of the technical and managerial team

Measures :

- energy saving lamps or lighting systems
- switch off electric appliances as far as possible
- switch off lamps not used, use of daylight as much as possible
- optimize energy contracts

Documents provided :

- a detailed action plan ;
- energy efficiency experiments in Europe.

5/ Behavioural measure for residents and visitors

Activities : training of the employees to raise awareness

Documents provided :

- a guidebook for employees and visitors ;
- visible signs for a information campaign.

6/ Monitoring when available

No monitoring available. The energy consumption is recorded yearly (bills), but not in detail, and the datas are global for all the building. These datas are hardly evaluable for a manager on his own, without the Heating Degree Days for example. It has been done during the program but the difficulty is to continue after.

7/ Conclusion

Main difficulties: no funds, hardly available staff, the manager retired after the training
Further activities to be implemented: we are going to propose to each of the participants to continue to follow the consumption of the building by joining one of our other program (E3 : Energy Efficient Establishme

3- Pierre Paillet - GRUFFY

1/ Identification of the partner

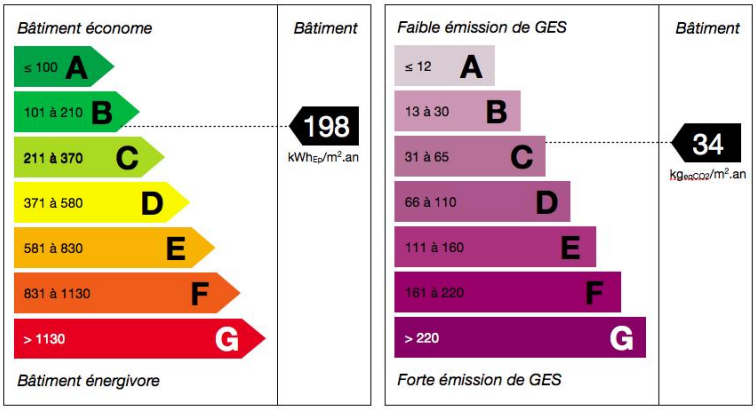
Name of RCHEP : Pierre Paillet - GRUFFY

Name of contact : Olivier HUET

2/ RCHEP main issues

Location	Gruffy
Heated surface	4 100 m^2
Year of construction	1993 - 2010

	Energy
Heating	Gas district heating
Hot water	Gas district heating
Cooking	Electricity
Other uses	Electricity



Average temperature: 23°C (average for the 10 residences: 22-23°C)

Energy costs / Total costs: 3%

The building consumes all energies combined, 198 kWhpe/m2/year (and 150 kWhEf/m2/an). This is the 3rd building of the 10 establishments observed in final energy and the 1st in primary energy.

If we consider the energy consumption per resident, the building is the 7th in final energy with 13,541 kWhEf / resident / year, and 4th in primary energy with 17,831 kWhEp / resident / year. The area related to the number of residents is quite high. For example, the RCHEP Beatrix de Faucigny (214 kWhpe/m2/year, built in 2001) is the second in term of primary and final energy per resident for a surface of 66 m2, against 89 m2 for this one.

The building is a concrete structure, isolated according to the standards of the thermal regulation of 1993, and following the thermal regulation of 2005 for the wing built in 2010, isolated from the outside. The insulation of the roof in the old building is highly compacted due to repeated passages.

The entrance door presents problems of air infiltration.

Ventilation systems in both new and old part of the building are noisy, due to a sizing or debit issues.

3/Action plan of RCEHP

The insulation of the roof in the old part of the building could be easily done and this work will be done in the next 3 years, as the replacement of the entrance door. Those are the priority works identified in the detailed action plan.

→ See detailed action plan in annex

4/ Energy efficiency activities implemented in the RCHEP

The installation of a thermal solar system is under consideration.

Activities: training of the technical and managerial team

Measures :

- energy saving lamps or lighting systems
- switch off electric appliances as far as possible
- switch off lamps not used, use of daylight as much as possible
- try to lower average temperature

Documents provided :

- a detailed action plan ;
- energy efficiency experiments in Europe.

5/ Behavioural measure for residents and visitors

Activities: training of the employees to raise awareness
Documents provided :

- a guidebook for employees and visitors ;
- visible signs for a information campaign.

