



NEWS UPDATE – December 28, 2006

Dear Investor:

As we prepare for the New Year, we wanted to share the positive news around our recent India trip and the subsequent signing of the Nuclear Cooperation Act.

Thorium Power, Ltd. was featured in over seventy articles and segments, including BBC News, *The Financial Times*, *Newsweek*, *Fortune*, the Associated Press and Reuters.

This is the first in a series of regular news updates and you will find all of the latest coverage in the following pages. Additionally, the BBC News video clip can now be viewed at www.thoriumpower.com.

We are excited about our progress so far and we look forward to exciting new developments in the New Year. Happy Holidays.

Seth Grae
Chief Executive Officer

Thorium Power Ltd. News Report
November 28, 2006 — December 16, 2006

Business Today – A \$9-billion Blast (12.16.06) – The publication reports on the significance of the deal, noting the increasing importance of nuclear energy and India's membership in the "nuclear club." Thorium Power is mentioned as the a key member of the U.S. trade delegation.

Reuters India — U.S. aims for final India nuclear deal in 2007 (12.19.06) — The news wire reports that industry analysts said plans are set for the United States to complete the remaining approvals for nuclear cooperation with India in roughly six months. The article references Thorium's Seth Grae and Dennis Hays and notes that the company is "in preliminary discussions on providing thorium technology for Indian fuel and reactor designs and could conclude a deal once Congress acts."

Straits Times — Business flurry over U.S.-India nuke deal (12.16.06) — The paper reports that U.S. companies' eagerness to cash in on India's growing energy needs have seen U.S. government rewriting law to share civilian nuclear technology with India. Referring to the U.S. Congress' stamp of approval on the Indo-US civil nuclear deal, the article mentions that Thorium Power was among U.S. nuclear companies that discussed the business opportunities that the civilian nuclear deal will open up with Mumbai-based Nuclear Power Corporation India Limited (NPCIL).

Forbes.com — Cashing In On India's Nuclear Future (12.15.06) — The topical business magazine reports on ballooning opportunities in India for U.S. companies trading nuclear technology. The article notes that Thorium Power was one of the key members of the U.S. trade delegation.

Poland Business Newswire — Poland's increased involvement in nuclear power attracting interest of foreign firms (12.14.06) — The news wire reports that Poland's Lech Malecki, director of the energy department at the economy ministry, said that the country's announcement to deepen its involvement in nuclear energy technologies has attracted a number of foreign companies that are potentially interested in developing nuclear technologies in Poland. The article notes that Thorium was among other companies that engaged in talks concerning the building of a nuclear power plant at Swierk, the Polish nuclear technology center.

The Economic Times — Finally, India joins elite N-league (12.10.06) — The paper reports on the U.S. Congress' vote to pass the legislation allowing nuclear trade with India. The article mentions that Thorium Power was among other U.S. energy firms that were in India as part of a U.S. trade delegation.

The Australian — Australia's thorium world's largest accessible lode (12.09.06) — The paper reports on Australia's House of Representatives industry and resources committee report, Australia's Uranium: Greenhouse Friendly Fuel, which recommended an end to bans on new uranium mines, and drew further attention to the country's thorium capacity. The article mentions that Thorium Power has been involved in developing a thorium nuclear fuel since the 1990s with Moscow's Kurchatov Institute.

The Times of India — US nuke firms feel deal is done, seek terms of business (12.08.06) — The paper reports that American nuclear firms that view the Indo-U.S. civil nuclear deal as a done deal are busy checking out the government's views on issues like civil liability and the extent of foreign participation in energy projects. In referring to the India Business Summit, the article mentions that Thorium Power was among U.S. energy firms that brought up such issues.

The Hindu — Thorium Power in tie-up talks with NTPC, NPCIL (12.06.06) — The paper reports that Thorium Power is talking to NTPC Ltd and Nuclear Power Corporation of India Ltd for tie-ups involving proliferation-resistant, low-waste fuel technology.

The Economic Times — US' Thorium Power eyes nuke tech, R&D JV here (12.06.06) — The paper reports that Thorium Power is exploring the possibility of a joint venture with India's Nuclear Power

Corporation of India (NPCIL), NTPC, as well as the lead players in the private sector. The article quotes Thorium's Seth Grae as saying: "We may be in a position to announce a joint venture by the middle of next year."

Bloomberg News — Thorium Power Says Plans Joint Ventures With Indian Companies

(12.05.06) — Bloomberg reports on Thorium's statement that the company is in talks to set up joint ventures with Nuclear Power Corp. of India and NTPC Ltd. The article quotes Thorium's Seth Grae, who said, "If India chooses to build its reactors on thorium, we expect to get a sizeable chunk of the business."

Pakistan Dawn — 'U.S. firm to sell India 500 tons of uranium' (12.03.06) — In reporting on an agreement between WM Mining and India's Nuclear Fuel Complex, the paper mentions that Thorium Power was among a delegation representing 14 U.S. energy firms at the India Business Summit.

Forbes.com — U.S. Nuclear Salesmen Beat A Path To India (12.01.06) — Covering the India Business Summit, Forbes reports that key American companies are "lining up" in hopes of meeting India's large energy demands for nuclear power. The article notes that Thorium Power was among 14 American firms from the nuclear sector to send delegates to the largest trade mission from the U.S. to any country.

Financial Express — More U.S. nuclear companies to join the India bandwagon (12.01.06) — The news service reports that the U.S. government and the visiting American nuclear companies plan to organize one more visit to India to explore business opportunities. The article notes that Thorium Power was among the companies that were impressed with the state-run Nuclear Power Corporation of India Ltd's (NPCIL) existing plants and the credibility of its expansion program.

Financial Express — U.S. Companies Target India's \$50-Billion Nuke Programme (12.01.06) — The news service reports that U.S. nuclear companies including Thorium Power, which aim to develop partnerships with Indian companies to build new nuclear plants in India, the U.S. and other countries, are awaiting approval of the Indo-U.S. civilian nuclear deal by the U.S. Senate.

BBC News — US firms seek opportunities in India (12.01.06) — The news service reports on the India Business Summit and the notes that it was the largest trade mission from the U.S. (to any country in the world). The report notes that Thorium Power's Seth Grae and Dennis Hays were "ready to go" from the start as they arrived in Mumbai after many hours on two international flights.

Associated Press Newswires — U.S. firms eye India after civilian nuclear deal cleared (12.01.06) — From the India Business Summit, the wire reports that U.S. companies engaged in the nuclear energy industry see India as the new frontier, "where efforts to raise nuclear power production could yield contracts worth \$100 billion." The article mentions that Thorium Power was among the U.S. nuclear sector firms to send delegates. (This article ran in over 50 outlets worldwide, including *BusinessWeek*, *CBSNews.com*, *Forbes.com*, *The Houston Chronicle*, *The International Herald Tribune*, *The Los Angeles Times*, *Leading the Charge* (Australia), *MSN Money.com*, *The Ottawa Recorder*, *The Seattle Post-Intelligencer*, *The Washington Post*.)

The Press Trust of India Limited — U.S. power major Westinghouse plans big India foray

(11.30.06) — The news service reports on the various plans that U.S. energy companies hope to pursue once the Indo-U.S. civil nuclear deal comes through. The article mentions that Thorium Power "has shown interest in collaborating with Indian researchers on thorium technology for nuclear power."

The Press Trust of India Limited — U.S. firms keen on investing in Indian nuclear programme

(11.30.06) — The news service report from the India Business Summit notes that American companies are eager to invest over 50 billion dollars in India's nuclear program once the civil nuclear deal between the two countries is approved by the U.S. Congress. The article mentions that Thorium Power was among the companies that comprised the U.S. delegation.

The Economic Times — 'Tax structure, red tape hurdles to growth' (11.30.06) — The paper reports

that delegates at the India Business Summit identified three critical areas for public-private partnerships - energy, infrastructure and agriculture. In referring to the Indo-U.S. civil nuclear deal, the article quotes Thorium's Dennis Hays who said: "Once the legal frame is established we can sign deals."

Reuters News — UPDATE 1-U.S.'s Thorium Power, India in reactor talks-firm(11.29.06) — Reporting from the India Business Summit, the new service writes that Thorium Power is in talks with the Indian government to provide technology for thorium-based reactors. The article quotes Thorium's Seth Grae from the meeting sidelines who said, "India has a great deal of thorium and we understand that the government is developing plans for large-scale deployment of thorium-based nuclear reactors."

Reuters News — India nuclear deal likely final by May - US envoy (11.29.06) — The wire reports on talks at the India Business Summit and Washington's plans toward civilian nuclear trade between the United States and India. The article notes that Thorium Power said it was in talks with the Indian government and energy firms to sell nuclear reactor technology and quotes Thorium Vice President Dennis Hays, who said: "We are talking to four to five companies."

Dow Jones News Service — DJ UPDATE: U.S. Execs In Mumbai To Explore Business In India (11.28.06) — Dow Jones covers the two-day "India Business Summit" led by U.S. Undersecretary of Commerce for International Trade, Frank Lavin. The article mentions that Thorium Power, Ltd. was among the U.S. companies included in the delegation that work in the nuclear sector.

Associated Press Newswires — Biggest ever U.S. trade delegation visits India to explore partnerships, opportunities (11.28.06) — The wire reports on the two-day "India Business Summit" organized by the Federation of Indian Chambers of Commerce and Industry and the Confederation of Indian Industry to explore "new opportunities to invest in India and develop partnerships with local companies". The article mentions that Thorium Power Ltd. was among U.S. companies included in the delegation that work in the nuclear sector.

The Business Times Singapore — American delegation to explore nuclear power projects (11.23.06) — The paper reports that the passing in the U.S. Senate of the Indo-US nuclear pact has given a boost to potential deals involving American companies building nuclear power projects in India. The article notes that Thorium Power will be among the 225 U.S. companies attending the upcoming India Business Summit.

Financial Times — US companies clamour to break into India's Dollars 100bn nuclear energy sector (11.23.06) — The paper reports that U.S. companies are clamoring to break into India's nuclear energy market as lawmakers finalize the U.S.-India civilian nuclear agreement. The article mentions that Thorium Power will be among two dozen U.S. groups with nuclear energy interests to join more than 200 other American companies at the India Business Summit.

Hindustan Times — US energy firms rush to corner N-bonanza (11.21.06) — The paper reports that with the passing in the U.S. Senate of the Indo-US civilian nuclear deal and the Indian government finalizing a draft amendment to the Atomic Energy Act, American industrial groups and companies are expected to arrive for talks with the Mumbai-based Nuclear Power Corporation India Limited (NPCIL) at the India Business Summit. The article notes that Thorium Power will be among the expected companies.

Indo-Asian News Service — US to send over 225 corporate honchos to India Indo-Asian News Service (11.20.06) — The news service reports on the coming India Business summit in Mumbai, which will host the largest-ever business delegation from the U.S. The article notes that Thorium Power would be among the more than 225 top corporate leaders expected to attend.

