



Photos  
Photiades  
Breweries Ltd



# **Energy Efficiency**

## **September 2018**



# The Cyprus Carlsberg Brewery



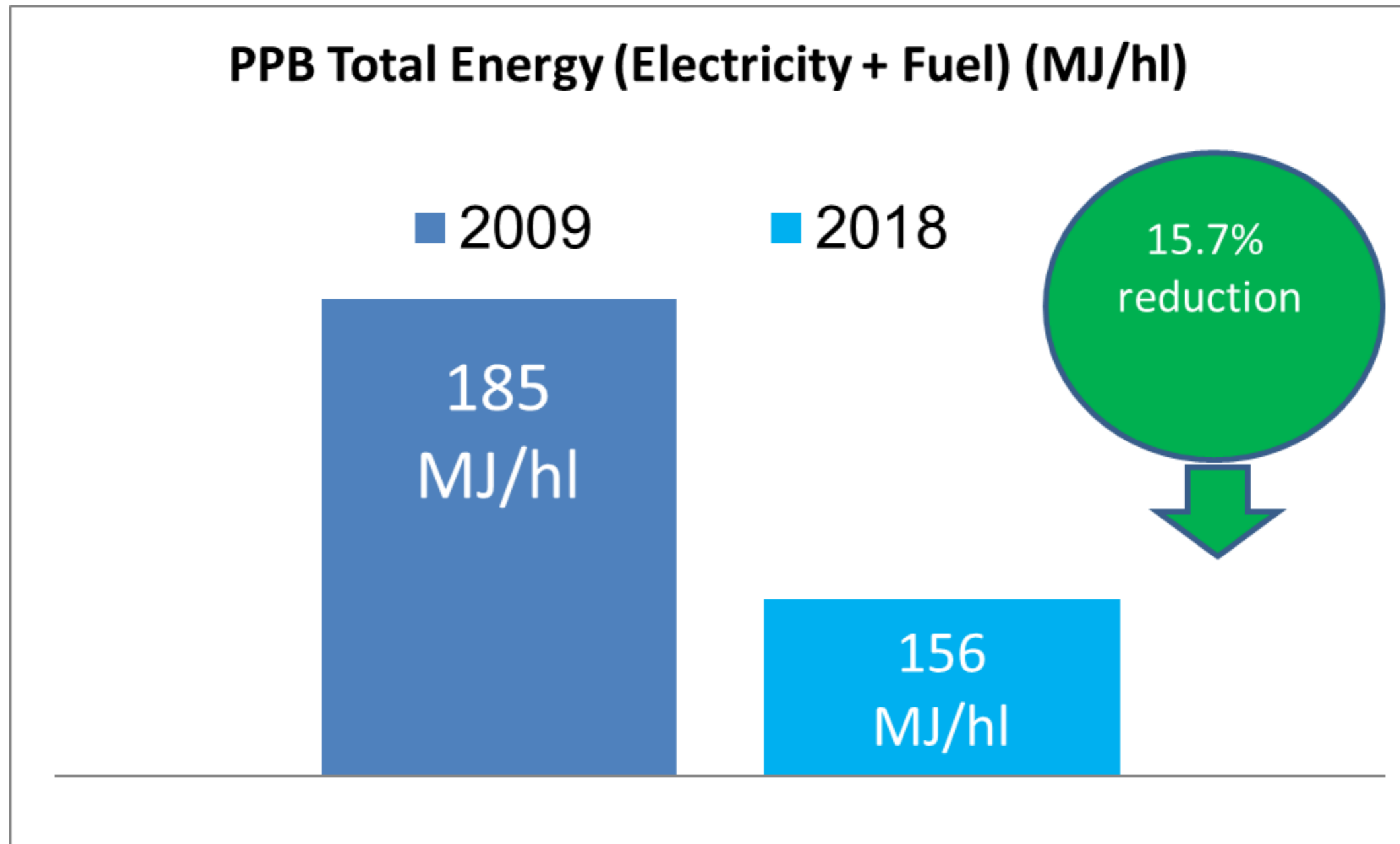


## Photos Photiades Breweries Ltd

- Photos Photiades Breweries Ltd owns and operates the Cyprus Carlsberg Brewery, the historic flagship of the Photos Photiades Group and the first brewery outside Denmark licensed to produce Carlsberg beer, pioneering the production of Carlsberg worldwide.
- The new – latest technology – Brewhouse, has a capacity of 30 million liters per year, it's the largest in Cyprus and covers approximately 65% of the local Beer production. It brews the Carlsberg, LEON and Krauzer Brau beers.