6/ Monitoring when available

No monitoring available. The energy consumption is recorded yearly (bills), but not in detail, and the datas are global for all the building. These datas are hardly evaluable for a manager on his own, without the Heating Degree Days for example. It has been done during the program but the difficulty is to continue after.

7/ Conclusion

Main difficulties: hardly available staff
Main success: a motivated manager
Further activities to be implemented: The installation of a thermal solar system is under consideration. We are going to propose to each of the participants to continue to follow the consumption of the building by joining one of our other program (E3 : Energy Efficient Establishments)

4- La Bartavelle - MEYTHET

1/ Identification of the partner

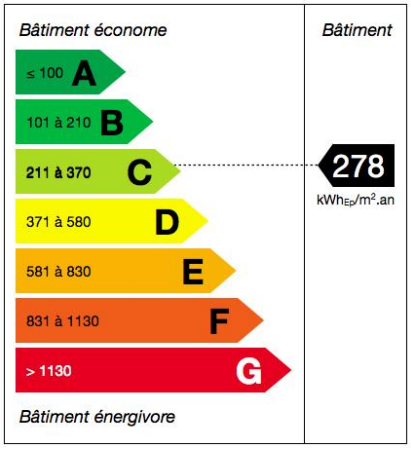
Name of RCHEP : La Bartavelle - MEYTHET

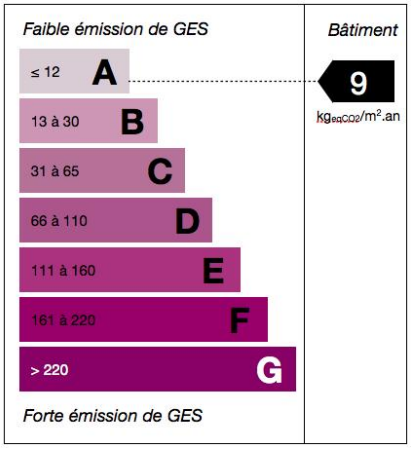
Name of contact : Alain CROSO (maintenance manager)

2/ RCHEP main issues

Location	Meythet
Heated surface	5 358 m^2
Year of construction	2010

	Energy
Heating	Wood – Gas district heating
Hot water	Wood - Gas district heating - Solar
Cooking	Electricity
Other uses	Electricity





Average temperature: 23-24°C (average for the 10 residences : 22-23°C)

The building consumes all energies combined, 278 kWhpe/m2/year (and 167 kWhEf/m2/an). This is the 5th building of the 10 establishments observed in final and primary energy.

If we consider the energy consumption per resident, the building is the 3th in final energy with 11,197 kWhEf / resident / year, and 5th in primary energy with 18,642 kWhEp / resident / year. Although the area related to the number of residents is low, the energy consumption is high. For example, the RCHEP Beatrix de Faucigny (214 kWhpe/m2/year, built in 2001) is the second in term of primary and final energy per resident for a surface of 66 m2, against 57 m2 for this one.

This building is a wood structure, built in 2010. The main problem is due to installation errors on the solar and wood installations.

3/Action plan of RCEHP

Because the building is new, the most important is to fix the problems that occurred on the solar thermal installation and the wood heating system. Since the opening, and because of these problems, the heating consumption has been mainly gas. At the end of the program, those problems are not resolved.

In parallel, the measures have been oriented on changes of behaviour.

→ See detailed action plan in annex

4/ Energy efficiency activities implemented in the RCHEP

Activities : training of the technical and managerial team

Measures :

- energy saving lamps or lighting systems
- switch off electric appliances as far as possible
- switch off lamps not used, use of daylight as much as possible
- try to lower average temperature
- fix the malfunctions of the solar thermal and wood heating system

Documents provided :

- a detailed action plan ;
- energy efficiency experiments in Europe.

5/ Behavioural measure for residents and visitors

Activities : training of the employees to raise awareness
Documents provided :

- a guidebook for employees and visitors ;
- visible signs for a information campaign.

6/ Monitoring when available

No monitoring available. But the wood heating system and the solar thermal installation have separate counters. The energy consumption is recorded yearly (bills), in detail for wood because the heating system is not properly working since the construction. These datas are hardly evaluable for a manager on his own, without the Heating Degree Days for example. It has been done during the program but the difficulty is to continue after.

