

THORIUM POWER, Ltd.
News Update: March 14, 2007

Letter from Seth Grae, CEO

Dear Stockholders:

I hope you have had an opportunity to read the press release we distributed last week and which I've reprinted below. In it, Thorium Power announced the successful completion of a key step in the validation process of our thorium-based nuclear fuel designs. We are now on track for the full scale validation of our fuel in a commercial reactor and will accelerate our technology demonstration and commercialization schedule.

This latest development marks an important new chapter for Thorium Power, just as the nuclear power industry is entering a new period of growth. According to the latest projections from the International Atomic Energy Agency (IAEA) and the World Nuclear Association, we are at the leading edge of decades-worth of new reactor design and construction. Further, there is a palpable sense of urgency throughout the industry, given growing concern over the emission of greenhouse gasses and the realization that massive sources of new energy must be found to meet demands in both developed and developing countries. And if there is a consensus on anything, it is that nuclear energy is a viable option to support large scale economic growth. We believe the future nuclear industry growth will include many countries that do not currently have a nuclear energy industry.

This favorable industry trend supports our core business activities and will enable us to further expand our commercial activities globally. Curiously, as many of you know, there are few ways to invest in the coming nuclear renaissance. Other than uranium mining stocks, most major companies involved in nuclear power are either government entities, privately held, or large multinationals where nuclear concerns represent only a very small percentage of their overall business. Thorium Power is one of the few "pure plays" in nuclear. Moreover, Thorium Power is uniquely positioned as a source of solutions to address all key major concerns of the industry: how to solve proliferation, reduce waste and improve profitability.

Given all of this, we have many reasons to be optimistic about the future. As always, we will continue to share with you the latest developments and news. Our annual shareholders meeting will be in New York on April 25th. Further information will be available on our Website as we get closer to that date.

Very truly yours,
Seth Grae
Chief Executive Officer

FOR IMMEDIATE RELEASE

Thorium Power Reaches Major Milestone in Testing of Its Proprietary Nuclear Fuel Company Announces Successful Test of Scaled Up Nuclear Fuel for Commercial Reactors

McLEAN, Va., March 6, 2007 /PRNewswire-FirstCall via COMTEX News Network/ -- Thorium Power Ltd. (OTC Bulletin Board: THPW), the leading developer of low waste, non-proliferative nuclear fuel technology for existing and future reactors, today announced the successful completion of thermal-hydraulic experiments, a key step in the validation process of its thorium-based nuclear fuel designs. The work was performed at the thermal-hydraulic facilities of OKBM, the leading nuclear design bureau in Russia.

The recently completed testing consisted of two experiments simulating emergency pressure and temperature conditions inside the core of commercial reactors: The first included a one-meter long complete seed and blanket assembly compatible with the VVER-1000 reactor design. The second experiment simulated conditions in Western PWR reactor designs, and was performed on a one-meter long partial seed fuel assembly consisting of 25 rods.

Thorium Power's CEO Seth Grae said: "This is a breakthrough result for Thorium Power. It confirms that our thorium-based fuel designs are scalable and can meet the pressure and temperature performance standards for commercial light water reactors. We are on track for the full scale validation of our fuel in a commercial reactor."

Dr. Andrey Mushakov, Thorium Power's Executive Vice President- International Nuclear Operations, added: "Over the last three years we have successfully demonstrated the promise of our fuel designs on a small-scale basis by fabricating fuel samples for irradiation testing in the IR-8 research reactor. We have now successfully scaled up our designs - by more than a factor of three - to fuel rods of a full meter. The final step will be to increase the scale of the rods to the size used in commercial reactors - approximately three and a half meters. Further, while our initial thermal- hydraulic testing involved separate seed rods and blanket rods, the new tests combined the seed and blanket bundles in a single fuel assembly - the exact configuration we will use in full scale commercial VVER-1000 reactors. Thorium Power's Technical Advisory Board, comprised of nuclear industry experts with long track records of designing and selling new fuels and reactors worldwide, met from February 28th to March 2nd and reviewed these results in the course of developing plans to accelerate the technology demonstration and commercialization schedule."

Mr. Grae continued: "Going forward, the company will execute fuel product validation steps leading to demonstration of our fuel (so-called lead test assemblies, LTAs) in a VVER-1000 nuclear power plant powering over one million households. These validation steps include:

- Scaling up the fuel fabrication process to full length (10 feet) rods used in commercial VVER-1000 reactors
- Validating thermal hydraulic performance of full size (10 feet) seed and blanket fuel assembly
- Completing ampoule irradiation testing and perform post-irradiation examination to confirm fuel performance
- Obtaining final regulatory approvals for insertion of fuel in VVER-1000 commercial

reactors."

About Thorium Power Ltd:

Thorium Power Ltd. is involved in the nuclear power sector. Its focus is on technologies and services that will benefit from, and help lead to, expanded use of nuclear power generation. The company has assembled an International Advisory Board comprised of key national and international leaders in the fields of Nuclear Energy, Finance, Government Affairs, Non-proliferation and Diplomacy. Thorium Power Ltd. also has put together a Technical Advisory Board made up of top scientists and practitioners from the world's major nuclear companies. Thorium Power Inc., a wholly-owned subsidiary of Thorium Power Ltd., is a leading developer of proliferation resistant nuclear fuel technologies. Thorium Power Inc. 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.

