April 2, 2014

Signing of Japanese ODA Loan Agreements with the Government of India

— Providing Comprehensive Support for Infrastructure Development towards Further Growth in India—

On March 31, the Japan International Cooperation Agency (JICA) signed Japanese ODA loan agreements with the Government of India for a total of up to 183.079 billion yen for three projects.

In a joint statement issued by the prime ministers of the two countries during the summit at New Delhi in January 2014, they affirmed that Japan would continue its Official Development Assistance (ODA) at a substantial level to encourage India in its efforts towards social and economic development. Following the statement, the newly signed Japanese ODA loans will be utilized for: 1) metro construction in Delhi, 2) improvement to the power distribution system in Haryana, and 3) a safe and stable drinking water supply in Agra.

The development of infrastructure for economic growth remains one of the major challenges in India. The Government of India plans to develop infrastructure worth approximately USD 1 trillion during the Twelfth Five Year Plan (2012–2017) and has requested support from the Government of Japan and international organizations.

Highlights of the ODA loans signed are as follows:

(1) Addressing traffic demands in the National Capital Territory of Delhi through a further extension of the Delhi Metro

Since construction began in 1997, the Delhi Metro has grown to an operational network of 190 kilometers with phases 1 and 2 now complete. Because of the introduction of the women-only cars, reasonably priced tickets (starting from 8 rupees) and punctual train service, the Delhi Metro has a high reputation and is widely accepted as reliable form of public transportation. As the number of Delhi Metro passengers increases every year, the daily ridership exceeded 2.6 million last August, and phase 3 of the project is moving forward to construct loop lines connecting existing networks with an expected operation start in 2016. Through the Delhi Mass Rapid Transport System Project Phase 3 (II), the Delhi Metro phase 3 project will be funded towards mitigating congestion in Delhi, where rapid economic growth is increasing the traffic demand.

During the construction of the Delhi Metro, cooperation by Japanese construction companies and consultants has been extended and Japanese customs for civil work projects, such as strict observance of safety instructions and deadlines, were introduced. The newly signed loan is the second tranche for the phase 3 project, following the loan for the Delhi Mass Rapid Transport System Project Phase 3 (127.917 billion yen), signed in 2007.

(2) Ensuring a stable energy supply in the northern Indian state of Haryana

The Government of India has been promoting its energy-saving policy and expanded use of renewable energy, as well as improving power transmission facilities for efficient domestic energy use and a stable energy supply. In Japan-India Energy Forums and Japan-India Energy Dialogues, Japan has maintained a policy for actively assisting India in promoting the country's environmental and energy policies.

The objective of the Haryana Distribution System Upgradation Project is to improve the power distribution system in the State of Haryana, where a number of local and overseas companies have operations in industrial complexes in such cities as Gurgaon and Manesar, with the aims of reducing distribution loss and ensuring a stable power supply.

(3) Contribution to a safe, stable drinking water supply in Agra, one of the world's most famous sightseeing sites

In its Twelfth Five Year Plan, India lists sustainable access to safe and stable drinking water as one of its objectives. Water source development and water supply infrastructure, however, has not kept pace with the increase in water use accompanying the rise in population and economic development, such that water is generally provided only a few hours a day, a situation contrasting greatly to the situation in Japan where water is supplied continuously 24 hours a day. Agra, a sightseeing city renowned for the World Heritage Site of the Taj Mahal, depends on the Yamuna River as its water resource, but as it is one of the most polluted rivers in India, not only does the city provide only limited water supply hours, but the water quality is a major social issue.

The Agra Water Supply Project (II) will help address these issues by constructing water supply facilities that directly convey water from the upper reaches of the Ganges to Agra and surrounding areas, and by improving and expanding the existing water supply facilities in Agra. It is expected that successful completion of the project will improve the living standards of Agra residents, including the poorest segment of the population as well as the many tourists who visit the city. This is the second tranche loan following the loan for the Agra Water Supply Project (24.822 billion yen), signed in 2007.