7/ Conclusion

Main difficulties : hardly available manager and staff
Main success : a technical manager interested in the project
Further activities to be implemented : we work with the institution to address issues related to installation defects. We are going to propose to each of the participants to continue to follow the consumption of the building by joining one of our other program (E3 : Energy Efficient Establishments).

5- Le Passy Flore - PASSY

1/ Identification of the partner

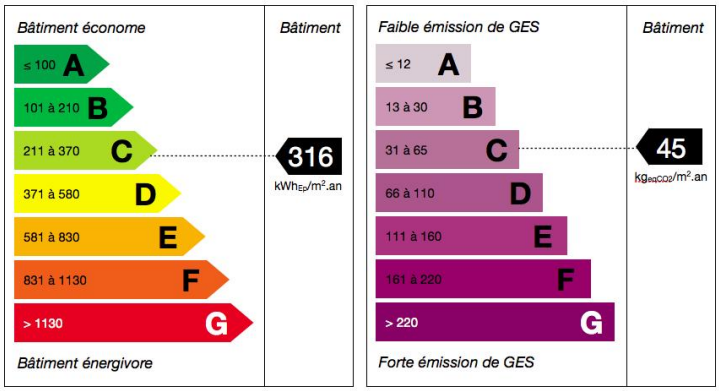
Name of RCHEP : Le Passy Flore - PASSY

Name of contact : Yves TISSOT

2/ RCHEP main issues

Location	Passy
Heated surface	3 500 m^2
Year of construction	1975 - 1976

	Energy
Heating	Gas district heating
Hot water	Gas district heating
Cooking	Electricity
Other uses	Electricity



Average temperature: 22°C (average for the 10 residences : 22-23°C)

The building consumes all energies combined, 316 kWhpe/m2/year (and 228 kWhEf/m2/an). This is the 6th building of the 10 establishments observed in final energy and the 7th in primary energy.

If we consider the energy consumption per resident, the building is the 6th in final energy with 12,853 kWhEf / resident / year, and 3th in primary energy with 17,769 kWhEp / resident / year. The area related to the number of residents is quite low. For example, the RCHEP Beatrix de Faucigny (214 kWhpe/m2/year, built in 2001) is the second in term of primary and final energy per resident for a surface of 66 m2, against 55 m2 for this one.

This residence is a residence for independent elderly. Each has a separate apartment (but collective heating). The restaurant offers lunch and dinner. Joint activities are proposed. Nurses and physiotherapists provide care assistance if needed.

The building is a concrete structure, built in 1975-1976. At that time, the insulation, when it existed, was quite low. The gears have been isolated from the outside in the late eighties.

Heating is currently provided by a gas boiler installed in 2002, but the heaters are convection ones, which is not the most effective in terms of effectiveness and comfort.

3/Action plan of RCEHP

Rehabilitation of the building insulation (roof, walls, windows) is economically relevant given the important energy consumption of the building. The change of radiators for newer devices could allow energy savings. But the lack of funds oriented the measures on low investments or changes of behaviour.

→ See detailed action plan in annex

4/ Energy efficiency activities implemented in the RCHEP

Activities: training of the technical and managerial team

Measures :

- energy saving lamps or lighting systems
- switch off electric appliances as far as possible
- switch off lamps not used, use of daylight as much as possible

Documents provided :

- a detailed action plan ;
- energy efficiency experiments in Europe.

5/ **Behavioural measure for residents and visitors**

Activities: training of the employees to raise awareness

Documents provided :

- a guidebook for employees and visitors ;
- visible signs for a information campaign.

6/ **Monitoring when available**

No monitoring available. The energy consumption is recorded yearly (bills), but not in detail, and the datas are global for all the building. These datas are hardly evaluable for a manager on his own, without the Heating Degree Days for example. It has been done during the program but the difficulty is to continue after.