A \$9-billion Blast
By Balaji Chandramouli
Business Today
December 31, 2006

HIGHLIGHT: The Indo-US N-deal is done, and US companies are busy casing out the Indian market. The obvious attraction: a potentially Rs 40,000-crore plus opportunity.

A large 250-member delegation of us business executives landed in Mumbai in the last week of November. Apart from the unusually large size of the delegation, what was interesting was its composition-it included representatives of about a dozen companies that are present in the nuclear sector-like GE Energy, **Thorium Power**, BMX Technologies (BMXT) and ConverDyn. The high-level us delegation met the domestic industry to sniff at potential opportunities in the nuclear power generation business that, on a conservative scale, will be worth more than \$9 billion (Rs 40,500 crore) over the next five years. "We are excited about the opportunities as they unfold," says Ron Somers, President, Indo-US Chamber of Commerce, who was here to herd the 25-strong nuclear industry team from the us. Somers is not new to India or the power business-he headed the controversial 1,000 mw Cogentrix fast track power project close to a decade ago.

The visit was timely; the US legislature is in the process of approving legal amendments that will lift the three-decade long ban on sale of civilian nuclear equipment and fuel to India. As India returns from nuclear exile, are there others who will embrace it? How will the nuclear power business play out? What do the global players have to say and how is the domestic industry shaping up?

Interestingly, nuclear power industry in the US has not added a single megawatt of power capacity over the last quarter century on its home soil. "We have done most of our business out of Japan but have ensured that we maintain our technological edge over the last decade," says Andrew White, CEO of GE Energy's nuclear business. For others, like the \$4-billion (Rs 18,000-crore) BMX Technologies, participation in classified us nuclear programmes gives it the edge. "Participation in military programmes has enabled us to hone our technical skills," says Craig Hansen, Vice President (Washington Operations), BMXT.

Invitation to the Club

It has been a bootlegger's existence since 1975, when India first exploded a nuclear bomb and refused to surrender its new found power. For, in the same year, a Nuclear Supplier Group (NSG) was formed in London (hence, the name, London Club) that shut the doors on India. Consequently, the fuel tap for the power plants (3,900 mw costing around Rs 35,000 crore) went dry and the country was left to the goodwill of nations like China and Russia that had not then signed the treaty to keep these plants running.

Now, the US is lifting the apartheid and plans to allow its industry to sell civilian nuclear wares to India as a first step. And, as a second step, it will lobby with the 45-member London Club to allow laissez faire. Now, the US industry is here in India to net the first mover advantage. "We have met several companies, including power developers like National Thermal Power Corporation. We are looking for strong partners with credible track records," says Ganpat Mani, Senior Vice President, ConverDyn, which recycles spent fuel. While US interest is on the rise, the pace of business deals will be determined by another legislative move-one that allows private ownership of nuclear plants in India. According to industry officials, the entire process could take up to a year-and-a-half. Consequently, domestic companies like Tata Power and Reliance Energy are only exploring opportunities at this point in time. Says GMR Senior Vice President Avinash Shah: "We are talking to the global industry and exploring the possibilities of setting up nuclear plants in the country."

Project developers are obviously upbeat about the opportunities, but so are equipment makers like Larsen & Toubro (L&T). This is endorsed by several us majors. Says Hansen, whose company has already done business in the country with Thermax: "The Indian industry has substantive resource capabilities, especially in the specialty steel manufacturing business." Adds Timothy L. Richards, Director,

International Energy Policy, GE Energy: "This visit has allowed us tech companies to engage with prospective business partners and customers here in India."

Nuke the Winner

The increasing popularity of nuclear power globally can be partially attributed to the rising costs of alternate fuels. Gas and coal prices have hardened like never before and equipment costs have not eased. But unlike other power generation fuels that hardly undergo any treatment before use, nuclear fuel has to go through several stages of processing. Little wonder then that the cost of raw material is a mere 10 per cent of the total fuel cost. As much as 60 per cent of fuel cost goes towards enriching the fuel and another 30 per cent is spent on fuel fabrication (milled from uranium ore and rolled into pellets and rods that find their way to the reactor). More importantly, fuel cost is a mere 15 per cent of total tariff, even at the prevailing rates of \$62 (Rs 2,790) per pound (See Bang for your Buck). This is a major asset in times of oil and gas price volatility.

But India has not been able to take advantage of this due to the nuclear apartheid that it has been subjected to over the last three decades. Result: the country's nuclear energy capacity is 3,900 mw, a minuscule 3 per cent of its installed power generation capacity. The government plans to add another 6,000 mw capacity over the next 10 years. There is, however, the possibility that capacity additions by the private sector will result in this figure being overshoot. Says V. Raghuraman, Principal Advisor, CII: "The government needs to quickly amend the Atomic Energy Act, 1962, to hasten the pace of private participation in the sector." Agrees Rajendra Srivastava, General Delegate, EDF: "The early rollout of regulations is key to private sector participation."

Safety versus Economics

The scars of a nuclear accident leave a deep imprint on society. A few years after India was barred from accessing nuclear material, The Three Mile Island (a nuclear power plant) accident in 1978 brought an end to the capacity addition programme in the US.

The re-emergence of nuclear power as an acceptable energy source has as much to do with the redressal of safety issues as with the cost of abating carbon emissions. In a deposition before the US Senate in September this year, Assistant Secretary for Nuclear Energy, Dennis Spurgeon said: "Nuclear technology is the only one currently available that is capable of delivering large amounts of power without producing emissions. US nuclear power plants displace millions of tonnes of carbon emissions each year."

But the development of a vibrant nuclear energy industry depends critically on not only addressing the safety issues but also on clearly defining who picks up the tab in case of an accident. "No private company will buy the entire accident insurance for a nuclear plant. A sovereign cover is essential depending on the plant capacity," says Omer Brown II, Attorney, Harmon, Wilmot and Brown, LLP, a firm representing several nuclear operators in the US. "The global practice is that the country concerned provides an insurance cover of up to \$450 million (Rs 2,025 crore)." Will India blink on this count? That remains to be seen, but it will add to power costs. Interestingly, China offers an insurance of less than \$50 million (Rs 225 crore), industry officials point out.

The opportunity, clearly, is huge. The global nuclear scenario, from India's perspective, is better than it was anytime in the past. And private players, both Indian and foreign, seem eager to move in. It's now up to the government to deliver sensible regulations to unlock this potential.

-additional reporting by Aman Malik

BOX

Chinese Chequers

It's nearly a repeat of the oil story. China's appetite for nuclear power, at 10,000 MW, has driven up uranium prices from \$10 per pound (Rs 480) in 2002 to around \$62 (Rs 2,790) per pound now. Besides, China is developing industrial manufacturing capability to sell equipment at a later point of time. Uranium ore, per se, constitutes less than 2 per cent of power tariff; so India has little to fear on this count. On the equipment side, reliability and track record may work against the Chinese.

M&A Season Is On

With the nuclear power business gaining ground across the world, the equipment industry has begun the consolidation process. Early this month, General Electric Company and Hitachi formed a global alliance to bid for equipment supply. Prior to that, electronics major Toshiba Corporation bought out Westinghouse Electric Corporation's nuclear business. All in aid of quenching the globe's power thirst at the lowest price.

The Power Of The Atom

A truckload of nuclear fuel can power a city like Nagpur for an entire year. To do the same using coal-fired power will require as many as 730 truckloads or two train loads of coal every day. In short, 2 tonnes of nuclear fuel equals 2 million tonnes of coal. Besides, power turbines last 60 years against 30 years in the case of coal-fired plants and 15 in the case of gas fired plants. On the operational side, however, nuclear stations are as fragile as cotton. They "trip" at the slightest provocation, like a disturbance in the grid. Since electricity flows like water (by displacement), any unscheduled intervention causes a ripple-enough for the nuke plant to trip.

U.S. aims for final India nuclear deal in 2007
By Carol Giacomo, Diplomatic Correspondent
Reuters India
December 19, 2006

WASHINGTON (Reuters) - Backed by American business, the United States aims to complete the remaining approvals for nuclear cooperation with India in roughly six months, but lingering questions could delay action, analysts said.

President George W. Bush signed a law on Monday that represents a major step toward allowing India to buy U.S. nuclear fuel and reactors for the first time in 30 years.

Beyond that, the 45-nation Nuclear Suppliers Group must change its rules governing nuclear trade; the International Atomic Energy Agency and Delhi must agree on a "safeguards" inspections regime. The U.S. Congress must also approve a second law - on technical details of the deal - before U.S. nuclear transfers to India can take place.

Undersecretary of State Nicholas Burns said the technical agreement, called a 123 agreement after a section of the U.S. Atomic Energy Act, would be concluded "in the next few months" and "there aren't any major issues left to decide."

After that comes the IAEA plan for inspecting 14 of India's civilian nuclear plants and then the NSG rules change. Burns said: "I've talked to each one of those countries, and I'm confident that the Nuclear Suppliers Group will act."

NSG members Russia, Germany, Britain, France, and Japan and Australia have all announced support for nuclear cooperation with India, he said.

And after recent talks in Beijing, Burns concluded: "I do not believe the Chinese will block this." He acknowledged that Ireland, Denmark, Norway, Sweden and Finland have doubts but hoped they would eventually join a consensus favoring changing the NSG rules.

The NSG prohibits trade with states that are not members of the nuclear Non-Proliferation Treaty and do not allow safeguards on all nuclear facilities - India, Israel, and Pakistan.

Daryl Kimball of the Arms Control Association said India and the IAEA are still debating inspections, and consideration by the NSG may not proceed easily either.

India may accept safeguards only if the United States and others guarantee a steady nuclear fuel supply. Yet safeguards are meant to be permanent and this is underscored in the U.S. law Bush signed, he said.

Under the law, U.S. nuclear exports would be ended if India tested a nuclear weapon, as it did in 1998.

Kimball said countries skeptical about allowing a nuclear trade exception for India may suggest alternative proposals.

He wondered if the United States and China might try to cut deal under which China would allow nuclear trade with India if the NSG would at some point also permit nuclear trade with nuclear-armed Pakistan, India's rival and China's ally.

Bush rejected a nuclear cooperation agreement with Pakistan over blackmarket sales involving A.Q. Khan, father of Pakistan's nuclear program, to Iran, Libya and North Korea.

Meanwhile, American companies are preparing to take advantage of a vast new Indian nuclear market worth \$150 billion.

Seth Grae and Dennis Hays, top executives at **Thorium Power Ltd.**, told Reuters they can't negotiate a final deal with India until the "123 agreement" is approved by Congress.

But they are in preliminary discussions on providing thorium technology for Indian fuel and reactor designs and could conclude a deal once Congress acts.

