## Table 7.8d: Capacity Factors and Usage Factors at Electric Generators: Industrial Sector (Percent)

<table>
<thead>
<tr>
<th>Capacity Factors</th>
<th>Usage Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(a)</td>
</tr>
<tr>
<td></td>
<td>Petroleum (%)</td>
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<tr>
<td></td>
<td>Comb. Cycle</td>
</tr>
<tr>
<td></td>
<td>Nuclear</td>
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<tr>
<td></td>
<td>Conventional</td>
</tr>
<tr>
<td></td>
<td>Power</td>
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<td></td>
<td>Hydro-electric</td>
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<tr>
<td></td>
<td>Solar</td>
</tr>
<tr>
<td></td>
<td>Wind</td>
</tr>
<tr>
<td></td>
<td>Battery</td>
</tr>
</tbody>
</table>

### 2008 Year
- **Coal** 51.8%
- **Petroleum** 32.6%
- **Natural Gas** 55.2%
- **Combined Cycle** 53.1%
- **Gas Turbine** 45.2%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery

### 2009 Year
- **Coal** 48.6%
- **Petroleum** 34.3%
- **Natural Gas** 52.8%
- **Combined Cycle** 54.3%
- **Gas Turbine** 46.9%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery

### 2010 Year
- **Coal** 54.3%
- **Petroleum** 33.9%
- **Natural Gas** 62.4%
- **Combined Cycle** 69.6%
- **Gas Turbine** 54.3%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery

### 2011 Year
- **Coal** 50.6%
- **Petroleum** 29.5%
- **Natural Gas** 61.1%
- **Combined Cycle** 69.7%
- **Gas Turbine** 56.8%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery

### 2012 Year
- **Coal** 45.7%
- **Petroleum** 34.4%
- **Natural Gas** 64.1%
- **Combined Cycle** 69.6%
- **Gas Turbine** 56.7%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery

### 2013 Year
- **Coal** 49.8%
- **Petroleum** 30.0%
- **Natural Gas** 70.7%
- **Combined Cycle** 75.1%
- **Gas Turbine** 50.2%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery

### 2014 Year
- **Coal** 49.2%
- **Petroleum** 27.5%
- **Natural Gas** 67.5%
- **Combined Cycle** 71.0%
- **Gas Turbine** 48.8%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery

### 2015 Year
- **Coal** 48.2%
- **Petroleum** 28.1%
- **Natural Gas** 66.1%
- **Combined Cycle** 72.7%
- **Gas Turbine** 41.2%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery

### 2016 Year
- **Coal** 46.3%
- **Petroleum** 25.2%
- **Natural Gas** 68.7%
- **Combined Cycle** 73.0%
- **Gas Turbine** 40.3%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery

### 2017 Year
- **Coal** 46.7%
- **Petroleum** 24.4%
- **Natural Gas** 68.9%
- **Combined Cycle** 74.9%
- **Gas Turbine** 37.7%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery

### 2018 Year
- **Coal** 45.6%
- **Petroleum** 26.2%
- **Natural Gas** 71.8%
- **Combined Cycle** 75.3%
- **Gas Turbine** 40.8%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery

### 2019 Year
- **Coal** 41.6%
- **Petroleum** 26.3%
- **Natural Gas** 73.4%
- **Combined Cycle** 75.9%
- **Gas Turbine** 44.2%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery

### 2020 Year
- **Coal** 41.9%
- **Petroleum** 23.2%
- **Natural Gas** 67.0%
- **Combined Cycle** 74.5%
- **Gas Turbine** 44.0%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery

### 2021 Year
- **Coal** 39.8%
- **Petroleum** 20.9%
- **Natural Gas** 73.1%
- **Combined Cycle** 75.7%
- **Gas Turbine** 46.0%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery

### 2022 Year
- **Coal** 43.2%
- **Petroleum** 21.1%
- **Natural Gas** 71.0%
- **Combined Cycle** 78.4%
- **Gas Turbine** 49.5%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery

### 2023 Year
- **Coal** 39.5%
- **Petroleum** 15.3%
- **Natural Gas** 65.6%
- **Combined Cycle** 75.1%
- **Gas Turbine** 45.2%
- **Steam Turbine**
  - Nuclear Electric Power
  - Conventional Power
  - Hydro-electric Power
  - Solar
  - Wind
  - Battery