

Why is Japan important to India's energy security?

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The increasing importance accorded to India-Japan relationship was reemphasized during Prime Minister Abe's New Delhi visit late January that brought into sharp focus the critical issue of energy security in the changing geo-political landscape in Asia. The highlight of the visit were deliberations on energy efficiency and conservation measures, which both the countries believe can effectively handle the energy crisis, thereby providing a secure and sustainable energy future.

Moreover, this visit also significantly opened avenues for bolstering energy ties between the two countries in areas ranging from conventional to non-conventional energy resources.

This renewed energy cooperation between the two countries attains significance particularly at a time when India, despite having an objective of energy independence through substantially decreasing its crude imports by 2030 is actually becoming increasingly dependent on it. If estimates of BP Energy Outlook 2035 are to be believed, India's oil imports will rise by 169 per cent, accounting for 60 per cent of the net increase in imports.

It therefore becomes inescapable for India to find a way out in dealing with its ever increasing energy consumption and imports by implementing stringent measures of energy efficiency and conservation, while inculcating energy discipline at the core of its economic activity as a long term sustainable goal. India-Japan energy cooperation will also address the concern of India's rising crude import bills and falling domestic natural gas production by importing liquefied natural gas (LNG) jointly, bringing down the procurement cost.

Though, Indo-Japan energy cooperation initially began in the beginning of the new millennium when during the visit of Japanese Prime Minister Mori in 2000 to India, 'Global Partnership in the 21st Century' was launched. However, greater thrust given to energy sector cooperation was evident in India-Japan joint statement on 'Enhancement of Cooperation on Environment Protection and Energy Security', during Abe's visit in August 2007.

Keeping the fundamental objective of energy security in mind, various agreements between these two countries have been signed during Abe's January visit. To enhance energy efficiency in telecom towers, for instance, memorandum of undertaking (MoU) was signed between Japan's New Energy and Industrial Technology Development Organisation (NEDO) and India's Department of Economic Affairs, Ministry of Communication & Information Technology, Ministry of New and Renewable Energy, Government of India on a Model Project for Energy Management Systems.

Further, to reduce Greenhouse Gas Emissions in coal-fired plant, both countries agreed to use Clean Coal Technologies. And as a result, they signed a loan agreement between National Thermal Power Corporation Limited (NTPC) and Japan Bank of International Cooperation (JBIC) for Kudgi supercritical coal-fired power project in Karnataka and Auraiya power project in Uttar Pradesh to the tune of \$430 million.

On energy efficiency and conservation front both these countries have agreed upon to extend their partnership under agreement signed between India's Petroleum Conservation Research Association and Japan's Energy Conservation Centre, which aims to promote energy efficiency including reduction of greenhouse gas emissions using clean technologies, promoting energy labeling for energy efficient appliances and so on.

Further, Japan can augment its support for India's coal sector endeavour, through implementation of coal washery technology, promotion of high-efficiency use of low rank coal and implementation of communication system for the purpose of securing safety in coal mine, while promoting sustainable economic growth taking environmental issues into consideration. New Energy and Industrial Technology Development Organization (NEDO) is already involved in commercial scale project which reduces ash content of coal using highly efficient coal washery technology at Angul in eastern State of Odisha. India and Japan are also strengthening their cooperation on renewable energy front and some of their initiatives include Waste to Energy, Green Corridor and development of smart grid.

Notably, Japan has already gained a leadership status in these areas way back since 1970s, consequently having a clear competitive advantage over other countries, thanks to its Sunshine and Moonlight Projects which was launched in 1974 and 1978 respectively. Strikingly, the outcome of these initiatives was reduction of crude oil imports by Japan from around 80 per cent in 1973 to about 50 per cent during 1990s, thereby shifting its focus from oil to renewable energy and natural gas.

India is trying to deal with its domestic energy concerns of falling oil and gas production and rising crude oil and coal imports through various measures including reforming its New Exploration and Licensing Policy (NELP), intensifying its efforts in developing domestic unconventional energy resources and diversifying its crude imports. In this regard Japan's support holds special importance.

Besides, support towards energy efficiency and conservation technologies, Japan is also willing to cooperate in India's effort to augment domestic oil and gas reserves and joint procurement of costlier LNG so as to cut the cost of its import. In this regard India's Oil and Natural Gas Corporation Limited (ONGC) has signed a memorandum of understanding with Japan's Mitsui & Co. for exploration and production of hydrocarbon resources in India and elsewhere, enhancing similar such future opportunities.

As regard procurement of LNG, both the countries have already moved forward in their decision to cooperate in joint procurement of LNG so as to cut the Asian Premium to some extent benefiting both the largest and emerging LNG importer. Chubu Electric Power Company of Japan and Gas Authority India Limited (GAIL) of India have joined hands and soon are going to sign a memorandum of understanding in this regard.

Both the countries have realised the need to cooperate in enhancing the safety of nuclear power plants, thereby reopening the possibilities of further dialogue in civil nuclear energy cooperation on a faster track by reaffirming the importance of early conclusion of the negotiations of an Agreement for Cooperation in Peaceful Uses of Nuclear Energy, taking into account the joint statement of May 29, 2013. This gained further prominence when on December 16, 2013, the draft 'Basic Energy Plan' declared that nuclear power would remain to be a 'key base power source' so as to stable energy supply, cost reduction and measure to combat global warming.

Last but not the least India and Japan are further willing to give the highest priority to global environment challenges while strengthening their energy security through continuous and effective action. Both the countries recognise the need to promote industrial cooperation to expand bilateral energy cooperation on a commercial basis. In this regard New Energy and Industrial Technology Development Organisation (NEDO) and The Energy and Resources Institute (TERI) held Japan-India Energy Forum and are already providing valuable inputs to the bilateral engagement on

energy security. Similar such arrangements have been made between the Confederation of Indian Industry (CII) and NEDO for promoting Japanese technologies needed to help energy issues in India.

Therefore, for a energy thirsty nation like India which is expected to increase its dependency on imported crude and also to a greater extent on LNG, tying up with Japan would secure India's energy insecurity to a greater extent, thereby offering extended mutual benefits to both the countries, particularly with respect to energy savings and efficiency, which should be the topmost agenda for any energy hungry nation.

Both the countries with these efforts would also ensure energy security not at the cost of environment degradation but through ways and means that also ensures holistic sustainable development of their economies.

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