



# Electrical Transmission & Distribution Equipment

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US Industry Study with Forecasts for **2011 & 2016**

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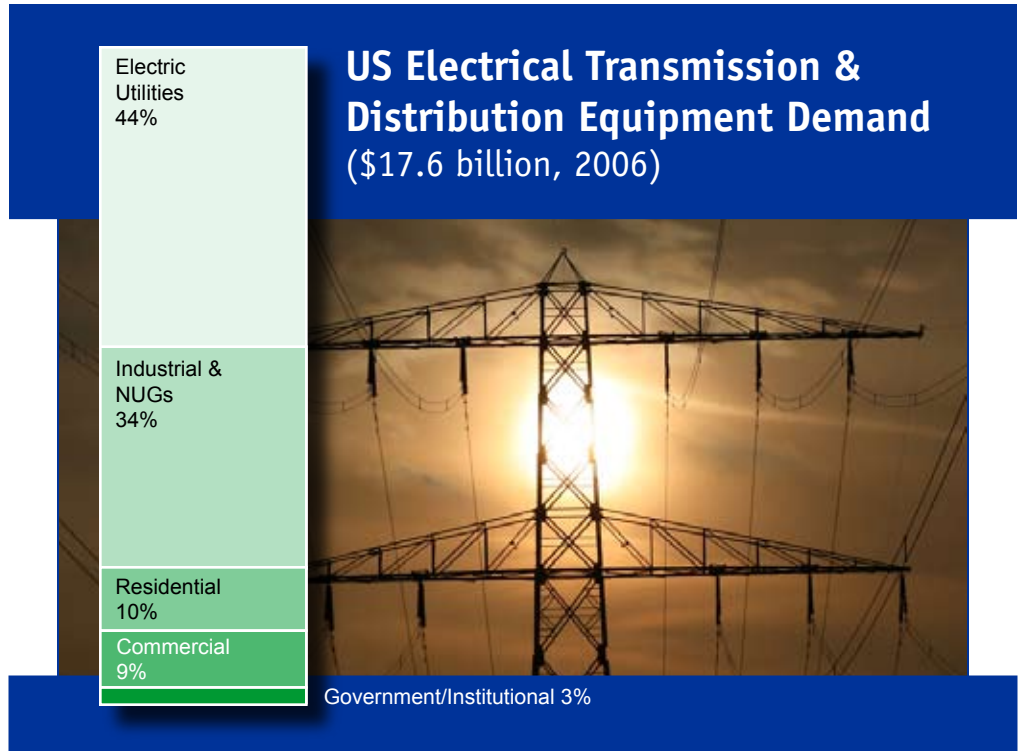
*The ongoing deregulation of the US electric power industry will continue to shift demand for electric transmission and distribution equipment from utilities to industrial firms and NUGs.*

## US demand to grow 3.6% annually through 2011

US demand for electric transmission and distribution equipment is expected to increase 3.6 percent annually, approaching \$21 billion in 2011. Increases will be supported by a healthy industrial environment coming out of the early 2000s economic downturn, and growth in nonutility power generation. In addition, the maturation of deregulation efforts and regulatory changes that ensure returns on investment in the electric grid will support demand from electric utilities.

## Industrial, nonutility generators among fastest growing markets

The largest markets for electric transmission and distribution equipment are the electric utilities and industrial sectors, which together accounted for nearly eighty percent of the market in 2006. Growth in these markets will be supported by increasing electricity generation by independent power producers and cogenerators, combined with an improved outlook for capital spending by utilities and regulatory changes designed to ensure returns on investment in the electric grid. The ongoing deregulation of the electric power industry will continue to shift demand from utilities to industrial firms and nonutility generators (NUGs). However, to the extent that increases in power generation result from NUGs purchasing existing generation facilities from utilities, the growth in NUG power



production can overstate the benefit to the electric transmission and distribution equipment industry.

The smaller government and institutional market will see the fastest increases through 2011, with gains supported by growth in transportation construction spending and government fixed investment. Both the commercial and residential markets will see below average increases, with particularly weak prospects in the residential market due to the slowdown in residential construction. Still, the continuing penetration of consumer electronics and electric transmission and distribution product innovations will provide opportunities in residential applications.

