Thorium Power News Update
February 28, 2009

Letter from the CEO

Dear Stockholders:

We are pleased to share this latest news update, which includes the latest company news as well as industry-related developments.

Latest Media Coverage

In an extensive article titled "Obama May Embrace Emirates Deal as Model for Nuclear Agreements," Bloomberg News writer Indira A.R. Lakshmanan extensively analyzed the UAE program and quoted leading industry experts including Dr. Hans Blix, Amb. Thomas Graham Jr., Jim Wolfsthal, George Perkovich and Joseph Cirincione. The interviewees all touted the various benefits of the UAE program, and concluded that it is the new "gold standard" and a "timely model" for nuclear programs worldwide: "The U.A.E. is doing it absolutely the right way. We should not only support the U.A.E. deal, but it could be used as a model for other countries to pursue nuclear power in a way that doesn't raise fears of clandestine weapons programs." – Jon Wolfsthal, a former U.S. government monitor at North Korean and Russian nuclear facilities and Vice President Biden's proliferation advisor. Lakshmanan's article was also carried by the *International Herald Tribune*, the leading international newspaper, and the *Asahi Shimbun*, one of Japan's oldest and largest national daily newspapers. All of the articles referenced Thorium Power's advanced blueprint for producing safe, economical and responsible nuclear power.

Patrick Cox of Agora Financial, a leading financial news and analysis service, echoed Bloomberg's positive assessment by issuing two notable articles on Thorium Power. In his first piece, titled "Thorium Will Power Your Profits and Reduce Terror Risks," Cox extensively analyzed the company's mission, business plan and recent milestones before drawing the following conclusion: "THPW is the only real pure play in nuclear power today and the stars have lined up to push this company to the forefront of the rapidly growing nuclear power industry…Thorium Power, of course, would earn significant revenues in the exploding global market for electricity." Cox reiterated his initial recommendation in a follow-up piece titled "Obama Administration Holds Thorium Power Deal out as Model": "My prediction in last month's issue that Thorium Power Ltd. (THPW:OTCBB) would benefit from the Obama administration is proving true. Just weeks after you got my last issue, recommending Thorium Power, a series of articles came out quoting Thorium booster Jon Wolfsthal. I am more confident than ever that this company is going to make a lot of people very, very rich."

Corporate News

We continue to educate the industry and financial community about our unique mission and capabilities. In late February, Peter Charles presented at the Roth Capital Partners 21st Annual OC Growth Stock Conference, and Ambassador Thomas Graham, the company's Executive Chairman, maintained a very active speaker's schedule. Ambassador Graham participated in various events and delivered presentations on numerous topics including "Nuclear Weapons and Today's Challenges," "Nuclear Weapon Danger and the United States - Russia Relationship," and "Russia and International Law." We intend to remain active, both domestically and internationally, as we participate in various high profile events in the coming months.

We continue to make good progress in India and the UAE, and we continue to respond to the growing global demand for non-proliferative solutions and safe, clean and responsible nuclear power.

Industry Developments

February saw a number of important decisions in the political and environmental spheres. First, President Obama's draft budget eliminated funding for the planned nuclear-waste storage facility in Nevada. Having rejected the proposed Yucca Mountain project, the Obama administration is now committed to "[devising] a new strategy toward nuclear waste disposal" and Dr. Steven Chu, the Energy Secretary, is assembling a panel to study alternative options. Thorium-based fuel can be an option for reducing waste volumes and disposing of fissile materials while generating electricity.

Over on the other side of the Atlantic, the Swedish government proposed "refreshing the country's nuclear reactors," making the nation the latest to consider letting the technology play a major role in its energy plans. Sweden voted nearly three decades ago to phase out nuclear power. Germany and Italy are just some of the other European countries that are revisiting and reexamining nuclear power.

Also, a number of notable British environmentalists recently came out in support of nuclear power. Lord Smith, the chair of the Environment Agency, and Stephen Tindale, who ran the UK branch of Greenpeace from 2000 to 2005, rejected their previous anti-nuclear stance. Lord Smith arrived at the following conclusion: "What's happened is that we've woken up to the very serious climate-change problem, the essential task of reducing carbon dioxide emissions and the need to decarbonise electricity over the next 20 to 30 years." New Statesman writer Mark Lynas also made a similar U-turn and noted that the anti-nuclear campaigns of the past "will come to be seen as an enormous mistake for which the Earth's climate is now paying the price."

Once again, these latest developments support our unique positioning as a source of solutions to address the major industry concerns – how to solve proliferation, reduce waste and improve profitability.

Very Truly Yours,
Seth Grae
Chief Executive Officer

Thorium Power News Update
February 28, 2009

Media Coverage

Company News

Bloomberg News – Obama May Embrace Emirates Deal as Model for Nuclear Agreements (03.02.09) – In this extensive analysis, numerous industry observers conclude that the UAE program is the new "gold standard" and a "timely model" for nuclear programs worldwide: "The U.A.E. is doing it absolutely the right way," says Jon Wolfsthal, a former U.S. government monitor at North Korean and Russian nuclear facilities will be advising Vice President Joe Biden on proliferation. "We should not only support the U.A.E. deal, but it could be used as a model" for other countries to pursue nuclear power in a way that doesn't raise fears of clandestine weapons programs.

International Herald Tribune – Obama May Embrace Emirates Deal as Model for Nuclear Agreements (03.03.09) – Lakshmanan's Bloomberg News article was also carried by the *International Herald Tribune*, the leading international newspaper, which is available in more than 180 countries.

Asahi Shimbun (Japan) – Obama May Embrace Emirates Deal as Model for Nuclear Agreements (03.17.09) – Lakshmanan's Bloomberg News article was also carried by the *Asahi Shimbun*, one of Japan's oldest and largest national daily newspapers with a circulation of 8.22 million.