DISCLAIMER

This press release may include certain statements that are not descriptions of historical facts, but are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements may include the description of our plans and objectives for future operations, assumptions underlying such plans and objectives, statements regarding benefits of the proposed merger and other forward-looking terminology such as "may," "expects," "believes," "anticipates," "intends," "expects," "projects" or similar terms, variations of such terms or the negative of such terms. There are a number of risks and uncertainties that could cause actual results to differ materially from the forward-looking statements made herein. These risks, as well as other risks associated with the merger, will be more fully discussed in any joint proxy statement or prospectus or other relevant document filed with the Securities and Exchange Commission in connection with the proposed merger. Such information is based upon various assumptions made by, and expectations of, our management that were reasonable when made but may prove to be incorrect. All of such assumptions are inherently subject to significant economic and competitive uncertainties and contingencies beyond our control and upon assumptions with respect to the future business decisions which are subject to change. Accordingly, there can be no assurance that actual results will meet expectations and actual results may vary (perhaps materially) from certain of the results anticipated herein.

Further information is available on Thorium Power Ltd's website at <http://www.thoriumpower.com>

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SOURCE Thorium Power Ltd.

THORIUM POWER, Ltd.
News Update: March 9, 2007

Asia Times (03.10.07) – The paper reports on the US business delegation on a four-city tour of India to mark the one-year anniversary of US President George Bush’s visit will take forward the US-India civilian energy nuclear deal. The article mentions that Thorium is among eighteen companies that companies in India that are in the civil nuclear industry.

Indo-Asian News Service (03.07.07) – The article reports that the US business delegation now on a four-city tour of India “is a pointer to the things to come as far as burgeoning India-US trade is concerned.” The report notes that bilateral trade between India and the US is growing and quotes US Ambassador to India David C. Mulford, who said that foreign direct investment (FDI) from the US to India was expected “to exceed \$1 billion by the end of the current fiscal year ending March 31.” The article also notes that Thorium Power is among companies that are part of the Commercial Nuclear Executive Mission (CNEM), “a significant component of the visiting delegation.”

Resource Investor (02.22.07) – In a detailed article titled “Thorium: An Alternative to Uranium,” Jack Lifton reevaluates the current focus on uranium and concludes that “investors who think about the long-term need to take a serious look at thorium – which would have been the metal of choice for the development of nuclear powered electric generating stations.” In revisiting thorium’s history, Lifton acknowledges that the public needs a re-education with regard to the utility and future of thorium power” and makes the following assessment: “Thorium Power, Ltd., is at the forefront of thorium power technology. The principals of the company in fact give it a continuity and breadth of expertise in engineering, government, law and the military that is outstanding and unbroken from the very dawn of the idea of safe civilian nuclear power. The company’s website makes fascinating, and I think, today, compulsory reading for any investor who wants to participate for the long run in the continuation and maintenance of a society and polity, the United States of America, that can improve and expand the quality of life for the earth’s billions without the need for depriving its own citizens of anything or of controlling the lives of others.”

Times of India (02.25.07) –The Times notes an interesting exchange between India’s president and a student who asks if India could become self-sufficient in nuclear power. Following are the excerpted comments from President Kalam: “We are advocating energy independence and will produce 1,000-2,000 MW power in the next two or three years by using solar, bio and nuclear power generators. Uranium, the main material needed for generation of nuclear power, is limited with us, whereas we have abundant quantities of thorium and it has to be made fissile by using fast breeders and by the year 2030 we can produce 50,000 MW power.”

Michigan Daily (02.21.07) – In an article about Green Energy, the reporter makes the following conclusion: “Even nuclear power has a green side: Thorium reactors can burn plutonium waste left over from Cold War-era weapons programs, turning a long-standing problem into a source of power. They have political advantages as well, because they can be engineered to work without uranium or plutonium. That means Iran could pursue this technology all it wanted and never be able to build a bomb - removing any opportunity to use nuclear power as an excuse to develop nuclear weapons.”

Energy Business Review (02.20.07) – In an article about the state of Britain’s nuclear industry, the reporter makes the following conclusion: “It recently emerged that the Norwegian

government is studying the use of thorium as an alternative to uranium as a nuclear fuel. Thorium reactors are considered safer than uranium and more environmentally friendly than gas-fired plants. Not only are meltdowns impossible, but these reactors produce less waste and spent fuel than conventional uranium reactors - something that must surely be of interest to the UKAEA.”

Times Community Newspapers (02.07.07) – The Virginia-based newspaper chain references Erik Hallstrom’s appointment as COO, noting that Mr. Hallstrom previously served in the Swedish army, as a diplomat in Eastern Europe and as an SVP at WorldSpace Satellite Radio.

India, US at the business end of nuclear deal
By Siddharth Srivastava
Asia Times
March 10, 2007

NEW DELHI - It is one year since US President George W Bush visited India. To mark the occasion, a high-powered US business group is in India to take forward what will be a major milestone of Bush's tenure as commander-in-chief: the US-India civilian energy nuclear deal.

Representatives of 38 major companies of the US-India Business Council (USIBC), a leading lobby group, are in New Delhi to "keep the ball rolling" after the nuclear pact, cleared by the US Congress and ratified by Bush, which will enable India to import international technology estimated to require foreign investment of over US\$100 billion.

The USIBC team is led by US Chamber of Commerce executive vice president Lieutenant-General (retired) Dan Christman and USIBC president Ron Somers, and is upbeat. Christman said: "The future is bright for our partnership and industry looks forward to working together to meet India's future energy needs."

Somers said, "We have brought 38 major US companies to India to make sure that we keep the ball rolling on US-India business cooperation. Eighteen of these companies are in the civil nuclear industry. US-India peaceful atomic energy cooperation is good for India and the United States. Commercial implementation of US-India civil nuclear cooperation will open the door to a wide range of cooperation in high technology." The USIBC comprises more than 300 US companies.

