Thorium Power News Update
January 31, 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 Developments

On January 16, 2009, Secretary Rice and Sheikh Abdullah bin Zayed Al Nahyan signed the US-UAE 123 nuclear cooperation agreement, setting the stage for the legal groundwork for U.S. commercial nuclear trade with the UAE. Secretary Rice applauded "the UAE's commitment to the highest standards of safety and security on non-proliferation in its pursuit of nuclear power." The agreement will need to go before the new Congress for final approval.

We also continued to push forward in India throughout the month of January. Amb. Dennis Hays took part in the largest-ever commercial nuclear mission to India when he joined the US-India Business Council (USIBC)-Nuclear Energy Institute (NEI) delegation in mid-January. This was the first trade visit to India since the U.S. and India sealed the nuclear trade agreement, and over 50 executives from more than 30 companies met with leading Indian government and corporate officials. Prior to joining the delegation, Amb. Hays attended a thorium fuels conference at the IAEA headquarters in Vienna, Austria.

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.

Corporate Announcement – Strategic Advisory Council

Effective February 1, 2009, the International Advisory Board will be known as the Strategic Advisory Council. This change reflects the group's growing importance as well as its unparalleled strategic expertise. Like the Technical Advisory Board, the Strategic Advisory Council reinforces our advisory capabilities and strengthens our leadership in the global nuclear renaissance.

Industry Developments

The recent European/Russian gas supply crisis focused more attention on nuclear power and several commentators in Germany called for a reassessment of the country's nuclear phase-out plan. Over on this side of the Atlantic, President Obama took office and promised to usher in a new era of energy reform. The president, who supports the adoption of safe and clean nuclear technology, said that his administration would "seize the promise of energy independence" and insisted that "we must have the courage and commitment to change for the sake of our security, our economy and our planet." In another encouraging sign, President Obama picked Dr. Steven Chu, the former director of the Lawrence Berkeley National Lab and 1997 Nobel Laureate in Physics, as the next Secretary of Energy. During his hearing, Dr. Chu emphasized the importance of generating electricity without producing greenhouse gases. He noted that "nuclear power

accounts for roughly 70% of the emission-free electricity produced in the US" and said that the "nuclear waste issue should not deter the construction of new reactors."

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
January 31, 2009

Media Coverage

Associated Press – US nuclear business delegation visits India (01.16.09) – The AP reports on the USIBC-NEI delegation, which was the largest-ever commercial nuclear mission to visit India. This was the first trade visit to India since the U.S. and India sealed the nuclear trade agreement – over 50 executives from more than 30 companies met with leading Indian government and corporate officials.

Project Monitor – Thorium Power hails PPP in N-power (01.26.09) – The Indian trade journal comments on new opportunities in the Indian nuclear industry, and notes that Thorium Power supports the prospect of increased private-sector participation.

Business Standard – Punj Lloyd-Thorium JV to pump in $1 bn (01.18.09) – The Indian business journal comments on the Punj Lloyd-Thorium JV, and notes that the companies are targeting "an investment of up to $1 billion in the venture."

Associated Press – US inks nuclear cooperation deal with Gulf ally (01.15.09) – AP reports on the signing of the US-UAE 123 nuclear cooperation agreement, and notes the "deal sets the legal groundwork for U.S. commercial nuclear trade with the UAE."

AFP – US takes poke at Iran in signing UAE civil nuclear deal (01.16.09) – AP reports on the signing of the US-UAE 123 nuclear cooperation agreement, and quotes Secretary Rice: "We applaud the UAE's commitment to the highest standards of safety, security and non-proliferation in its pursuit of nuclear power."

Associated Press – U.S. signs nuclear cooperation deal with UAE (01.15.09) – AP reports on the signing of the US-UAE 123 nuclear cooperation agreement: "A spokesman for the National Security Council at the White House also defended the agreement and said the UAE had committed itself to pursuing the "highest standards of nonproliferation, safety, and security.

World Nuclear News – Obama: USA will lead world on climate change (01.26.09) – WNN reports on President Obama's energy reform agenda and comments on the signing of two Presidential Memoranda "aimed at getting the country on the path to energy independence." The article notes that President Obama plans to "develop new energy, set new fuel efficiency standards and address greenhouse emissions" by creating a new energy economy.