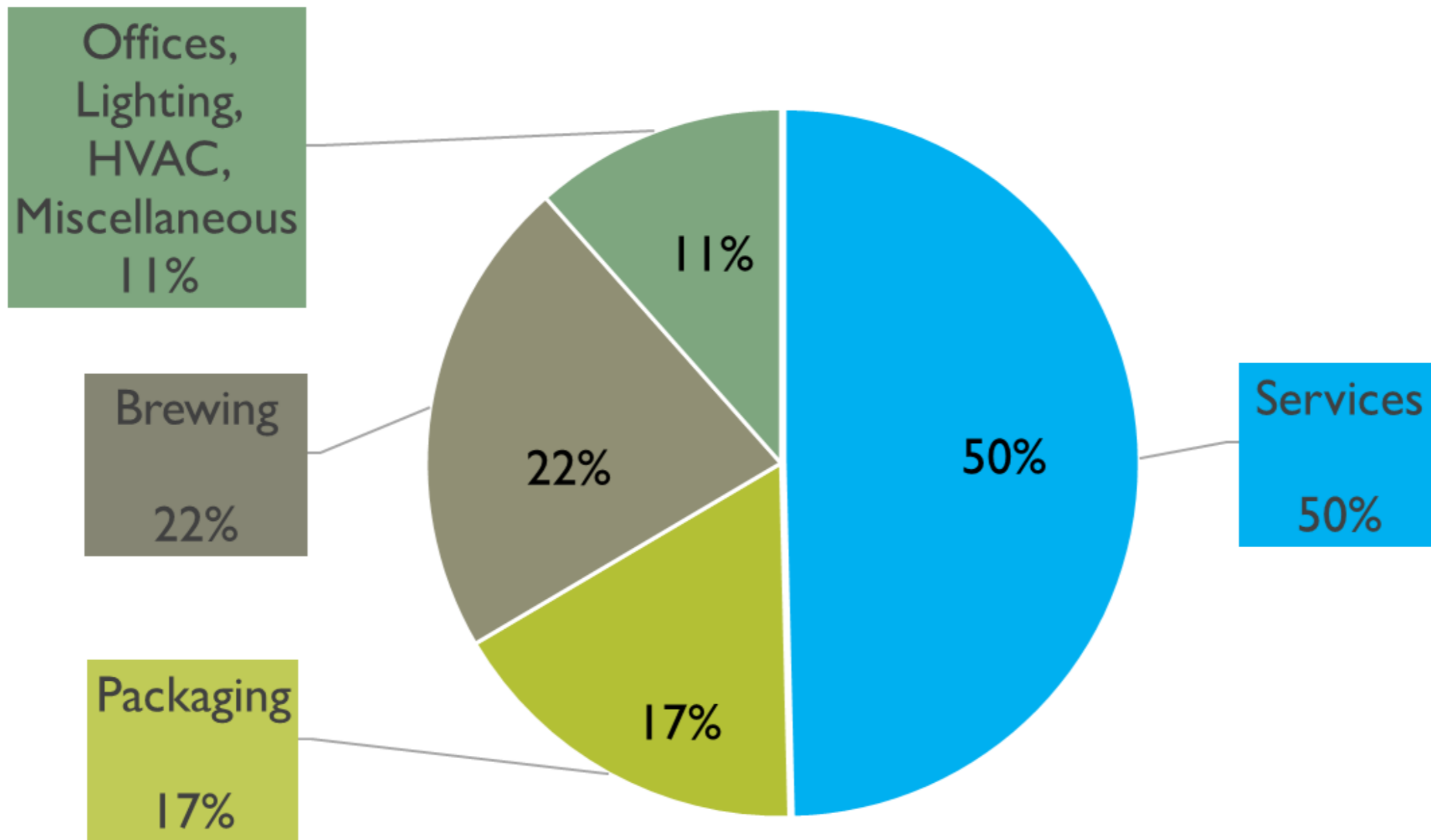
# Photos Photiades Breweries Ltd





# Photos Photiades Breweries Ltd

Total Electricity Consumption - 3.500.000 kWh





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## ENERGY EFFICIENCY MEASURES