Thorium is a radioactive metal and the firm develops proliferation resistant nuclear fuel technologies.

**Business flurry over US-India nuke deal;
With billions of dollars at stake, US firms scramble to win a piece of the action.
By P. Jayaram, India Correspondent
Straits Times
December 16, 2006**

NEW DELHI - INDIA'S ballooning energy needs, which are expected to grow by 40 per cent in the next five years, and America's keenness to cash in on the prospects have seen Washington rewriting the law to share civilian nuclear technology with India.

On Dec 9, the US Congress put its stamp of approval on the landmark legislation, and President George W. Bush is set to put his signature on the document in the next few days.

The historic deal breaks India out of over three decades of nuclear isolation and gives it recognition as a nuclear-weapon state. New Delhi is not a signatory to the Nuclear Non-Proliferation Treaty (NPT).

For the United States, apart from the business prospects it opens up, the deal also fits into its long-term strategic aim of building India as a counterweight to China's growing economic and military might.

While the deal still has some hurdles to cross, it has already set off a scramble in American business to cash in on the billions of dollars worth of potential business it will generate.

Interest in the deal was expressed by a dozen of the 180 companies represented in a 250-member US business delegation that visited India less than two weeks before the Congress approved it.

The largest-ever group of its kind to come to India, it was led by Mr Frank Lavin, the US Undersecretary of Commerce for International Trade.

Some delegates discussed the business opportunities that the civilian nuclear deal will open up with the Mumbai-based Nuclear Power Corporation India Limited (NPCIL), which builds India's nuclear reactors to generate electricity.

They included representatives of Westinghouse Electric Company, which provides technology for half of the world's nuclear power plants, General Electric, Bechtel, **Thorium Power** and Converdyn.

'They do not want to lose time,' NPCIL chairman S. K. Jain was quoted as saying. 'They have very clear intentions...to understand our nuclear power programme and its potential for participation.'

India has to find new sources of energy to meet growing demand. It is building seven nuclear reactors, said to be the most in the world. NPCIL is looking for more coastal sites for large reactors of 1000-1,650MW capacity.

'India's nuclear energy market, estimated to require US\$100 billion (S\$155 billion) in foreign direct investment, will open up for US companies, which till now has been a closed sector,' US-India Business Council president Ron Sommers said last month.

French companies, like Areva, have also held preliminary talks with NPCIL. Britain and Russia have also supported the US Bill.

Still, it is too early to talk of a nuclear bonanza. The International Atomic Energy Agency has yet to work out India-specific safeguards for its civilian nuclear programme, after which it has to be cleared by the 45-member Nuclear Suppliers Group (NSG).

Some Indian political parties also have reservations about the pact. The main opposition Bharatiya Janata Party (BJP) has said it will reject the deal if returned to power, though analysts dismiss this as mere rhetoric.

The communists, who lend vital parliamentary support to Prime Minister Manmohan Singh's minority government, have also sought reassurances from the government that the deal will not subvert India's nuclear programme.

One main concern was voiced by strategic analyst Brahma Chellaney.

'The July 18 agreement (between President Bush and Prime Minister Singh) is barely recognisable in the Bill,' he said.

The earlier agreement specifically said that the deal would give India the same rights and benefits as advanced nuclear powers, he said.

'There is not even a pretence of this,' said Mr Chellaney. 'India may yet reject it if it is unhappy with the reconciled version of the Bill.'

Mrs Sonia Gandhi, leader of the Congress party and chairman of the ruling United Progressive Alliance (UPA), agreed.

'Our position in the Congress party and the UPA is that nothing will be accepted which is outside the July 18 agreement with the US,' she said.

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Cashing In On India's Nuclear Future

By Ruth David

Forbes.com

December 15, 2006

Changes in U.S. regulations on trading nuclear technology with India may turn into big money for a host of firms looking to take advantage.

Weeks before the U.S. congress passed the nuclear bill with India, American companies went shopping in the country's enormous energy market, looking for prospective clients who had needs ranging from nuclear fuels to reactors to radioactive waste elimination.

The largest trade mission from the U.S. to any country was in Mumbai last month, and 30 of its 250 members represented 14 American firms in the nuclear sector. Nuclear reactor manufacturers Westinghouse, General Electric and BWX Technologies and fuel processing specialist **Thorium Power**, were among the companies who met nuclear policy officials and visited a nuclear site in India.

[In Pictures: Cashing In On India's Nuclear Future](#)

In view of the estimates, it's no surprise that foreign firms are so keen on getting into nuclear power generation. At present, India imports one-third of its domestic power needs.

Ron Summers of the U.S.-India Business Council says at least \$100 billion worth of investment will be needed to develop nuclear energy here over the next 20 years.

Among the estimated 400 nuclear reactors in the world, the U.S. has 104 and India has just 16, though

India's population is more than triple the size of the U.S. The government had set a target of generating 20,000 megawatts of nuclear power by 2020, but it's now expected to sharply expand that. India's ability to scale up its current production of 3,900 megawatts is restricted by its lack of access to the international nuclear fuel market.

New Delhi's refusal to sign the Nuclear Non-Proliferation Treaty resulted in the 45-nation Nuclear Suppliers Group barring its members from exporting nuclear fuel to the energy-hungry nation.

Timothy J. Richards, the director of GE's International Energy Policy, says if the nuclear deal with the U.S. comes through and global restrictions are eased, his firm hopes to apply for licenses to develop nuclear technology. Power generation will be the key investment area.

Nuclear companies' reps say India can no longer afford to rely on nonrenewable, often polluting resources like wood, oil and coal to meet its growing energy needs. Nuclear fuel is also an affordable option. The Nuclear Power Corporation sells a kilowatt of power for 1 rupee (two American cents).

"We're trying to understand what India is interested in. Once the nuclear sector opens up, we want to make state-owned companies our customers, since only they can build nuclear plants," said Richards, speaking on the sidelines of the U.S.-India conference.

William E. Cummings, vice president of regulatory affairs and standardization at nuclear power plants at Westinghouse, says Indian firms are bound to be the key players, but his company wants to rapidly establish itself as a supplier to the domestic majors. Westinghouse is one of the world's largest providers of nuclear technology.

"The Indian market is huge, so if [the regulatory environment] changes just from zero to possible, there's enough business to make us interested," Cummings said.

American firms are also exploring ways they can partner with India to supply nuclear power globally. India's natural resources--it is home to nearly one-third of the world's thorium reserves--and an abundant skilled workforce make it an attractive investment.

"Indian and U.S. companies can join hands to meet nuclear energy needs in underdeveloped countries," says Craig S. Hansen, vice president of Washington operations at BWX Technologies. He says between 15 and 30 new nuclear plants will be needed each year in the global nuclear energy industry. The new ventures will generate around 600,000 jobs annually.

Already, uranium mining major WM Mining has agreed to sell 500 metric tons of uranium a year to India's Nuclear Fuel Complex, but the contract will be executed only after the nuclear arrangement with the U.S. is concluded.

This week, Congress passed legislation that will allow the U.S. to share civilian nuclear technology with India. U.S. companies reportedly played a key role in lobbying for the bill in the House and the Senate, both of which passed it by overwhelming margins.

President George W. Bush's signing of the nuclear bill marks the end of a freeze in nuclear ties that began in 1974. That year, India tested an atomic bomb without signing the Nuclear Non-Proliferation Treaty. Under the new nuclear pact with the U.S., India will give international inspectors access to some of its nuclear plants.

The passage of the bill is also likely to see a strengthening in defense ties with India, which wants to buy fighter jets and submarines to upgrade its armed forces. Anticipating that demand, U.S. companies like Lockheed Martin Corp. and Northrop Grumman were among the defense firms that were part of the American trade team in India last month.

Members of the delegation led by Franklin L. Lavin, undersecretary of commerce for international trade, also held meetings with the state-run Nuclear Power Corporation and the Atomic Energy Commission. "It's a very rudimentary discussion. We're reviewing technology and other requirements," Lavin said before the talks. "We're telling them, 'Here's what we think we do well.'"

India's nuclear accord with the U.S. still has to clear key international hurdles. The Nuclear Suppliers Group, which seeks to limit the spread of atomic weapons, must approve the agreement. And New Delhi must work with the U.N.'s nuclear watchdog, the International Atomic Energy Agency, to decide a timetable for international inspections.

Poland's increased involvement in nuclear power attracting interest of foreign firms
Poland Business Newswire
December 14, 2006

Poland's announcement to deepen its involvement in nuclear energy technologies has attracted a number of foreign companies potentially interested in developing nuclear technologies in Poland, Lech Malecki, the director of the energy department at the economy ministry, told Interfax Thursday.

"Poland's strategic plans concerning the building of a nuclear power plant, revealed earlier this year, and the very latest decision to participate in building a nuclear power plant in Lithuania has significantly increased the interest of the business environment in this subject," Malecki said. Malecki named a number of foreign companies that would be interested in developing nuclear technologies, in cooperating in research centers, and in building a nuclear reactor for research purposes at the Polish nuclear technology center Swierk.

"In November there were talks with a consortium of international firms such as US-based **Thorium Power Group** and Westinghouse Electric Company, South African PBMR Ltd. and the Crowley Group about cooperation in Swierk on new nuclear technologies, the use of nuclear energy, gasification of coal for production of liquid fuels and the building of a high-temperature nuclear reactor of the third generation," Malecki said. Malecki added that a number of other companies were conducting talks with the Polish authorities about building a high-temperature reactor in Swierk with a production capacity of 165 MW.

There were also proposals concerning the building of a nuclear reactor for the first Polish power plant, which is planned to be built in several years. "These were very advanced proposals, which will be considered," Malecki said. Malecki added that among interested companies were French firms Areva and EdF, Westinghouse Electric Company, General Electric, Russian Rosenergoatom, Canadian AECL, German Siemens, Swedish Vattenfall, Finnish TVO and Anglo-Dutch oil major Shell. Earlier in December Poland joined Lithuania, Latvia and Estonia to participate in the construction of a nuclear power plant in Lithuania.

Each of the participants will have a 25% stake in the project and a Polish delegation will visit Lithuania to begin setting up technical parameters and other details concerning the investment.

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Finally, India joins elite N-league
The Economic Times
December 10, 2006

NEW DELHI: The US Congress voted overwhelmingly to pass the legislation allowing nuclear trade with India, ending a nine-month-long legislative process and sending a very strong signal to the international community that it is time to end India's isolation from the nuclear mainstream.

The House of Representatives cleared the reconciled draft agreement - Henry J. Hyde United States-India Peaceful Atomic Energy Cooperation Act of 2006 - after a one-hour debate by an overwhelming majority, while the Senate endorsed it through a "unanimous consent agreement", which means that all lawmakers agreed to let the deal through without a debate or a vote. The legislation is likely to be signed into a law by US President George W Bush as early as Monday.