World Nuclear News - Europe calls on US to help reduce emissions (01.26.09) – WNN reports that Stavros Dimas, the European Commissioner for the Environment, wrote to President Barack Obama "calling for the USA and Europe to form an alliance to tackle climate change" and also "suggested that the USA adopts a European-style emissions trading scheme.."

Platts – Chu Confirmed as Energy Secretary (01.22.09) – The industry journal comments on the appointment of Dr. Steven Chu as Energy Secretary. During his

hearing, Dr. Chu emphasized the importance of generating electricity without producing greenhouse gases. He noted that “nuclear power accounts for roughly 70% of the emission-free electricity produced in the US” and said that the “nuclear waste issue should not deter the construction of new reactors.”

The Wall Street Journal – The Nuclear Option: European Gas Dispute Gives Nukes Fresh Legs (01.14.09) – Keith Johnson notes that nuclear power gained newfound appreciation during the recent Russian/European gas dispute: “Europe is still the big loser, as Russian gas still isn’t flowing across Ukraine and to the West. The big winner? Nuclear power.”

World Nuclear News – Nuclear the 'only solution' to Italy's energy imports (01.09.09) – WNN comments on the “continuing squeeze on [European gas supplies in Europe,” and quotes Giuliano Zuccoli, the president of Edison (Italy): “The only long run solution for Italy is nuclear energy."

Reuters – Gas row triggers new look at German nuclear (01.08.09) – Commenting in the aftermath of the Russian/European gas supply crisis, Reuters concluded that “Germany must reassess its nuclear phase out plan as this week's [crisis] has highlighted the need for a fresh look at all its energy options, analysts say.”

The New York Times – Utilities Offer ‘Green’ Nuclear Plans to Customers (01.01.09) – The Times comments on recently announced plans by R.W.E (Germany) and Fortum (Finland) to support nuclear adoption. Both companies are now offering “zero-carbon energy purchasing” which will allow its customers to specify that they wish to buy electricity mainly from nuclear power plants.

Thorium Power hails PPP in N-power
By Sandeep Menezes
Project Monitor
January 26, 2009

Thorium Power hails PPP in N-power

THORIUM Power Ltd, based in McLean, Virginia, USA, a likely forerunner in India's nuclear power sector, has welcomed recent signals from the Centre for increased private participation in the sector.

Seth Grae, President & CEO, told *Projectsmonitor*, "There is considerable technological expertise in the public and private sectors. We believe the future of India's nuclear industry rests on strategic and effective collaboration."

He continued, "There is much the private sector can do to advance nuclear renaissance in India, but full participation in national nuclear programme will take time. India's nuclear power programme could certainly benefit from private participation, especially given the technological and scientific capabilities in the private sector. It is conceivable that this type of arrangement would enable India to accelerate its nuclear development programme."

Emphasising the immense potential ahead, Grae added, "From our perspective as a foreign player, we anticipate a number of collaborative, partnering opportunities with private sector entities. We are confident that the private sector will play a key role in the development of India's nuclear industry."

Recently, Shyam Saran, a special envoy to the Prime Minister on the nuclear deal, delivering a speech at the two-day Indo-US Economic Summit in New Delhi, said that private players can examine participation in certain components of the nuclear programme through the state-owned Nuclear Power Corporation of India Ltd.

Saran added that the Centre may allow private players to set up nuclear power plants only after they gain experience through collaborative projects with NPCIL.

Grae also cautioned that "as indicated by public officials, there are procedural steps that need to be implemented to amend the Atomic Energy Act; also, there are a number of regulatory and operational issues to address. However, the prospect for private sector participation is a positive development."

Seth Grae, President and CEO of Thorium Power, and Atul Punj, Chairman of Punj Lloyd Group, signing the MoU last month.

In December 2008, Thorium Power signed an MoU with Punj Lloyd Group, and became the first US company to enter India following the passage of the 123 Agreement (visit www.projectsmonitor.com/ENERGY/punj-lloyd-to-form-joint-venture-with-thorium-power-of-usa). The joint venture with Punj Lloyd will consider deployment of Thorium Power's nuclear fuel technology in the country along with setting up an investment fund for investing in India and globally. Thorium Power will also explore the establishment of an operating company in India. "The new company would undertake fuel design for the reactors and provide services for building reactors for the nuclear power plants as well as advisory services in exploring development and investment opportunities in the nuclear energy sector," a company statement noted.

