

# Hotel Case Studies

## **Air Conditioning & Hot Water Solutions**

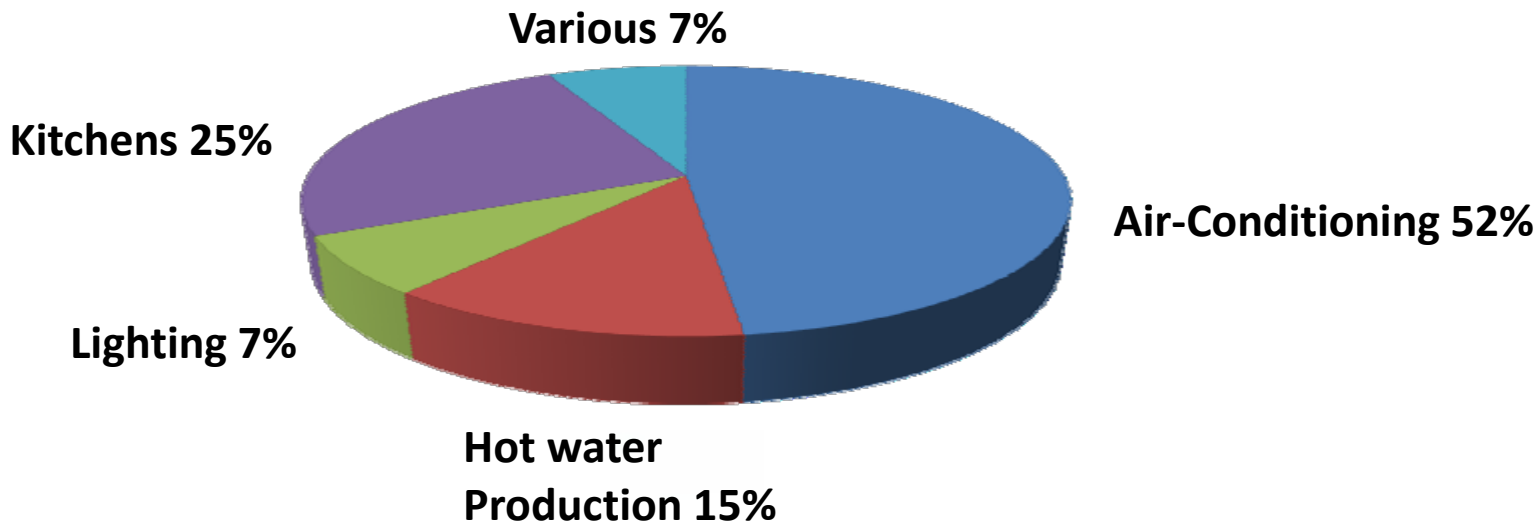
*Energy Saving Case Studies from Hospitality Vertical market in Greece*

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# Main Hotel Energy Demands



Depending on the design we can have a reduction in operation cost up to :

- -65% in air-conditioning
- -55% in hot water production
- -60% in lighting

# High Temp Heat Pumps- Hot Water Solutions

## 1) Hot Water energy saving case study



Cost Energy saving  
€32.716,00

**51 % Operation cost saving!!!**

**GRECOTEL**  
HOTELS & RESORTS

### ***Grecotel Lux Me Rhodes Hotel***

- Oil Boiler replacement
- Hotel operation: May-Oct
- Target: To reduce the total operation cost for domestic hot water.

#### ***Energy consumption results***

Oil saving 2017-2019	Electricity add 2017-2019 (kWh)
-56.069lt	+288.755kWh

↓ € 1,15/lt  
-€ 64.479

↓ € 0,11/kWh  
€ 31.763

# High Temp Heat Pumps- Hot Water Solutions

## 2) Hot Water energy saving case study

**GRECOTEL**  
HOTELS & RESORTS

### *Grecotel Cape Sounio Hotel*

- LPG Boiler replacement
- Hotel operation: May-Oct
- Target: To reduce the total operation cost for domestic hot water.

#### *Energy consumption results*

LPG saving 2017-2019	Electricity add 2017-2019 (kWh)
-146.275lt	+321.126kWh

↓ € 0,35/lt

-€ 51.196

↓ € 0,11/kWh

€ 35.324



Cost Energy saving  
€15.872,00

**31 % Operation cost saving!!!**

# High Temp Heat Pumps- Hot Water Solutions

## 3) Hot Water energy saving case study



Cost Energy saving €5.800,00

**36 % Operation cost saving!!!**

**GRECOTEL**  
HOTELS & RESORTS

### ***Greotel Casa Maroon Hotel***

- Oil Boiler replacement
- Hotel operation: May-Oct
- Target: To reduce the total operation cost for domestic hot water.

### ***Energy consumption results***

Oil saving 2017-2019	Electricity add 2017-2019 (kWh)
-13.859lt	+92.155kWh

↓  
€ 1,15/lt  
-€ 15.937

↓  
€ 0,11/kWh  
€ 10.137

# High Temp Heat Pumps- Hot Water Solutions

## 4) Hot Water energy saving case study



Cost Energy saving  
€20.290.00

**69 % Operation cost saving!!!**



### Royal Mare Luxury Thallasso Resort

- Oil Boiler replacement
- Hotel operation: May-Oct
- Target: To reduce the total operation cost for domestic hot water.

#### *Energy consumption results*

Oil saving 2014-2016	Electricity add 2014-2016 (kWh)
-22.150lt	+83.358kWh

↓  
€ 1,33/lt  
-€ 29.459

↓  
€ 0,11/kWh  
€ 9.169

# Air Conditioning Heat Pumps

## 5) Air Conditioning energy saving case study



### *Atlantica Aegean View Hotel*

- Split Room air conditioning replacement with VRF MULTI V
- 252 Rooms cooling capacity 12.000btu/h
- Hotel operation: May-Oct
- Target: To reduce the total operation cost for Air Conditioning.

### *Energy consumption results*

2016(Electricity Amount)	2017(Electricity Amount)
€65.400	€25.000

Energy Cost saving €40.400,00

**62 % Operation cost saving!!!**



# Air Conditioning-Ventilation

## 6) Electricity energy saving case study



Cost Energy saving  
€74.998,00

25,5 % Operation cost saving!!!



“Blue Lagoon Resort has managed to reduce electricity consumption by working with latest technology (energy savers) equipment, bus automation systems and replace HVAC with **LG VRF MULTI V 5** Technology and **Ventilation ERV** of the main buildings.”

### Electricity consumption results

2018	2019
2.669.118,45 kWh	1.987.319,82 kWh

↓ € 0,11/ kWh  
€ 293.603

↓ € 0,11/ kWh  
€ 218.605

# Thank You