(Reference) Terms and amounts of loans

Project title	Amount (million yen)	Annual interest rate (%)		Repayment period (years)	Grace period (years)	Procurement
		Project	Consulting services			
Delhi Mass Rapid Transport System Project Phase 3 (II)	140,000*	1.40	0.01	30	10	General untied
Haryana Distribution System Upgradation Project	26,800	0.80	-	20	6	General untied
Agra Water Supply Project (II)	16,279	1.40	0.01	30	10	General untied

*This amount was increased by 8,887 million yen to 148,887 million yen on May 12, 2015.

(1) Delhi Mass Rapid Transport System Project Phase 3 (II)
(a) Background and Necessity
As India has become increasingly urbanized in recent years with a rapid increase in car and motorcycle ownership, public transportation infrastructure remains underdeveloped, creating a number of issues. Serious traffic congestion in big cities including Delhi, Kolkata and Chennai not only leads to economic loss but also threatens human health due to the resulting air and noise pollution. Public transportation development is therefore urgently needed to mitigate traffic congestion and improve the environment in such cities. In response, the Twelfth Five Year Plan prioritizes the development of public transport system with a plan for the Government of India to invest 1,300 billion rupees in railways over the five-year period.

The population in the National Capital Territory (NCT) of Delhi dramatically increased from 9.420 million in 1991 to 16.750 million in 2011 and is expected to further rise to 24.320 million by 2021. As the population continues to grow, car ownership is also rapidly increasing. This is causing serious traffic congestion, so that the average traffic speed is approximately 15 kilometers per hour on main roads in the NCT, far slower than other large cities of the world such as Tokyo (20 km/h) and New York (30 km/h). Moreover, the transportation capacity of existing public transportation such as buses cannot be expanded because a lack of available land makes road network expansion difficult. Therefore, the metro network, under continuous development since 1997, is positioned as the core of the urban transportation and environmental policies of the government of the NCT. During the

construction of the Delhi Metro, cooperation by Japanese construction companies and consultants has been extended and Japanese customs for civil work projects, such as strict observance of safety instructions and deadlines, were introduced. In addition, a train control system featuring wireless communication technology is planned for installation by a Japanese company in the interval planned for phase 3.

(b) Objective and Summary
By constructing a mass rapid transportation system with a total length of 116 kilometers in the NCT, this project will help address the growing transportation demand and aims to contribute to regional economic development as well as the urban environment by mitigating congestion and reducing car pollution, which in turn will alleviate climate change. The loan agreement recently signed is the second loan to phase 3, after the first tranche (127.917 billion yen) signed on March 2012.

Funds from the loan will be allocated to engineering works, power and communication-related works, the procurement of train cars and related needs.

(c) Executing Agency
Delhi Metro Rail Corporation Limited
Address: Metro Bhawan, 13 Fire Brigade Lane, Barakhamba Road, New Delhi, 110001, India
Phone: +91-11-2341-7910, fax: +91-11-2341-8416

(d) Planned Implementation Schedule
(i) Completion of project: October 2020 – when all rolling stock is put into service
(ii) Issuing of letters of invitation for consulting services (including construction supervision): Consultants have already been hired.
(iii) Tender announcement of initial procurement package for international competitive bidding on project construction: Already contracted

(2) Haryana Distribution System Upgradation Project
(a) Background and Necessity
Due to its rapid economic growth in recent years, India is now the fourth largest energy consumer in the world, surpassing Japan which is the fifth. Nevertheless, India continues to be challenged by the gap between supply and demand of electricity. The insufficient power supply infrastructure, coupled with high transmission and distribution losses (averaging 23.7% in FY2011 for India overall) which waste precious energy resources, is the cause of frequent power cuts, a serious problem to society.