**EEM 1** – Very Little or No Capex at all (*Low hanging fruits*)

**EEM2** – Low Cost

**EEM3** – Those needing capital expenditure (Capex)



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## ENERGY EFFICIENCY MEASURES

**EEM 1** – Very Little or No Capex at all (*Low hanging fruits*)



**Training for all personnel - Develop an energy culture, everyone must be involved (from the cleaning person up to the CEO)**







**Get ideas for energy savings from brewery personnel through a reward scheme!**





**Tell the employees to learn to use their ears to spot bad situations (air leakage, bad operation of machinery etc.)**





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## ENERGY EFFICIENCY MEASURES

**EEM 2 – Low Cost**



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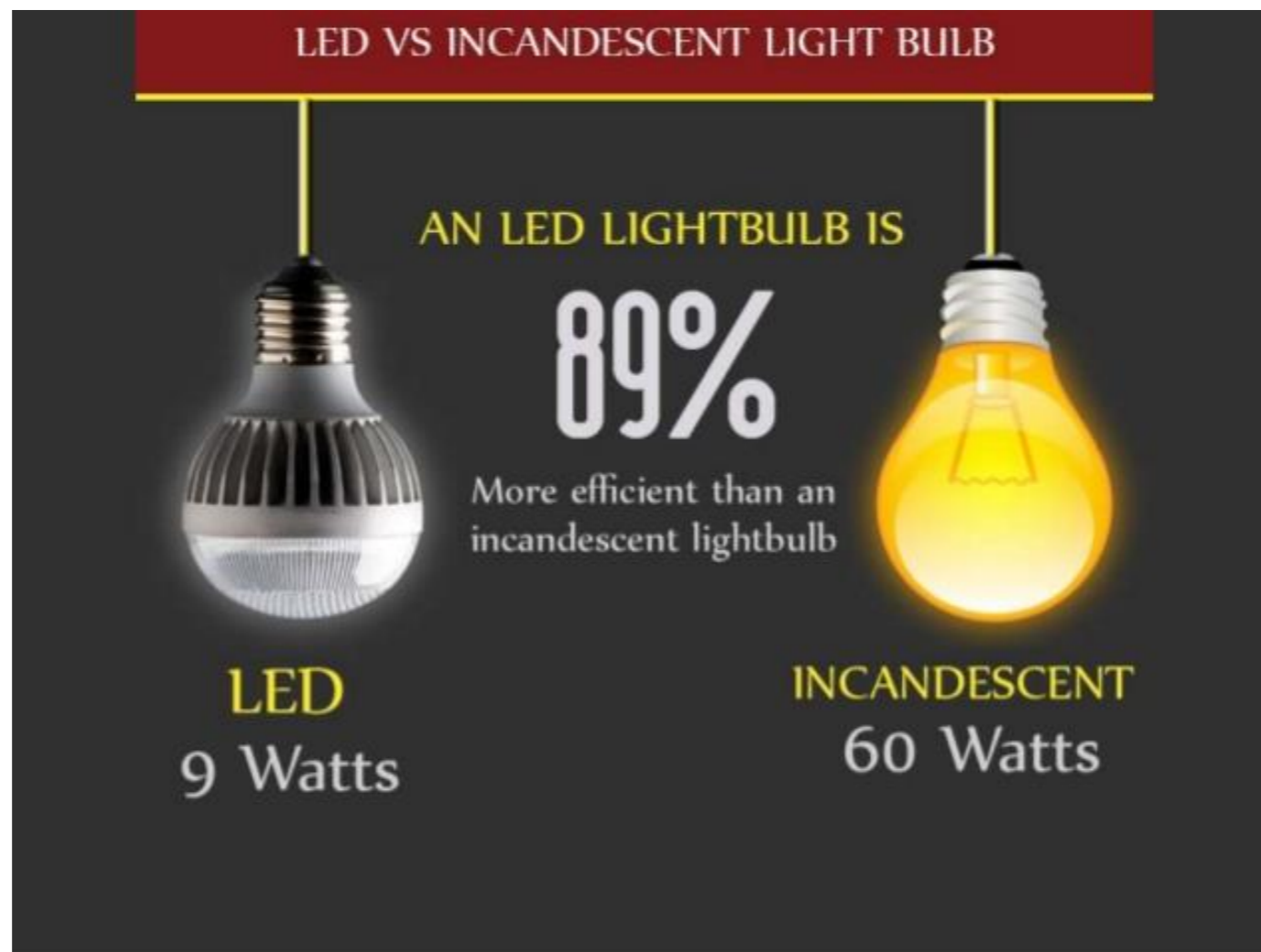
An Energy Audit was performed in order to map the energy consumption