The House voted the bill through by a margin of 330-59 votes with 44 legislators abstaining from a vote, while the Senate sat through into the night and next day morning and quickly passed the bill early on Saturday morning. Introducing the reconciled version of the bill, House International Relations Committee's Republican chairman Henry J Hyde said that the conference had gone to "great lengths" to accommodate the administration's concerns.

The US Congress stamp of approval is also expected to have an impact on the Nuclear Suppliers Group where a number of countries have been watching and waiting for American legislative action. The US has already expressed confidence that India will get the support of the 45-member NSG, which regulates nuclear trade around the world.

Back home, there were critical comments, but the government has accepted the final version of the bill along with all the irritants. Officials say that the tricky part will be the negotiations on the 123 bilateral agreement, which will be binding on India and will make the deal operational. This is where the irritants will be addressed now.

One is the issue of fuel supply reserves to ensure continued fuel supply in case of unforeseen disruptions. Another is fallback safeguards as one provision in the draft agreement suggests that in case IAEA is not able to monitor a reactor for any reason, then it will come under American supervision. A third is getting clarity on the whole issue of getting a licence from the Nuclear Regulatory Commission for transfer of technologies related to enrichment, reprocessing and heavy water production.

The deal allows India to keep its military programme as it is, but the Americans have been insistent that civilian nuclear cooperation will end if India tests a nuclear weapons.

The deal, which will give a major boost to India's civilian nuclear power industry, lets India access high technology, unavailable till now, for use in areas like pharmaceuticals and space. Also the deal means the eventual entry of private players into India's nuclear power sector.

US firms dealing with fuel processing and makers of reactor from General Electric, Westinghouse Electric Company, Bechtel to **Thorium Power Limited** were in India last week as part of a Us trade delegation to make a preliminary assessment of the market from investment opportunities to joint venture possibilities.

US President George W Bush has already said the deal will create new business opportunities for American companies and increase bilateral trade.

Australia's thorium world's largest accessible lode

By Robin Bromby

The Australian

December 9, 2006

AUSTRALIA not only has enormous reserves of uranium, but possesses a very promising second string in its nuclear bow -- thorium. This was highlighted earlier in the week by the House of Representatives industry and resources committee report Australia's Uranium: Greenhouse Friendly Fuel.

Apart from recommending an end to bans on new uranium mines, the committee of six Coalition and three Labor MPs, along with independent Bob Katter, drew further attention to the country's thorium capacity.

Australia possesses the world's largest quantity of economically recoverable thorium resources, at 300,000 tonnes more than the US and Canada combined. However, the committee report said the official figures for world thorium resources are considered conservative. Geoscience Australia has separately stressed that the Australian figure is based on assumptions rather than direct data.

The parliamentary report noted that, like uranium, thorium can be a nuclear fuel. (Which is why the West Australian Labor Government bans mining of thorium as well as uranium.) Almost all the mineable thorium is usable in a reactor compared with only 0.7 per cent of natural uranium. "Thus, thorium may contain some 40 times the amount of energy per unit mass than uranium without recourse to fast breeders," the report continued.

India, which has about six times more thorium than uranium, has two thorium-fuelled reactors and intends the mineral to be an important source of the country's future energy expansion.

Some local junior explorers are actively looking for thorium. Arafura Resources has reported drilling at its Nolans Bore project north of Alice Springs and has indicated a resource of 24,000 tonnes of thorium (as well as 1800 tonnes of uranium and 227,000 tonnes of rare earths).

Gold and base metals explorer Korab Resources recently announced it would spin off its uranium and thorium properties into a new but as-yet-unnamed stock exchange float.

A briefing paper by the Melbourne-based Uranium Information Centre shows that thorium was discovered by a Swedish chemist in 1828. Although not fissile itself, thorium-232 will absorb neutrons to produce uranium-233, which is fissile.

The UIC said Russia has been developing a thorium nuclear fuel since the 1990s. This program at Moscow's Kurchatov Institute involves the US in the form of a company, Thorium Power, and financing from Washington.

THORIUM LEAGUE

Economically extractable thorium resources

..... Tonnes

Australia 300,000

India 290,000

Noway 170,000

USA 160,000

Canada 100,000

South Africa ... 35,000

Brazil 16,000

Others 95,000

Source: Uranium Information Centre

US nuke firms feel deal is done, seek terms of business
The Times of India
December 8, 2006

NEW DELHI: While India waits to see whether US legislation on the nuclear deal addresses its concerns, American nuclear firms clearly view the pact as a done deal and are busy checking out government's views on issues like civil liability and extent of foreign participation in energy projects.

Representatives of US nuclear firms, part of a visiting business delegation, had a meeting with PMO top brass on Tuesday during which they were looking at specific investment-related matters. The keenness of US firms to drive the deal is well known and their bullishness may also indicate confidence that the final legislation could satisfy India.

In their discussions, US firms wanted to know the terms governing liability in case of accidents involving projects that are joint ventures. The point was clarified by PMO officials who said such laws would have to be made keeping in mind IAEA regulations.

Similarly, US nuclear companies, who are aware that they would have to compete with more established trading partners like Russia and France, wanted to know how much of the atomic energy sector would be thrown open to foreign firms.

"They wanted to know whether they would be allowed reactor construction or would be allowed to operate plants and sell electricity," said a source.

The delegation, which met senior PMO figures, is part of a large team of business representatives which arrived in India along with US under secretary for international trade Frank Lavin.

They include General Electric's energy division that makes reactors, Westinghouse Electric Company, construction giant Bechtel and fuel processing company **Thorium Power Limited**. All sense the gains of a large market opening in India.

India's nuclear power is pegged by planners to reach 10,000 MW by 2012 and double that figure by 2020.

Thorium Power in tie-up talks with NTPC, NPCIL

By Anil Sasi

The Hindu

December 6, 2006

Dec. 5

US-based **Thorium Power Ltd**, developer of nuclear fuel technology, is in talks with Indian companies, including state-owned Nuclear Power Corporation of India Ltd and NTPC Ltd, to firm up partnerships to offer its proliferation-resistant, low-waste fuel technology here.

The company, which was part of the US delegation visiting India to explore opportunities arising from the Indo-US civilian nuclear deal is hard-selling the use of its technology by India's civilian nuclear reactors for achieving key non-proliferation targets.

Thorium Power's President, Mr Seth Grae, said that India has the potential to build at least 60 reactors of 1,000 megawatts each.

"At an estimated \$2 billion per reactor, the potential for business crosses \$100 billion ... Over and above this, there are business opportunities arising out of fuel supply and servicing contracts," he told Business Line

Mr Grae met with the Commerce and Industry Minister, Mr Kamal Nath, the Power Minister, Mr Sushil Kumar Shinde, and the Minister of State in the Prime Minister's Office, Mr Prithviraj Chavan, during his visit. He also met the top brass of state-owned NTPC and some of the country's private sector firms that are waiting in the wings to enter the nuclear sector. Buoyed by the response from the current visit, Mr Grae plans another trip to India next month to take forward discussions.

"India is already working on a plan to build dozens of new reactors in the coming years and the vast majority of these reactors will be designed to use thorium fuels. We have found a lot of interest among all segments of the nuclear community here in the proliferation resistant, low-waste fuel technology that **Thorium Power** offers," Mr Grae said.

The company, which designs nuclear fuels obtains patent protection on these fuels and coordinates fuel development with commercial entities and Governments hopes to offer licensing agreements for use of their fuel processing technologies.

Thorium Power has proliferation-resistant nuclear fuel technologies that can be used in reactors to achieve important non-proliferation goals and hence Indian companies might find useful, he said.

US' Thorium Power eyes nuke tech, R&D JV here
By Urmi A Goswami
The Economic Times
December 6, 2006

NEW DELHI: US-based nuclear fuel processing company **Thorium Power** is exploring the possibility of a joint venture with an Indian company for technology transfer deal and R&D in the nuclear fuel segment.

The company has been talking to Nuclear Power Corporation of India (NPCIL), NTPC as well as the lead players in the private sector.

"We are still at the exploration stage. However, in international transactions things can develop fast. We may be in a position to announce a joint venture by the middle of next year," said **Thorium Power** president Seth Grae. Though Mr Grae did say that along with US government representatives his company was in talks with state-owned companies like NTPC and NPCIL, he only indicated that his firm was engaging with leading private players as well. Tata Power and Reliance Energy are two Indian power developers which have stated their interest in setting up nuclear power plants. Mr Grae did not deny or confirm being in talks with them.

As the India-US civilian nuclear deal inches closer to completion, the issue of ensuring continuous and adequate fuel supply will become central. For India, which has the second largest thorium deposits in the world, a thorium-based plant and not one based on uranium seems the way forward. India's thorium reserves have been estimated to be between 3,60,000 and 5,18,000 tonnes. The US estimates the "economically extractable" reserves to be 2,90,000 tonnes. In contrast to India's meagre reserve of uranium reserves, estimated to be at a maximum of about 70,000 tonnes. It would also help allay apprehensions of proliferation as well as address nuclear waste issues.

But it is not just political and security concerns that would make thorium the fuel to bank on for India. According to Seth Grae, president, **Thorium Power**, "If you consider the quality, India has perhaps the largest reserve of thorium." This would mean that India emerge as the exporter of thorium and nuclear fuels made with thorium. This is where a company like **Thorium Power** believes it has a role to play. **Thorium Power** is a privately-held Washington DC area-based company funded primarily through private equity investments. It develops proliferation resistant nuclear fuel technologies. "Indian scientists have already done work on thorium, that puts India in a favourable position. Working with **Thorium Power** fuel designs could help India emerge as leaders in fuel technology," said Mr Grae.

Any deal will have to wait till the India-US civilian nuclear deal is sealed and similar agreements with the nuclear suppliers group (NSG) is finalised which would be sometime in April next. Also India would need to sign protocols with the International Atomic Energy Agency, which would be finalised by June next year. This would mean any commercial venture by **Thorium Power** in India would have to wait till then.

Setting up a pilot scale plant to convert thorium into nuclear fuel would require an investment of less than \$100 million. Given that India proposes to increase its nuclear power capacity to 3,00,000 mw over the next 20 years, it would, Grae says, make sense to set up a plant in India. This would mean that the thorium mined in India could be processed to make nuclear fuel in the country itself.

Thorium Power Says Plans Joint Ventures With Indian Companies
By Manash Goswami and Archana Chaudhary
Bloomberg News
December 5, 2006

Dec. 5 (Bloomberg) -- **Thorium Power Ltd.**, a U.S.-based builder of nuclear fuel technology, said it's in talks to set up joint ventures with Nuclear Power Corp. of India and NTPC Ltd. for business in the Asian nation.

India has the potential to build at least 60 reactors of 1,000 megawatts each, **Thorium's** President Seth Grae said in an interview in New Delhi today. Grae is part of a delegation to seek business after the Senate voted to support a Bush administration plan to sell nuclear technology and fuel to India.