Agora Financial/Breakthrough Technology – Thorium Will Power Your Profits and Reduce Terror Risks (02.05.09) – Patrick Cox issues a ringing endorsement for Thorium Power in this extensive feature article, which analyzes the company's mission, business plan and milestones: "THPW is the only real pure play in nuclear power today and the stars have lined up to push this company to the forefront of the rapidly growing nuclear power industry…Thorium Power, of course, would earn significant revenues in the exploding global market for electricity."

Agora Financial/Breakthrough Technology – Obama Administration Holds Thorium Power Deal out as Model (02.17.09) – Patrick Cox reiterates his strong recommendation: "My prediction in last month's issue that Thorium Power Ltd. (THPW:OTCBB) would benefit from the Obama administration is proving true. Just weeks after you got my last issue, recommending Thorium Power, a series of articles came out quoting Thorium booster Jon Wolfsthal. I am more confident than ever that this company is going to make a lot of people very, very rich."

Industry News

AFP – Jordan, Russia sign nuclear deal (02.26.09) – AFP reports that "Russia, which is helping Iran build its first nuclear plant, inked a preliminary cooperation deal with Jordan on Thursday to pave the way for producing nuclear power in the energy-poor kingdom."

Bloomberg News – Obama Rejects Nuclear Waste Site After 20-Year Fight (02.26.09) – Bloomberg reports that "President Barack Obama won't let nuclear waste be stored at Yucca Mountain in Nevada, rejecting the project after 20 years of planning at a cost of at least $9 billion."

Christian Science Monitor – After a 20-year ban, France helps Italy embrace nuclear energy (02.26.09) – The newspaper reports that Italy is turning to France to restore its nuclear

program twenty years after banning new nuclear plants. Italian PM, Silvio Berlusconi, recently signed a cooperation deal with President Nicolas Sarkozy for the construction of four power plants in Italy.

World Nuclear News – Nuclear Policies: U-turn for nuclear opponents (02.23.09) – WNN notes that “leading figures in Britain's environmental movement today announced policy u-turns and called for the 'embrace' of nuclear power. New Statesman writer Mark Lynas said the anti-nuclear campaigns of the past "will come to be seen as an enormous mistake for which the Earth's climate is now paying the price."

Platts – UK ‘needs to invest $334 billion on energy to 2025’ (02.24.09) – Platts reports that the “UK energy supply industry will have to invest over GBP230 billion ($334 billion) in new infrastructure by 2025. This Ernst & Young projection “includes capital costs for new nuclear and renewables capacity, plus the cost of increased levels of gas storage and import infrastructure.”

New York Times – Sweden Takes Another Look at Nuclear Power (02.24.09) – The Times reports that the “Swedish government proposed refreshing its nuclear reactors, making the nation the latest to consider letting the technology play a major role in its energy plans.” Sweden voted nearly three decades ago to phase out nuclear power.

Obama May Embrace Emirates Deal as Model for Nuclear Agreements
By Indira A.R. Lakshmanan
Bloomberg News
February 3, 2009

In her final days as secretary of state, Condoleezza Rice signed a nuclear-energy accord with a Persian Gulf ally 50 miles from Iran, calling the measure "a powerful and timely model for the world." President Barack Obama is likely to agree.

The deal with the United Arab Emirates is designed to assist the Arab nation in starting a nuclear-power industry that can't be converted into a weapon-making enterprise. The agreement may help Obama keep his pledge to crack down on the production and smuggling of nuclear materials.

He has called the spread of nuclear weapons "the gravest danger we face." That threat is increasing: With global electricity demand projected to double by 2030, dozens of countries across Asia, the Middle East, Africa and Latin America have expressed interest in nuclear power -- and with any nuclear program comes the risk of proliferation.

"The U.A.E. is doing it absolutely the right way," says Jon Wolfsthal, a former U.S. government monitor at North Korean and Russian nuclear facilities will be advising Vice President Joe Biden on proliferation. "We should not only support the U.A.E. deal, but it could be used as a model" for other countries to pursue nuclear power in a way that doesn't raise fears of clandestine weapons programs.

A federation of Arab sheikdoms that borders Saudi Arabia and produces as much oil as Iraq, the U.A.E. has committed to buy nuclear fuel from foreign countries and send back spent supplies.

Bomb Material

It is the first country to pledge that it won't exercise its right under the Nuclear Nonproliferation Treaty to enrich uranium or reprocess plutonium to make its own fuel. Those are also the only ways to create fissile material for bombs.

In exchange, the Bush administration supported allowing U.S. companies to sell the Abu Dhabi government nuclear technology.

The U.A.E. commitment is "a counterpoint to what Iran is doing," says Wolfsthal, 42. Although Iran contracted to buy supplies from Russia and send spent fuel back, it has also insisted on enriching uranium, claiming it needs its own fuel. Like North Korea, which clandestinely reprocessed plutonium, Iran's suspected dual-use facilities have triggered international sanctions, and leaders of both countries have resisted economic incentives to close them.

Ben Chang, Obama's National Security Council spokesman, says the administration is studying the U.A.E. deal before deciding whether to send it to Congress, which will have 90 legislative days to block the agreement before it becomes law.

'Undermine' Efforts

Rejecting the accord would be counterproductive, says Andrew Grotto, a security analyst at the Center for American Progress in Washington, a public-policy group with ties to the Obama administration. Since the U.A.E. can legally buy nuclear- power technology from companies in France, Britain, Japan and other nations, blocking a U.S. agreement that includes safeguards against proliferation "would undermine our efforts to set a high bar for transparency," he says. The U.A.E. arrangement has won an unusual combination of support from both the U.S. nuclear-power industry -- which stands to gain billions of dollars from selling technology and materials

worldwide -- and from nonproliferation experts including former United Nations chief weapons inspector Hans Blix, who is now chairman of the Stockholm-based Weapons of Mass Destruction Commission.

Blueprint for Programs

At the McLean, Virginia, headquarters of Thorium Power Ltd., a nuclear-energy company that's advising the U.A.E. on building its industry, the deal was celebrated as a blueprint for prospective programs in Saudi Arabia, Ukraine and elsewhere.