—Sandeep Menezes

CMAC

US nuclear business delegation visits India
By Erica Kinetz
Associated Press
January 16, 2009

MUMBAI, India (AP) — The first U.S. nuclear business delegation to visit India since the two nations sealed a historic nuclear trade agreement concluded its five-day visit Friday. Though there was much bonhomie and one preliminary deal, many hurdles remain before U.S. companies can cash in on India's nuclear promise.

U.S. electronics giant Westinghouse and Indian construction firm Larsen & Toubro said Friday they had signed a memorandum of understanding to set up a joint venture to build nuclear reactors in India. But before that can happen, a slew of legal and regulatory changes need to be made.

"There are significant challenges still in the policy arena that need to be dealt with," said Westinghouse Vice President Meena Mutyala.

India still has to sign a safeguards agreement with the U.N. nuclear watchdog agency, and the law that would give private nuclear companies better liability protection — which U.S. firms need before they can start building reactors in India — is still wending its way through the Indian government.

In addition, the United States has not finalized its nuclear information-sharing agreement with India. Companies in the U.S. and India are also eager for the government to open its state-run nuclear sector to deeper private-sector participation, which requires a change in India's Atomic Energy Act.

By 2030, energy-starved India hopes to increase its nuclear capacity 15-fold, to 63,000 megawatts, at an estimated cost of $80 billion.

In the near term, India plans to award contracts to companies from the U.S., France, and Russia — all of which signed intergovernmental nuclear agreements with India after the Nuclear Suppliers Group's historic September waiver allowed nuclear trade with India even though it has not signed global nonproliferation treaties.

The plan is for contracts to go to Westinghouse, GE Hitachi, France's Areva group, and Russia's Atomstroyexport, said S. Thakur, executive director of corporate planning at the state-run Nuclear Power Corp. of India.

India has a pressing need for uranium to fuel its nuclear program, and top suppliers joined the delegation, which brought together over 50 executives from more than 30 companies, on its rounds of meetings with leading government and corporate officials.

Scott Melbye, president of Canada's Cameco, the world's largest uranium producer, said if India realizes its expansion goals, it will have one of the largest nuclear programs in the world, creating "enormous" potential for uranium mining companies.

"We're ready and eager to enter into supply agreements," he said, adding that he has had "serious discussions" with Nuclear Power Corp. officials.

"I have no doubt we'll be in a position to conclude something with NPC very soon," he said.

Thorium Power Ltd., a fuel supply and consulting company based in Virginia, hopes to finalize its joint venture with Punj Lloyd Ltd., an Indian engineering and construction firm, by the end of March.

"We're interested in India. They're interested in nuclear," said Thorium Vice President Dennis Hays.

Punj Lloyd-Throium JV to pump in $1 bn
By P B Jayakumar / Mumbai
Business Standard
January 18, 2009

Infrastructure player Punj Llyod and US-based Throium Power, which signed an MoU last month to form a 50:50 joint venture company for exploring commercial nuclear power opportunities, are targeting an investment of up to $1 billion in the venture.

"We are looking at an investment of several million dollars or up to a billion in the coming years, depending on how India's government allows commercialisation of nuclear power sector," Dennis Hays, vice-president of Thorium Power, told Business Standard.

"We finalise the framework for our joint venture with Punj Lloyd by March," he said. The investments and areas of operation can be in various technologies, manpower training, fuel processing, and operation & maintenance of power plants in the nuclear sector, he added.

Nuclear Suppliers Group, an international organisation representing companies that supply nuclear products, had lifted its 30-year nuclear trade embargo on India in August last year. In October, the US Congress allowed American companies to participate in India's civil nuclear energy programme.

A month ago, Punj Llyod and Thorium Power had signed an agreement to float an equal joint venture, mainly to provide thorium fuel technology for light water reactors (LWR) coming up in India.

While India has only 0.8 per cent of the world’s uranium reserves, it has about 32 per cent of the world’s total reserves of thorium.

The JV also plans to offer advisory services for nuclear power plants and establishing a nuclear technology investment fund in India.

Punj Lloyd, one of the leading engineering and construction companies in India, has expertise in 'Balance of Plant' of nuclear reactors while Thorium Power is specialised in various technologies and processes related to nuclear reactors. The JV will also explore training of untrained engineers and technicians in India to specialise in nuclear technologies. "Their expertise can be used in various parts of the world as setting up of a nuclear facility requires huge manpower and years of construction," he said.

