Arçelik
Respecting the World, Respected Worldwide
Smart Management Systems Panel
18 September 2019
Paris
About Arçelik

Founded in 1955

- 12 Brand(s)
- 23 Production Facilities
- 35 Sales & Marketing Offices
- ~30,000 Employees
- 17 R&D Centres
- 146 Countries

Respecting the world
Respected worldwide
Global Production Hub

9 Countries 23 Production Facilities
2020 Targets

- **45%**
- **6 MW**
- **98%**
- **52%**

2018 Performance

- **40.3%**
- **1,63 MW**
- **96%**
- **48%**
Energy Efficiency in Production

- **850,000 GJ**
- **76,000 ton**
- **82,000 Households**

Implemented Total Projects:

- 2012: 170
- 2013: 174
- 2014: 135
- 2015: 166
- 2016: 272
- 2017: 235
- 2018: 212
Energy Efficiency in Production

- **Cooking Appliances Plant (TEP/1000*Product)**
  - 2014: -32%
  - 2015: -32%
  - 2016: -32%
  - 2017: -32%
  - 2018: -32%

- **Tumble Dryer Plant (TEP/1000*Product)**
  - 2014: -44%
  - 2015: -44%
  - 2016: -44%
  - 2017: -44%
  - 2018: -44%

- **Romania Refrigerator Plant (TEP/1000*Product)**
  - 2014: -39%
  - 2015: -39%
  - 2016: -39%
  - 2017: -39%
  - 2018: -39%

- **Russia – Beko LLC (TEP/1000*Product)**
  - 2014: -31%
  - 2015: -31%
  - 2016: -31%
  - 2017: -31%
  - 2018: -31%
<table>
<thead>
<tr>
<th>Year</th>
<th>Bangladeş</th>
<th>2018 Performance</th>
<th>2020 Targets</th>
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Romania Washing Machine Plant
Plant Management System

Air Handling Units
- AHU-1
- AHU-2
- AHU-3

Heating Systems
- Boilers
- Domestic
- Air Compressors

Cooling Systems
- Chillers
- Towers
- VRF Collector

Other Systems
- Trench Heaters
- Dest. Fans
- Air Curtains
- Unit Heaters

Metering
- Energy Analyzer
- Gas Meter
- Air Meter
- Water Meter
- Calori Meter

Fans
- Exhaust Fans
- Fire Fans
CSP Smart Management System
Smart Energy Management System

New Implementation

- Fresnel Type Collectors
- Thermal Energy Storage
- Heat Exchanger
- Accumulation Tanks 5000 L x 8 pcs
- Heating System
- Absorption Chiller
- Process Cooling

Processes
- VRF Winter Season
- CSP System
- Compressor Waste Heat
- Boilers
- Facility Heating
- Domestic Hot Water

- VRF Summer Season
- Absorption Chiller
- Cooling Tower
- Centrifugal Chiller
- Mold Cooling
- Oil Cooling
- Head Office
- Laboratory
Better Illumination Intensity

Energy Consumption Reduction

50% Reduction

480 MWh/annum
Thank You

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