India is planning to spend as much as \$40 billion over the next 16 years to buy nuclear reactors from suppliers such as France's Areva SA, Electricite de France and U.S.-based General Electric Co. and Westinghouse Electric Co., Nuclear Power's Chairman S.K. Jain said in an earlier interview on May 16.

"We will be looking at business of several millions of dollars per year from India because the potential in the country is huge," Grae said. "If India chooses to build its reactors on thorium, we expect to get a sizeable chunk of the business."

Grae is meeting Commerce and Industry Minister Kamal Nath, Power Minister Sushil Kumar Shinde and Prithviraj Chavan, minister of state in the Prime Minister's Office during his visit.

Senate Vote

The Senate on Nov. 16 voted to support a Bush administration plan to sell nuclear technology and fuel to India. By a vote of 85-12, the Senate affirmed that U.S. companies would be allowed to sell their wares to India's civil atomic power program. In exchange, the south Asian country is supposed to open some of its plants to international inspections to prove that the fuel won't be diverted for weapons.

India is turning to overseas nuclear-reactor builders after Prime Minister Manmohan Singh doubled the nation's 2020 capacity target from an initial 20,000 megawatts. India's homegrown atomic power program, initially based on Russian technology, won't cope with the stepped-up construction plan, Jain said.

The program was also limited because of a uranium shortage caused by the international embargo on sales of the reactor fuel. Once sanctions end, supplies of enriched uranium will be included in contracts to install reactors, Jain said.

The sanctions were prompted by India's testing of a nuclear weapon in 1974. The explosion conducted in a desert in western India prompted the formation of the Nuclear Suppliers Group, of which the U.S. is also a member. Another round of tests by India in 1998 led to the U.S. choking trade with India by disallowing the Export-Import Bank and Overseas Private Investment Corp. to guarantee loans for projects in India. "**Thorium Power** claim that they have expertise and they can give designs of many reactors," Jain said in a telephone interview today. "The term I would use is preliminary exploratory discussions."

--Editor: Khandeparkar.

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'US firm to sell India 500 tons of uranium'

By Anwar Iqbal

Pakistan Dawn

December 3, 2006

WASHINGTON, Dec 3: A US mining company has agreed to sell 500 metric tons of uranium a year to India, the US media reported on Sunday.

The agreement between WM Mining and India's Nuclear Fuel Complex will be executed only after the Indo-US nuclear deal is concluded.

Both chambers of the US Congress have already approved the deal and a final approval is expected at a joint session sometime next week. The bill will then be sent to President George W Bush who has already agreed to sign it into a law.

The law would end a three-decade ban on nuclear commerce with India, enabling major US companies to benefit from the lucrative Indian market.

Last week, the US sent a 250-member trade delegation to Mumbai, representing 180 companies. As many as 30 members of the delegation represented 14 US firms in the nuclear sector. Representatives from nuclear reactor manufacturers Westinghouse, General Electric, BWX Technologies and fuel processing specialist **Thorium Power** also visited a nuclear site in India.

The US-India Business Council estimates that New Delhi will need at least \$100 billion worth of investment to develop nuclear energy over the next 20 years.

Among the estimated 400 nuclear reactors across the world, the US has 104, and India has just 16, though India's population is more than thrice the population of the US.

India's ability to scale up its current production of 3,000 megawatts is restricted by its lack of access to the international nuclear fuel market. The proposed US law can help end this restriction.

US nuclear experts say that nuclear fuel is an affordable option for India. Currently, India's Nuclear Power Corporation sells a kilowatt of power for one rupee.

General Electric hopes to apply for licences to develop nuclear technology as it believes that power generation will be the key investment area in India.

Westinghouse, one of the world's largest providers of nuclear technology, wants to establish itself as a supplier to major Indian companies.

American firms are also exploring ways for partnering with India to supply nuclear power globally. Natural resources of India, home to nearly one-third of the world's thorium reserves, and an abundant skilled workforce make it an attractive investment. BWX Technologies estimates that between 15 and 30 new nuclear plants will be needed each year in the global nuclear energy industry. The new ventures will generate around 600,000 jobs annually.

U.S. Nuclear Salesmen Beat A Path To India

By Ruth David

Forbes.com

December 1, 2006

The end of the three-decade ban on sale of nuclear material to India by the U.S. is not yet in sight, but the prospect of meeting India's large energy demands with nuclear power has key American companies already lining up.

The largest trade mission from the U.S. to any country has been in Mumbai since Tuesday, and 30 of its 250 members represent 14 American firms in the nuclear sector. Nuclear reactor manufacturers Westinghouse, General Electric, BWX Technologies and fuel processing specialist **Thorium Power** are among the companies meeting nuclear policy officials and visiting a nuclear site in India.

In view of the estimates, it's no surprise that foreign firms are so keen on getting into nuclear power generation. At present, India imports one-third of its domestic power needs.

Ron Summers of the U.S.-India Business Council says at least \$100 billion worth of investment will be needed to develop nuclear energy here over the next 20 years.

Among the estimated 400 nuclear reactors across the world, the U.S. has 104, and India has just 16, though India's population is more than triple the size of the U.S. India's ability to scale up its current production of 3,000 megawatts is restricted by its lack of access to the international nuclear fuel market. New Delhi's refusal to sign the Nuclear Non-Proliferation Treaty resulted in the 45-nation Nuclear Suppliers Group barring its members from exporting nuclear fuel to the energy-hungry nation.

Timothy J. Richards, the director of GE's International Energy Policy, says if the nuclear deal with the U.S. comes through and global restrictions are eased, his firm hopes to apply for licenses to develop nuclear technology. Power generation will be the key investment area.

Nuclear companies' reps say India can no longer afford to rely on non-renewable, often polluting resources like wood, oil and coal to meet its growing energy needs. Nuclear fuel is also an affordable option. The Nuclear Power Corporation sells a kilowatt of power for 1 rupee (two American cents).

"We're trying to understand what India is interested in. Once the nuclear sector opens up, we want to make state-owned companies our customers, since only they can build nuclear plants," said Richards, speaking on the sidelines of the U.S.-India conference.

William E. Cummings, vice president, regulatory affairs and standardization at nuclear power plants, at Westinghouse, says Indian firms are bound to be the key players, but his company wants to rapidly establish itself as a supplier to the domestic majors. Westinghouse is one of the world's largest providers of nuclear technology.

"The Indian market is huge, so if [the regulatory environment] changes just from zero to possible, there's enough business to make us interested," Cummings said.

American firms are also exploring ways they can partner with India to supply nuclear power globally. India's natural resources--it is home to nearly one-third of the world's thorium reserves--and an abundant skilled workforce make it an attractive investment.

"Indian and U.S. companies can join hands to meet nuclear energy needs in underdeveloped countries," says Craig S. Hansen, vice president, Washington, D.C., operations, at BWX Technologies. He says

between 15 and 30 new nuclear plants will be needed each year in the global nuclear energy industry. The new ventures will generate around 600,000 jobs annually.

Already, uranium mining major WM Mining has agreed to sell 500 metric tons of uranium a year to India's Nuclear Fuel Complex, but the contract will be executed only after the nuclear arrangement with the U.S. is concluded.

There are several hurdles to be cleared before the American nuclear establishment can enter India. New Delhi is unlikely to accept the changes proposed in the Senate version of the nuclear bill, which seeks to end a three-decade ban on nuclear trade between the U.S. and India. One new section wants to ensure India is "fully and actively" helping U.S.-led efforts against Iran's nuclear program.

Last week, the influential head of India's ruling Congress coalition, Sonia Gandhi, said India would not accept any changes outside the policy framework signed in July 2005 by Prime Minister Manmohan Singh and President George W. Bush.

But when something happens, the Americans want to be ready to take the leap. Members of the U.S. delegation led by Franklin L. Lavin, Undersecretary of Commerce for International Trade, also held meetings with the state-run Nuclear Power Corporation and the Atomic Energy Commission.

"It's a very rudimentary discussion. We're reviewing technology and other requirements," Lavin said before the talks. "We're telling them, 'Here's what we think we do well.' "

More US nuclear companies to join the India bandwagon

By Sanjay Jog

Financial Express

December 1, 2006

Mumbai, Dec 1 Impressed with the high quality of state-run Nuclear Power Corporation of India Ltd's (NPCIL) existing plants and the credibility of its expansion programme, the US government and the visiting American nuclear companies plan to organise one more visit to India to explore business opportunities. This was what representatives of US nuclear companies GE, Westinghouse, **Thorium Power** and Transco Products had to say during a presentation by NPCIL here on Friday.

The presentation came in the wake of the Senate passing the Indo-US civilian nuclear Bill last month. Sources involved with Friday's presentation told FE, "NPCIL briefed US companies about the prevailing regulatory and security norms besides investments lined up for capacity addition. They were also told that private sector participation in nuclear energy capacity addition will be possible only after India's Atomic Energy Act is amended."

NPCIL chairman and managing director SK Jain explained the nuclear power scenario in India. Sources said US companies were specifically told that they would have to strictly follow regulatory norms as an independent regulator was in place. They were also informed that just a license from the US would not fulfill the requirement to do business in India. "US companies said they had no problem in adhering to regulatory norms," the sources added. US undersecretary of commerce and international trade Franklin Lavin praised the high quality of plants and the qualified manpower employed in the Indian nuclear power sector.

U.S. Companies Target India's \$50-Billion Nuke Programme (to develop partnerships with Indian companies to build new nuclear plants in India and the US)

Financial Express

December 1, 2006

Nuclear energy companies in the US are awaiting the approval of the Indo-US civilian nuclear deal by the US Senate as the companies would like to participate in India's \$50-billion programme for nuclear capacity addition by 50,000 megawatts by 2030. Companies such as Westinghouse Electric, Transco Products Inc, BWXT, WM Mining, Fluor and **Thorium Power** aim to develop partnerships with Indian companies with skilled manpower to build new nuclear plants in India, the US and other countries of the world. The companies will discuss the regulatory regime with the Nuclear Power Corporation of India Ltd and the Atomic Energy Commission during a meeting on 1-2 Dec 2006.

US firms seek opportunities in India

By Karishma Vaswani

BBC News, Mumbai

December 1, 2006

The Indian US Business Summit comes to a close in Mumbai, the country's financial capital on Thursday.

It is the biggest trade mission from the US to any country in the world, bringing over 250 American firms to India.

At least 25 of these firms are from the civilian nuclear power sector, exploring opportunities with Indian businesses, ahead of the impending Indian-US nuclear deal.

Energy needs

Arriving at Mumbai's international airport after many hours on two international flights from their US base in Virginia, Seth Grae, chief executive of **Thorium Power** and Dennis Hays, the firm's vice president were quick to brush off any concerns about jet lag.