Promoting his company's case, Tim Richards, director of General Electric, said: "We know India's need for nuclear power. We support India's fast movement into the Nuclear Suppliers Group [NSG] and India signing the International Atomic Energy Agency [agreement]. There are huge opportunities in civilian nuclear cooperation between India and the US. We have high-end technology to offer. We have set up the most advanced nuclear reactors in Japan and Taiwan."

More firms looking at garnering business include Westinghouse Electric Co, 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, Nuclear Energy Institute, Thorium Power, Westinghouse Power and WM Mining Co are also making pitches.

Others that have touched base with Mumbai-based state-run Nuclear Power Corp India Ltd (NPCIL), which builds and operates India's atomic power stations to generate electricity, include French nuclear power major Areva NP and Russian nuclear plant manufacturer Atomstroyexport.

As per New Delhi's revised targets of nuclear power generation, India will have to build at least 30 more reactors of 1,000 megawatts each and spend over \$40 billion in the international market.

New Delhi has announced plans to double electricity production from nuclear power plants by 2030 to realize the target of 20,000MW and scale it up to 40,000MW by 2030. At the current levels of 3,900MW, nuclear energy constitutes only 3% of the installed capacity in the country.

As domestic uranium supplies are not enough to deliver such a big target, NPCIL is working on

a plan to set up 10,000MW of new capacity via imported uranium over the next five to 10 years.

NPCIL is also planning to add another 5,600MW of nuclear power capacity through domestic uranium supplies. The utility is currently building around 3,000MW of additional capacity that is expected to produce electricity in the next two years.

New Delhi is working on amending the Atomic Energy Act to facilitate private sector participation in nuclear power production that has so far been the exclusive fief of government agencies. Many Indian private players, including Reliance and Tata, have expressed interest.

India is also looking to turn into a supplier of low-cost nuclear reactors to other countries, once international roadblocks are finally cleared. India may look to export pressurized heavy water reactors. According to Indian nuclear officials, India could export designs to countries, such as Cambodia, Indonesia, Thailand and Vietnam, for less than \$30 per kilowatt, much cheaper than the international average of \$1,500 per kilowatt.

India is keen to keep its options open rather than rely too heavily on the US for its nuclear fuel supplies, due to Washington's past record of sanctions.

This week. Foreign Minister Pranab Mukherjee told Parliament that the Indo-US nuclear deal is independent of India's cooperation with Russia, which will help in building four more atomic plants.

The proposal came about during the recent visit of Russian President Vladimir Putin to India. Two nuclear power plants have already been built in the country by Moscow.

Mukherjee said that India's collaboration with Russia in civil nuclear field had started before the Indo-US deal and it is a "continuing and long-term" one. Mukherjee is slated to visit Japan later this month with nuclear diplomacy at the top of his agenda.

But the US is going to bargain hard. Washington has already impressed on New Delhi that it will expect special leverage due to its critical role in pulling India out of global nuclear isolation. The US also expects a few big-ticket defense contracts to come its way as well.

Diplomatic efforts

Intense diplomatic efforts continue to take the nuclear deal to a final fruition.

India and the US still have to sort out a final 123 Agreement, while the 45-nation NSG has to arrive at a consensus on accepting India as a "nuclear exception" due to its good record as a responsible democracy, despite not signing the nuclear Non-Proliferation Treaty.

Indian Foreign Secretary Shivshankar Menon has presented a draft of the 123 Agreement - an agreement for cooperation as a prerequisite for nuclear deals between the US and any other nation - for discussions with Nicholas Burns, US under secretary of state for political affairs, during his visit to the US last month.

The US Congress has to approve the 123 Agreement, to be followed by a go-ahead from the NSG before actual nuclear trade can take place.

New Delhi also has to negotiate a safeguard agreement between with the International Atomic Energy Agency that will apply only to the separated civil nuclear sector.

Recently, Richard Boucher, assistant secretary of state for South and Central Asian affairs, told a hearing of the foreign affairs sub-committee: "Progress is being registered on all the necessary key steps, perhaps not as rapidly as we might desire, but in a manner that is consistent with the complexity and weight of the issues under consideration."

While Russia, the US, France, Canada and the United Kingdom will pitch for India for the sake of their own business interests, New Delhi is aggressively lobbying other countries such as Brazil, Japan and China.

Shyam Saran, the prime minister's special envoy on the India-US civil nuclear deal, has been visiting major NSG countries to elicit support. Saran has already visited Japan, Sweden and Norway, known to be a bit sensitive about issues related to nuclear proliferation.

In the recent past, both Japan and China have been more positively inclined towards the deal, with Beijing hinting that it is not averse to bagging a few big contracts. Australia, which is already dealing with China, has also softened its stand after initially refusing to sell uranium to India.

Siddharth Srivastava is a New Delhi-based journalist.

Jumbo US biz team a pointer to growing India-US trade
Indo-Asian News Service
March 7, 2007 2:10 PM EST

New Delhi, March 7 -- A jumbo-sized US business delegation currently on a four-city tour of India is a pointer to the things to come as far as burgeoning India-US trade is concerned.

The trip is organised by the US-India Business Council (USIBC), the voice of the American private sector investing in India, to coincide with the first anniversary of US President George W. Bush's trip to New Delhi.

Though growing in recent years, bilateral trade between India and the US has been relatively small despite Washington being New Delhi's largest trading partner. It stood at less than \$40 billion until 2004, compared to the Sino-US trade volume of \$235 billion.

However, the scenario is fast changing. With India on the growth path and the two countries negotiating a historic bilateral civilian nuclear agreement, there is a marked optimism on both sides.

This was evident at the second annual conference on "Indo-US Economic Cooperation: Developing a Strategy for Closer Partnership", organised by the Confederation of Indian Industry (CII) and USIBC here Tuesday.

