Current Market Situation of Electrical Appliance Sector in Thailand

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Outlines

- Overview of Electrical and Electronics Industries in Thailand
- Steel sheets for Usage in Electrical Appliance Industry
### Overview of Electrical and Electronics Industries in Thailand

#### No. of E&E Manufacturers

<table>
<thead>
<tr>
<th>Class</th>
<th>No. of Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Parts</td>
<td>641</td>
</tr>
<tr>
<td>Electronics</td>
<td>552</td>
</tr>
<tr>
<td>Electrical</td>
<td>393</td>
</tr>
<tr>
<td>Supporting</td>
<td>313</td>
</tr>
<tr>
<td>Trader</td>
<td>307</td>
</tr>
<tr>
<td>Other</td>
<td>100</td>
</tr>
</tbody>
</table>

#### No. of E&E Labors

- **Electronics**: 51% (745,319 labors)
- **Electrical Parts**: 22%
- **Electrical**: 14%
- **Supporting Industries**: 7%
- **Other**: 6%

Source: EEI, September 2016
Overview of Electrical and Electronics Industries in Thailand

New investors & manufacturers

Jan - Jun 2016

Approved for Operations

Total Investment Value
14,205 Mil.Baht

47 Factories

Sectors
- Home Appliances (Refrigerator)
- Solar Cells/Modules
- Electric Wires
- Electronics Parts and Components
- LED, etc.

Large Enterprises
- Electronics Parts and Components
  (4,232 Mil.Baht)
- Solar Cells/Modules
  (4,307 Mil.Baht)
- Home Appliances (Refrigerator)
  (3,178 Mil.Baht)

Start on Operations

Total Investment Value
6,780 Mil.Baht

32 Factories

Sectors
- Home Appliances and Parts
- Parts of AirCon.
- High Voltage Equipment /Wires and Components
- Switch Board, etc.

Large Enterprises
- Home Appliances (Refrigerator)
  (3,709 Mil.Baht)
- Solar Cells/Modules
  (727 Mil.Baht)

Source: DIW, and Classified by EEI
Overview of Electrical and Electronics Industries in Thailand

Total Investment Value: Net applications granted by BOI

Total E&E Investment Value: Net Applications (Unit: Billion Baht)

<table>
<thead>
<tr>
<th>Year</th>
<th>Value (Billion Baht)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>126.8</td>
</tr>
<tr>
<td>2013</td>
<td>100.49</td>
</tr>
<tr>
<td>2014</td>
<td>134.22</td>
</tr>
<tr>
<td>2015</td>
<td>28.95</td>
</tr>
<tr>
<td>2016 (Jan-Jun)</td>
<td>24.24</td>
</tr>
</tbody>
</table>

Proportion to Investment Value: Net Applications Classified by Industries in 2016 (Jan-Jun)

- Agriculture & Agricultural Products: 12%
- Metal Products, Machinery & Transport Equip.: 15%
- Chemicals, Plastics & Paper: 6%
- E&E: 8%
- Services & Public Utilities: 53%
- Other: 6%

Source: BOI
Overview of Electrical and Electronics Industries in Thailand

Manufacturing Production Index (MPI) and %Growth

E&E MPI during 2012-2016f

% Growth of E&E MPI in Y2016f = +6.6%

% Growth of MPI by Products in 2016 (Jan-Jun)

Source: OIE, EEI / Note: Year Base in 2011
Overview of Electrical and Electronics Industries in Thailand

Total E&E Export & Import Value during 2011-2016 (Unit: Mil.US$)

%Growth of Export Value in Y2016 = -1.6%

Source: The Customs Department, and accumulated by EEI
Overview of Electrical and Electronics Industries in Thailand

E&E Export Value (Unit: Mil.US$) and %Growth Classified by Major Markets in 2016 (Jan-Jun)

Source: The Customs Department, and accumulated by EEI
Overview of Electrical and Electronics Industries in Thailand

Major Products Export Value (Unit: Mil.US$) and %Growth in 2016 (Jan-Jun)

5 Major Electrical Products

<table>
<thead>
<tr>
<th>Product</th>
<th>2015 (Jan-Jun)</th>
<th>2016 (Jan-Jun)</th>
<th>%Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>AirCon</td>
<td>2,307</td>
<td>2,474</td>
<td>7%</td>
</tr>
<tr>
<td>Fridge</td>
<td>762</td>
<td>789</td>
<td>4%</td>
</tr>
<tr>
<td>Digital Cameras</td>
<td>822</td>
<td>623</td>
<td>-24%</td>
</tr>
<tr>
<td>Washing Machine</td>
<td>463</td>
<td>432</td>
<td>-7%</td>
</tr>
<tr>
<td>TV</td>
<td>585</td>
<td>354</td>
<td>-40%</td>
</tr>
</tbody>
</table>