The JV can also explore operation and maintenance of facilities and even re-location of certain critical parts of nuclear reactors, to save time and cost in setting up reactor facilities, said Dennis Hays.

The US-based company also provides advisory services for emerging nuclear programmes. The company is currently advising the UAE government on one of the largest nuclear programmes for power generation of close to 16,000 MW, involving several hundred million dollars investment. Thorium Power is not operating in defence and nuclear weapons programmes, he said.

India is estimated to have the largest reserves of thorium in the world, next to Australia.

Under the three-stage nuclear power programme, India has committed to develop a thorium fuel cycle for its planned 12 indigenously-developed nuclear reactors. The three-stage cycle first involves processing of plutonium in pressurised heavy water reactors, through which uranium-233 is produced. This uranium is then put into fast breeder reactors, which then produces thorium. Thorium is then used to produce nuclear power. India is developing a proto-type fast breeder reactor at Kalpakkam.

US inks nuclear cooperation deal with Gulf ally
By Robert Burns
Associated Press
January 15, 2009

WASHINGTON (AP) — The Bush administration signed a nuclear cooperation agreement on Thursday with the United Arab Emirates — a last-minute deal saddling the incoming Obama administration with a decision on helping a Persian Gulf ally develop nuclear power despite concerns in Congress.

The deal sets the legal groundwork for U.S. commercial nuclear trade with the UAE, which has foresworn nuclear arms as a signatory to the Nuclear Nonproliferation Treaty.

Despite the emirates' status as a key U.S. partner in the Mideast, some in Congress say the UAE has done too little to help stem the illicit flow of nuclear supplies to its Gulf neighbor and commercial partner, Iran.

The Bush administration, backed by a leading nuclear-control advocacy group and U.S. business groups, calls the deal an important expression of U.S. interest in cooperating with countries that want to develop nuclear power for peaceful uses. The agreement is a framework for future commercial trade; it does not provide specific technology or any materials.

While the deal was forged by Secretary of State Condoleezza Rice in one of her final acts of diplomacy, it will be the Obama administration that will have to decide whether the agreement is sent to Congress.

Obama's national security spokeswoman, Brooke Anderson, declined to say whether he supports the deal. The proposed agreement was not raised during Secretary of State-designate Hillary Rodham Clinton's Senate confirmation hearing on Tuesday. But it is central to the debate about international nuclear controls.

Once Congress is notified of the agreement it will have 90 days to act. It can choose to do nothing, in which case the deal would go into effect; it can vote to kill it, or it can explicitly approve it with conditions attached.

At a signing ceremony Thursday with UAE Foreign Minister Abdullah bin Zayed al Nahyan, Rice called the deal "a powerful and timely model for the region."

Rice later told reporters the key to the deal is the UAE's willingness to import, rather than produce, fuel that would be used in its proposed nuclear reactors. The UAE would also return all spent nuclear fuel rather than attain the technical capability to reprocess it. Reprocessing is a key step in building a nuclear bomb.

"That really does minimize — matter of fact, almost eliminates — the proliferation risks," Rice said.

The deal has thus far drawn relatively little reaction, pro or con, in Congress.

On Thursday, Rep. Ed Markey, D-Mass., a strong critic of nuclear energy, called for Obama to reject the deal.

"In the Middle East, a nuclear energy race could be as perilous as a nuclear arms race," Markey said. "I hope that President-elect Obama will seize the opportunity to put the brakes on the Bush administration's policy of placing nuclear commerce above common sense."

Rep. Ileana Ros-Lehtinen, R-Fla., the House Foreign Affairs Committee's top Republican, has introduced legislation to block the agreement unless the UAE meets certain requirements to stop shipments of equipment and technologies to Iran in violation of U.S. laws and U.N. sanctions.

"Serious concerns remain regarding the UAE's efforts to combat money laundering and terrorist financing, as well as the effectiveness of their export control system" Ros-Lehtinen said in a statement Wednesday.

The U.S. Chamber of Commerce applauded the deal, saying it will boost U.S. trade relations in the Mideast.

"This agreement creates an important model for the anticipated global renaissance in nuclear energy," said Danny Sebright, president of the Chamber's U.S.-U.A.E. Business Council.

Over the past year, the UAE has hired two U.S. engineering companies — Thorium Power Ltd. of McLean, Va. and CH2M Hill of Englewood, Colo. — for consulting services, management and development work in preparation for the deal.