Addressing the 230-member strong visiting delegation and captains of Indian industry at the conference, US Ambassador to India David C. Mulford said that foreign direct investment (FDI) from the US to India was expected to exceed \$1 billion by the end of the current fiscal year ending March 31.

Until now, FDI levels from the US have tended to run at the rather modest level of \$300-400 million a year, Mulford said.

"For the full year ending March 31, we expect the figure to exceed \$1 billion and before long - considering the announced investment plans of US companies - to eclipse the total US FDI base in 2005 which stood at only \$8.5 billion," he said.

This escalating investment in India reflects the recognition among US investors that the entrepreneurial and innovative talent in India that leverages US technology transfer and business management skills is an important part of their global strategies, the ambassador said.

Presenting India's growth story in the inaugural session of the conference, Deputy Chairman of the Planning Commission Montek Singh Ahluwalia said that the Indian government aims to have an average growth rate of nine percent in the next five years ending with 10 percent growth in the last year of the 11th Five-Year Plan.

"Agriculture is going to be the main focus of the government along with development of infrastructure in the 11th Plan 2007-12," he said.

Dan Christian, leader of the delegation, which includes representatives of 38 top American companies, and also a senior vice-president of the International US Chamber of Commerce, touched upon the WTO issue and called upon India to work on concluding the Doha trade talks successfully.

He urged India to adopt multi-lateral as well as bilateral strategies to mobilise the global trade opportunities.

"The US and EU (European Union) are reaching an agreement on agriculture, and I hope India and Brazil would not oppose progress in the NAMA (Non-agricultural Market Access)

negotiations."

At a special session on US-India bilateral trade and investment in the conference, Sunil Mehta, country head of the AIG insurance company, called upon US federal authorities to allow more Indian banks to operate in the US.

He said that it was ironic that, despite India and the US witnessing extremely good relations, this has not converted into a quantitative relationship as far as bilateral trade was concerned.

A significant component of the visiting delegation is the Commercial Nuclear Executive Mission (CNEM). Comprising representatives of US nuclear power firms, the CNEM members are here to explore the Indian nuclear power market even as the two countries negotiate the bilateral civilian nuclear deal.

Stating that the civilian nuclear deal is broader than just the nuclear sector, Tim Richards, director (International Energy Policy) of General Electric, said: "We know India's need for nuclear power."

He said that there were huge opportunities in the civilian nuclear cooperation between India and the US. "We have high-end technology to offer. We have set up the most advanced nuclear reactors in Japan and Taiwan.

"We support India's fast movement into the Nuclear Suppliers Group (NSG) and India signing the International Atomic Energy Agreement," Richards said, speaking at a special session on energy and civil nuclear cooperation.

Supporting Richards' view, Planning Commission Member Kirit Parikh said: "The scope for India-US collaboration in nuclear power is enormous. We would like to improve our nuclear plants and technology."

Parikh said that if India were to grow at 8-9 percent a year, in 30 years it would need 1,800-2,000 million tonnes of oil to meet its energy needs. "Today we produce 30 million tonnes and that too is stagnating," he said.

Parikh said that energy requirement in India would be around 800,000 to one million MW by the year 2030-31. "Our current capacity is only 160,000 MW."

Following Tuesday's conference, the CNEM group is peeling off from the USIBC delegation and heading to Mumbai where it will meet officials of the Nuclear Power Corp of India and the Indian private sector to discuss collaborations and opportunities in nuclear power industry.

Apart from General Electric, the CNEM group includes major companies like Bechtel, Edlow International, Nukem, Patton Boggs, Thorium Power and Westinghouse.

Other US companies represented in the USIBC delegation are infrastructure majors EP-Team, Leading Authorities, Parsons Brinckerhoff International and the Wire Group, retail giant Best Buy, power company PSEG, hedge funds firm Lighthouse Funds, defence major ITT, insurance company Max New York Life and consumer finance giant American Express.

The rest of the mission is travelling to Kolkata to meet the West Bengal government and UPA coalition leadership. This visit will mark USIBC's first foray into West Bengal in 10 years.

The mission will also travel to Chennai to meet Tamil Nadu leaders and captains of south Indian industry to learn more about opportunities in India's infrastructure and manufacturing sector.

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Thorium: An Alternative to Uranium, 2007 Update
By Jack Lifton
Resource Investor
February 22, 2007

DETROIT (ResourceInvestor.com) -- The component of the global warming agenda that is purely political is the driving force behind the contemporary uranium "boom." Doomsayers and scaremongers are shouting, not whispering, that we must stop using the sources of heat, which have been discovered, chosen and used universally to power our industrial civilization during the last two centuries, and choose, overnight, something else, which is now in limited use (nuclear power) or is basically just emerging from the laboratory (solar power) or is understudied but dramatic in appearance (wind, tide and geothermal).

Rather than trying to catch the uranium roller coaster on a down loop investors who think about the long-term need to take a serious look at the naturally occurring radioactive metal, thorium, which but for the exigencies of the last truly global war and the need for some nations to defend themselves from other nations that would conquer them in the name of the latest and greatest social movement, or that old time religion, would have been the metal of choice for the development of nuclear powered electric generating stations.

Is it time for thorium to make its re-entry on the global stage? The answer is yes, and therein lays an opportunity.

Just about one year ago I wrote an article for Resource Investor entitled "Thorium: An Alternative to Uranium." A lot has happened since then with regard to both uranium and thorium, but only the run up in the price of uranium has been covered by the financial press. Even that run up has been covered by short sighted analysts as if an increasing demand for uranium is a given. I want to bring the readers of RI up to date on the very significant events that have occurred in thorium power technology and the re-assessing of America's thorium reserves since then.

