

Introduction to the survey of the lift and escalator market in Poland

1. Description of the lift & escalator market in Poland

There are approximately 85 thousand lifts installed in Poland in the following sectors:

- residential,
- offices,
- hospitals,
- hotels,
- industrial buildings.

Market of elevators in Poland can be divided in three following periods.

1. Up to the end of 1960s.

The elevators installed in this period are called “tradycja” (tradition). After the second world war they were manufactured by the state owned Polish lift manufacturer.

There was no competitor existent in Poland for this manufacturer.

There are still approximately 9680 lifts existent in Poland, which were installed in this period.

2. From the early 1970s to the early 1990s.

The elevators installed in this period are called “licencja” (licence).

They were manufactured by the same state-owned Polish manufacturer under the license which was bought by the Swedish company. The original Swedish lifts did not have the doors. After modification these elevators were equipped with doors. The quality of lifts which were manufactured in this period was poor. It was worse than the quality of the elevators manufactured in years 1950s and 1960s. There are still above 40 000 lifts existent in Poland, which were installed in this period – mainly in residential sector which was rapidly growing in 1970s and 1980s.

3. After the year 1990

Beginning 1990, the transformation of Polish economy from the central planned to the free market economy has started. State owned lift manufacturer was privatized and was divided into several small private firms. Production of types of lifts which were manufactured in 1970s and 1980s was stopped. After 1993 large International companies arrived on the Polish market. They started to set up their affiliates in Poland.

Also private Polish companies arrived on the market. These companies were not only servicing but were also modernizing the existent lift systems.

There are approximately 1200 escalators and moving walks in Poland. They are mainly installed in shopping centers, metro stations, airports and railway stations. Several escalators are also installed in large hotels and office buildings.

Most of the escalators and moving walks in Poland were installed in years 1990s and 2000s.

2. Construction sector and its recent evolution in the country.

Before 1990s the market of elevators was monopolised by one state owned manufacturer. The situation has changed during the transformation to the market

economy in the early 1990s and now it is similar to the other west European countries.

There are four international leading lift manufacturers in Poland; Kone, Otis, Schindler and Thyssen-Krupp. There are approximately 30 strong private Polish companies designing, completing, installing and servicing lift systems using components bought on the international market and there are between 300 and 400 small firms servicing lifts. There is no elevator and no escalator factory Poland. To sell the elevators, the company has to have the permission of the Technical Inspection Bureau (UDT).

3. Electricity production in the country and its impact on CO2 emissions

Electricity production in Poland in years 2004 – 2006:

2004 - 154,2 TWh

2005 - 156,9 TWh

2006 - 161,7 TWh

2007 - 159,4 TWh

The impact of CO2 emission in Poland from electricity production is huge because it relies in the country on hard and brown coal. Ninety five per cent (95) of electric energy is generated in coal fired power plants as well as in coal fired heat and power stations. There is no nuclear power plant existent in Poland.

Coefficients of CO2 emission:

- for the year 2005: 0,983 [kg CO2/kWh]

- for the year 2006(last available): 0,971 [kg CO2/kWh]

As a result, the share of carbon dioxide emission from electricity generation represents approximately 40% of country's overall dioxide emission.

Majority of power plants were build in the 1960s, 1970s of the twentieths century. Because the electricity prices were kept on a low level for many years for political reasons, there were also little money for the modernisation of these plants. As a result there is a rapid need to modernise the Polish power plants or to build a new ones in coming years. Now the electricity prices are still regulated by the state for private consumers but they are no more regulated for the industry.

4. Energy profile of the lift and escalator market.

The quantity of elevators and escalators in Poland is relatively small and it is not growing fast. In recent years there were annually approximately 3000 new or modernised lifts installed in Poland. Energy efficiency of the elevators was not the main priority in Poland because the prices of electrical energy were relatively low. The main concern of the Technical Inspection Bureau (UDT) was the safety of the lifts. About 40 000 of lifts should be modernized or replaced in coming years because of the safety reasons. This applies mainly to the lifts systems of a poor quality which were installed in 1970s and 1980s.

For the Polish Elevator Manufacturers Association (PSPD) not only the safety but also the energy efficiency of elevators is a very important issue.

5. Percived prospect of evaluation and improvement.

Every new building in Poland has to have an energy certificate from January 01 2009. Unfortunately lifts and escalators are not included in this certificates.

However, with the rapidly growing energy prices, building owners will be looking how to lower the energy consumption of the elevators. In the first step the lighting of the

cabins would be changed to the energy efficient one. There are energy efficient LED lighting systems for lifts available on the Polish market.

Polish customers will be becoming more aware of energy costs of electrical equipment over the lifecycle (LCC). As a result not the product with the lowest initial cost but the product with the lowest LCC cost will be chosen . Unfortunately this does not apply to the developers, who will be choosing the products with the lowest initial prices.

Because about 40 000 lifts in Poland should be modernized in coming years due to the safety reasons, there is a large potential to improve also the energy efficiency of these lifts.