Thorium is just one of the firms attending the US India Business Summit looking to invest and do business in India.

"We're fine, ready to go", said the boss of the American nuclear technology firm.

"We're here to meet with some high profile Indian power businesses - and hopefully clinch some deals in our sector by early next year, once the civilian nuclear deal between India and the US is signed and sealed."

Mr Grae is talking about the civilian nuclear agreement that India and the US have been working on.

The US House of Representatives and the US Senate have endorsed legislation that gives US nuclear firms the permission to sell their technology and fuel to Indian firms.

India is keen to get its hands on clean nuclear technology and equipment - to feed its growing energy needs.

The country imports three quarters of its energy - and has found it difficult to bear the cost of volatile fuel prices in the last year.

India is keen to secure alternatives to feed its fast growing economy - and the nuclear option has seemed an attractive one.

The agreement between the US and India on civilian nuclear energy has been touted as a sign of the closer relationship between two of the world's most important economies.

Pending approval

But it's not a done deal just yet.

"It isn't stitched up just yet, that's true," the US Ambassador to India, David Mulford, told me on the sidelines of the US India business summit.

"The bills need to be merged and approved by both the House and the Senate before the US President signs them."

"If that happens it will [take place] in the next 4-5 days - and that will mean a change in the law. I think that all the important parts of the deal will be in place by May of next year."

But is it that impending deal that has got so many American nuclear firms excited about coming to India.

According to US trade officials between 12 and 20 nuclear companies have attended the India US Business Summit, looking for opportunities in the country.

And a number of other sectors were also represented in the mission - businesses ranging from technology to healthcare. On the guest list are Dow Chemical, Exxon Mobil, Lockheed Martin and IBM.

The India US Business summit comes hot on the heels of an announcement by America's largest retailer Wal-Mart that it is tying up with Bharti, one of India's leading phone firms, to explore retail opportunities in India.

But the tie-up has already run into some trouble - with India's left wing parties crying out that Wal-Mart has entered India through a "backdoor" route.

In a statement to the Indian press, a crucial party within India's coalition government, CPIM, has threatened to launch a nationwide strike against Wal-Mart.

The Indian government has promised to look into the tie up between the American giant and Bharti.

'Frustrating'

These problems are an indication of the frustrations that foreign businesses can face when they try to enter India.

Foreign investment in retail in India is severely restricted, on concerns from the Indian government that freeing up the sector could endanger the jobs of millions of small shopkeepers in the country.

Some 98% of the country's retail sector is disorganised - run by family-owned stores.

"It is frustrating," the head of the India US Business Summit and the Under Secretary for International Trade Frank Lavin told the BBC in an interview.

"Indian consumers deserve the best products and the best price, and companies like Wal-Mart can offer them that. The Indian consumer wants that."

'Patience and persistence'

The Indian consumer may want what American businesses have to offer.

But the enthusiasm of US firms desperate to enter the Indian market, may need to be tempered with a healthy dose of reality about the challenges of doing business here.

"India is not a journey for the faint hearted, or for those who expect overnight success," said the US Ambassador to India, David Mulford in his address to the hundreds of Indian and American delegates at the summit.

"You will need a strategy - a long term view - patience, and persistence. But one of the world's great markets, is here

U.S. firms eye India after civilian nuclear deal cleared

By Rajesh Mahapatra

Associated Press Newswires

December 1, 2006

MUMBAI, India (AP) - From equipment suppliers to fuel processors, American companies engaged in the nuclear energy business see India as the new frontier, where efforts to raise nuclear power production could yield contracts worth \$100 billion.

Executives from 25 companies are in India's financial and entertainment capital this week, scouting for opportunities after the U.S. Senate passed a landmark civilian nuclear cooperation deal, which lifts a decades-old ban on American firms from exporting nuclear technology, equipment and fuel to India.

The deal may take months, or more, to take shape because it still faces legislative hurdles as two versions passed by the Senate and House need to be reconciled and sent to President Bush for his signature.

But American companies have already started networking for when contracts come up for grabs.

"You got to operate on a somewhat parallel path. You got to start discussions, start a dialogue, listen to the customers, go and see what the (Indian) regulators have to say," said Frank Lavin, the U.S. Under Secretary of International Trade who is leading a 240-member business delegation.

The delegation includes companies such as General Electric Co. and Westinghouse Electric Co., which make nuclear reactors, construction giant Bechtel and fuel processing company **Thorium Power Inc.**

U.S. companies, however, face tough competition, especially from India's traditional allies such as Russia and France, countries that supported its indigenous nuclear program.

There are also uncertainties about the fate of the deal because of changes proposed by the Senate -- changes India may oppose.

The leader of India's governing coalition, Sonia Gandhi, who often has the last word on major policy decisions, said last week that New Delhi will not accept any changes outside the July 18, 2005, framework agreement signed by President Bush and Prime Minister Manmohan Singh.

On Thursday, U.S. Secretary of State Condoleezza Rice wrote a letter to American lawmakers saying relations with India could be damaged if they do not drop some of the amendments.

A section in the Senate version would require that Bush determine that India is "fully and actively" helping U.S.-led efforts to confront Iran's nuclear program.

In her letter, a copy of which was obtained by The Associated Press, Rice said this would "be viewed by India as adding additional conditions" to the original agreement.

Starting next week, U.S. lawmakers begin private meetings to try to reconcile the Senate version with the draft cleared by the House.

Rice also questioned another proposal that bans the transfer of nuclear enrichment and reprocessing equipment or facilities to India. "It is not appropriate to single out India, which has been a responsible steward of its nuclear technology," she wrote

Although energy-hungry India has built nuclear power plants on its own, its ability to scale up production - currently totaling more than 3,000 megawatts -- has been constrained by lack of access to the global nuclear fuel market, namely enriched uranium.

The 45-nation Nuclear Suppliers Group bars its members from exporting nuclear fuel to India, because New Delhi has refused to sign the Nuclear Nonproliferation Treaty.

The deal with the United States seeks to lift that ban and help India get access to nuclear fuel, equipment and new technologies as well.

Encouraged by the deal, India plans to increase nuclear power production nearly 10-fold to 30,000 megawatts in 20 years.

That means state-run utilities -- which have a monopoly in this sector -- will spend at least \$100 billion just in setting up new plants, said Ron Somers, president of the U.S.-India-Business Council. In addition, there will be recurrent spending on fuel imports.

The numbers could go up if India allows domestic private companies to enter nuclear power generation, he said.

Nearly 60 percent of the business generated by the new plants would involve construction and equipment contracts. The rest could go to companies offering fuel processing technologies and safety services.

"We hope to be the initial suppliers for the new plants," said William Cummins, vice president of Westinghouse.

Unlike its rival General Electric, which is already present in India through other businesses, Westinghouse is hardly familiar with the Indian market. But Cummins said his company, based in Pennsylvania, has the advantage of being the only company with certification from U.S. regulators for third generation nuclear reactors.

Companies like **Thorium Power** hope to explore licensing agreements for use of their fuel processing technologies, the company's Chief Executive Seth Grae said. **Thorium** has proliferation-resistant nuclear fuel technologies that India might find useful, he said.

During interactions with Indian officials, the visiting executives propose to talk about their products, technologies and highlight how India stands to benefit from partnering with U.S. companies.

"This is really a learning exercise, getting to know one another," Somers said.

"There has not been any communication on this for three and a half decades. There needs to be an understanding of the Indian (nuclear) industry, where the opportunities are: in construction, equipment supplies or fuel."

Associated Press Writer Foster Klug in Washington contributed to this report

US power major Westinghouse plans big India foray
The Press Trust of India Limited
November 30, 2006

Mumbai, Nov 29 (PTI) Leading US power company Westinghouse Electric plans to foray into India with a series of its pressurised light water reactors once the Indo-US civil nuclear deal comes through.

Another American utility **Thorium Power**, currently working on R&D with Russians on thorium reactors, has also shown interest in collaborating with Indian researchers on thorium technology for nuclear power.

Westinghouse Electric, which has set up over 100 nuclear power plants in US, Europe and South Korea, is ready to enter India on a big scale with its AP-1000 type of reactors of 1100 MW each.

"Once the (Indo-US) deal comes through, we will be ready to bring in at least two 1100 MW plants immediately, each costing around USD two billion," William E Cummins, Vice President, Regulatory Affairs and Standardisation, Westinghouse, told PTI on the sidelines of a business summit here.

He said the FICCI-CII US-India Business Summit was creating an environment for the company to meet India's huge energy requirements.

Hoping that the civil nuclear agreement will come through by 2007, Cummins said "we will be setting up a series of plants in India in collaboration with Nuclear Power Corporation of India Ltd." India is planning to put up 40 plants by 2020 and 50 per cent of them will be imported.

"We will enter India in an evolutionary way by initially bringing all the necessary infrastructure for power plants and gradually the domestic companies will take the responsibility. Ultimately, the NPCIL will own the plants," Cummins explained. Asked for the installation cost, he said that it has been estimated at USD 2000 per kilowatt.

On the spent fuel from the nuclear plants, he said, "Our company does not have the capacity to reprocess it." As per US laws, if the fuel is sourced from America, it belongs to the government agencies but the company will not be in a position to reprocess the spent fuel, he said.

Asked if the spent fuel from Westinghouse Electric will also be stored underwater like the Tarapur Atomic Power Plants Unit 1 and 2, he stated, "I repeat, we do not have the capacity to reprocess the spent fuel and you need special permission for the process from the US government." The Unit 1 and 2 of Tarapur Plants were built by General Electric in late 1960s.

Westinghouse Electric has developed different types of nuclear plants, including pressurised water reactor and passive power plant.

"We have applied for licence for 12 plants to be built in in the US over the next few years under a revival plan for nuclear energy and "hopefully we will be able to build at least a few plants," Cummins said.

Meanwhile, **Thorium Power** has evinced interest in undertaking research collaboration on thorium with India.

US firms keen on investing in Indian nuclear programme
The Press Trust of India Limited
November 30, 2006

Mumbai, Nov 30 (PTI) A slew of American companies today indicated their keenness to invest over 50 billion dollars in India's nuclear programme once the civil nuclear deal between the two countries is approved by the US Congress.

The companies, participating in an Indo-US business meet here, showed strong interest in involving themselves in India's programme to hike nuclear power generation capacity to 50,000 MW by 2030.

State-owned Nuclear Power Corporation of India Limited, which runs nuclear projects generating around 3,400 MW, plans to add 20,000 MW by 2020.

The companies, which are involved in the construction of nuclear plants and fuel supply, are part of the first high-level US delegation led by Under Secretary for Commerce Franklin Lavin.

Though the firms claimed that the per unit tariff from privately owned nuclear plants would be quite cheap, their Indian counterparts contended it would be more than NPCIL's tariffs.