7/ Conclusion

Main difficulties: no funds, hardly available manager and staff
Main success:
Further activities to be implemented: we are going to propose to each of the participants to continue to follow the consumption of the building by joining one of our other program (E3 : Energy Efficient Establishments)

6- Les Cèdres - Rumilly

1/ Identification of the partner

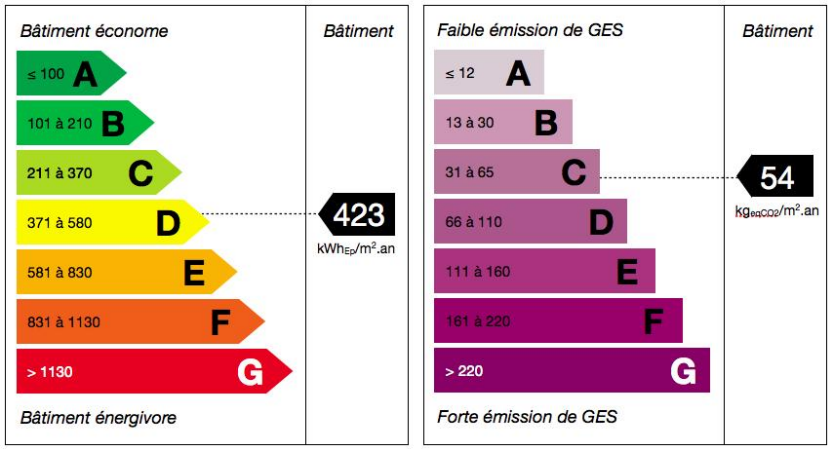
Name of RCHEP: Les Cèdres - Rumilly

Name of contact: Patricia REYNAUD

2/ RCHEP main issues

Location	Rumilly
Heated surface	3 606 m^2
Year of construction	1994

	Energy
Heating	Gas
Hot water	Gas
Cooking	Electricity
Other uses	Electricity



Average temperature: 21-22°C (average for the 10 residences: 22-23°C)

Energy costs / Total costs: 2,4%

The building consumes all energies combined, 423 kWhpe/m2/year (and 285 kWhEf/m2/an). This is the 10th building of the 10 establishments observed in final and primary energy.

If we consider the energy consumption per resident, the building is the 7th in primary energy with 18,726 kWhEp / resident / year. The consumption and the area related to the number of residents are high. For example, the RCHEP Beatrix de Faucigny (214 kWhpe/m2/year, built in 2001) is the second in term of primary and final energy per resident for a surface of 66 m2, against 81 m2 for this one.

The building is a concrete structure, isolated according to the standards of thermal regulation in 1994. The rehabilitation of the building insulation (roof, walls, windows) is economically relevant given the high consumption of the building.

The windows are double glazed (4/10/4 and 4/12/4). The frames are made of aluminum in public areas and wood in the rooms. The aluminum frames seem to pose problems of thermal bridges (occupant discomfort nearby), particularly in the offices on the north. Changing them for recent frames (even aluminum) would be advisable.

All rooms are equipped with exterior shutters. However, the protections of the common parts are internal. They are inadequate, both in terms of thermal comfort in summer (they let the heat in), and in winter (they do not constitute an element of insulation).

The doors to the outside, mainly windows, have air leaks.

3/Action plan of RCEHP

The insulation of the external walls is provided. A new wing has been constructed for the kitchen and the equipments have been changed. The residence is going to be connected to the wood district heating at the end of 2013. Then, the measures have been oriented on low investments or changes of behaviour.

→ See detailed action plan in annex

4/ Energy efficiency activities implemented in the RCHEP

A new wing has been constructed for the kitchen and the equipments have been changed. The residence is going to be connected to the wood district heating at the end of 2013.

Activities: training of the technical and managerial team

Measures :
- energy saving lamps or lighting systems
- switch off electric appliances as far as possible
- switch off lamps not used, use of daylight as much as possible

Documents provided :
- a detailed action plan ;
- energy efficiency experiments in Europe.

5/ Behavioural measure for residents and visitors

Activities: training of the employees to raise awareness

Documents provided :
- a guidebook for employees and visitors ;
- visible signs for a information campaign.

6/ **Monitoring when available**

No monitoring available. The energy consumption is recorded yearly (bills), but not in detail, and the datas are global for all the building. These datas are hardly evaluable for a manager on his own,

without the Heating Degree Days for example. It has been done during the program but the difficulty is to continue after.