The UAE supports U.S. anti-terror goals, although it has a long and deep commercial relationship with Iran, which has stirred U.S. concerns about nuclear proliferation by the growth of its uranium enrichment efforts.

The UAE has large oil reserves but it has pushed nuclear development as a way to meet future energy needs. Explosive development in recent years has put its electrical supplies under increasing strain.

Rep. Howard L. Berman, D-Calif., the Foreign Affairs Committee chairman, said Wednesday that his panel will examine the deal.

"I'm encouraged that this agreement incorporates the UAE's public commitment not to enrich uranium or to reprocess spent nuclear fuel to extract plutonium, which can be used for nuclear bombs," Berman said.

Laura Holgate, head of nuclear programs at the Nuclear Threat Initiative, a nonprofit group that seeks to reduce the threat from nuclear weapons and the spread of nuclear arms technology, said Thursday that the UAE deal is helpful because it enshrines the UAE's public pledge not to develop nuclear arms.

"It's really an important breakthrough," she said in a telephone interview.

The UAE, a nation of seven independent city-states including Abu Dhabi and Dubai, has been an ally in America's war on terror, but also was one of only three nations that supported the Taliban during its 1990s-era reign in Afghanistan.

The emirates have allowed the U.S. military to operate at an airbase in the outskirts of Abu Dhabi, and U.S. warships regularly dock in Dubai's ports. But the UAE also triggered a political storm in 2006 that compelled it to cancel plans to buy a British outfit that helped run six major U.S. ports.

Associated Press Writer Richard Lardner contributed to this story

US takes poke at Iran in signing UAE civil nuclear deal
AFP
January 16, 2009

WASHINGTON (AFP) — The United States and the United Arab Emirates (UAE) on Friday signed a deal to cooperate in civilian nuclear energy, which Washington says contrasts with Iran's defiant nuclear ambitions.

Secretary of State Condoleezza Rice and her UAE counterpart Abdullah bin Zayed al-Nayhan signed the document laying out what the US called "the legal framework" for civil nuclear cooperation under international controls.

"We applaud the UAE's commitment to the highest standards of safety, security and non-proliferation in its pursuit of nuclear power," Rice said during the signing ceremony with Sheikh Abdullah.

"This is a powerful and timely model for the UAE and the region," the chief US diplomat said.

Looking over its shoulder at Iran on the other side of the Gulf, the outgoing administration of President George W. Bush has also pursued nuclear cooperation accords with Saudi Arabia, Jordan and Bahrain.

"The UAE's approach to development of civil nuclear energy stands in direct contrast to Iran's pursuit of nuclear capabilities incompatible with IAEA and UN Security Council resolutions," the State Department said.

The IAEA is the International Atomic Energy Agency, the Vienna-based UN nuclear watchdog.

Under pressure from the United States and international partners, the UN Security Council has imposed three sets of sanctions on Iran for its refusal to stop enriching uranium.

Washington suspects Iran aims to build a bomb through its enrichment process -- a charge denied by Tehran which says its goal is the peaceful use of nuclear energy.

As part of the deal, both sides said, the UAE has renounced plans to enrich and reprocess uranium or other fuel and will instead obtain fuel from reliable international suppliers.

The State Department added that the United States would have grounds to scrap the agreement if the UAE reneges on its commitment not to engage in enrichment or reprocessing activities, the State Department said.

It said the UAE is party to international efforts to check the spread of nuclear weapons know-how via the Proliferation Security Initiative, the Global Initiative to Combat Nuclear Terrorism and DOE's Megaports Initiative.

Sheikh Abdullah said "this very important agreement" takes cooperation between the two countries to a new level.

"The UAE has been quite transparent about its nuclear peaceful needs," he added.

"We are a country that's very, very rich in oil and gas, but we do look forward that we have a nuclear peaceful program that could sustain our future needs," Sheikh Abdullah said.

Rice said the agreement comes in the context of efforts by the Bush administration to promote nuclear energy as a way to reduce the carbon emissions that cause climate change.

An administration official said the deal must now be submitted to both Houses of Congress for review and may be brought into force following a 90-day congressional review.

The UAE is sensitive to congressional reaction after its state-owned company DP World had to cancel plans in 2006 to buy US port holdings from British P&O due to stiff opposition from American lawmakers.