The US delegation, comprising companies like Westinghouse Electric, Transco Product Inc, BWXT, W M Mining, Fluor and **Thorium Power**, said the nurturing of bonds with Indian firms will lead to partnership, thereby enabling them to tap opportunities in nuclear energy.

Ron Somers, president of the US-India Business Council, told reporters the companies would discuss issues related to India's regulatory regime, particularly with state-run Nuclear Power Corporation of India and the Atomic Energy Commission, during meetings slated for Friday and Saturday.

The representatives will also meet former foreign secretary Shyam Saran, who is the special envoy for the Indo-US nuclear deal, next week.

BWXT vice president Craig S Hansen said the US plans to increase nuclear power generation by 20 to 30 per cent by 2030 and it would not be possible for American companies alone to meet this target. "India, with experienced manpower and experts involved in nuclear energy, can play a major role in the US's capacity addition. Besides, US companies supplying nuclear fuel and reactors will play a key role in India's capacity addition," he said.

"On top of it, both Indian and US companies can join hands to meet nuclear energy requirement, especially in under-developed and developing countries." Wallace M Mays, president of W M Mining that is involved in uranium mining and supply, said his company has agreed to supply about 500 metric tonnes of uranium to Hyderabad-based Nuclear Fuel Complex for two pressurised heavy water reactors.

Westinghouse vice president William E Cummins said India would not face any funding problems for its proposed additions to nuclear power generating capacity.

"Already, the NPCIL has announced it can add at least 1,000 MW annually through internal accruals. In addition to this, NPCIL has indicated that it will explore market options," he said.

The US companies and NPCIL will thrash out modalities related to the supply of fuel, equipment, finance, regulation and other details during a meeting tomorrow.

A five-member delegation of the US nuclear business group, headed by Lavin, will meet Atomic Energy Commission Chairman Anil Kakodkar on December 2, officials said.

The US nuclear industry estimates the global requirement for atomic energy to be about 30,000 MW, worth nearly 100 billion dollars.

'Tax structure, red tape hurdles to growth'
The Economic Times
November 30, 2006

MUMBAI: "India is world's greatest market but US companies should not aim for overnight success here," says US ambassador to India David Mulford.

Both countries have identified three critical areas for public-private partnerships - energy, infrastructure and agriculture. Among the hurdles of doing business in India are a complicated tax structure and bureaucratic delays, Mr Mulford said.

Two-way trade between India and the US totalled \$26.8 billion in 2005 and is growing around 20% annually.

The ambassador was addressing about 250 American businessmen from about 180 small and medium-sized US companies at the Indo-US business delegation, part of the largest ever business delegation to visit India.

Pushing for more liberalisation, Franklin Lavin, under secretary for international trade, US department of commerce, said India offers good opportunities but it should allow multi-brand FDI in retail which will help consumers to access goods at lowest prices.

India should also eliminate foreign equity caps in the financial, banking and insurance sectors, so that US companies can compete in the pension sector. As of 2005, India received \$45 billion in FDI with \$8 billion coming from the US alone. However, Singapore received more than \$186 billion with US contributing \$48 billion to their FDI kitty.

Assuring the US delegates quick clearances from the government, Gopal Pillai, secretary, ministry of commerce and industry, said, "We will make sure that US companies opening offices here don't have to deal with too many hassles. However, problems will exist because we are a developing economy," he added.

With the Indo-US nuclear deal in its final stage, there is a huge interest in investments in Indian nuclear power. An indication of that interest was the presence of at least 25 US nuclear firms, who were at the summit to explore business opportunities in India after the deal is clinched.

The American government and some nuclear companies from the US will meet on December 1 to decide on the nuclear trade between the two countries. "Though we know that several hurdles have to be cleared including the reconciliation process, negotiations with Indians on sections 1,2,3 of the negotiations bill to seek exemption for India which needs amendments in the US Atomic Energy Act, and changes in NSG guidelines and India-specific IAEA safeguards, we think it is important to have dialogue and discussion with the Indian nuclear industry as well as officials of the Atomic Energy Commission to iron out the minute details to proceed faster once the deal comes through," Mr Lavin said.

"We will be discussing with Atomic Energy Commission chairman Anil Kakodkar and NPCIL officials and also meet the Indian special envoy Shyam Saran in New Delhi," he added.

US firm **Thorium Power**, which develops non-proliferating nuclear fuel, said it was in talks with the Indian government and energy firms to sell nuclear reactor technology. Confirming that the company was already in advanced negotiations with Indian partners, Dennis K Hays, vice-president **Thorium Power**, said, "Once the legal frame is established we can sign deals."

The company focuses on technologies and services that will benefit from expanded nuclear power generation. **Thorium Power** designs nuclear fuels, obtains patent protection on these fuels, and coordinates fuel development with commercial entities and governments. The company has been working in

Russia with Russian nuclear engineers and scientists for over a decade, Mr Hays said.

Ashwini Kumar, minister of state for industries, said that India is growing at 8% and will be able to sustain the growth momentum. "The reforms will continue," he added.

TCS CEO S Ramadorai said there was a \$320-billion infrastructure opportunity in India over the next five years. He said private equity investment in India had also seen significant growth.

Currently, software exports account for 20.4% of the country's total exports, and the industry accounts for 4% of India's GDP. Gartner has ranked TCS as the tenth largest systems integrator serving the American market.

Citigroup India CEO Sanjay Nayar, who spoke on American success stories in India, termed the Indian market as among the most diversified. He identified lack of infrastructure as the biggest roadblock to doing business here. "India is a huge and growing market," he said, pointing out the increasing affluence and growth in the middle income segment of the population. Mr Nayar said there was a re-emergence of manufacturing as a growth engine, in addition to sectors such as IT and ITeS.

**UPDATE 1-U.S.'s Thorium Power, India in reactor talks-firm
Reuters News
November 29, 2006**

MUMBAI, Nov 29 (Reuters) - U.S.-based **Thorium Power** is in talks with the Indian government to provide technology for thorium-based reactors if a landmark nuclear co-operation deal is passed by Congress, a top company official said.

"India has a great deal of thorium and we understand that the government is developing plans for large-scale deployment of thorium-based nuclear reactors," President Seth Grae told Reuters on the sidelines of a U.S.-India business summit.

"Our company can provide the technology to develop fuels which can power these reactors," he added.

While India has its own technology for nuclear reactor fuels, it is not the same as that offered by Thorium Power, he said.

Grae said the nuclear pact between the U.S. and India -- which the U.S. Congress is expected to hold a joint vote on next week -- would enable relationships in the sector to strengthen.

"If anything materialises this would be the first commercial agreement between the U.S. and India on this," he said.

Grae will visit the Tarapore Atomic Power Plant on Friday, which is powered by uranium, in order to get a "feel of nuclear reactor plants in India," he said.

India nuclear deal likely final by May - US envoy
By Krittivas Mukherjee
Reuters News
November 29, 2006

MUMBAI, Nov 29 (Reuters) - Hurdles to civilian nuclear trade between the United States and India could be removed by May if the two houses of U.S. Congress jointly approve the deal within the next week, Washington's envoy to India said on Wednesday.

Separate legislations that allow Washington to sell nuclear fuel and equipment to energy-hungry India have been endorsed by the U.S. House of Representatives and the Senate.

The two bills now need to be merged and jointly approved by the two chambers before President George W. Bush signs it but India is worried about several certification conditions in them and moves are afoot to get them removed.

Negotiations to reconcile the bills and approve them are expected next month in the "lame duck" Republican-led Congress which surrenders power to the Democrats in January.

"If that (reconciliation) happens it will happen in the next 4-5 days and that will finally mean a change in the law," ambassador David Mulford told Reuters.

"I would imagine all crucial components of the rolling process would be in place by May."

The deal aims to overturn a three-decade ban on nuclear trade between the U.S. and India which has not signed the nuclear Non-Proliferation Treaty (NPT) and has tested nuclear weapons.

Besides joint approval by the two chambers, the deal also needs agreement on a bilateral pact between the two governments, and the backing of the 45-nation Nuclear Suppliers Group and the International Atomic Energy Agency.

The deal has been slammed by a vocal non-proliferation lobby in the United States which says the agreement allows New Delhi to expand its nuclear weapons arsenal and would foster an arms race among India and nuclear rivals Pakistan and China.

Mulford, speaking on the sidelines of a India-U.S. business summit, said the debate on the nuclear deal signalled America's awareness that New Delhi was a critical partner of Washington.

One indication of that interest was the presence of at least 25 U.S. nuclear firms at the summit in the financial hub of Mumbai to explore business opportunities in India after the deal is clinched, industry officials said.

India, which now produces about 3,500 MW of nuclear power, aims to boost it to 30,000 MW over the next 20 years to meet the demands of its booming economy, Asia's fourth largest.

"In value terms, the immediate market is of about \$100 billion and it's a level playing field which means there will be companies from all over the world," said Ron Somers, president of the U.S.-India Business Council, an industry lobby group.

U.S. firm **Thorium Power**, which develops non-proliferating nuclear fuel, said on Wednesday it was in talks with the Indian government and energy firms to sell nuclear reactor technology.

"Once the legal frame is established we can sign deals. We are talking to four to five companies," said Dennis K. Hays, **Thorium's** vice-president.

DJ UPDATE: US Execs In Mumbai To Explore Business In India
Dow Jones News Service
November 28, 2006

MUMBAI, India, Nov 28, 2006 (DJCS via Comtex) --

(Updates with names of the companies participating, adds details)

A delegation of 250 American business executives arrived in Mumbai Tuesday to explore new opportunities to invest in India and develop partnerships with local companies.

Led by Frank Lavin, the U.S. undersecretary of commerce for international trade, the delegation - one of the largest ever from the U.S. to visit India - represents more than 180 companies in sectors including health care, information technology, energy and telecommunication.

A list of companies released by the U.S. Embassy included names such as Dow Chemical Co. (DOW), Exxon Mobil Corp. (XOM), Lockheed Martin Corp. (LMT) and International Business Machines Corp. (IBM).

Nearly a dozen companies included in the delegation work in the nuclear sector and are also here to explore business opportunities. These include General Electric Co.'s (GE) GE Energy division that makes nuclear reactors and generation company [Thorium Power Ltd.](#) (THPW).

Under a recent deal cleared by the U.S. Congress, American companies can export nuclear fuel and technology to energy-hungry India.

This is also the first time that a U.S. business delegation has so many representatives from small-sized companies, who can't match the resources of multinational companies to independently explore opportunities in faraway countries like India and need help from the U.S. government.

"We are always under so much pressure to reach out to the smaller companies in the country," said Karan Bhatia, Deputy U.S. Trade Representative.

The two-day "India Business Summit," beginning Wednesday, features seminars and workshops on doing business in India and will help set up meetings between companies, according to a statement from the Confederation of Indian Industry, one of the organizers.