7/ Conclusion

Main difficulties: Manager and staff hardly available
Main success: A Sustainable Development Team has been formed
Further activities to be implemented: The residence is going to be connected to the wood district heating at the end of 2013. We are going to propose to each of the participants to continue to follow the consumption of the building by joining one of our other program (E3 : Energy Efficient Establishments)

7- EHPAD Vivre Ensemble – Saint Pierre en Faucigny

1/ Identification of the partner

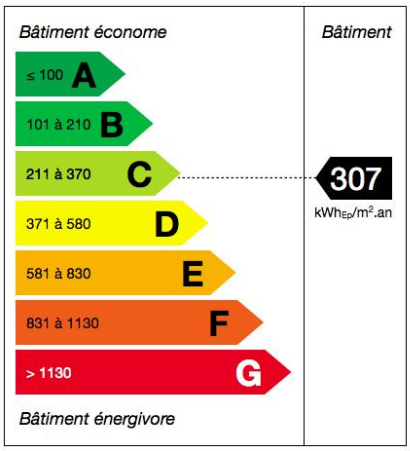
Name of RCHEP : EHPAD Vivre Ensemble – Saint Pierre en Faucigny

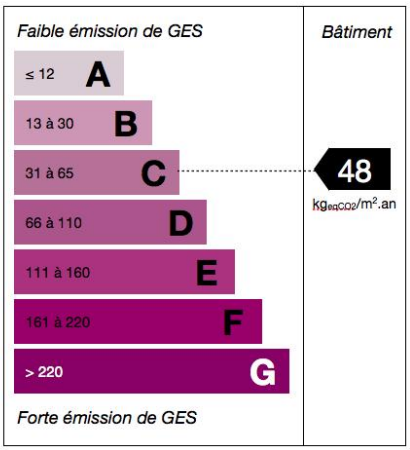
Name of contact : Jean-Paul VIAL (now retired)

2/ RCHEP main issues

Location	St Pierre en Faucigny
Heated surface	3 063 m^2
Year of construction	1992

	Energy
Heating	Gas district heating
Hot water	Gas district heating
Cooking	Electricity
Other uses	Electricity





Average temperature : 22°C (average for the 10 residences : 22-23°C)

Energy costs / Total costs : 2%

The building consumes all energies combined, 307 kWhpe/m2/year (and 234 kWhEf/m2/an). This is the 7th building of the 10 establishments observed in final and and the 6th in primary energy.

If we consider the energy consumption per resident, the building is the 10th in final energy with 15,210 kWhEf / resident / year, and 9th in primary energy with 19,931 kWhEp / resident / year. Although the area related to the number of residents is low, the energy consumption is high. For example, the RCHEP Beatrix de Faucigny (214 kWhpe/m2/year, built in 2001) is the second in term of primary and final energy per resident for a surface of 66 m2, against 62 m2 for this one.

The building is a wooden structure built in 1992 and isolated following the standards of thermal regulation. A large glass roof forms a major weak point in terms of thermal insulation. The doors on the front panels have problems with air infiltration.

The regulatory maintenance of the ventilation system is performed. However, the ventilation of the kitchen is down for years now.

The rehabilitation of the building insulation (roof, walls, windows) is relevant in economic terms given the high consumption of the building.

3/Action plan of RCEHP

The construction of a new wing has been decided at the beginning of the program so no funds were available for new works on the old wing. We decided to orient the measures on low investments or changes of behaviour.

→ See detailed action plan in annex

4/ Energy efficiency activities implemented in the RCHEP

Documents provided :

- a detailed action plan ;
- energy efficiency experiments in Europe;

5/ **Behavioural measure for residents and visitors**

The previous manager retired after we've done the audit and the new manager decided finally that he won't be available enough to pursue the program.

6/ Monitoring when available

No monitoring available. The energy consumption is recorded yearly (bills), but not in detail, and the datas are global for all the building. These datas are hardly evaluable for a manager on his own, without the Heating Degree Days for example.

