Energy pre-diagnosis sheet of the building: "the longhouse"

General information about the building

Historical data:

1894: Dwelling house / nursery.
2003: Change of destination.
2008: Renovation/rehabilitation in lodging/reception.

Type of occupation:

Weekly occupancy <30% (mainly summer period).
Annual attendance: approximately 150 people.

Size:

Ground floor + first floor: 284 m² including a heated area close to 230m².

Strengths and weaknesses

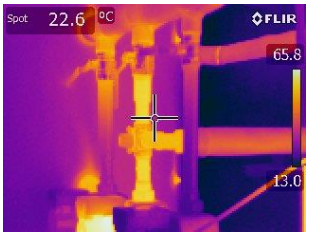
Present situation

Good | Medium | Bad

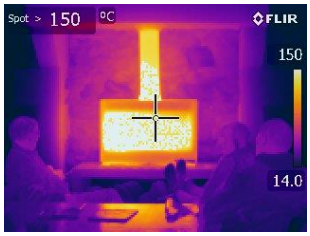
Envelope	Wall	Glazing	Roofing	Low floor
	Stone + air gap + insulator + plaster board - except for wall of reception room not insulated	Double glazed windows with wood joinery	Slate + insulator + plaster board	concrete slab + screed+ tiles
Heating	Output	Distribution	Regulation	Emission
	wood boiler « Buderus » 10-42 kW + wood burner	copper network poorly insulated	No regulation / no programming	radiant heaters
Domestic hot water	Output	Distribution	Storage	Tapping point
	wood boiler « Buderus » 10-42 kW	copper network insulated in boiler room and uninsulated in radiators distribution	balloons isolated 855 liters + 290 liters	WC / shower + Kitchen without water saving devices

Infrared thermography extract

Defects : Cheeks skylights and exterior joinery



Defects : Lack of timely isolation on the EC network in boiler room



Défauts : Temp. de surfaces faibles autour de l'insert

Specific electricity

Electrical appliances:

Power of kitchen equipment not listed (1 hood, 1 stove, 1 deep fryer, 1 kettle, 1 dishwasher …),
Ventilation unit (not listed power, inaccessible):
Measured flows (3 WC) : 24, 28 and 7 m^3/h,
Measured flows (2 showers) : 54 and 47 m^3/h.

Lighting:

Natural light illuminance (center room kitchen) : 10 lux,
Artificial light illuminance level (center room kitchen): 660 lux,
Level of natural light illumination (center room reception): 74 lux,
Artificial light illuminance level (center room reception) : 420 lux,
24 lamps of 60 W,
18 lamps of 40 W,
4 neon of 56 W,
3 neon of 35 W,
7 compact fluorescent lamps (not raised power)
For a total installed power close to 2700W.

The recommendations

Management:

- To accompany to the change by integrating the work in the multi-year plan (priority to problems of moisture and infiltration),
- Energetic metering (according to meter access)?

Buildings:

- of management of moisture of the East wall of the reception room, outdoor: management of flows, groundwater management and disposal vegetation: Storage leaves ...
- Moisture management on the roof (boiler area) and impact on the neighboring building,
- Insulate the uninsulated walls in contact with the outside (homogeneity problem of the thermal envelope: delta of 3.5 ° C in the surface temperature in the same atmosphere heated)
- Important close masks (2 trees are near the building on the west side). Reflect on medium and long-term impacts: facade maintenance, reduction of free contributions and reduced visual comfort.

Equipment:

- No air inlets in connection with the simple flow-VMC, install air inlets complying with regulatory rates,
- Complete heat cladding of uninsulated hot water systems

- Constraint of the manual loading at the renewal of the heating appliance, favor automatic mode, heating network?,
- Install water saving devices in toilets and kitchen,
- When renewing of the lamps, reducing installed power (Led pass).