Chief Executive Officer Seth Grae, 45, is trying to develop a "proliferation-proof" fuel based on thorium, a metallic element that theoretically couldn't be reprocessed for weapons use. The company's advisers include Blix, 80, who is also a former director general of the International Atomic Energy Agency in Vienna.

Other ideas to halt proliferation include creating an international fuel bank to discourage countries from making their own fuel, a proposal Obama, 47, supports. The project, spearheaded by the Washington- based Nuclear Threat Initiative, has been funded by billionaire investor Warren Buffett, the U.S. government, the U.A.E., the European Union and Norway.

Tighten Export Controls

Many nonproliferation experts say the 45 nations that sell nuclear-energy technology need to tighten their export controls. George Perkovich, director of the nonproliferation program at the Carnegie Endowment for International Peace in Washington, says all suppliers, including in the U.S., should take back spent fuel so plutonium can't be reprocessed.

By voluntarily pledging not to seek sensitive nuclear technology, the U.A.E. sets "the gold standard" that other nations should emulate, says Thomas Graham Jr., 75, a former top U.S. arms-control negotiator who is now Thorium's executive chairman.

There are some objections to the agreement. Representative Ileana Ros-Lehtinen, a Florida Republican, has questioned security at the U.A.E.'s port of Dubai, a nexus for the proliferation network once run by Pakistani nuclear scientist A.Q. Khan that supplied Iran, North Korea and Libya with sensitive nuclear material.

Blix says there are ways to avoid this problem: If "Congress has concerns about leakage of technology to Iran, assurances of export controls would be in order."

Ulterior Motives

Joseph Cirincione, president of the San Francisco-based Ploughshares Fund, a nonproliferation foundation, says he worries that power plants can be "the starter kits for nuclear weapons," and that some nations may have ulterior motives in seeking nuclear energy.

"Iran's rivals cannot afford to let it gain the military, political and diplomatic leverage conveyed by nuclear weapons," he says. "What's to stop them once they've built the reactors from adding on a fuel-making facility?"

The U.A.E.'s ambassador to the IAEA, Hamad Al Kaabi, says his nation's "decision has nothing to do with Iran." If the U.A.E. wanted weapons, it wouldn't have become the first nation "to forgo enrichment and reprocessing," he says. Since 2007, the U.A.E. has enhanced export controls through new laws, prosecutions, interdictions and the banning of companies involved in proliferation, adds Al Kaabi, a U.S.- trained nuclear engineer.

The U.A.E. deal probably comes too late to serve as a road map for negotiations with Iran, Perkovich says. “But it could work for the next country.”

BREAKTHROUGH TECHNOLOGY ALERT

MARCH 2009 VOL 1 ISSUE 7

Thorium Will Power Your Profits (and Reduce Terror Risks)

By Patrick Cox

The new administration has assumed power, and markets are scrambling to reckon winners and losers. There will be plenty of both.

The Obama administration's promise to invest in green technologies, for example, will provide short-run benefits to companies working on alternative energies like solar, wind and ethanol production. That doesn't mean these are transformational technologies, though. The uninspiring goal of most is to compete, using tax breaks and subsidies, with coal. Such technologies do not create "monopolistic profits," in economists' jargon.

Politicians can't create the massive market conditions needed to generate transformational technologies. They can, however, block them, as the Bush administration hindered stem cell development. Today, however, we're going to focus on nuclear power. Then, I'll cover a few more critical topics. One is an unexpected and truly exciting development regarding stem cells, life extension and the new surgeon general.

The Anti-Nuke Movement

There is no energy shortage. The world abounds with easily accessible nuclear fuels. What we have is a shortage of common sense. If not for the anti-nuclear movement, we would be several generations ahead in the technology Energy would be abundant and far cheaper. Enormous capital would have stayed in the West, rather than funding terror-supporting nations.

The roots of the opposition to nuclear energy are varied. On the one hand, there were anti-consumerist growth and population controllers like Paul R. Ehrlich. Today, with birth rates at less than replacement rates throughout much of the West, it's useful to recall his apocalyptic predictions.

An entomologist specializing in butterflies, Ehrlich gained immense fame and success with the publication of his Malthusian book *The Population Bomb* in 1968. In it, he predicted that "In the 1970s and 1980s... hundreds of millions of people are going to starve to death in spite of any crash programs embarked upon now."

In the May/June 1978 issue of Federation of American Scientists *Public Issue Report*, he wrote of nuclear power that, "Giving society cheap, abundant energy... would be the equivalent of giving an idiot child a machine gun." Remember his name, because Ehrlich plays a fascinating role in the new administration's turnaround on nuclear energy.

Then there were people like John Gofman, whom I met on several occasions at conferences. Gofman was a genial and otherwise sensible scientist with a radiation phobia. He believed even minuscule exposures to radiation had horrendous

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consequences. His theories have been repudiated as scientifically baseless, but his influence was far-reaching.

It was the coincidence of two events, though, that mainstreamed the burgeoning anti-nuclear movement. One was a minor accident at the Three Mile Island power plant in 1979, which caused no radiation injuries. The other was *The China Syndrome*, which had been in theaters for 12 days when it happened. The message of the science fiction movie was that a nuclear accident was an apocalyptic event. It was catapulted to blockbuster status and politicians quickly gave in to anti-nuclear hysteria.

Now, however, things have changed. The bugaboo du jour is carbon dioxide: supposedly, the driver behind global warming. Personally, I consider the science behind anthropogenic climate change at least as sound as Ehrlich's and Gofman's. More importantly, the U.S. cannot significantly affect global CO_2 levels if the developing world does not sacrifice growth, which won't happen. What I believe, however, is irrelevant. Climate change, despite recent record-low temperatures, is a matter of faith to the Obama administration. Coal, therefore, is the new nuclear.

"Coal, therefore, is the new nuclear."

Candidate Obama told the editorial board of the *San Francisco Chronicle* that he intends to bankrupt efforts to build new coal plants. Joe Biden said the administration would oppose even new clean coal technologies. Rep. Henry Waxman, D-Calif., now chairman of the House Committee on Energy and Commerce, last year introduced the Moratorium on Uncontrolled Power Plants Act of 2008.