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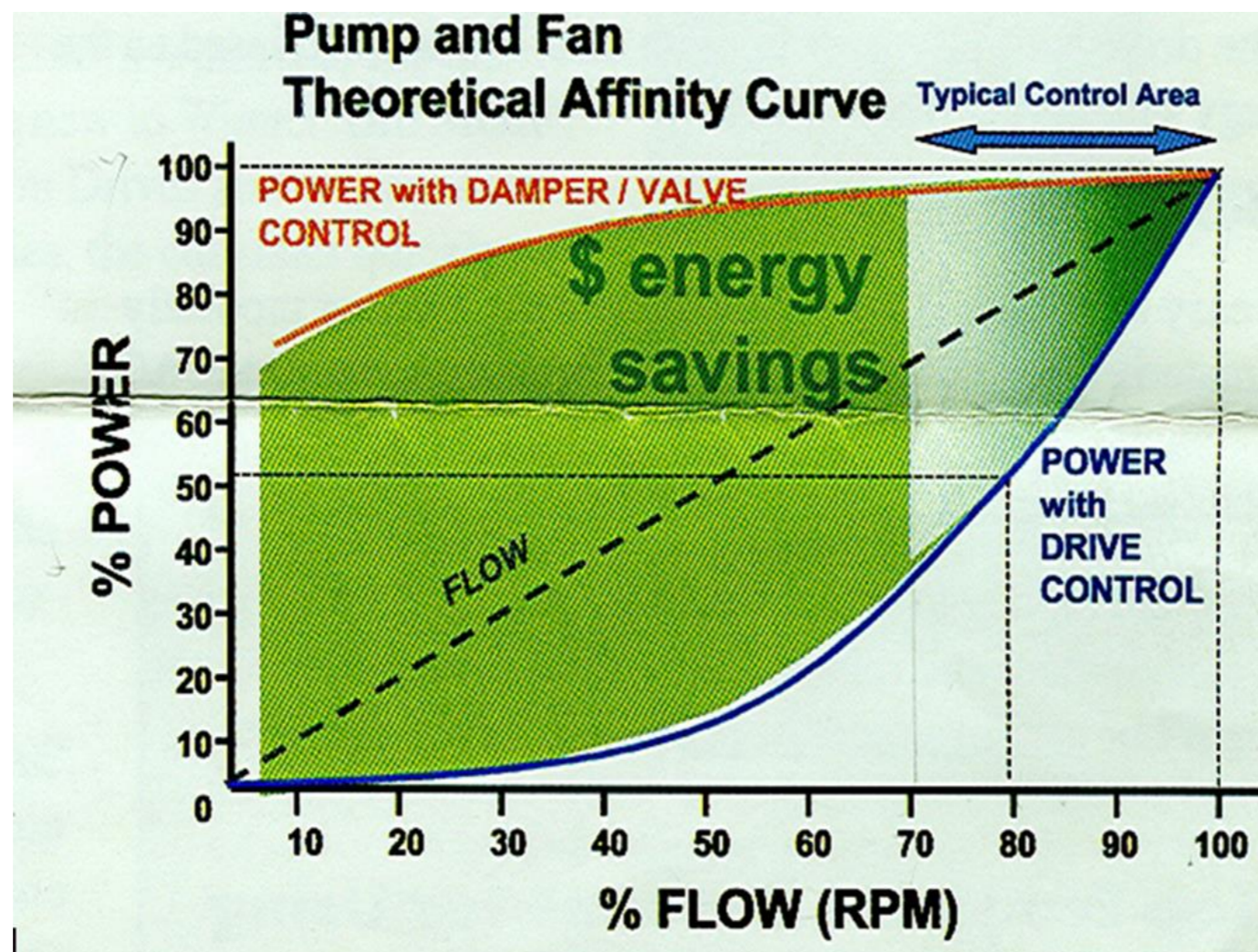
Lighting was targeted by retrofitting all non-LED fixtures to LED ones





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Variable Speed Drives were installed to all pumps and fans





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**Improved the insulation of steam pipes**





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Improved the performance of the compressed air system – maintenance, regular checks for leaks, replace non efficient air compressors.

