

HUNGARY: Pszichiátriai Betegek és Fogyatékosok Otthona, Lesencetomaj (Psychiatric patients and disabled people's home)

The institute is located in a former castle owned by the famous noble Esterházy family, of the Kingdom of Hungary from the 17th century on. That is also the construction time of Lesencetomaj Castle.

The original castle is enlarged from 1955 on by annex buildings, enabling place for 196 patients within living rooms up to 6-10 people. Number of employees is: 115 people.

The institution aims to carry out nursing-care provider services for specialized care focused to mentally disabled adults, disabled and other patients, and adult psychiatric patients, which are fully boarded. Additional services for young patients with moderate intellectual disabilities, hosted in 10 double rooms, with bath was established in line with construction of a new building where the laundry and institute's office is located.

The institution is offering professional tools for our work of "individual care plans", group-therapies, community social work and light employment in "protected workshops". The institution is supported in these care services by Hand in Hand Foundation www.kezenfogva.hu foundation

Parallel to that for warm water production a parabola test-mirror with automatic sun adjustment steering module was installed by a sponsoring initiative in 2009, by MVM - Hungarian Electricity Power Company.

Beside this condition of kitchen equipment is poor and has to be updated.



PROJECT SUMMARY

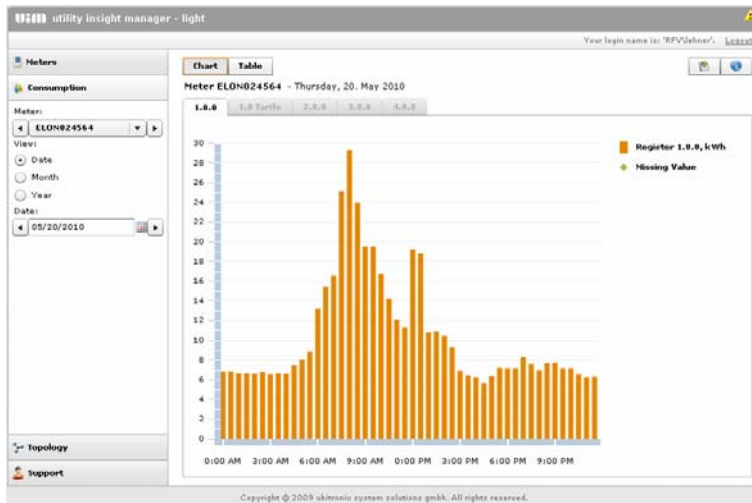
| | |
|------------------------------------|----------------------------|
| Company name (acronym) | Lesencetomaj |
| First metering installed | 1 st March 2010 |
| Baseline consumption (2006 – 2008) | 345 kWh/m2/a |
| Final consumption (2009 – 2010) | |
| Savings / avoided consumption | About – 24% *) |

Saving generated by renewal of heating boilers

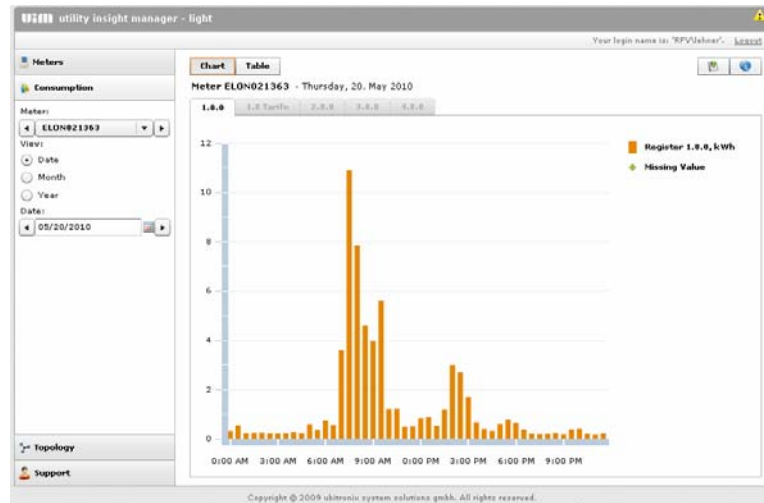
STATUS QUO ANALYSIS

By a detailed “Energy Audit”, within last 20 years achieved changes of building infrastructure have to be evaluated, Renewal and maintenance of building infrastructure was not executed in a coordinative manner, given by this energy savings of renewed heating boilers created only round 24% less gas consumption.

Weakness is given in operation of kitchen equipment / laundry is complete renewed placed in a new building. Given by existing operation schedule, peak consumption, is given between 7:00 - 8:00 in the morning up to 15:00 in the afternoon.



Overall electricity consumption 20 May 2010



electricity consumption in kitchen

Over all consumption metering of the institution and metering of kitchen and laundry shows this problem clearly.

Given by all this detailed reasons, building performance indicator is round 345 kWh/m²/a, reduced by about 24% gas consumption reduction, which will be get response in 2009/2010 data analysis which could be now undertaken with end of heating season.