7/ Conclusion

Main difficulties: The previous manager retired after we've done the audit and the new manager decided finally that he won't be available enough to pursue the program.
Further activities to be implemented: none

8- Le Grand Chêne - SEYNOD

1/ Identification of the partner

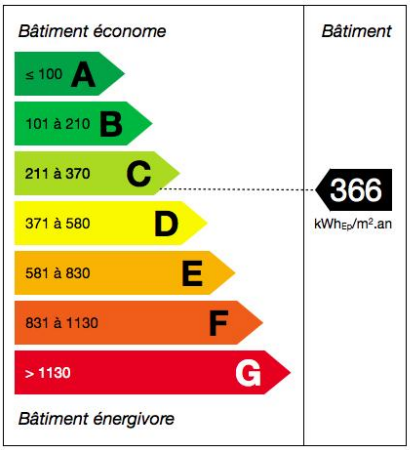
Name of RCHEP: Le Grand Chêne - SEYNOD

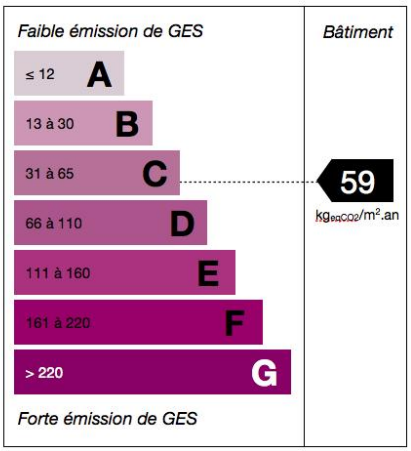
Name of contact : Régine GRANDEMENGE then Mme JACQUEMOUD

2/ RCHEP main issues

Location	Seynod
Heated surface	3 306 m^2
Year of construction	1994

	Energy
Heating	Gas district heating
Hot water	Gas district heating
Cooking	Electricity
Other uses	Electricity





Average temperature : 23-24°C (average for the 10 residences : 22-23°C)

Energy costs / Total costs : 2,2%

The building consumes all energies combined, 366 kWhpe/m2/year (and 284 kWhEf/m2/an). This is the 9th building of the 10 establishments observed in final and primary energy.

If we consider the energy consumption per resident, the building is the 8th in final energy with 14,767 kWhEf / resident / year, and the 7th in primary energy with 19,009 kWhEp / resident / year. Although the area related to the number of residents is low, the energy consumption is high. For example, the RCHEP Beatrix de Faucigny (214 kWhpe/m2/year, built in 2001) is the second in term of primary and final energy per resident for a surface of 66 m2, against 47 m2 for this one.

The building is a concrete structure built in 1994, with an extension built in 2002-2003. The extension is isolated according to the standards of thermal regulation in 2000, but the part from 1994 need to be more insulated.

The building is a concrete structure built in 1994, with an extension built in 2002-2003. The extension is due to be isolated according to the standards of thermal regulation in 2000, but the part from 1994 need to be more insulated. The windows are all double glazed windows. The frames of the common areas, as well as those of the bedrooms are PVC. The window seals were redone. The major problem of air infiltration is due to the large automatic glass door of the entrance.

3/Action plan of RCEHP

The investment in the renovation of the building (insulation and main door) is not planned at this time. So the measures have been oriented on low investments or changes of behaviour.

→ See detailed action plan in annex

3/ Energy efficiency activities implemented in the RCHEP

The building is already equipped with 33 kW of photovoltaic panels and 22m2 of solar thermal panels (Prioriterre intervened during the study phase). No funds are available for important renovation for the moment.

Activities: training of the technical and managerial team

Measures :

- energy saving lamps or lighting systems
- switch off electric appliances as far as possible
- switch off lamps not used, use of daylight as much as possible
- try to lower average temperature
- tell to the staff how to use thermostatic valves

Documents provided :

- a detailed action plan ;
- energy efficiency experiments in Europe;

4/ Behavioural measure for residents and visitors

Activities: training of the employees to raise awareness

Documents provided :

- a guidebook for employees and visitors ;
- visible signs for a information campaign.

5/ Monitoring when available

No monitoring available. The energy consumption is recorded yearly (bills), but not in detail, and the datas are global for all the building. These datas are hardly evaluable for a manager on his own, without the Heating Degree Days for example. It has been done during the program but the difficulty is to continue after.

7/ Conclusion

Main difficulties :

- the most effective work can't be done for the moment due to the lack of funding
- the manager changed during the program

Main success : the new manager is as motivated as the previous one !