Obama will be forced to back off from his anti-coal fundamentalism because consumers will not tolerate higher fuel prices. Efforts will be made, though, to reduce coal consumption. Because green alternatives like wind and solar cannot power the grid any time soon, if ever, he is painted into a nuclear corner.

The Nuclear Renaissance

Today, we're experiencing what has been termed the "Nuclear Renaissance." There are two aspects to this. One is domestic. The other is international, but related to the first because U.S. politics affects the ability of American companies to export nuclear technologies and products.

Key environmentalists have switched sides, and the trend is clear. Nuclear, after all, produces no greenhouse gases. It is also ideal for producing electricity needed to power growing third-world economies as well as a "green" economy.

Whole Earth Catalog founder and environmentalist Stewart Brand may have opened the dam. Other important fans include Greenpeace co-founder Patrick Moore, who said, "I think we made the mistake early on of lumping the peaceful use of nuclear in with the warlike use of nuclear, and I've come to realize that it doesn't make sense to ban the beneficial use of technology just because that technology can be used for evil."

Green favorite and House Speaker Nancy Pelosi has made it clear which environmentalists she's listening to about nuclear power. "It has to be on the table,"

she insists. Green organizations like the World Business Council for Sustainable Development have endorsed nuclear power. The U.K.'s independent Committee on Climate Change has also called for an acceleration of nuclear development.

Obama's choice of science adviser confirms his attitude toward nuclear energy. I've previously written about John Holdren. An environmental professor at Harvard, he started his career researching nuclear fusion and supports next-generation nuclear technology — which we'll get back to.

Now let me explain the Paul Ehrlich connection. One of Ehrlich's collaborators on his embarrassingly wrong book was Holdren. In fact, Holdren played a key role in one of the most interesting intellectual spats of that era.

Julian Simon, an economist at the University of Maryland and a friend of mine, challenged Ehrlich's claim that resources were being depleted. Ehrlich had written that "If I were a gambler, I would take even money that England will not exist in the year 2000." Simon dismissed the prediction as ridiculous, but countered in *Social Science Quarterly*. He bet $10,000 that any basket of commodities Ehrlich chose over any period greater than a year would go down in real terms.

"If I were a gambler, I would take even money that England will not exist in the year 2000."

Economists who study the history of resource markets knew that barring severe short-term disruptions, Simon would win. Ehrlich, however, made the wager. He turned to his collaborator, Holdren, who is not an economist. He picked chromium, copper, nickel, tin and tungsten. The bet took place in 1980 and extended 10 years. Ehrlich paid up in 1990.

Holdren never publicly admitted that the premises behind his predictions were wrong. He did, though, learn a painful lesson. He now expresses confidence in the ability of science to solve resource problems, particularly nuclear science. Significantly however, he remains an adamant opponent of nuclear proliferation, which is a problem with most current nuclear technologies.

Thorium: The Fuel of the Future

So what does that leave us with? I've written about this before and will spare you some detail here, but the answer is the clearly superior fuel thorium.

Thorium is far more abundant than usable uranium. Thorium reactors produce far less waste products that are much less hazardous. In fact, that's one reason why Senate Majority Leader Harry Reid, D-Nev., is such a strong proponent of thorium nuclear power. Reid opposes the Yucca Mountain nuclear waste site in his home state and now promotes thorium as the alternative nuclear technology. On Oct. 2 of last year, he, with Sen. Orrin G. Hatch, R-Utah, introduced the Thorium Energy Independence and Security Act of 2008.

This bill, which is expected to pass, creates a thorium office at the Nuclear Regulatory Commission. Its charter is to promote domestic thorium nuclear power generation. This is critical because in the past, regulators and bureaucrats favoring old technologies and their multibillion-dollar industries hindered thorium competition. Let me quote from the statement released by the senators:

> Using thorium for nuclear power has a number of potential benefits over conventional uranium. As a resource, thorium is abundant in the U.S. and throughout the world. A thorium fuel rod would remain in the reactor about three times as long as conventional nuclear fuel, cutting the volume of spent nuclear fuel by as much as two-thirds. Also, thorium

nuclear fuel would significantly reduce the possibility that weapons-grade material would result from the process. Finally, a thorium fuel cycle could be used to dispose of existing plutonium stockpiles, which is the national security goal.

'Our nation has focused mostly on mixed oxide nuclear fuel cycles, and our regulatory structure reflects that,' Hatch said. 'With the growing interest in thorium nuclear power in the world and in the U.S., it's time we made sure our government has a regulatory infrastructure in place to accommodate this new generation of nuclear power.'

This would have been a breakthrough for thorium power even if John McCain, R-Ariz., had been elected. An Obama presidency, however, is more auspicious. The reason, as I've written before, is that "Only Nixon could go to China." Obama and his pro-nuclear science adviser are uniquely positioned to neuter both knee-jerk partisan opposition and the environmental extremists in his own party.

"Thorium Power, of course, would earn significant revenues in the exploding global market for electricity."

Notice also one more paragraph from that Senate press release:

[President and CEO of Thorium Power] Seth Grae said that the bill 'represents a major milestone toward the recognition that the nuclear renaissance can best be achieved by encouraging new and innovative fuels designs. Sens. Hatch and Reid have acted today to strengthen American technology and American business to compete in the global marketplace.'

So why would Reid and Hatch quote Grae in their official statement? The reason is that Grae and **Thorium Power Ltd. (THPW: OTCBB)** are pretty much the only game in town when it comes to the subject. The reason goes all the way back to the late Edward Teller, who conceived the hydrogen bomb and the "Star Wars" missile defense plan. Concerned about proliferation and terrorism, he decided a means was needed to turn extremely expensive plutonium warheads profitably into nuclear power.

To that end, he enlisted his top student and protege, Alvin Radkowsky. The most successful reactor designer of all time, the genius Radkowsky had warned for years that conventional uranium core technologies would enable nuclear terrorism.