There is no serious fundamental immediate or near-term basis of supply shortage to account for the tripling of the price of uranium in the last year. There are no more uranium fuelled nuclear power plants today than there were a year ago, and no new plants have been ordered in the United States. It is in fact not at all clear just who or what is buying uranium to increase the demand so substantially in such a short time. Uranium mining stocks are being traded in a frenzy that masks the discussion of whether or not there is any need for such an investment in uranium production. It is therefore absolutely necessary for investors to keep in mind the distinction drawn by television investment evangelist, "Mad Money Jim Cramer," that short-term ownership of a stock is a trade as opposed to a long term hold, which is an investment.

There are lots of hazy stories around to justify the uranium frenzy. I have been told, for example, that uranium fuelled nuclear power plants scheduled to be decommissioned will now be kept in service, but this does not require any new supply! I have also read that China will build 20 new pebble-bed (i.e., cheap to construct) reactors to produce electricity in remote regions without the need for coal or oil in the next 20 years. But even Chinese long-term thinking wouldn't justify buying so much nuclear fuel in advance, would it?

What has happened is that investors and mining companies are speculating on a nuclear power boom that they think will shortly begin due to the widespread concern, even fear, generated by the study of global warming, which holds that:

It has been proven scientifically that the earth's climate is entering a period of rapidly escalating global warming; It has been accepted that if this global warming has been caused by anthropogenic (i.e., man made) activity, and the IPCC is 90% certain that this is scientifically proven, then the primary bad actor is the carbon dioxide naturally formed by the burning of coal, oil and natural gas to produce electric power and vehicular propulsion, and; If the burning of coal, oil and natural gas for these purposes is not eliminated, or, at least, substantially curtailed (or, if it is held at present levels and all the carbon dioxide generated by stationary power plants is somehow "sequestered," i.e. stored) then the global economy will suffer irreparable damage as the climate shifts permanently causing massive changes in the habitability and agricultural usefulness of the earth's surface, and therefore coal, oil and natural gas must be replaced as sources of heat as soon as possible.

The only well understood, well-known and developed technology that can possibly, in a relatively short time frame, substitute for the generation of heat by the external combustion of carbon-based fuels is based on nuclear reactors, the heat from which can (and, indeed, now does) produce superheated steam to turn turbines to produce electricity. By locating nuclear power plants on shore lines, the electricity they produce could be used not only directly for commercial, municipal and residential power, but also to electrolyze water (including sea water) to produce hydrogen as a clean burning fuel for vehicular propulsion. The burning of hydrogen by internal combustion engines produces only water as a waste product, and the principle, and only draw back to the mass production of hydrogen powered internal combustion engines is the lack of a fuel production and distribution infrastructure.

Speaking of hydrogen for a moment, I think that investors should, perhaps, now be looking at Hydrogen Engine Center, Inc. (HEC), a company founded by an engineer who was with the Ford Motor Company when that company actually had a plan to maintain a leading place in the development of alternatively fuelled power plants. Ford discontinued the program, but the engineer did not. HEC is making and selling hydrogen fuelled internal combustion engines (ICE) right now, and its website has some good discussions of sources for hydrogen, other than the electrolysis of water, which I think are worth looking at. I am "warming" up to the idea of hydrogen powered internal combustion engines for mobile (vehicular) power plants both as direct motive power and as on-board sources of electricity generation either for direct application to the motive wheels or for recharging batteries as needed.

When I read the website of this company, and I read news articles about BMW, a first class automotive engineering company, putting hydrogen powered big engine (V-12!) cars on the test road, I am tempted to reassess my original scepticism about hydrogen as a direct fuel for ICEs in cars. What I haven't changed my mind about is the mistake that the Ford Motor Company made in choosing development intensive paths instead of this one, hydrogen powered ICEs, for immediate consideration.

Now back to the main discussion. There are sufficient global uranium reserves to supply the needs of all the nuclear power plants that our global industrial civilization could build even if it is decided politically, because economically it is nonsense, to replace 100% of carbon burning plant currently generating electricity. There is also sufficient uranium to fuel all of these plants for centuries. Clearly the price of developing all of the known uranium reserves and looking for more will not be an issue if governments decide that this emergency is upon us.

The speculation that nuclear reactors will produce electricity so that, even if carbon burning power plants are phased out, there will be no reduction in available electric power is also driving

into high gear (excuse the pun) research into the critical components for vehicles that can no longer use carbon-based fuels such as high capacity, long service life, rechargeable lithium-ion battery technology for plug-in hybrid electric ground vehicles (cars, trucks and trains) using storage batteries and a small internal combustion engine to generate electricity.

These are already seen to be themselves only an intermediate technology awaiting the arrival of a hydrogen distribution system in the next generation that will allow internal combustion engines burning hydrogen to either generate electricity directly to drive ground vehicles or be used to charge higher capacity batteries than we now have for propulsion systems.

Mobile hydrogen burning fuel cells may replace the projected substantial size battery packs and even on board hydrogen burning internal combustion engines for charging them if a fuel cell catalyst system can be found that doesn't involve the need for huge amounts of platinum group metals that simply do not exist in the quantities required for global use even if hydrogen burning internal combustion engines completely replace hydrocarbon (gasoline and kerosene) and oxygenate (ethanol) burning ones thus eliminating completely the need for catalytic converters, which today are the principle demand drivers for platinum group metals.

In 1939, it was publicly announced that the fission of some of the isotopes of a few heavy elements had been induced by a man made experiment, which was in fact designed to build heavier elements not break apart the ones being targeted. It was immediately obvious to a few specialized scientists that if a system could be constructed in which the newly named "nuclear fission" were produced and controlled, i.e., it could be started and stopped, then a new source of, essentially, limitless power (heat) could be constructed that would not need to burn carbon-based fuels.