## Specialty transformers, switchgear to lead gains

The best opportunities will be in specialty transformers and metal-clad and metal-enclosed switchgear. Demand for specialty transformers will increase 5.9 percent annually through 2011 benefiting from the improved outlook for machinery markets and industrial construction, as well as solid increases in nonresidential fixed investment. Metal-clad and metal-enclosed switchgear demand will rise 5.7 percent per year through 2011, driven by an improved outlook for electric utility capital expenditures, a strong replacement market and technological innovations. Power circuit breakers and electric meters will also see solid increases.

## Sample Text, Table & Chart

### PRODUCTS

#### Power Circuit Breakers

US demand for power circuit breakers will advance in 2011, a significant improvement from 2010. This growth will be driven primarily by the improvement in electric utilities. In addition, continued generation will provide opportunities in the generator market. Still, power circuit breakers are a price-competitive product segment with slow growth.

International trade in the power circuit breaker segment is hindered to some degree by a non-harmonized standard structure which places a barrier to entry in certain markets, especially in Europe. Certain countries adhered to International Electrotechnical Commission (IEC) standards, including those in Europe and those with similar power systems, while other nations adhered to American National Standards Institute (ANSI) standards, such as the US, Canada, Japan and other Pacific Rim countries. However, the increasing harmonization of these standards has opened up the power circuit breaker market to greater international competition. For example, imports increased from just under one-quarter of US demand in 1996 to more than 45 percent of demand in 2006. The share of shipments which were exported also rose, although not as rapidly. A majority of imports are supplied by manufacturers located in Mexico, Japan and Western Europe, including France, Germany, Switzerland and the United Kingdom. Important markets for US exports include Latin America, Canada, Mexico and the Asia/Pacific region. Shipments of power circuit breakers are forecast to increase 4.5 percent annually to \$1.2 billion in 2011.

Power circuit breakers are used in high voltage applications such as electric power generation and transmission systems which require higher current-handling capacity than that offered by molded case designs.

TABLE IV-7

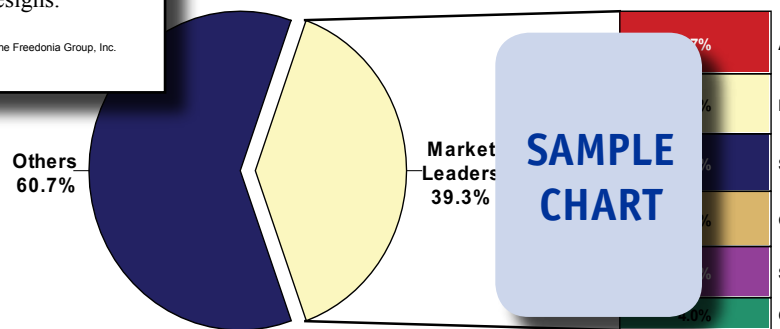
### POWER CIRCUIT BREAKER SUPPLY & DEMAND (million dollars)

Item	1996	2001	2006	2011	2016
Electric Utilities Eqpt Expend (bil \$)	15	15	15	15	15
\$ power CBs/000\$ eqpt expend	2	2	2	2	2
Power Circuit Breaker Demand	4	4	4	4	4
+ exports	2	2	2	2	2
- imports	2	2	2	2	2
Power Circuit Breaker Shipments	9	9	9	9	9
15.5 through 800 kV, free standing	2	2	2	2	2
Over 1000 Volts, sold separately	2	2	2	2	2
Up to 1000 Volts, sold separately	2	2	2	2	2
Other Power Circuit Breakers	2	2	2	2	2
Parts	6	6	6	6	6

SAMPLE TABLE

CHART VI-1

### ELECTRICAL TRANSMISSION & DISTRIBUTION EQUIPMENT MARKET SHARE BY COMPANY, 2006 (\$17.6 billion)



SAMPLE CHART

## Sample Profile, Table & Forecast

### COMPANY PROFILES

#### Basler Electric Company

12570 State Route 143  
 Highland, IL 62249  
 618-654-2341  
<http://www.basler.com>

Annual Sales  
 Employment

Key Products  
 overcurrent

Basler Electric Company is a privately owned company is a manufacturer of electrical equipment and electronic components. The company's product lines include Regulation and System Controls, Protection and Control Systems, Magnetic Product, and Static Excitation Systems. Basler operates US manufacturing facilities in Taylor, Texas; Highland, Illinois; and Caraway, Arkansas. Additional plants are located in Piedras Negras and Sabinas, Mexico; Wasselonne, France; and Suzhou, China.