Radkowsky designed the world's first full-scale atomic electric power plant devoted exclusively to peacetime uses. The plant, Shippingport Atomic Power Station in Pennsylvania, burned thorium fuel from 1957–1977. It was also the prototype for the table-sized reactors Radkowsky designed to power U.S. naval vessels.

At Teller's bidding, Radkowsky left semiretirement and a teaching post at Tel Aviv University to tackle the problem. He, in turn, turned to prominent anti-proliferation attorney Seth Grae. In 1992, they formed Thorium Power Inc., with Radkowsky handling the science and Grae the business. Following a merger with a publicly traded thorium mining company in 2006, the name changed to Thorium Power Ltd., but Grae remains in charge. The primary benefit of the merger, incidentally, was access to equity markets.

Beginning in 1994, Grae led a collaborative effort with Russia's prestigious Kurchatov Institute. The thorium fuel developed there has been running in a Russian reactor for nearly five years. More importantly, they formed an agreement in 2007 with Russian government-owned Red Star, one of the top nuclear design bureaus in the world. After additional testing and scale-up using Thorium Power's fuel designs, plans are to facilitate deployment within full-sized commercial reactors.

Grae expects that Russian reactors will be online within four years and deployed widely around the world. Thorium Power, of course, would earn significant revenues in

the exploding global market for electricity. According to the DOE, that market will nearly double between 2005–2030.

Thorium plans lag in the U.S., but the fastest growth will take place in the developing markets. The big short-term impact of U.S. policy changes will be to facilitate the export of proliferation-resistant technologies. Thorium, of course, has the advantage there.

Last year, in fact, Thorium Power earned its first significant revenues due to an advisory deal with the United Arab Emirates. The deal was facilitated by Bush administration efforts to provide nuclear power options that preclude enrichment and proliferation. The U.S. and the UAE officially signed a deal to cooperate in civilian nuclear energy this January.

Thorium Power has similar arrangements in the works with India. Punj Lloyd Group has signed a letter of intent to form a 50-50 joint venture partnership for the "deployment of Thorium Power's nuclear fuel designs in India, Southeast Asia and other territories; to expand consulting activities for the development of nuclear power generation regionally and worldwide; and to pursue the establishment of a joint venture between Thorium Power and Punj Lloyd to best capitalize on the emerging nuclear renaissance."

This, for me, was something of a clincher. India has an established nuclear industry and some of the world's top physicists. If it turned to Thorium Power Ltd., there's an overriding reason.

The Punj Lloyd deal, which could be finalized in March, makes perfect sense. India is rich in thorium, and there is increasing concern about uranium supplies as well as safety. Thorium Power assists with the entire range of nuclear industry and infrastructure issues. This includes reactor procurement and deployment, reactor and fuel technology, international relations and regulatory affairs.

Incidentally, I wanted to speak with CEO Seth Grae about several issues. So I called director of corporate affairs Peter Charles at company HQ in Fairfax, Va. Charles was not only helpful, but he knew Agora Financial well and told me he had just bought our founder Bill Bonner's newest book, *Mobs, Messiahs and Markets*.

When I spoke with Grae, he was in the UAE, where he can often be found. Thorium Power, in fact, has facilities there.

He told me that in the last few years, the company has bolstered its scientific team significantly. Until his death in 2002, Radkowsky headed the team. The Russian side of the science team is also impressive, as are the company's nonscience players. The most notable is Dr. Hans Blix, director general of the International Atomic Energy Agency from 1981–1997.

Clearly, this is a company loaded for bear and betting on the long run. In the meantime, Grae says the UAE's revenues are in line with the company's projected financial milestones. This is critical, as it is several years away from deploying Russian reactors based on his company's designs. He clearly believes, however, that the company is on track, as do I.

Thorium Power has a powerful patent library founded on Radkowsky's work, but now enhanced. It's not clear to me, in fact, that you could build a commercial thorium plant without the permission of the company. Its expertise and IP in nuclear fuel designs extends to thorium/uranium, thorium/reactor-grade plutonium disposing and thorium/weapons-grade plutonium disposing fuel designs for use in existing light water reactors.

THPW is the only real pure play in nuclear power today and the stars have lined up to push this company to the forefront of the rapidly growing nuclear power industry.

"Clearly, this is a company loaded for bear and betting on the long run."

Because Thorium reactors can't suffer meltdowns, they are much cheaper to build. This competitive advantage over other nuclear technologies will also significantly lower power costs.

If you're particularly cautious, you could wait until the company finalizes the deal with Punj Lloyd in March. I believe it will succeed without that deal and you could miss the first big spike. I'm adding the company to our long-run transformational portfolio now because the penny stock price is so good. Buy it and ignore it. Your children will thank you.

Recommendation: Buy Thorium Power Ltd. (THPW: OTCBB) up to $0.30. Use a limit order.

"Recommendation: Buy Thorium Power Ltd. (THPW: OTCBB) up to $0.30."

Obama Surgeon General Pick Could Catapult Your Stem Cell Stocks

We've already discussed the impact of the Obama changes in stem cell policies. **BioTime (BTIM: OTCBB)** has announced important new stem cell lines for sale. Also, clinical testing of **Geron's (GERN: NASDAQ)** spinal cord therapy has been approved.

Now let's talk about Sanjay Gupta, who is CNN's top medical reporter. Gupta has accepted the post of surgeon general. He is opposed by some Democrats, apparently for his incisive criticisms of Michael Moore's *Sicko*, as well as failed single-payer health care systems. Confirmation, however, is expected.

This will be a huge boon to stem cell stocks.

I don't pay much attention to medical popularizers, simply for lack of time. Gupta, however, deserves attention. The reason is that the young neurosurgeon actually seems to keep up with the scientific literature. You can do that, I suppose, when you're not actually treating patients. Most people, including many physicians, are having a hard time coming to grips with the power of recent scientific breakthroughs. Gupta is not one of them.

