ABB Electrification

ABB’s Electrification business delivers safe, smart and sustainable electrification.

Key market drivers and trends:

- Electricity demand growing 2X faster than other energy sources
  - Integration of distributed generation (renewables, storage)
  - New consumption points (data centers, electric vehicles, emerging markets)
- Industry 4.0 facilitating and accelerating demand for intelligent solutions
- Urbanization and population growth

Electrification facts and figures:

<table>
<thead>
<tr>
<th>Channels</th>
<th>Offering</th>
<th>Customers</th>
<th>Geography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Sales</td>
<td>Services &amp; other</td>
<td>Other T&amp;I</td>
<td>China</td>
</tr>
<tr>
<td>EPCs</td>
<td>Systems</td>
<td>Renewables</td>
<td>Rest of AMEA</td>
</tr>
<tr>
<td>OEMs</td>
<td>Products</td>
<td>Conv. generation</td>
<td>USA</td>
</tr>
<tr>
<td>System integrators</td>
<td></td>
<td>Distribution</td>
<td>Rest of Americas</td>
</tr>
<tr>
<td>Panel builders</td>
<td></td>
<td>O&amp;G, Chemicals</td>
<td>Europe</td>
</tr>
<tr>
<td>Distributors</td>
<td></td>
<td>Mining &amp; Metals</td>
<td></td>
</tr>
</tbody>
</table>

Revenues: $13.0 bn²
Employees: ~55k

Note: pie charts cover full year 2018

1. 2017–2025 forecast CAGR
2. Including annualized GEIS based on H2-2018
3. ABB estimate

Electrification facts and figures:

- Commercial buildings: ~4%+ p.a.
- Data centers: ~6%+ p.a.
- E-mobility: ~8%+ p.a.
- Market: $160 bn
- Market growth: ~3% p.a.¹
Electrification business lines:

**Distribution Solutions**  
Medium and low voltage control & protection products, systems & switchgear, automation & services  
GEIS INTEGRATION  
~$5.0 bn¹

Customer value example:  
Intelligent electrical distribution solutions for a hyperscale data center

**Smart Power**  
Low voltage breakers & switches, motor & power protection, electric vehicle charging infra & service  
GEIS INTEGRATION  
~$3.0 bn¹

Customer value example:  
Power monitoring combined protection & safety for a chain of branch offices

**Smart Buildings**  
Miniature breakers, distribution enclosures, wiring accessories, building automation  
GEIS INTEGRATION  
~$3.0 bn¹

Customer value example:  
Smart automation solution for lighting, HVAC & access control for a hotel

**Installation Products**  
Wire & cable management, termination, fittings and other accessories  
~$2.0 bn¹

Customer value example:  
Complete set of cable management products for a distribution utility

¹. Management estimates for business line revenues over last twelve months including GEIS, unconsolidated basis and excluding solar inverters.