The Wall Street Journal reported late last year that the UAE has already signed agreements with two US engineering companies, Thorium Power Ltd and CH2M Hill, to help with developing nuclear power plants.

And the country has also recruited a former official from the US Nuclear Regulatory Commission to help run its own atomic regulatory agency, it said.

U.S. signs nuclear cooperation deal with UAE
By Sue Pleming
Associated Press
January 16, 2009

WASHINGTON, Jan 15 (Reuters) - With just five days left in office, the Bush administration signed a nuclear deal with the United Arab Emirates on Thursday despite concerns in Congress the UAE is not doing enough to curb Iran's atomic plans.

U.S. Secretary of State Condoleezza Rice hailed the nuclear energy cooperation deal, which she signed at the State Department with UAE Foreign Minister Sheikh Abdullah bin Zayed al-Nahyan.

"We applaud the UAE's commitment to the highest standards of safety and security on nonproliferation in its pursuit of nuclear power," said Rice, who said she believed Congress would support the deal.

The UAE minister said his government had been "transparent" about the nuclear arrangement, which establishes a legal framework for commerce in civilian nuclear energy between the two countries.

"This agreement will give U.S. businesses a better and a newer way of cooperation between our two countries," he said.

A spokeswoman for the incoming administration of President-elect Barack Obama had no comment on the UAE deal or whether it would have the support of the new White House.

Congress has 90 days for review after which the deal will come into law unless there are objections.

California Rep. Howard Berman, chair of the House of Representatives Foreign Affairs Committee, said before the signing ceremony that his panel would carefully consider the deal when it was submitted to Congress.

"I and many other members of Congress place a very high priority on the international effort to prevent Iran from acquiring a nuclear weapons capability and will be analyzing this and any other nuclear cooperation agreement in the context of how it implicates the attainment of that goal," Berman said in a statement.

The United States is at loggerheads with Iran, just across the Gulf from the UAE, over its nuclear program and fears it is trying to build an atomic bomb. Iran insists its nuclear program is for peaceful power generation.

Under the arrangement, the United States will cooperate with the UAE on a peaceful nuclear energy program.

For its part, the UAE has promised to draw up laws to govern the sector and establish a nuclear regulatory authority and an international advisory board of nuclear experts as well as to seek assistance from other governments.

It has also agreed to forego any domestic fuel enrichment or reprocessing capability.

The UAE has already signed a nuclear cooperation deal with France and its leaders have said the Emirates will work closely with the U.N.'s energy watchdog, the IAEA, for its planned nuclear programs to assure the world it remains peaceful.

Asked about congressional criticism, State Department spokesman Sean McCormack said the UAE had been very cooperative on working towards a "more peaceful, prosperous, and stable Middle East."

A spokesman for the National Security Council at the White House also defended the agreement and said the UAE had committed itself to pursuing the "highest standards of nonproliferation, safety, and security."

The United States has similar agreements with more than 20 other countries, including Egypt and India. (Reporting by Sue Pleming, editing by Jackie Frank)

Obama: USA will lead world on climate change
World Nuclear News
January 27, 2009

President Barack Obama has vowed that the USA will lead the world in the battle against climate change, and has signed orders aimed at reducing the country's dependence on imported oil and placing a "new energy economy" at the heart of US energy policy.

"No single issue is as fundamental to our future as energy," Obama said in a White House announcement before signing two Presidential Memoranda aimed at getting the country on the path to energy independence. The USA's dependence on oil "bankrolls dictators, pays for nuclear proliferation, and funds both sides of our struggle against terrorism," as well as stifling innovation and competition, he said, dangers that were compounded by the threat of climate change.

Climate change, if unchecked, could result in violent conflict, terrible storms, shrinking coastlines and irreversible catastrophe, the US President said. "These are the facts and they are well known to the American people," he said. "Year after year, decade after decade, we've chosen delay over decisive action… Now America has arrived at a crossroads… It falls on us to choose whether to risk the peril that comes with our current course or to seize the promise of energy independence. For the sake of our security, our economy and our planet, we must have the courage and commitment to change."

The country would develop new energy, set new fuel efficiency standards and address greenhouse emissions, Obama said. The first step would be to create a new energy economy, reversing dependence on imported oil and doubling alternative energy capacity over the next three years. The greening of the transport sector would be the second step, with new standards for fuel-efficient cars introduced for 2011 models. Thirdly, the federal government would support states in their efforts to reduce greenhouse gas emissions - some states, such as California, which have in made their own attempts to forge ahead with greenhouse emissions limits have found their way barred under the previous administration.

