EXAMPLE OF THE WATER AND ENERGY SAVINGS OF A BUSINESS HOTEL AFTER INSTALLATION OF ELLESS®

ELLESS® water saving products are installed in a hotel in Sweden with 100 room. The hotel has approximately 1.2 guests per day on a yearly basis.

**Energy:** SEK 0.70 per kWh (average price in Sweden)

**Water:** SEK 17.50 per m³ (median price in Sweden)

The year-average temperature of cold water in Sweden is 8 degrees Celsius. It takes 40 Wh to heat 1 liter of 8-degree water to 40 degrees Celsius (average water temperature when taking a shower). The heating and distribution losses are 10%. To increase the temperature of 1 m³ of water by 1°, approximately 1.16 kWh are needed.

\[(40 - 8 \text{ degrees}) \times 1,16 \times 100/90 = 41,24 \text{ kWh}.\]

The average price of 1 m³ of 40-degree hot water is according to this:

\[41,24 \times 0,70 + 17,5 = \text{SEK 46,37/m}^3\text{ (VAT not included)}\]

The average water savings with ELLESS® faucet aerators are approx. 4 liters/min (sink). Time in use approx. 6* minutes per person and day.

The average water savings with ELLESS® showers are approx. 6 liters/min. Time in use approx. 7** minutes per person and day.

* We have estimated the time of use for sink and shower to 7.2 minutes/day (6*1.2) Other calculations say 10 minutes. In addition, cleaners use the sink when they clean the bathroom.

** Statistically, an average Swedish person showers approximately 7 minutes/day.

| Savings (sink): 100 x 1,2 x 4 lit/min x 6* x 365 x 0,8 x 46,37 | SEK 38,995 |
| Savings (shower): 100 x 1,2 x 6 lit/min x 7** x 365 x 0,8 x 46,37 | SEK 68,242 |
| Savings with ELLESS® shower hose or reducing valve LSP-109: 100 x 1,2 x 1,5 l/min x 7 x 365 x 0,8 x 46,37 | SEK 17,060 |
| Total savings 38,995 + 68,242 + 17,060 = | SEK 124,297 |
| VAT (25%) | SEK 24,859 |
| Sum including VAT | SEK 99,438 |

Cost of investment from SEK 18.300 + VAT (25%) = SEK 22.875

1 tap aerator LSP-005/6 RSK 8242165 (sink) +
1 hand shower LSP-311 RSK 8183690 +
1 saving hose (PVC-free) LSP-130/UV RSK 8181925, 1.7 m

**Pay-back time:**

\[22.875 / (124.297 / 365) = 63 \text{ DAYS}\]