At the same time it was theorized that if sufficient quantities of the rare isotopes of uranium or thorium that exhibited the property of being fissile could be concentrated then it should be possible to, by known engineering, produce a special minimum quantity of them, a critical mass, in which once fission had been triggered by an outside source the fission would generate additional fission, through a chain reaction, so rapidly that a large quantity of the potential energy. Perhaps as much as a few percent would be released in a fraction of a second.

This theory so impressed the world's then best known scientist, Albert Einstein, that he signed a letter to then president Franklin D. Roosevelt that stated that he agreed that if such a bomb were constructed it might be possible, for example, to contain it in a seagoing vessel, which, if brought into a port and detonated, would destroy the port. World War II had already begun in Europe and Asia when Roosevelt's scientific advisors concluded that Einstein's conjecture was not only possible but that research into constructing such a weapon was probably already under way in both Germany and Japan.

Thorium although it had a relatively abundant fissile isotopes was immediately relegated to a back seat, because its properties dictated that although it could be used to manufacture a nuclear reactor it could not be used to or be useful in the construction of a fission weapon!

Thorium powered reactors were designed and built during and just after World War II to test power an ocean going vessel and to create the first civilian use only nuclear power plant at Shippingport, Pennsylvania.

Early proponents of civilian nuclear power did not want to manufacture devices from which weapons grade materials (i.e., highly enriched uranium or the new synthetically produced and

highly fissile plutonium) could be easily extracted, because at the beginning of the “atomic age” it was believed that only a massively expensive and sophisticated industrial nation could afford to build the enormously costly and limited use base to produce weapons grade materials.

So, the development of thorium-based nuclear reactors was continued for a while in parallel with those using uranium and/or plutonium-based technologies. Then a series of intelligence underestimates and political errors combined to terminate government support and funding of what parallel development there was and to propel uranium to the first and only place in the race.

First, the devastated, and by American standards, primitive Russian industrial base produced and detonated a test atomic bomb in 1949. Then Great Britain whose scientists had contributed to the bomb's development way out of proportion to their numbers, but whose industrial base was considered to have been shattered by the war, followed the Russians shortly after with a successful test of their own even though Britain had been cut off from research and development information almost as soon as the war ended.

The atomic arms race was on, and it became the obsession of the world's politicians that the future must belong to the leader in numbers of atomic weapons. Thorium reactors were quickly forgotten for the same reason as they had once appealed. They could not be used, in any easy way, to make weapons grade material. Uranium and its daughter element, plutonium, were crowned the undisputed queens of nuclear power.

The governments of the nuclear powers went on a 50 year binge of hypocrisy. They talked about clean cheap safe civilian nuclear power but they skewed the nuclear power industry through subsidies towards uranium. This kept the weapons grade uranium and plutonium pipeline with a backup system and kept the nuclear fuel reprocessing industry in business economically. Most insidiously the public was trained to view safety as the prevention of detonations (not possible) or leaks (less likely than at carbon-based power plants) rather than the prevention of any possibility at all, of producing weapons grade material. Thus thorium was relegated to the back of the funding line.

The United States and the Russian Federation today have many times the number of nuclear weapons either one would need to destroy civilization. In addition Great Britain, France, China, Israel, Pakistan, India and bankrupt and starving North Korea have nuclear weapons and delivery systems for them. All it seems to take today to build a nuclear weapon is a uranium-based reactor, time and a knowledge base. The world does not need any more nuclear reactors based on uranium and/or plutonium!

The speed with which it is claimed that global warming is advancing dictates that we need immediately to begin to switch over to nuclear reactors to produce the heat upon which the generation of electricity is based.

It is too dangerous to build or allow remaining in operation nuclear reactors that can produce weapons grade material. The answer is thorium-based nuclear reactors.

An American company, Thorium Power, Ltd., [OTCBB:THPW], is at the forefront of thorium power technology. The principals of the company in fact give it a continuity and breadth of expertise in engineering, government, law and the military that is outstanding and unbroken from the very dawn of the idea of safe civilian nuclear power. The company's website makes fascinating, and I think, today, compulsory reading for any investor who wants to participate for

the long run in the continuation and maintenance of a society and polity, the United States of America, that can improve and expand the quality of life for the earth's billions without the need for depriving its own citizens of anything or of controlling the lives of others.

Although thorium power is today a common topic among the punditocracy - just "Google" the term "thorium" to see what I mean - it is not at all clear how to invest in the mining and production of thorium.

Look at the U.S. Geological Survey (USGS) documentation on thorium, but, be aware, that it is out of date. The current USGS material shows the U.S. with less than 200,000 tonnes of thorium reserves. In fact a new company, so far private, Thorium Energy, Inc. told me that the unpublished results of a new study commissioned by it from the USGS that show that TE's Lemhi Pass property in Idaho has 600,000 tonnes of thorium reserves by itself. This if proved out would give the U.S. the largest reserves of thorium in the world, and would in fact be more than 1/3 of the world's known thorium.

The Lemhi Pass deposit is said to be primarily thorium, and this is rather unusual historically. Most of the world's known thorium reserves are byproducts of rare earth minerals such as monazite, which, coincidentally, is also found in a property called the Mountain Pass site in southern California, which environmentalists shut down because of the radioactivity from the thorium in the tailings - the thorium was not concentrated and removed because it had little or no commercial value.

The mine was ironically discovered by prospectors using Geiger counters looking for uranium in the first, post World War II, uranium boom! Molycorp moved away from the original discovery because of the radioactivity and developed another, relatively non-radioactive, ore body on the property and then fruitlessly tried for decades to create a market for the rare earths produced. I don't know who owns this property now, but keep an eye open for it. Mountain Pass could come roaring back.