The Company competes in the electric transmission and distribution equipment industry through the Regulation and System Controls, Protection and Control Systems, and Magnetic Product groups. Among the products manufactured by the Regulation and System Controls group are voltage regulators, and synchronizers and relays. The group's voltage regulators are produced in digital and analog varieties, and are engineered to improve generator system performance. The DECS-400 digital excitation control system is a controller based on a microprocessor that provides excitation and flexible logic control as well as optional power system stabilization for synchronous machines in an integrated package. The group's synchronizers and relays include the BE3-25A synchronizer, which synchronizes either two generators

TABLE V-5

### INDUSTRIAL & NONUTILITY GENERATOR MARKET FOR ELECTRIC TRANSMISSION & DISTRIBUTION EQUIPMENT (million dollars)

Item	1996	2001	2006	2011	2016
Indust Electric Consumption (bil kWh)					
\$ elec t&d eqpt/000 kWh					
Indep Power Generation (bil kWh)					
\$ elec t&d eqpt/000 kWh					
Industrial & Nonutility Market					
Switchgear					
Transformers					
Hardware & Meters					
% industrial					
Total Electric T&D Equipment	121				100

**SAMPLE TABLE**

**SAMPLE PROFILE**

"Demand for electric transmission and distribution equipment in the electric utilities market will increase 3.3 percent annually to \$9.1 billion in 2011. While gains will not match the overall average, this represents an improvement over the 2001 to 2006 period. Gains will be driven by an improved outlook for electric utilities investment and regulatory changes designed to ensure returns on investment in the electric grid. In addition, ..."

--Section V, pg. 150

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**OTHER STUDIES**

**Circuit Breakers & Fuses**

US circuit breaker and fuse demand will grow 3.7% per year through 2011, supported by stronger outlooks for construction of nonresidential buildings and electric utilities. Circuit breakers will outpace fuses, led by strong growth in power circuit breakers. High-power fuses will pace the fuse segment. This study analyzes the \$3 billion US circuit breaker and fuse industry, with forecasts for 2011 and 2016 by product and market. It also evaluates company market share and profiles leading industry competitors.

#2252 ..... 10/2007..... \$4400

**World Fuel Cells**

Global fuel cell spending (R&D, investment, sales) will grow 15% yearly through 2011. Portable electronics will be the fastest growing commercial use while electric power generation will stay the largest. Proton-exchange membrane fuel cells will remain dominant over other chemistries. This study analyzes the \$5.2 billion world fuel cell industry to 2011 and 2016 by product, chemistry, application, world region and for 14 countries. It also reviews technology, evaluates market share and profiles major players.

#2194 ..... 05/2007..... \$5500

**Diesel Engines**

US demand for diesel engines will grow 3.8% annually through 2011. Best opportunities in the dominant motor vehicle market will be found in light-duty trucks, with the much smaller passenger car segment also faring very well. Off-highway diesel engines will experience slowing but still robust demand as new emissions regulations phase in. This study analyzes the \$16.6 billion US diesel engine industry to 2011 and 2016 by product, material and market. It also details market share and profiles major firms.

#2171 ..... 03/2007..... \$4400

**Batteries in China**

Demand for batteries in China will grow 13.2% annually through 2010. Gains will be driven by the emergence of electric bicycles and strong domestic consumer demand for battery-powered products. Alkaline and lithium batteries will be the fastest growing primary type while rechargeable lithium batteries will pace the secondary battery segment. This study analyzes the ¥59 billion Chinese battery industry to 2010 and 2015 by product and market. It also evaluates market share and profiles leading competitors.

#2151 ..... 02/2007..... \$4900

**Solar Energy Products**

US demand for photovoltaic modules will more than triple by 2010, driven by innovations, economies of scale and government subsidies. Crystalline silicon cells will remain dominant while thin films will post stronger growth. Thin films use little or no silicon and can integrate photovoltaics within roofing shingles and other building materials. This study forecasts US solar energy product demand to 2010 and 2015 by product, market and region. It also evaluates market share and profiles major producers.

#2126 ..... 12/2006..... \$4300

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