NEED FOR INTERVENTIONS

By establishment of an Energy Service Contracting proceeding – via a 3PF tool update of building infrastructure focused to building envelope (isolations, windows) have to be improved.

Condition of building structure – given by first “Energy Check” analysis will allow improvement of building performance indicator up to about 60 kWh/m²/a, given by partly historic building structures. Needed investment could be provided by an Energy/Efficient Investment Programme on County level

SME POINT OF VIEW

Management of institution is open for any technical and structural improvements of building infrastructure and envelope - so fare they are open for “Energy and Operation Audits”.

HU-IM part of aim4SMEs Project: List of Public Buildings, Veszprém County

Intelligent Energy  Europe

Contract no. EIE/07/136/SI2.466711, Duration: 12/2007 – 03/2010

| | | | | | |
|---|---------------------------------|--|--|-------------------|-----------------|
| 9 | Name of Building/Company | | Pszichiátriai Betegek és Fogyatékosok Otthona, Lesencetomaj (Psychiatric patients and disabled people's home) | | |
| | Address | | | | |
| | Street | | Kossuth u. 95 | | |
| | City | | 8318 Lesencetomaj, | | |
| | Name of Director | | First name | Last name | |
| | | | Ferenc | Szántó | |
| | Contact | | Phone | Mobile | Email |
| | | | 87/536-006 | 70/509-3250 | pbfo@vpmegye.hu |
| | Clerk (HVAC Technician) | | | | |
| | Name | | First name | Last name | |
| | | Teréz | Kocsisné Hosszú | | |
| Contact | | Phone | Mobile | Email | |
| | | 87/536-006 | | pbfo@vpmegye.hu | |
| Buildings Key-Data | | | Occupation: | | |
| Year of construction: | 1955 (?) | | hours per day: | 24 | |
| Usable Area in m ² | 3,955 | | days per week: | 7 | |
| Number of Users | 115 (Staff)+196 | | weeks per year: | 52 | |
| Annual Energy Consumption | | | 2008 | 2007 | 2006 |
| Electricity (kWh) | 200,208 | | 197,046 | 188,441 | |
| Gas (GJ) | 4,073 | | 4,281 | 4,289 | |
| Gas (m ³) | 118,926 | | 124,989 | 125,228 | |
| Gas (kWh) | 1,131,545 | | 1,189,233 | 1,191,507 | |
| Summary (kWh) | 1,331,753 | | 1,386,279 | 1,379,948 | |
| Electricity 1 kWh/HUF | 44.74 | | 34.08 | 32.91 | |
| Gas 1 kWh/HUF | 12.39 | | 12.07 | 9.88 | |
| Energy Index (kWh/m²/a) | 336.73 | | 350.51 | 348.91 | |
| Annual Cost of Energy consumption | | | 2008 | 2007 | 2006 |
| Electricity (HUF) | 8,956,784 | | 6,715,264 | 6,200,809 | |
| Gas (HUF) | 14,018,426 | | 14,352,736 | 11,775,208 | |
| Others | | | | | |
| Water (HUF) | 7,383,156 | | 5,835,616 | 5,103,256 | |
| Water (m ³) | 8,523 | | 8,196 | 7,352 | |
| Summary (HUF) | 30,358,366 | | 26,903,616 | 23,079,273 | |
| Technical specification of meters | | Registration number and products name | | | View |
| Electricity | | Registration number meter 1: | | | |
| Connection #: | 638267 | Meter #: 20180736100296 | | | |
| Modem #: | 650010790014708 | Typus: SL 7000.SL761C 230V 5A | | | |
| Gas | | Registration number meter 1: | | | |
| | | 00K3855605 | | | |
| | | Producer: | | | |
| Others | | Registration number meter 1: | | | |
| | | Producer: | | | |
| Water | | Registration number meter 1: | | | |
| | | Producer: | | | |
| Remarks: | | | | | |
| Former Count Eszterházy estate 18th century - in 1945, transferred as State property from 1955 used as Home for psychiatric patients and people with disabilities | | | | | |
| HU-IM E-Metering equipment: | | E-Meters: | Date of Installation: 1 March 2010 | | |
| DC: LJ 00037 227 | | Main Building: ELON021806 (new) ELON021 807 (old+k) | | | |
| CT: ELON 0245 576 | | Kitchen: | ELON021 363 | | |
| | | Laundry (Office): | ELON021 351 | | |

Key data sheet of "Energy Check"

AIM 4 SMEs

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AIM 4 SMEs is a Europe-wide project to demonstrate the potential for energy savings from automatic intelligent metering in small/medium-sized enterprises.

The project involves nine partners from five countries (Austria, Hungary, Poland, Portugal and the UK), including businesses, local/regional energy agencies, an association of municipalities, universities and a utility company.

Intelligent Energy  **Europe**

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