Further activities to be implemented : we are going to propose to each of the participants to continue to follow the consumption of the building by joining one of our other program (E3 : Energy Efficient Establishments)

9- EHPAD Grange - Taninges

1/ Identification of the partner

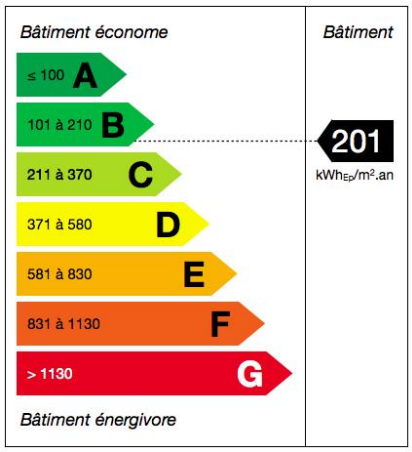
Name of RCHEP: EHPAD Grange - Taninges

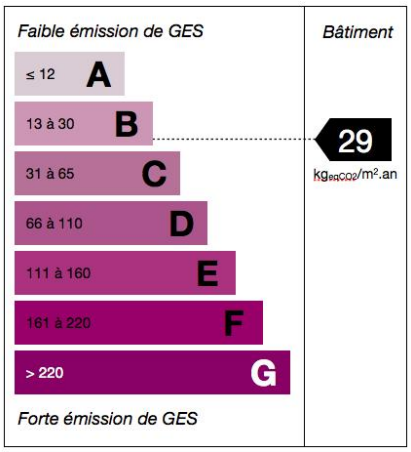
Name of contact: Karl Koukoui

2/ RCHEP main issues

Location	Taninges
Heated surface	6 250 m^2
Year of construction	1928 – 1975 – 1985 – 1996

	Energy
Heating	Oil
Hot water	Oil
Cooking	Electricity
Other uses	Electricity





Average temperature : 24°C (average for the 10 residences : 22-23°C)

The building consumes all energies combined, 201 kWhpe/m2/year (and 129 kWhEf/m2/an). This is the second building of the 10 establishments observed in final and primary energy. But this is not due to a well insulated building. The four parts of the establishment are really different in term of insulation.

If we consider the energy consumption per resident, the building is the 4th in final energy with 12,541 kWhEf / resident / year, and 8th in primary energy with 19,502 kWhEp / resident / year. The area related to the number of residents is high. For example, the RCHEP Beatrix de Faucigny (214 kWhpe/m2/year, built in 2001) is the second in term of primary and final energy per resident for a surface of 66 m2, against 95 m2 for this one.

Originally, this is a stone building dating from 1928 and extended in 1975 on the ground floor. In 1985-86, the rooms were in the attic and roof insulation on this part is insufficient (10 cm). Finally, an extension was made in 1996 and isolated according to the standards of the moment. It includes the dining room, some bedrooms, garages and treatment rooms. The windows are double glazed, but of different ages. The frames of the common areas, as well as those rooms are made of wood or PVC for the latest.

The rooms and public areas are equipped with exterior shutters on the ground floor and wooden shutters on the 1st floor. However, the part under the roof in the attic is not equipped with external protection, only curtains.

3/Action plan of RCEHP

Rehabilitation of building insulation in its entirety is not relevant but it may be at least in the less well insulated and the most subject to heat during the summer (attic under the roof). Unfortunately, this won't be done soon, because important funds have been engaged in the construction of a new wing. However, this new wing will be heated by wood and this system will replace the old oil one.

→ See detailed action plan in annex

4/ Energy efficiency activities implemented in the RCHEP

Measures :

- energy saving lamps or lighting systems
- switch off electric appliances as far as possible
- switch off lamps not used, use of daylight as much as possible
- try to lower average temperature
- optimize energy contracts

Documents provided :

- a detailed action plan ;
- energy efficiency experiments in Europe;

5/ Behavioural measure for residents and visitors

Activities : training of the employees to raise awareness

Documents provided :

- a guidebook for employees and visitors ;
- visible signs for a information campaign.

6/ Monitoring when available

No monitoring available. The energy consumption is recorded yearly (bills), but not in detail, and the datas are global for all the building. These datas are hardly evaluable for a manager on his own, without the Heating Degree Days for example. It has been done during the program but the difficulty is to continue after.