In an interview (http://www.lef.org/magazine/mag2007/aug2007_cover_gupta_01.htm), Gupta says, "I think in the next couple of decades, we're going to get to a point of practical immortality. It's not true immortality, but practical immortality, meaning that we're going to live much longer without getting sick, and as a result, we'll have many more functional years."

The new "most promising" technology he names is "tissue engineering, with regard to stem cells." Remember, this was in 2007, before many of the most exciting and unexpected recent stem cell advances. Still, he was informed enough to say, "We're already able to use stem cells to basically improve cardiac function in someone who's had a heart attack. The reason that this is so fascinating is that this therapy can now be applied and replicated, and also because cardiac cells and brain cells can now be regenerated. Previous to this technology, it was thought that once either of these types of cells died, that was it. This is no longer the case."

I like this guy. I say that, by the way, as an adviser to one of the unsuccessful GOP presidential candidates. Gupta could really help get the word out about stem cell therapies. As the public grasps the revolutionary consequences, the companies in our portfolio that control important stem cell IP are going to take off.

Incidentally, I've been talking to the leading nonprofit policy group researching the enormous impact of imminent increases in life spans. Those impacts will not only produce huge surprises in the stock market. Think about what just a few extra decades of healthy life spans will do to real estate prices and Social Security, for example. We have

Obama Administration Holds Thorium Power Deal out as Model
By Patrick Cox
Agora Financial – Breakthrough Technology
February 17, 2009

I hope you're feeling stimulated today. The spending bill that Congress's own Congressional Budget Office said would hurt the economy has passed. This is what happens when one political party holds all the cards. Given that the American public never bought into this credit card spree, I expect the pendulum to swing back hard now. I want my gridlock back.

The upside of the bill's passage, however, is that the rhetoric of impending catastrophe will have to end. Supporters of the spending bill got what they wanted in the name of stimulating the economy. The fear-mongering will have to end if they want to salvage any credibility. Politicians will claim we're all stimulated. The market will do what it has always done: produce new wealth and repair the egregious damage done by fatuous political meddling.

One more nonfinancial note: I hope you saw the U.S. soccer team beat Mexico in the qualifiers for next year's World Cup. Granted the game was played in bitterly cold Columbus, Ohio. So Mexican players were at a big disadvantage. Still, it made my weekend, as it came so soon after one of the greatest Super Bowls of all time.

Ever since my son started playing soccer, I've been a fan. I like it particularly because the physical characteristics that make stars in other sports don't really apply. Size and even speed are of secondary importance. Great soccer players don't chase the ball. They develop the ability to recognize trends on the field and predict where the game play will be in the future. In that sense, it's a lot like playing the stock market.

Now please allow me to engage in a little crowing. My prediction in last month's issue that Thorium Power Ltd. (THPW:OTCBB) would benefit from the Obama administration is proving true. Just weeks after you got my last issue, recommending Thorium Power, a series of articles came out quoting Thorium booster Jon Wolfsthal. I am more confident than ever that this company is going to make a lot of people very, very rich.

Wolfsthal is Vice President Biden's adviser on nuclear power and proliferation. He and others are praising the United Arab Emirates nuclear energy program and the technology agreement signed last year by Condoleezza Rice. The nuts and bolts of the UAE program are being carried out under contract with Thorium Power, last month's pick. A Bloomberg piece about that agreement was titled "Obama May Embrace Emirates Deal as Model for Nuclear Agreements." In it, writer Indira Lakshmanan focuses on Thorium Power and speculates that Obama's anti-proliferation policy could pave the way for Thorium Power to finalize contracts with Saudi Arabia, Ukraine and other countries.

Wolfsthal says, "The UAE is doing it absolutely the right way. We should not only support the UAE deal, but it could be used as a model" for nonweaponizing use in other countries.

I'll second that. I would also like to crow a little about my prediction last year regarding Sirius XM Radio. CEO Mel Karmazin is talking about declaring bankruptcy now. A group of investors is threatening to remove him if he does. I don't blame Karmazin, though. Satellite radio is simply obsolete technology today, a poor choice for consumers in a world of an interactive Internet. The company's bandwidth is good for something, but it's not clear to me that the investors will give up their old broadcast vision in time to salvage their technology's real value.

I'm finishing up next month's issue right now. As I've already told you, I've got a truly exciting stem cell company to add to our portfolio. This is a company almost entirely off the media's radar, despite the fact that it owns a unique and truly important patent library. More on that soon.

Obama Rejects Nuclear Waste Site After 20-Year Fight
By Daniel Whitten
Bloomberg News
February 26, 2009

Feb. 26 (Bloomberg) -- President Barack Obama won't let nuclear waste be stored at Yucca Mountain in Nevada, rejecting the project after 20 years of planning at a cost of at least $9 billion.

Obama and Energy Secretary Steven Chu "have been emphatic that nuclear waste storage at Yucca Mountain is not an option, period," said department spokeswoman Stephanie Mueller. The federal budget plan Obama released today "clearly reflects that commitment," she said.

"The new administration is starting the process of finding a better solution for management of our nuclear waste," Mueller said in an e-mail today.

Obama's decision leaves unresolved a long-term plan for nuclear waste, primarily from power plants, even as utility companies seek to build more reactors.

Under the disputed proposal, nuclear waste from reactors around the nation was to be shipped to Yucca Mountain, about 100 miles (160 kilometers) northwest of Las Vegas, to be stored in tunnels 1,000-feet underground. The Energy Department had plans to store more than 109,000 metric tons at the site.

Radioactive waste is now spread among more than 120 sites in 39 states, according to the Energy Department. There are 104 operating commercial reactors in the U.S., and 17 applications are pending at the Nuclear Regulatory Commission to build 26 more reactors.

Chicago-based Exelon Corp., the largest U.S. operator of nuclear reactors, and New Orleans-based-Entergy Corp., the second-largest, are seeking permits for new reactors. Obama's plan will not curtail work on new reactors, said Steve Kerekes, a spokesman for the Nuclear Energy Institute, which represents the industry.

Earthquake Risk

Nevada opponents and environmental groups have filed lawsuits seeking to block the storage project on grounds that Yucca Mountain could be subject to earthquakes and that transporting waste across 43 states would create a hazard and a potential target for terrorists.