The main source of rare earths today, globally, is China, and the principal producer of rare earth metals there is a unit of the parent company, Baotou, of China's third largest steel maker, Baosteel. The products of Baotou's rare earth production unit are marketed in North America by a Canadian subsidiary named HEFA. It is intriguing that the website for HEFA, which names all of the rare earth products available from the company does not mention thorium. Does this mean that the Chinese do not know the thorium is there, or does it mean that they do know but have no wish to sell material outside of China that can be used in place of uranium?

The American company, W.R. Grace [NYSE:GRA] has been in business since 1854 and has processed rare earth ores for decades. It was even doing so when the ores were produced in the United States. It certainly has the technology, at least historically, to produce thorium metal and its alloys if required as it did during World War II when the company was called upon to produce uranium chemicals, metals and alloys for the Manhattan Project.

Thorium Power, Inc. has told me that they already have the technology to "switch over" from uranium to thorium more than 60% of the reactors in use today in the world.

They said that a switched over or built from the ground up thorium powered reactor has for the "blanket" a total of three times the life of a uranium powered reactor. This would mean that the savings during the first fuel cycles will pay for the changeover in the case of a "retrofit." The core can be used to burn fissionable grade plutonium to non weapons grade material while the

blanket will be made from thorium and uranium-233, not 238, so that no weapons grade plutonium-239 can be produced in the reactor.

In the last analysis of what keeps the uranium reactors running is unsurprisingly your tax dollars. The U.S. Federal Government subsidizes the storage of "spent" fuel from nuclear power plants. It (with our taxes) pays "private" utilities to store dangerous-because weapons grade material can be extracted from it and it is intensely radioactive to boot-spent fuel rods while awaiting that far off day when there will be a national repository for such waste. It has become a lawyer's trick to sue the Federal Government on behalf of a utility that needs more storage space or operating funds claiming a breach of the contract implied by the government's promise to maintain a safe operation and to defend the country.

If this subsidy were to be phased out or reduced it would immediately point the utilities towards the longer and thus cheaper fuel cycle of thorium power, which produces less waste, as well as towards reducing the security aspect of the cost of storing and transporting materials from which weapons grade materials can be extracted.

The public is generally unaware of the history of thorium as an alternative to uranium for the production of electricity by nuclear reactors. Those that are aware believe that thorium technology was a dead end path undertaken and finished many years ago. Long term investors might want to gamble that global warming will shortly reveal that the public needs a re-education with regard to the utility and future of thorium power.

Life is a song if you love your job
By Raju Gavali
Times of India
February 25, 2007

BELGAUM: When Padmaja Pavaskar, a student of Maratha Mandal's institutions, asked President Kalam if India could become self-sufficient in nuclear power, the President could not just resist from terming her question "fantastic" and said India was aiming at producing 50,000 MW power by 2030 after the thorium-based fast breeder nuclear reactors were activated.

President Kalam on Sunday participated in the platinum jubilee celebrations of the Maratha Mandal Group of Educational Institutions here. Interacting with the students, he said "We are advocating energy independence and will produce 1,000-2,000 MW power in the next two or three years by using solar, bio and nuclear power generators. Uranium, the main material needed for generation of nuclear power, is limited with us, whereas we have abundant quantities of thorium and it has to be made fissile by using fast breeders and by the year 2030 we can produce 50,000 MW power."

Another student, Ajay Prabhu, asked the President which role he cherished most in his long career from Rameswaram to New Delhi. The President said his first love was teaching. He said that after education, 90% go for in for employment, as that was the way of life and 10% get what they want. One should start loving the job and life would be beautiful. Or else would become miserable.

To another question by Y Rameshwar as to why despite controls the standards of education were falling, the President said there was no shortage of manpower and the government was setting up a chain of institutions for teaching and research and a network would be formed to enable students to go in for research after their 10+2 education. Good teachers would man the institutions, he added.

Earlier, addressing the students on "creative leaders", the President gave the example of one G R Shanmugappa, vice-president, All India Motor Transport Congress and president, Karnataka Lorry Owners Association, who started as a porter in Bangalore. Today, he employs around 1,200 persons to run the trucks and premixed coffee and tea business.

"Through this example, we can see how enthusiasm, hard work with devotion and above all the will to succeed made Shanmugappa, a successful entrepreneur." "On his invitation, I inaugurated the Motor Transportation Congress, of which he had become the Chairman. I was happy and privileged to sit by his side to understand further his dreams. India needs many Shanmugappa-like leaders."

Citing the example of the first project entrusted to him in 1972 and which had to be completed in seven years, the President said it worried him as many seniors were working. "The then ISRO chief Satish Dhawan had told me that if you don't do anything there would be no problem, but if you do a difficult mission/task difficult problems would come and problems need to be defeated. The problem should not be the captain, but we."

Green goes green
By Toby Mitchell
Michigan Daily
February 21, 2007

Imagine never having to endure the stink of gasoline or the pain of paying at the pump. Imagine cities that smell as clean as the countryside and towns that pump electricity back to the cities from solar plants and wind farms. Imagine energy so cheap and machines so efficient that an energy crisis will seem as antiquated as a flat Earth. Now stop imagining. The technology to do this is already here. The only thing America is missing is the nerve to take it.

With a sleek aluminum and carbon fiber body, a 250-mile range and the ability to accelerate from 0 to 60 as fast as your average Ferrari or Porsche, the Tesla Roadster shatters the stereotype that paints electric cars as little more than golf carts. Powered by 900 pounds of batteries, it has a two-gear transmission, zero emissions and a gas pedal without the gas.