With India's economy roaring ahead at about 8% a year, foreign investors have shown a keen interest in entering the Indian market, with its more than 1 billion consumers.

Bilateral trade between India and the United States in 2005 stood at \$26.8 billion and is growing at a rate of about 20% annually.

The Indian government has often been urged by U.S. officials to hasten the process of economic reforms. Government plans to privatize industries and further open up the economy to foreign competition have been put on hold due to pressure from the leftist parties in the federal coalition.

The Mumbai meeting has been organized by two powerful trade bodies, the Federation of Indian Chambers of Commerce and Industry and the Confederation of Indian Industry.

Biggest ever U.S. trade delegation visits India to explore partnerships, opportunities
Associated Press Newswires
November 28, 2006

MUMBAI, India (AP) - A delegation of 250 American business executives arrived in Mumbai Tuesday to explore new opportunities to invest in India and develop partnerships with local companies.

Led by Frank Lavin, the U.S. undersecretary of commerce for international trade, the delegation -- one of the largest ever from the U.S. to visit India -- represents more than 180 companies in sectors including health care, information technology, energy and telecommunication.

The two-day "India Business Summit," beginning Wednesday, features seminars and workshops on doing business in India and will help set up meetings between companies, according to a statement from the Confederation of Indian Industry, one of the organizers.

Nearly a dozen companies included in the delegation work in the nuclear sector and are here to explore business opportunities that would follow if an India-U.S. civilian nuclear deal clears all legislative hurdles. The firms include GE Energy, which makes nuclear reactors, and **Thorium Power** and ConverDyn, which recycles nuclear fuel.

The nuclear deal was approved by both chambers of the U.S. Congress but their versions must be reconciled before U.S. President George W. Bush signs it into law. The agreement would allow American firms to export nuclear fuel and technology to energy-hungry India.

The delegation is the first from the U.S. to include so many representatives from small-sized companies, which appreciate U.S. government help because they are generally unable to match the resources that multinational firms can spend on exploring opportunities in faraway countries like India.

"We are always under so much pressure to reach out to the smaller companies in the country," said Karan Bhatia, Deputy U.S. Trade Representative.

Big companies are participating, too.

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American delegation to explore nuclear power projects

By Siddharth Srivastava

The Business Times Singapore

November 23, 2006

New Delhi THE speedy passing in the US Senate of the Indo-US nuclear pact has given a considerable boost to potential deals involving American companies building nuclear power projects in India.

Observers said that to meet the revised targets of nuclear power generation, India will have to build at least 30 more reactors of 1,000 megawatts (MW) each and spend over US\$40 billion in the international market.

The US Chamber of Commerce's US-India Business Council (USIBC) has applauded the bipartisan support of the Nuclear Cooperation Promotion Act.

USIBC president Ron Somers said: 'India's nuclear energy market - estimated to require US\$100 billion in foreign direct investment - will open for US companies, which till now has been a closed sector, creating a potential 270,000 American jobs.'

Officials said the Americans have made it clear that they would expect New Delhi to provide extra leeway to US companies. According to reports, New Delhi is already in the process of clearing some big-ticket defence deals with the US as an immediate reward.

In a quick reaction to the pact, a delegation of 225 business leaders and representing 20 US industrial houses will arrive in India early next month.

It will hold discussions with Mumbai-based state-run Nuclear Power Corporation India Limited (NPCIL) which builds and operates India's atomic power stations to generate electricity.

'They do not want to lose time,' SK Jain, NPCIL chairman and managing director, said.

The delegation will include the Nuclear Energy Institute, the policy arm of the US nuclear energy industry; the USIBC and the Westinghouse Electric Company, which supplies technology to almost half of the world's operational nuclear power plants.

Companies and institutions in the nuclear energy business such as GE Energy, **Thorium Power**, Westinghouse Power and WM Mining Co are also part of the delegation.

The French, Canadians, Russians and the Japanese have also been in talks with the NPCIL.

Recently, ND White, chief of the nuclear division of General Electric, met Mr Jain and Atomic Energy Commission chairman Anil Kakodkar to discuss the possibility of setting up light water reactors.

US companies clamour to break into India's Dollars 100bn nuclear energy sector

By Amy Yee

Financial Times

November 23, 2006

Dateline: New Delhi

US companies are clamouring to break into India's nuclear energy market - forecast to be worth Dollars 100bn (Pounds 53bn) - as lawmakers race to finalise the US-India civilian nuclear agreement cleared last week by the US Senate.

Two dozen US groups with nuclear energy interests will join more than 200 other American companies at the US India Business Summit in Mumbai next week, which represents the largest ever US trade mission to India.

The energy and infrastructure heavyweights GE, Westinghouse, Bechtel, United Technologies, **Thorium Power**, US Enrichment Corporation and Fluor are part of the delegation.

The US Senate last Thursday approved a historic deal to legalise nuclear trade with India, bringing the country a step closer to being allowed to buy US nuclear fuel, reactors and related technology.

US companies across a range of sectors, from IT to manufacturing to entertainment, have pushed hard for the new legislation.

"This goes far beyond nuclear reactors," said Ron Somers, president of the US India Business Council, an industry advocacy group based in Washington. "We are ripping the lid off so the market can grow at a much faster pace."

India's power generation capacity stands at 132,000MW but it is seeking to add 100,000MW from conventional energy sources to sustain economic growth running at about 8 per cent a year.

Nuclear energy could provide a further 60,000MW.

In addition to satisfying growing consumer demand as incomes rise, India also needs energy to bolster its weak infrastructure.

Overhauling and expanding ports, airports, roads and railways - crucial to boosting India's industry and trade - will carry an estimated price tag of Dollars 500bn over the next decade.

"We've only just begun significant economic activity with India," said Mr Somers. Passage of the civilian nuclear agreement would signal the "end of a technology denial regime imposed on India for the past 35 years".

Both chambers of US Congress must now reconcile their versions of the bill and bilateral agreements with India must be hammered out before it can be signed into law. The bill must be finalised in December before the end of this Congressional session, otherwise the process will have to start anew next year.

In addition, several more critical approvals, by the International Atomic Energy Agency and the 45-nation Nuclear Suppliers Group, are needed before the agreement can take effect.

Although several hurdles stand in the way of opening India's civilian nuclear industry, "there is interest from countries all over the world to position themselves", said David Mulford, US ambassador to India, last week.

Opening India's civilian nuclear industry is "achievable in a matter of months. . . Deals will come through quite quickly," he added.

US energy firms rush to corner N-bonanza

By Reshma Patil

Hindustan Times

November 21, 2006

NEW DELHI, India, Nov 21 -- WHEN THE Indo-US civilian nuclear deal swept past the Senate last week, US President George W. Bush said the historic agreement would also "create new business opportunities for American companies".

That is why, even while the Indian government is still finalising a draft amendment to the Atomic Energy Act 1962 - said to open up the nuclear-power industry to private participation - 20 American industrial groups are arriving to talk shop with the Mumbai-based Nuclear Power Corporation India Limited (NPCIL). The NPCIL builds and operates India's atomic-power stations to generate electricity.

"They do not want to lose time," S.K. Jain, NPCIL chairman and managing director, told the Hindustan Times. "They have very clear-cut intentions to understand our nuclear-power programme and its potential for participation. This is also due to the hype generated by the Indo-US deal."

The meetings will be part of the largest US trade mission to India from November 29, led by Franklin Lavin, under secretary of commerce for international trade.

"The organisers requested the NPCIL to hold meetings on December 1 with the US nuclear industry group and Indian partners in nuclear-power generation," said Jain.

The mission will include the Nuclear Energy Institute, the policy arm of the US nuclear-energy industry, and the USIBC, known as the voice of the US private-sector investing in India.

India has seven reactors under construction - the most in the world - and the NPCIL is busy identifying coastal sites for 1,000-1,650 MW reactors for the future. Each new site will have the potential to hold a cluster of reactors of 6,000-10,000 MW capacity.

Existing sites like Tarapur are also earmarked for expansion. "The US, on the other hand, has not built any nuclear-power station in recent times," said M.R. Srinivasan, former chairman and current member of the Atomic Energy Commission.

The US delegation will include the Westinghouse Electric Company that provides technology for nearly half of the world's operational nuclear-power plants, General Electric, Bechtel, **Thorium Power**, and Converdyn.

The day the Senate voted, the Washington-based US India Business Council (USIBC) president Ron Somers summed up the civilian nuclear industry's anticipation to enter India. "India's nuclear-energy market - estimated to require \$100 billion in foreign direct investment - will open for US companies, which till now has been a closed sector, creating a potential 270,000 American jobs in high-technology engineering and manufacturing over the next decade."

The Hindustan Times is provided through HT Syndication, New Delhi.

US to send over 225 corporate honchos to India Indo-Asian News Service
Indo-Asian News Service
November 20, 2006

New Delhi, Nov 20 -- The largest-ever business delegation from the US with over 225 top corporate leaders would be in India later this month to explore investment opportunities and understand the policies governing overseas investments.

Around 40 percent of the business leaders in the delegation are have no presence in India and are from sectors as diverse as nuclear energy to biotechnology and franchising, US Undersecretary for International Trade Franklin L Levin said.

"As many as 227 have already signed up and we don't know how many more will sign up. But what we know is we are north of 200," Levin told a videoconference with the media here from his office in Washington, DC.

"This is the largest single mission being sent by the US government."

The US team first converges in Mumbai Nov 29-30 for two days to brain-storm with Indian corporate and government leaders - including Commerce Minister Kamal Nath - and then goes in smaller groups to Chennai, Bangalore, Kolkata and New Delhi.

Among the policy issues the delegation intends to discuss include the investment caps on foreign participation in some sectors like retail trade, the high tariff in areas such as automobiles and spirits and intellectual property rights.

The delegation also includes specific representation from five states - Idaho, Massachusetts, Mississippi, Wisconsin and California - besides some top chief executives of small and medium enterprises.

"Another issue which the delegation will discuss is to make Mumbai a regional financial hub," said Amit Mitra, secretary general of the Federation of Indian Chambers of Commerce and Industry (Ficci), co-organisers of the event.

"The idea is also to double our bilateral trade to \$40 billion in the next few years," added Jayant Bhuyan, Deputy Director General of the Confederation of Indian Industry, which is the other co-organiser from the Indian side.

The bilateral trade between India and the US grew over 23 percent last year to touch \$20.57 billion - with Indian exporting merchandise worth \$14.25 billion and imports amounting to \$6.32 billion.

Some companies represented in the delegation include energy majors AES, Exxon and GE, telecom majors Motorola and AT&T, hi-tech equipment manufacturer Avaya, chemicals giant Dow, IT major IBM and electronics giant Lockheed Martin.

Companies and institutions in the nuclear energy business - such as GE Energy, Nuclear Energy Institute, **Thorium Power**, Westinghouse Power and WM Mining Co are also part of the high-profile delegation.