Under Obama's budget plan the administration will devise a new strategy on waste. Spending on Yucca Mountain will be limited to the costs necessary to meet a legal requirement for the Nuclear Regulatory Commission to process an application that former President George W. Bush submitted in June, the budget plan indicates.

The Energy Department didn't meet a contractual obligation to take possession of nuclear waste by 1998, and has been found liable in court to claims by utilities for compensation for storing the waste.

Ed Davis, an industry consultant, said the administration is continuing the application to the NRC to avoid the liability the government would face if the application were abandoned.

$100 Billion

"If they terminate the license, it's likely that that will constitute a full breach of the contract, which could potentially cost $100 billion," Davis said.

Nuclear-power consumers have paid $29.6 billion into a fund intended for Yucca Mountain construction. Jerry Stouck, an attorney for some utilities in the dispute, said courts have so far awarded more than $1 billion to utility companies.

The government has to “either pay damages forever or find something to do with the waste,” Stouck said.

‘Lasting Victory’

Senate Majority Leader Harry Reid, a Nevada Democrat, hailed the decision in a statement on his Web site. “Make no mistake: this represents a significant and lasting victory in our battle to prevent Nevada from becoming the country’s toxic wasteland,” Reid said.

Congress in 1987 directed the Energy Department to study only Yucca Mountain as a possible nuclear repository, and Bush in 2002 signed a resolution designating it as the site.

The Energy Department estimated last year that the repository would cost $96.2 billion over the life of the project.

The project has been beset by legal and technical problems, hinging on questions about the safety. In June, the Energy Department submitted to the Nuclear Regulatory Commission an application to build and operate the repository.

Jordan, Russia sign nuclear deal
AFP
February 26, 2009

AMMAN (AFP) – Russia, which is helping Iran build its first nuclear plant, inked a preliminary cooperation deal with Jordan on Thursday to pave the way for producing nuclear power in the energy-poor kingdom.

Under the agreement, Russia will help Jordan, which imports around 95 percent of its energy needs, build power and desalination plants as well as research centres, Jordan Atomic Energy Commission head Khaled Tukan said.

"A final agreement will be signed in Moscow by the end March," Tukan told state news agency Petra after signing the deal with Nikolai Spassky, deputy director of the Russian Federal Agency for Nuclear Energy.

"It's key to boost Jordan's peaceful nuclear programme."

Jordan's 1.2 billion tonnes of phosphate reserves are estimated to contain 130,000 tonnes of uranium, whose enriched form provides fuel for nuclear plants. The government wants the first such plant to be ready by 2015.

The kingdom is the latest Arab country, including Egypt and pro-Western Gulf states, to announce plans for nuclear power programmes in the face of Shiite Iran's controversial atomic drive.

The United States, Israel and other countries suspect Iran of seeking to develop nuclear weapons but Tehran insists its atomic programme is purely for peaceful purposes.

Russia has been involved in building a power station in the Iranian Gulf port of Bushehr for the past 14 years. Tehran began testing the 1,000-megawatt plant on Wednesday, saying it could go on line within months.

After a 20-year ban, France helps Italy embrace nuclear energy
By Anna Momigliano
Christian Science Monitor
February 25, 2009

MILAN, ITALY – Twenty years after banning new nuclear plants, Italy is turning to France to restore its nuclear program.

On Tuesday, Italy's Prime Minister Silvio Berlusconi signed a cooperation deal with President Nicolas Sarkozy for the construction of four power plants in Italy.

Italy shut down its four nuclear plants following a 1987 national referendum that rode a wave of fear and outrage over Russia's Chernobyl reactor meltdown. Now it is joining a growing number of European countries – including Germany, Slovakia, and Bulgaria – that are returning to nuclear energy due to concerns both about carbon emissions and about the reliability of energy supplies from Russia.

Earlier this year, a political crisis between the Kremlin and Ukraine left much of the continent dealing with gas shortages.

Click here to read my earlier story about Russia driving Europe back to the nuclear-power option.

The choice of a French partner came as no surprise here. The French state-owned power giant Électricité de France (EdF) is one of the world's leaders in atomic energy, operating 18 facilities on French territory, with two more on the way.

Now EdF will work on the construction of the Italian plants in a 50-50 joint venture with its Italian equivalent, Enel (Ente Nazionale per l'Energia Elettrica). The first facility is expected to be operating by 2020.

Mr. Berlusconi's announcement was met with harsh criticism from environmental groups, which expressed concerned about security and nuclear waste.

Giorgio Frankel, an energy expert at the Einaudi research center in Turin says that the 2020 start date may be optimistic. Restarting the nuclear program "will take a long time and is way more difficult than most people realize," he says.

Mr. Frankel notes that key "components are produced only in a couple of factories around the world and there are waiting lists of several years."

Italy is joining a long queue. "As several nations in Europe and in the Middle East, such as Egypt and Jordan, became determined to pursue peaceful atomic energy programs, the industry simply cannot keep up with the demand," he says.

Nuclear Policies: U-turn for nuclear opponents
World Nuclear News
February 23, 2009

Leading figures in Britain's environmental movement today announced policy u-turns and called for the 'embrace' of nuclear power.

"What's happened is that we've woken up to the very serious climate-change problem, the essential task of reducing carbon dioxide emissions and the need to decarbonise electricity over the next 20 to 30 years," said Lord Smith, who chairs the Environment Agency.

New Statesman writer Mark Lynas, who published a 'coming out' piece on his new views on nuclear power last year, said the anti-nuclear campaigns of the past "will come to be seen as an enormous mistake for which the Earth's climate is now paying the price." He cited the case of Austria where coal-fired capacity was brought online after the Zwentendorf nuclear power plant was stopped from ever operating, despite being fully constructed.

In a comment piece, Chris Goodall of the Green Party called for a realistic debate on energy policy, even describing certain drawbacks of renewable sources and the "cautionary tale" of Germany, where coal power is also likely to replace nuclear plants closed early after the policies of that country's Green Party.