7/ Conclusion

Main difficulties : hardly available employees and manager, the funds were already engaged in the new project
Main success : the new project has been a point of interest for raising awareness
further activities to be implemented :

- construction of a new wing with a wood heating system which replace the actual oil heating system
- we are going to propose to each of the participants to continue to follow the consumption of the building by joining one of our other program (E3 : Energy Efficient Establishments)

10- EHPAD Les Erables – Veigy Foncenex

1/ Identification of the partner

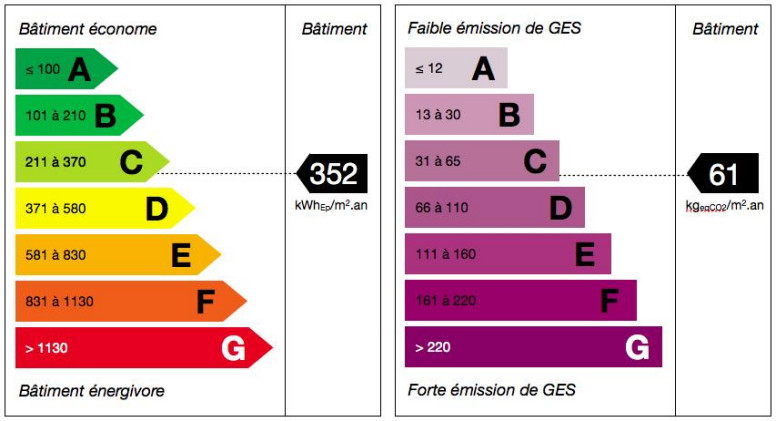
Name of RCHEP : EHPAD Les Erables – Veigy Foncenex

Name of contact : Aurelia GAMBARAZA

2/ RCHEP main issues

Location	Veigy-Foncenex
Heated surface	2 836 m^2
Year of construction	2000

	Energy
Heating	Propane
Hot water	Propane
Cooking	Electricity
Other uses	Electricity



Average temperature : 24-25°C (average for the 10 residences : 22-23°C)

Energy costs / Total costs : 3,2%

The building consumes all energies combined, 352 kWhpe/m2/year (and 261 kWhEf/m2/an). This is the eighth building of the 10 establishments observed in final and primary energy.

If we consider the energy consumption per resident, the building is the 9th in final energy with 14,889 kWhEf / resident / year, and 10th in primary energy with 20,058 kWhEp / resident / year. Although the area related to the number of residents is low, the energy consumption is high. For example, the RCHEP Beatrix de Faucigny (214 kWhpe/m2/year, built in 2001) is the second in term of primary and final energy per resident for a surface of 66 m2, against 57 m2 for this one.

The building is in concrete, isolated according to the standards of thermal regulation in 1988, the 2000 thermal regulation was not in application at the time of filing a permit for this project. The insulation

level of the time was quite low, which explains the significant energy consumption. The rehabilitation of the building insulation (roof, walls, windows) is economically relevant given the high consumption of the building.

Propane is also the most expensive energy in France. But the heating system can't be change now because of the age of the building, and there is no funds for it.

3/Action plan of RCEHP

The most important thing is the insulation of the building but the lack of funds oriented the measures on low investments or changes of behaviour.

→ See detailed action plan in annex

4/ Energy efficiency activities implemented in the RCHEP

Activities: training of the technical and managerial team

Measures :

- energy saving lamps or lighting systems
- switch off electric appliances as far as possible
- switch off lamps not used, use of daylight as much as possible
- try to lower average temperature
- optimize energy contracts

Documents provided :

- a detailed action plan ;
- energy efficiency experiments in Europe.

5/ Behavioural measure for residents and visitors

Activities: training of the employees to raise awareness

Documents provided :

- a guidebook for employees and visitors ;
- visible signs for a information campaign.

6/ Monitoring when available

No monitoring available. The energy consumption is recorded yearly (bills), but not in detail, and the datas are global for all the building. These datas are hardly evaluable for a manager on his own, without the Heating Degree Days for example. It has been done during the program but the difficulty is to continue after.

7/ Conclusion

Main difficulties : no funds, hardly available employees
Main success : a really involved manager
Further activities to be implemented : we are going to propose to each of the participants to continue to follow the consumption of the building by joining one of our other program (E3 : Energy Efficient Establishments)