Not surprisingly, Tesla Motors wasn't founded in Detroit. The Silicon Valley entrepreneurs-gone-automakers behind the company could never have got started in the land where dinosaurs still stalk the roads - and the boardrooms. Unfortunately, many Americans share the same view as Michigan's shockingly imbecilic auto executives; it's either environment or economy, golf carts or gas guzzlers, and never the twain shall meet.

Al Gore summed up the dinosaur view in "An Inconvenient Truth." On one side of a balance, there are some gold bars. On the other side, there's the entire planet. This picture is as inaccurate as it is ridiculous. As the Tesla Roadster shows, economic and environmental progress aren't mutually exclusive but complementary.

For an example of what this could mean for the energy business, consider GreenFuels. This tech start-up produces bio-fuel from algae at a rate 40 times greater than the manufacture of corn-based ethanol. The algae itself feeds on exhaust from fossil-fuel power plants, reducing those plants' carbon emissions by 40 percent. GreenFuels already has \$11 million in venture capital, but future profits from green energy will make that figure look like chump change.

More ambitious schemes are in development. The Solar Chimney channels hot air from a huge desert greenhouse through a mile-high concrete tower, driving a 200-megawatt turbine at a total cost only somewhat greater than coal. Even nuclear power has a green side: Thorium reactors can burn plutonium waste left over from Cold War-era weapons programs, turning a long-standing problem into a source of power. They have political advantages as well, because they can be engineered to work without uranium or plutonium. That means Iran could pursue this technology all it wanted and never be able to build a bomb - removing any opportunity to use nuclear power as an excuse to develop nuclear weapons.

Now that even the U.S. Army is researching hybrid electric tanks, it may finally be time to admit that so-called alternative energy has gone mainstream. Supplies of solar panels can't keep up with demand. Wind turbines now pay for themselves within a few years in many states. There's a lot of money to be made in green energy - it'll just be different people making it.

Oil companies have seen the writing on the wall. They've poured millions into propaganda outfits like the Competitive Enterprise Institute, an Exxon-Mobil-funded think-tank whose manufactured experts appear in the media to denounce alternative energy as a wasteful government subsidy. This is pure hypocrisy - there never was a free market for energy. The

entire nuclear industry was literally engineered by the government, and the oil companies' primary market was created by the largest continuing federal subsidy in history - the interstate highway system. The real debate isn't over whether or not to subsidize, but whether to keep subsidizing the status quo and face diminishing profits or to make a leap to technology that pays far bigger dividends in the long run.

Liberals who want others to want to protect the planet need to get real. Unless going green starts to pay some green, it won't happen. Fortunately, profitability is almost a reality. The government just needs the courage to make traditional energy industries pay their own bills. Imagine how much better the economics of green energy would look if some of the estimated \$58 billion in federal dollars that will be spent on nuclear waste storage in Nevada went to green energy instead.

Bull-headed fiscal conservatives will be repulsed by the idea of a Green New Deal, as suggested by New York Times columnist Thomas Friedman. Democrats should do what Republicans did with global warming and simply call the idea by a different name. What America needs is a broad array of performance-driven energy initiatives that foster the best solutions for individual cities and states. After all, even the most uneducated investor can tell you that the surest way to good returns is through a diversified portfolio.

Energy Business Review
By David Niles
February 20, 2007

As recent events have illustrated, the UK nuclear industry is under pressure from all angles, with its future in jeopardy. Not only does it need government and investor support, but the industry has to sway public opinion and battle its own internal demons. Clearly, a constructive and pragmatic plan is needed to resurrect the nuclear debate from limbo.

The UK nuclear industry has just experienced what must have been 'the mother of all bad weeks'. Firstly, on February 13, 2007, British Energy's effort to encourage new nuclear build was labeled hopeless. Although the UK government claims to support nuclear build, it has ruled out subsidies, which are critical for build. Secondly, a viable nuclear alternative hinges on its ability to compete with gas and coal, and, presently, nuclear is not price-competitive with either.

Then, on February 15, 2007, the industry did not do itself any favors when the UK Atomic Energy Authority (UKAEA) admitted that it had illegally released radioactive waste for more than 20 years, between 1963 and 1984.

The third blow came one day later when anti-nuclear campaigners won a court (and PR) battle for a judicial review of the government's nuclear consultation paper. The ruling said that the government failed to present clear proposals and information on key issues surrounding a new generation of nuclear plants, such as the disposal of radioactive waste and the financial costs of plant build. Additionally, it dismissed the information given in the paper as inadequate and misleading.

Nuclear can be a viable option in achieving energy security and curtailing carbon emissions; however, the challenges of regulatory approval, planning, decommissioning, pre-licensing plant designs, assessing sites for suitability, financing and swaying public opinion are tough dragons to slaughter.

The UK government cannot afford to stick its head in the sand and pretend nuclear is a foregone conclusion. Italy, for example, is reconsidering its anti-nuclear position as it confronts environmental obligations and growing dependence on foreign energy.

The UK industry needs a pragmatic and comprehensive government policy to sway the hearts and minds of investors and the public, and possibly a bit of luck.

It recently emerged that the Norwegian government is studying the use of thorium as an alternative to uranium as a nuclear fuel. Thorium reactors are considered safer than uranium and more environmentally friendly than gas-fired plants. Not only are meltdowns impossible, but these reactors produce less waste and spent fuel than conventional uranium reactors - something that must surely be of interest to the UKAEA.

Times Community Newspapers
February 7, 2007

Thorium Power Ltd., a developer of nuclear fuel technology for existing and future reactors, has announced the appointment of Erik Hallstrom as chief operating officer. Hallstrom served in the Swedish army and as a diplomat in Eastern Europe and has experience in high-tech industries.

Hallstrom has served as senior vice president of WorldSpace Satellite Radio, an early provider of satellite-based radio to markets in Asia, Europe, the Middle East and Africa.