Numerous local and overseas companies, including Japanese companies, have offices and factories in Haryana in northern India, particularly in industrial parks (as of January 2014, the number of Japanese companies operating in Haryana was 325, the third largest number in any state after Tamil Nadu and Maharashtra). To avoid power outages and voltage fluctuations, many of these companies have installed private power generators and “separate feeders,” distribution lines laid directly from a substation to an office or factory. However, such measures are costly, affecting profit margins. Furthermore, power theft and meter tampering are frequently observed in Haryana, resulting in more than 50 percent in distribution loss at in many areas. Due to such serious problems in Haryana, immediate measures for the existing power distribution system need to be taken.

(b) Objective and Summary
This project will improve the power distribution facilities in the State of Haryana, reducing distribution losses and ensuring a steady supply of power, and thereby supporting economic development in the area and improving living standards. The loan funds will be allocated to the construction of new power distribution lines and the replacement of existing ones, the installation of meters with automatic reading features, the installation of meters and meter boxes, and the purchase of spare transformers and other supplies.

(c) Executing Agencies
Uttar Haryana Bijli Vitran Nigam Ltd.
Address: Vidyut Sadan, Plot No. C16, Sector 6, Panchkula, Haryana, 134109, India
Phone: +91-172-2572-535, fax: +91-172-3019-100

Dakshin Haryana Bijli Vitran Nigam Ltd.
Address: Vidyut Sadan, Vidyut Nagar, Hisar, Haryana, 125005, India
Phone: +91-1662-2233-92, fax: +91-1662-223098

(d) Planned Implementation Schedule
(i) Completion of project: June 2019 - when the facilities are put into service
(ii) Issuing of letters of invitation for consulting services (including construction supervision): not applicable
(iii) Tender announcement of initial procurement package for international competitive bidding on project construction: No international competitive tendering is planned (all tendering is planned to be local competitive bidding)

(3) Agra Water Supply Project (II)
(a) Background and Necessity
Due to a growing population and rapid economic growth in India, domestic water use and demands are rapidly increasing at a pace that exceeds the ability of water resource development and water supply system construction keep up. While 24-hour water service is provided in other rapidly developing countries such as Brazil and China, no city in India has achieved that level of water supply, which remains intermittent and uneven (even in major cities, water is supplied an average of one to six hours per day). In addition, there are a number of water system issues to be addressed in India, including a high level of non-revenue water (exceeding 40 percent), low water tariffs, a shortage of engineers, and technical and financial issues regarding water system operation and management.

In Agra, a city in the northern Indian State of Uttar Pradesh, and its surrounding areas, the increase in domestic water use is driven by rapid population growth (Agra population in 2006: 1.42 million, in 2021: 2.03 million).Though it is expected that water use demand will reach 305 million liters per day (MLD) by 2021, the city can currently supply only 142 MLD of water, so the water supply system needs to be urgently developed. In addition, since the Yamuna River, which is the main water source for Agra and its surrounding areas, has become increasingly polluted by the inflow of untreated water from major cities situated in the river’s upper reaches, including Delhi, large amounts of chlorine are used to purify the water, a costly expense. Due to concerns about the health effect of the water, people tend to avoid using Yamuna River water for drinking water, making it imperative to develop new water sources.

(b) Objective and Summary
This project will provide a safe, stable supply of drinking water by constructing water supply facilities that convey water from the upper reaches of the Ganges to Agra in the State of Uttar Pradesh and its surrounding areas, and by improving and expanding the existing water facilities in Agra, thereby improving the living environment of residents, including the poor.

(c) Executing Agency
Uttar Pradesh Jal Nigam
Address: 6, Rana Pratap Marg, Lucknow, 226001, India
Phone: +91 (0522) 2620172, fax:+91 (0522) 2620173

(d) Planned Implementation Schedule
(i) Completion of project: December 2017 – when the facilities are put into service
(ii) Issuing of letters of invitation for consulting services (including construction supervision): Consultants have already been hired.
(iii) Tender announcement for initial procurement package for international competitive bidding on project construction: Already contracted