Stephen Tindale ran the UK branch of Greenpeace from 2000 to 2005. He told the newspaper, "It was like a kind of religious conversion. Being anti-nuclear was an essential part of being an environmentalist for a long time." He now

Follow-up

Stephen Tindale followed up his Independent declaration with a column in populist newspaper The Sun on 24 February.

He wrote: "I know many other people in the environmental movement are rethinking their positions, too, because of the speed with which climate change must be addressed. But not everybody."

"Some people still argue against evolution, 150 years after Darwin's discovery."
claims that "it's actually quite widespread, now, this view that nuclear power is not ideal but it's better than climate change."

Greenpeace UK told World Nuclear News in an emailed statement, "we've disagreed with our former head Stephen Tindale about nuclear power for a while now, because it's clear to us that nuclear power can't solve the problem of climate change." The group said that nuclear power would not significantly impact the amount of coal that China and India would use and "the first and most effective action is to use our energy more efficiently."

Tindale's announcements echoes that of Patrick Moore, one of the Canadian founders of Greenpeace. Moore now advocates the use of nuclear power and large hydro for low-carbon power generation, as well as managed forestry and the widespread use of wood to help remove carbon dioxide from the air.

Follow-up: Stephen Tindale followed up his Independent declaration with a column in populist newspaper The Sun on 24 February. He wrote: "I know many other people in the environmental movement are rethinking their positions, too, because of the speed with which climate change must be addressed. But not everybody." "Some people still argue against evolution, 150 years after Darwin's discovery."

UK 'needs to invest $334 billion on energy to 2025':Ernst & Young
Platts
February 24, 2009

The UK energy supply industry will have to invest over GBP230 billion ($334 billion) in new infrastructure by 2025 to ensure security of supply and to meet climate change and renewable targets, consultants Ernst & Young said Tuesday.

In a study for UK utility Centrica, Ernst & Young said the level of investment needed was double the value of the UK's total energy supply asset base.

"The landscape in which this investment must be raised has altered fundamentally as the credit crunch and economic downturn take hold," the report said.

Centrica commissioned Ernst & Young to update its 2008 Costing the Earth study, published last summer, which looked at the cost implications for UK energy customers of meeting carbon emissions and renewable energy targets by 2020. In that report, the estimate came to GBP165 billion.

The new study, Securing the UK's energy future--meeting the financing challenge, reflects increased development costs for energy projects over an extended period to 2025. It includes capital costs for new nuclear and renewables capacity, plus the cost of increased levels of gas storage and import infrastructure.

Ernst & Young estimates that the energy supply industry will need to earn an annualized return on invested capital (pre-tax) of around 12% for the three years post construction (2026-28) on the GBP234 billion of new investment. This is in line with returns made by the industry in recent years, which averaged 12% from 2005-07 (pre-tax).

Steve Jennings, partner and head of Ernst & Young's power and utilities team, said securing the investment "will rely upon energy companies' ability to access debt and equity finance. They must be able to persuade their lenders and shareholders that income on new assets will be enough to service and repay the debt and provide sustainable shareholder returns."

There was a risk that investment could migrate to other sectors and/or other countries, Jennings said. "The energy supply industry would need to play its role in funding the new investment in the most efficient way," he said, "for example through optimizing financing costs, operating expenditure, tax liabilities and capital expenditure programs."

Sweden Takes Another Look at Nuclear Power
By James Kanter
The New York Times
February 24, 2009

The Swedish government on Thursday proposed refreshing its nuclear reactors, making the nation the latest to consider letting the technology play a major role in its energy plans.

Swedes voted nearly three decades ago to phase out nuclear power, and government officials said Thursday's announcement marked a significant change.

"It's quite a big step for us," Ola Altera, state secretary for enterprise and energy, said. "Everyone has moved their preferred positions to reach this compromise," Mr. Altera added, who noted that his Center Party, had long been skeptical about any nuclear construction in Sweden.

Under the Swedish plan, which still needs approval from Parliament, replacement reactors would gradually be built at the 10 sites where reactors are still operating. "There has been pressure from industry to expand the use of nuclear in Sweden, but that's not the idea," Mr. Altera said.

Other parts of Europe, including Italy and Germany, have also signaled a renewed interest in nuclear as concerns grow over energy security and climate change, and as worries about safety risks diminish. Many restrictions on nuclear power in Europe were imposed after accidents at Three Mile Island in 1979 and at Chernobyl, in the Soviet Union, in 1986.

In Britain last year, the government of Prime Minister Gordon Brown took a similar decision to Sweden's to replace aging nuclear plants, a move that analysts said demonstrated a new era of pragmatism.

The Labor government had previously branded nuclear power as an unattractive option.

Both Britain and Sweden "have had to face a situation the electricity they generate from existing reactors would be extremely difficult to substitute with anything else but nuclear," Luis Echávarri, director general of the Organization for Economic Cooperation and Development's Nuclear Energy Agency, an organizationthat advises industrialized countries, said.

Britain generates about 20 percent of its electricity from nuclear, while Sweden still generates about 45 percent of its power from the technology.

Using renewable sources to generate those same quantities of power would present huge technical and financial challenges, and might even be impossible, while using coal or less-polluting natural gas would make it much harder for either country to meet its goals to reduce greenhouse gas emissions, Mr. Echávarri said.

Sweden already generates about 45 percent of its electricity from hydro power, but public opinion has become more favorable toward nuclear power. Sweden is also aiming by mid-century to have no net emissions of greenhouse gases by using, in part, a combination of low-carbon nuclear power and renewable energies like wind- and hydro power.

Even so, Mr. Altera, it could take until 2023 to open the first new reactor in Sweden because of the cost and risks involved.

He mentioned the difficulties experienced by Areva, a French nuclear constructor that is building a new reactor at the site at Olkiluoto, Finland, where the project is behind schedule and vastly over budget.

The experience “doesn’t make it obvious that there will be new reactors” in Sweden, Mr. Altera said.