5 Major Electronics Products

<table>
<thead>
<tr>
<th>Product</th>
<th>2015 (Jan-Jun)</th>
<th>2016 (Jan-Jun)</th>
<th>%Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Parts and Components</td>
<td>3,631</td>
<td>8,035</td>
<td>7%</td>
</tr>
<tr>
<td>Integrated Circuit</td>
<td>2,643</td>
<td>3,549</td>
<td>-3%</td>
</tr>
<tr>
<td>Diode/Transistor/ Semiconductor</td>
<td>472</td>
<td>1,671</td>
<td>80%</td>
</tr>
<tr>
<td>Printed Circuit</td>
<td>683</td>
<td>570</td>
<td>-10%</td>
</tr>
<tr>
<td>Reception Apparatus for radio-telephony/broadcasting</td>
<td>707</td>
<td>511</td>
<td>-28%</td>
</tr>
</tbody>
</table>

Source: The Customs Department, and accumulated by EEI
Overview of Electrical and Electronics Industries in Thailand

Total Value: Domestic Market

Domestic Sales
(Unit: Mil.Baht)

<table>
<thead>
<tr>
<th>Year</th>
<th>Domestic Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>398,603</td>
</tr>
<tr>
<td>2012</td>
<td>500,488</td>
</tr>
<tr>
<td>2013</td>
<td>431,607</td>
</tr>
<tr>
<td>2014</td>
<td>444,904</td>
</tr>
<tr>
<td>2015</td>
<td>446,039</td>
</tr>
</tbody>
</table>

Home Appliances: 18%
Smart/Mobile Phones: 31%
Computer/IT: 51%

Total Sales in 2015 = 446,039 Mil.Baht

Source: Studied by EEI, March 2016
### Overview of Electrical and Electronics Industries in Thailand

**Total Volume of some production for Domestic market**

<table>
<thead>
<tr>
<th>Product</th>
<th>2014</th>
<th>2015</th>
<th>2016 (Jan–Aug)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Conditioner</td>
<td>2.42</td>
<td>2.52</td>
<td>1.23</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>1.73</td>
<td>1.52</td>
<td>0.91</td>
</tr>
<tr>
<td>Washing machine</td>
<td>1.43</td>
<td>1.48</td>
<td>0.73</td>
</tr>
</tbody>
</table>

Amount: million units

Source: EEI
Outlines

- Overview of Electrical and Electronics Industries in Thailand
- Steel sheets for Usage in Electrical Appliance Industry
Steel Sheets for usage in Electrical Appliance Industry

- HOT ROLLED STEEL SHEET
- COLD ROLLED GALVANIZED STEEL SHEET
- COLOR COATED STEEL SHEET / PCM STEEL SHEET
- COLD ROLLED STEEL SHEET
- Others; STAINLESS STEEL, NICKEL PLATED STEEL, ZINC COATED STEEL SHEET
Steel Sheets for usage in Electrical Appliance Industry

Product: Air-Conditioner

Specification

SPCC, SPCG, SECC, SECD

Cumulative material cost of steel for usage in product

- Steel: 8%
- Other Material: 92%

Estimated total demand of steel for usage in A/C per year (ton)

- 2011: 103,309
- 2012: 129,099
- 2013: 141,440
- 2014: 147,841
- 2015: 144,486

Source: EEI
Steel Sheets for usage in Electrical Appliance Industry

Product: Refrigerator

Specification

SPCC, SPCG, SECC, SECD

Cumulative material cost of steel for usage in product

Estimated total demand of steel for usage in R/F per year (ton)

Steel 10%
Other Material 90%

Source: EEI
Steel Sheets for usage in Electrical Appliance Industry

Product: Washing Machine

Specification: SPCC, SPCG, SECC, SECD

Cumulative material cost of steel for usage in product

- Steel: 10%
- Other Material: 90%

Estimated total demand of steel for usage in W/M per year (ton)

- 2011: 49,200
- 2012: 51,035
- 2013: 45,896
- 2014: 39,007
- 2015: 42,878

Source: EEI
Steel Sheets for usage in Electrical Appliance Industry

Product: Rice Cooker

Specification: SPCC, SPCEN, STAINLESS STEEL

Cumulative material cost of steel for usage in product

- Steel: 15%
- Other Material: 85%

Estimated total demand of steel for usage in R/C per year (ton)

- 2011: 5,961
- 2012: 6,894
- 2013: 6,859
- 2014: 6,390
- 2015: 5,465

Source: EEI
Steel Sheets for usage in Electrical Appliance Industry

Electric Fan

SPCC, SPCG, SILICON STEEL

Cumulative material cost of steel for usage in product

Estimated total demand of steel for usage in E/F per year (ton)

Steel
Other Material

20%
80%

<table>
<thead>
<tr>
<th>Year</th>
<th>Steel Demand (ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>5,793</td>
</tr>
<tr>
<td>2012</td>
<td>7,166</td>
</tr>
<tr>
<td>2013</td>
<td>6,679</td>
</tr>
<tr>
<td>2014</td>
<td>6,364</td>
</tr>
<tr>
<td>2015</td>
<td>6,956</td>
</tr>
</tbody>
</table>

Source: EEI
Steel Sheets for usage in Electrical Appliance Industry

Product: Compressor

Specification

SPHC, SPHE, SPCEN

Cumulative material cost of steel for usage in product

Estimated total demand of steel for usage in C/P per year (ton)

Source: EEI
Thank you for your Attention