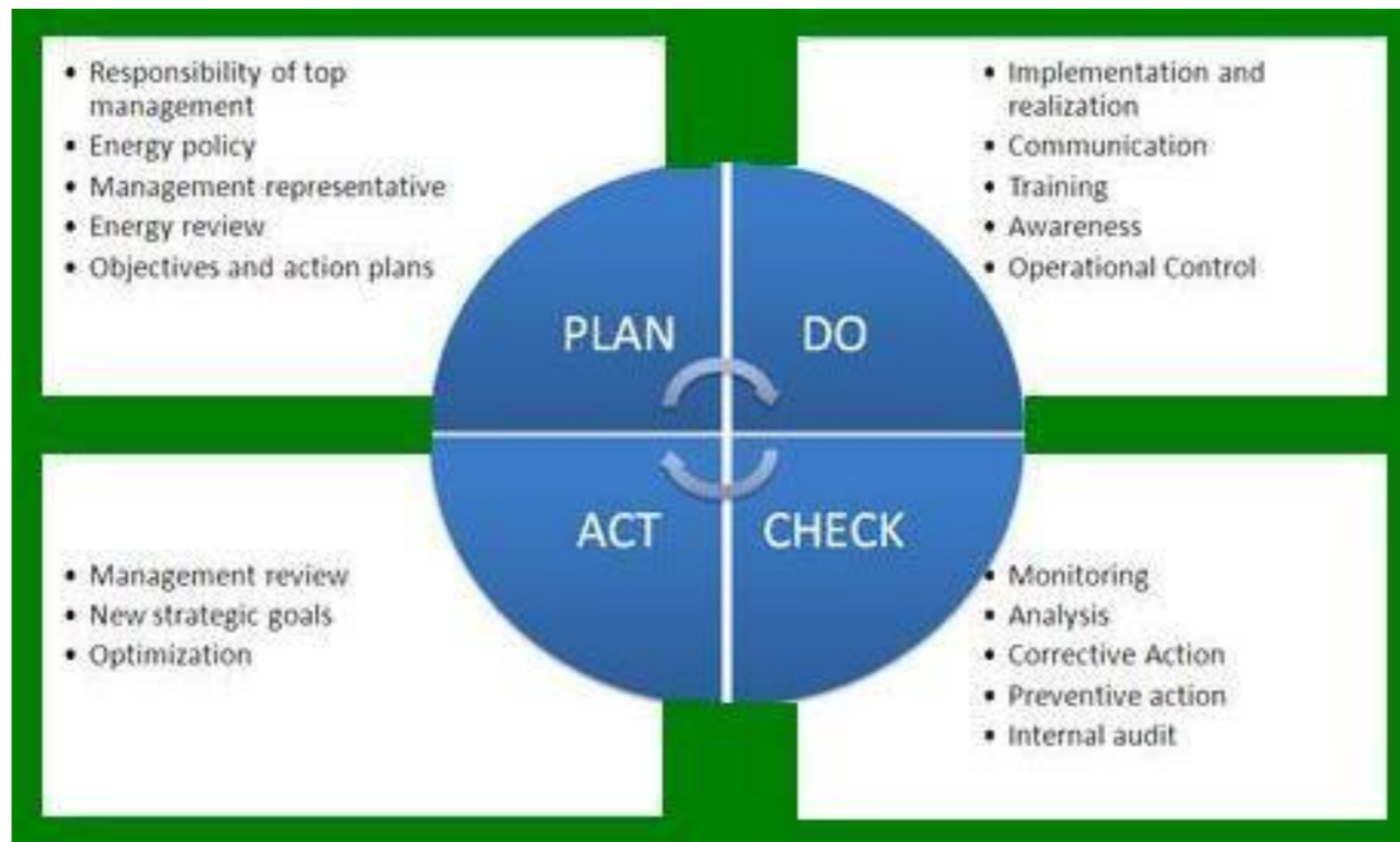






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## Put in place an Energy Management System