"My administration will not deny facts, we will be guided by them," Obama said, and pledged that the USA would be at the forefront of global effort required to protect the climate. "It's time for America to lead, because this moment of peril must be turned into one of progress," he said.

Even before his inauguration, President Obama has been clear in his aims to reduce greenhouse gas emissions and promote clean energy, with nuclear included in the energy mix, sentiments echoed by his newly appointed Energy Secretary Steven Chu. Just prior to his formal appointment as Energy Secretary, Chu recently told the US Senate Committee on Energy and Natural Resources that Obama's plans for energy indepence included a continued commitment to nuclear energy, along with a long-term plan for radioactive waste management and disposal.

Chu Confirmed as Energy Secretary
Platts
January 22, 2009

The US Senate confirmed Steven Chu as energy secretary in a voice vote January 20, nearly four hours after Barack Obama was sworn in as the country's 44th president.

Chu, a Nobel Prize winner and former director of Lawrence Berkeley National Laboratory, was among seven nominees the Senate confirmed together.

Chu sailed through his confirmation hearing January 13, during which he emphasized the importance of producing electricity without producing greenhouse gases.

Chu told the Senate Energy and Natural Resources Committee that nuclear power accounts for roughly 70% of the emission-free electricity produced in the US. He said the nuclear waste issue should not deter the construction of new reactors.

Obama's energy secretary
12 December 2008

Nobel laureate physicist Steve Chu will serve as Secretary of Energy in president-elect Barack Obama's administration. His current position is director of Lawrence Berkeley National Laboratory.

Europe calls on US to help reduce emissions
World Nuclear News
January 26, 2009

The European commissioner for environment, Stavros Dimas, has written to US President Barack Obama calling for the USA and Europe to form an alliance to tackle climate change. He also suggested that the USA adopts a European-style emissions trading scheme.

In his letter, Dimas said, "There can be no greater challenge for any political leader than rolling back the spectre of a warming planet. The commitment of your administration to this issue is a source of great encouragement."

"If Europe's efforts are to make a real difference then we need America to join us shoulder to shoulder in the battle against climate change."
Stavros Dimas, European environment commissioner

He said that, in March 2007, 27 European leaders made the commitment that the European Union (EU) would cut its emission by 20% below 1990 levels by 2020. Dimas added, "If other major players follow this lead then we will cut our own emissions by a further 10%." He told Obama, "The world is looking to America to show a similar level of ambition."

Dimas said that in December 2008, the EU agreed a package of policies in order to achieve its objectives. He said, "We have put a price on carbon using an Emissions Trading System (an idea we borrowed from the US by the way). Our ETS is now fully operational and other countries have been looking to learn from our example. By using the power of the market we can provide industry with incentives to reduce emissions and also to drive forward innovation in low-carbon technologies."

He told Obama, "Europe is only a small part of the problem and our emissions are some 14% of the global total. We will only be successful if others are encouraged to follow the low carbon route and it is clear that no global solution will be possible without the full and active support of the US."

"This is not only because the US accounts for 22% of global emissions," Dimas said. "But most importantly it is because many other countries, including countries like China, cannot see why they should decarbonise their own economies if the world's richest economy does not also make firm commitments. If Europe's efforts are to make a real difference then we need America to join us shoulder to shoulder in the battle against climate change."

Dimas added, "As you have pointed out on several occasions, working with international partners to forge a coalition against climate change will re-confirm America's position as a global leader that is prepared to address global problems."

Since taking office in the White House, Obama has vowed that the USA will lead the world in the battle against climate change, and has signed orders aimed at reducing the country's dependence on imported oil and placing a "new energy economy" at the heart of US energy policy.

Even before his inauguration, President Obama has been clear in his aims to reduce greenhouse gas emissions and promote clean energy, with nuclear included in the energy mix, sentiments echoed by his newly appointed Energy Secretary Steven Chu. Just prior to his formal appointment as Energy Secretary, Chu recently told the US Senate Committee on Energy and Natural Resources that Obama's plans for energy independence included a continued commitment to nuclear energy, along with a long-term plan for radioactive waste management and disposal.

