

### Cost competitive and flexible asset base



### Power generation breakdown 2015

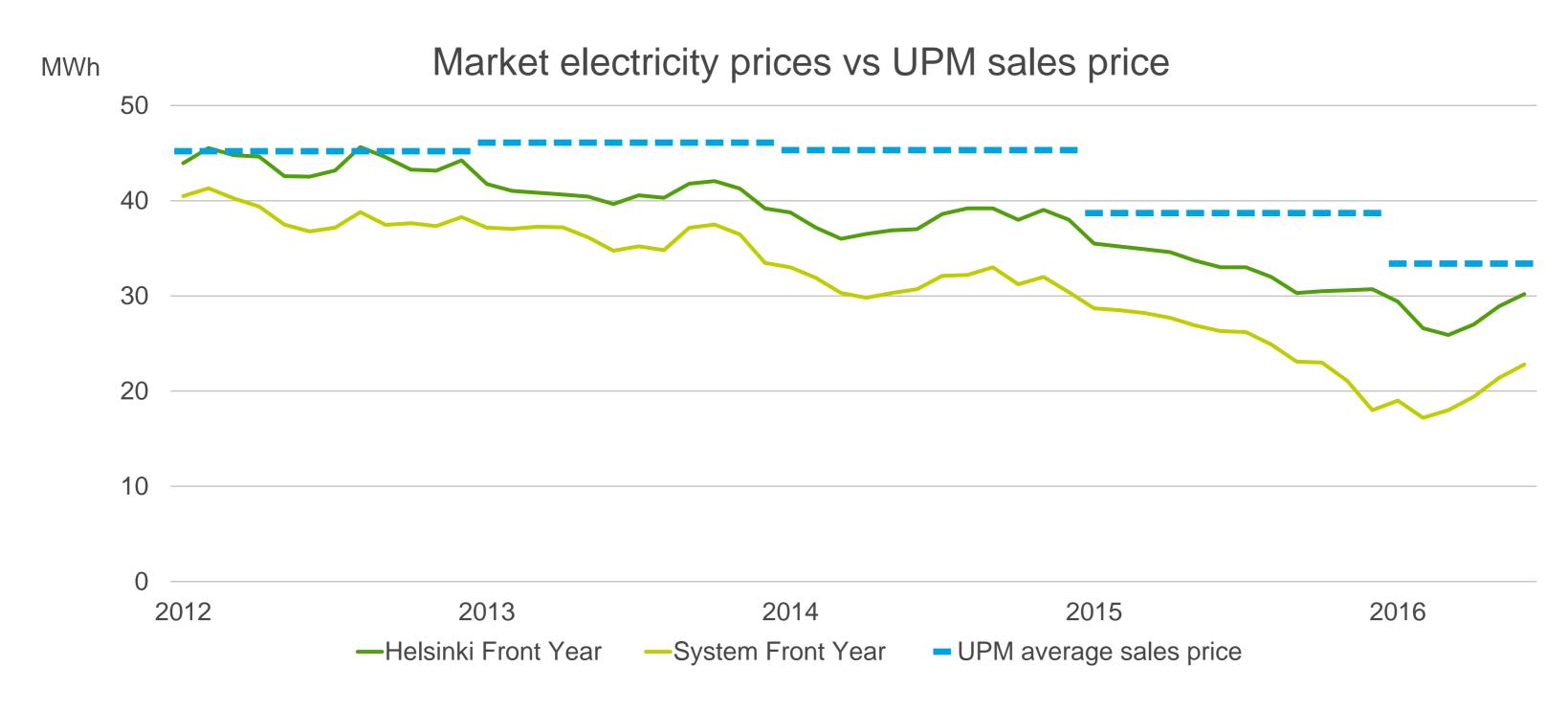
Condensing power

Nuclear as reliable base load with world-class availability performance

Flexible hydro production with optimisation opportunities

## Cost efficient generation enable robust profitability also in challenging market environment

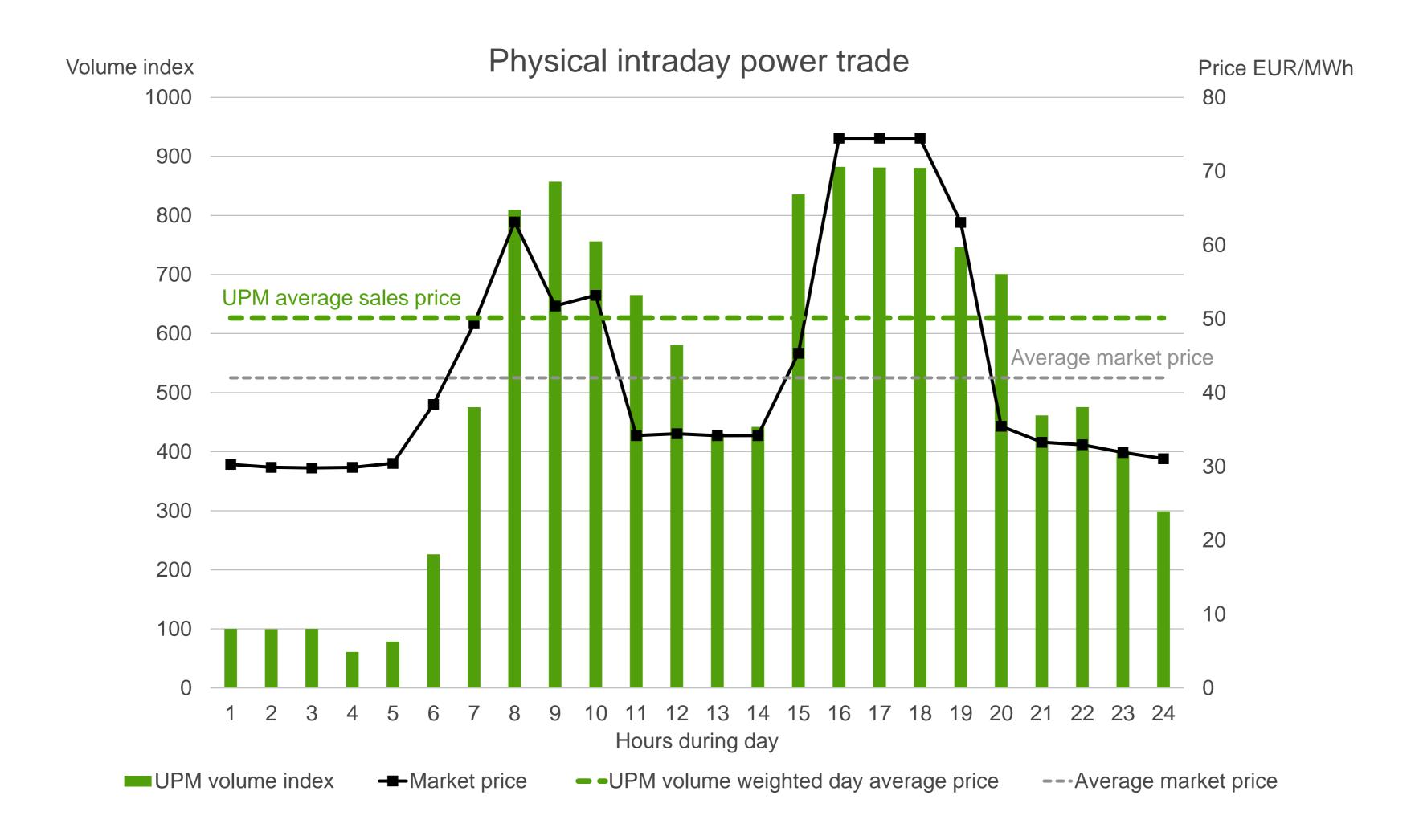




Profitability	2012	2013	2014	2015	H1 2016
Comparable EBIT, EURm	217	186	202	181	55
as % of sales	45.0	39.9	43.5	43.6	31.1

# Case: Physical value creation by hydro optimization





### Case: The expansion of the Harjavalta hydropower plant provides further flexible low-cost capacity



- The project involves a new machine unit and refurbishment of the existing two turbines
- Total output of the plant will increase by 38 MW to 110 MW, UPM's direct share of 51%
- Efficiency, control and environmental safety will improve
- Completion scheduled by 2017, total investment EUR 41m
- Larger hydropower capacity responds to demand for flexible capacity