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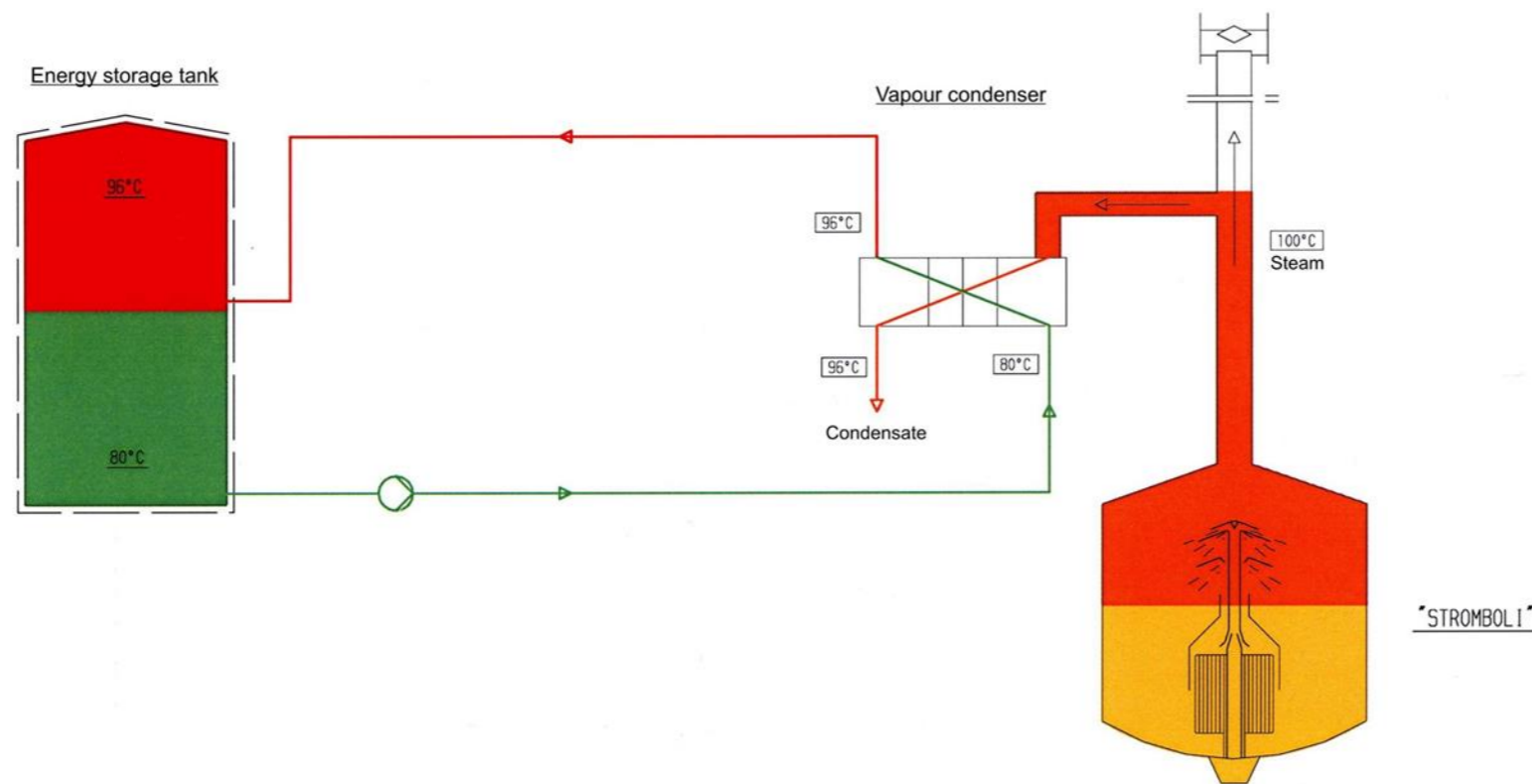
## ENERGY EFFICIENCY MEASURES

