

# Highlights

During the current interim period, Toyo Denki has developed new products and engaged in aggressive marketing in order to secure a future of growth while also undertaking various environmental initiatives.

## Capital expenditure aimed at expanding production capacity as well as development and design capabilities

Orders in the company's Transportation Business and Industrial Systems segments have been strong. Therefore, Toyo Denki will be making capital expenditures to expand production capacity and development and design capabilities at the main Yokohama Works between fiscal 2007 and fiscal 2009. With an investment of approximately 2.4 billion yen, the company will expand production space within the existing facilities and build a new research, development and design building. As a result, total floor area will increase by approximately 8000 square meters.



## Electrical equipment order received for Chengdu subway line 1 in Sichuan, China

Toyo Denki has received a joint order with four other companies (Mitsui & Co., Ltd., Mitsui & Co. Plant Systems Ltd., Xiangtan Electric Manufacturing Co., Ltd., and Hunan XiangYang Electric Co., Ltd.) for a full line of electrical equipment for driving (102 cars making up 17 trains) and a full line of equipment such as brakes for subway line 1 in Chengdu, the provincial capital of China's Sichuan Province, which will be the first subway line in Sichuan. The agreement was signed on October 12, 2007. This is the first full line order from a city outside the capital, Beijing.

Toyo Denki has hitherto concentrated on subways in the capital, Beijing, and has so far received orders for electrical equipment for more than 800 cars.

## Delivery of electrical equipment for pantograph battery hybrid LRV

Toyo Denki manufactured and delivered converter units, drive inverter units, auxiliary power supply apparatus, gear units, traction motors, and pantographs for the hybrid LRV (Light Rail Vehicle) unveiled by Japan's Railway Technical Research Institute on October 25, 2007.

The Railway Technical Research Institute developed the hybrid LRV under contract from Japan's New Energy and Industrial Technology Development Organization (NEDO), and it can run on sections of track with no pantograph using charged storage batteries.



Photo credit: Railway Technical Research Institute

## Exhibiting at exhibitions

### System Control Fair 2007

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Toyo Denki exhibited at the System Control Fair held at Tokyo Big Sight from November 13 – 16, 2007. At its booth, the company displayed the ED motor, UF motor, and ultra high-speed motors used in testing equipment for automotive development which bring together the company's motor drive technology, showcasing its lineup of intelligent inverters as an "inverter family," and also exhibited its on board drive systems.



### Maintenance Techno Show 2007

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Toyo Denki exhibited at the Maintenance Techno Show 2007 held at Tokyo Big Sight from November 6 – 9, 2007. Demonstrations were given of measurements for the radio facility data collection system and the remote monitoring system — (1) location information on mobile electronic lock, and (2) monitoring and control of status of facilities and equipment) — which assist with labor saving for on site inspections of electrical equipment. The company also exhibited its general purpose PDA that has been adopted by many railroad companies as a mobile terminal for conductors.

# Railroad Market Trends

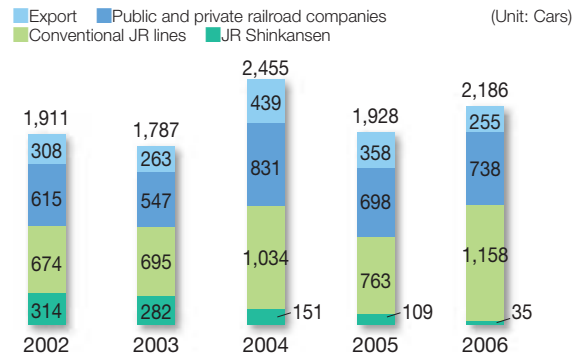
Today the role of the railroads is once again being re-evaluated amidst global concerns over the depletion of fossil fuels.



## Market Trends in Japan

In addition to Shinkansen network schemes and plans for the construction of new lines in major cities, brisk demand for the updating of existing lines is expected. According to Toyo Denki's latest research, JR Shinkansen rolling stock is 15 years old while that on conventional JR lines and public and private railways is between 15 and 30 years old. Toyo Denki forecasts demand for the updating of about 1,800 cars annually for the time being. The expansion in the new generation of JR Shinkansen trains, including the debut of the N700 series in 2007, will continue for several years, and demand for the updating of conventional JR trains will also be at high levels. Demand for updating at public and private railroad companies is expected to remain firm despite regional disparities.

## Actual production by demand category and fiscal year



Source: Research by Japan Association of Rolling Stock Industries

## Market Trends outside Japan

While the majority of overseas lines have not been electrified, electric trains form the core of urban transportation. It is estimated that approximately 140,000 electric train cars are currently in operation worldwide. Of these, about 49,000 are operating in Japan, with the majority of the remainder in Europe and the US. Market expansion in the BRICs has been attracting attention over the past few years. In particular, market expansion is proceeding at a rapid pace in China, where the Olympics will be held this year, with urban transportation, including subways, the quasi high-speed railroad opened in 2006, and the high-speed railroad under

construction. In addition, market expansion is expected to continue for the time being, with Asian countries, beginning with the Middle Eastern oil producers, and Central and South American countries as well, making proactive efforts to establish railroad networks, and a re-evaluation of electric trains in developed nations in response to environmental problems.



Beijing subway line 10 rolling stock (Joint production with Changchun Passenger Car Factory)

# Toyo Denki's CSR Activities



## Delivering high-quality environmental technologies that contribute to the fight against global warming

Since its establishment, the Toyo Denki Group has been supplying motor drives and related technologies. Today, in the "Century of the Environment," Toyo Denki is playing an increasingly important role by pursuing the development and manufacture of highly efficient motors and inverters for use in the industrial field and applying its strengths in next-generation railroad technology to contribute to the fight against global warming. As it actively expands its business in China and Southeast Asia, where energy consumption is expected to grow in the future, Toyo Denki is supporting energy conservation and CO<sub>2</sub> reduction.



Intelligent inverter VF66



## Diverse social and community contribution initiatives

As part of its community contribution program, Toyo Denki undertakes initiatives such as opening up the sports field inside the Yokohama Works for local baseball club teams on holidays and giving newspapers to local elementary schools for students to read. Moreover, employees at the Yokohama Works cooperate actively with the Japan Red Cross Society's blood donation campaign and have received a letter of appreciation from the Society. Going forward, Toyo Denki will also pursue international contributions, fulfilling its responsibilities as a good corporate citizen.



Letter of appreciation from Japan Red Cross Society



## Actively expanding environmental initiatives

At its Yokohama Works, Toyo Denki is engaged in environmental initiatives, primarily providing environmentally friendly goods and systems, combating global warming, and reducing waste. Moreover, Toyo Denki has been taking part in Japan's "Team Minus 6%" activities since August 2007, and set up an environment page on its website in November 2007 to inform the public about the details of these activities. Toyo Denki has positioned environmental contribution as an important part of CSR activities, and the company will continue to be active in this area in the future.

**Environment website:**

<http://www.toyodenki.co.jp/html/kankyuu.html>  
(Japanese only)