**EEM3** – Those needing capital expenditure (Capex)



# Photos Photiades Breweries Ltd

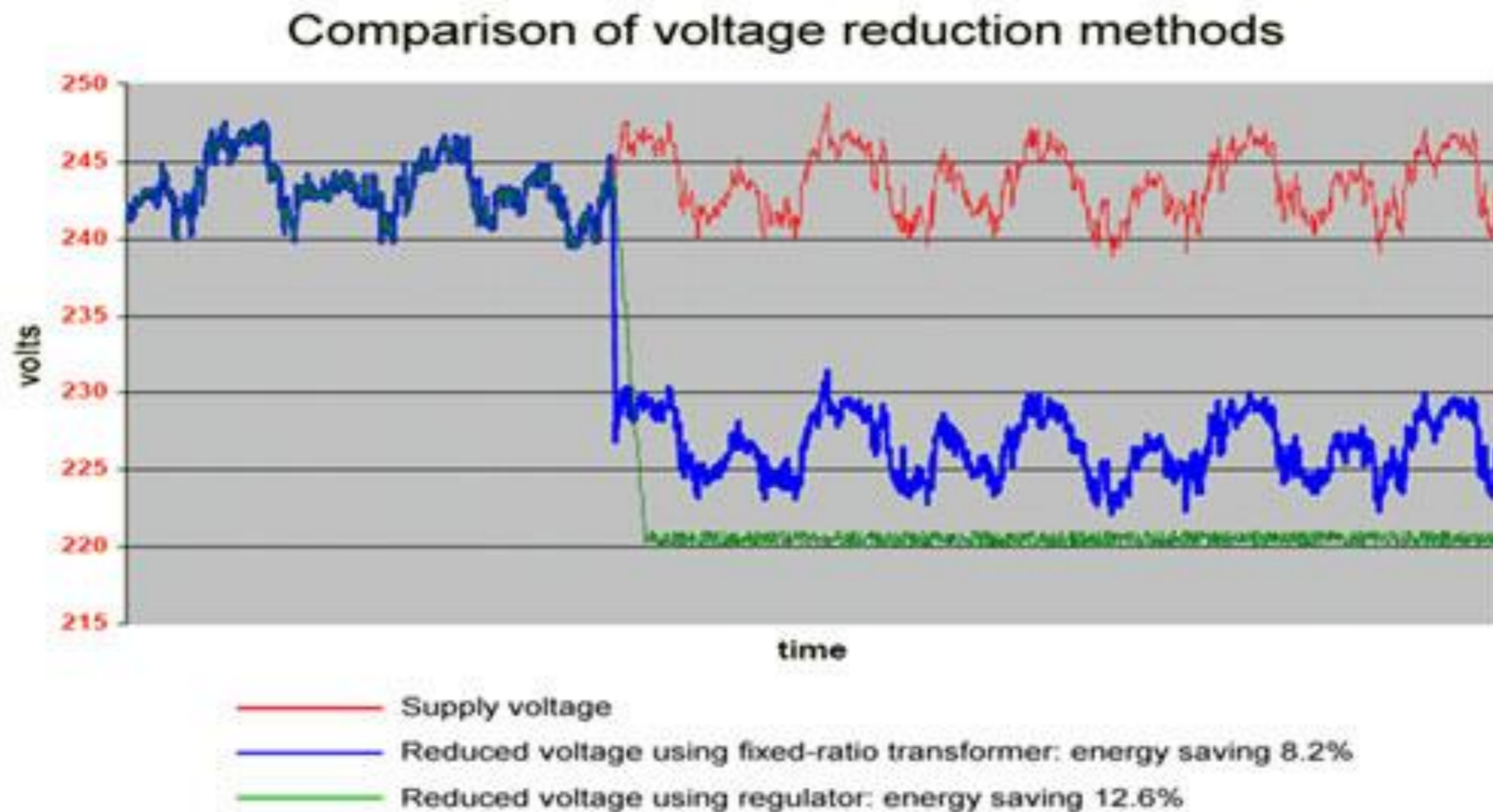
## Energy Recovery System (heat)





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## Voltage Optimization Systems





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## Installation of 100kW PV plant





Th a n K you !