The Nuclear Option: European Gas Dispute Gives Nukes Fresh Legs
By Keith Johnson
The Wall Street Journal
January 14, 2009

Posted By Keith Johnson On January 14, 2009 @ 2:07 pm In Global | 23 Comments

Just when it seemed the Russia-Ukraine natural-gas dispute was solved, tempers flared again Wednesday. Europe is still the big loser, as Russian gas still isn't flowing across Ukraine and to the West. The big winner? Nuclear power.

After two weeks of tension and shuttle diplomacy, Wednesday's dustup finally galvanized European officials into action—sort of. European Commission president Jose Manuel Barroso said EU countries should sue Russia and Ukraine for toying with their energy supplies.

But in their quest to bolster energy security, many European countries aren't waiting for lawyers or Brussels to act—or are openly flouting the European Union altogether.

Eastern countries like Slovakia and Bulgaria have been among the hardest hit by the crisis, because they are nearly totally dependent on Russian gas. Both have restarted Soviet-era nuclear reactors they mothballed as a condition to join the European economic bloc. Slovakia's president openly said that, faced with a "cold and dark" winter or a wrist slap from Brussels, he's prepared to power up the nuclear reactors and deal with the consequences later. Poland, which isn't is in the EU, just said that nuclear power will be a cornerstone of its new energy policy.

Even Western European countries long leery of nuclear power are rethinking it. Italy's large gas reserves kept it insulated from the latest crisis, but it still sparked government officials into a call for more nuclear power to boost Italy's energy security.

Even in Germany, where Green Party politicians hold a nuclear moratorium sacred, the debate is getting fresh legs. Power sector executives said today they are pretty confident that the double whammy of climate change and the need for more energy security will force Germany to reconsider its current nuclear policy.

The European hand-wringing holds lessons for the U.S. as well. Secretary of State nominee Hillary Clinton told the Senate yesterday that energy security has to be a vital part of U.S. foreign policy, both to reduce dependence on foreign oil and to fight climate change. She called for more nuclear power in the mix.

Which could explain why one hyperactive European country has been largely quiet throughout the two-week gas crisis: France. It went nuclear decades ago to ensure domestic energy supplies, and gets about 80% of its power from nuclear plants.

Nuclear the 'only solution' to Italy's energy imports
World Nuclear News
January 9, 2009

The continuing squeeze on gas supplies in Europe has led a utility president to declare "The only long run solution for Italy is nuclear energy."

The Torviscosa gas-fired power plant. Italy does not have any operating nuclear power plants for WNN to feature

Giuliano Zuccoli, president of Edison, made the statement in an interview with *Corriere della Sera* yesterday. "Italy has the most advanced and efficient energy system of the world, based on combined cycle power plants. The only problem is that these plants need gas to work." Supplies of gas to European markets have dropped by 30% because of the spat between Gazprom and its Ukrainian customers that began on 1 January.

Edison has 17% of Italy's power generation capacity, making it the second largest supplier, while Zuccoli is also the chair of the supervisory board of another power utility, A2A, which was founded in January 2008 after the merger of AEM Milan and ASM of Brescia.

Relying as it does on energy imports, Italy is well prepared for disruptions to its gas supply. The Italian government claims to have some of the largest reserves in Europe, which amount to 14 billion cubic metres and are said to be adequate to last for two months. However, there is not yet a clear long term strategy or goal for energy policy: "Although we can be calm in the short run, I think we should face the problem firmly, thinking in the medium and long run. That's why I'm strongly supporting nuclear energy," Zuccoli said.

Edison, controlled by A2A, is one of the founders of Energy Lab, a think tank it created in September 2007 with AEM, the Lombardia region, the University of Milan, the University of Milan - Bicocca, the Catholic University, Milan Polytecnic and Bocconi University.

In October 2008 Energy Lab produced a *Preliminary Report on the Conditions for the Return of Nuclear Energy in Italy*. In this paper, Energy Lab gave several recommendations such as ensuring government decisions on new nuclear projects can be made quickly. "Bureaucracy, this is the real problem. We can't know how long it will take to get all the authorizations. Edison is ready and we gave our indications through the latest report," Zuccoli said.

Claudio Scajola, Italy's minister of economic development has declared that energy diversification is no longer avoidable and nuclear energy is the first option. In the medium term, a statement from Scajola said, "we are working on new agreements with other [gas] supplier countries" and "in any case we cannot but think about the future and diversify our sources with the return to nuclear power." He concluded that "The shortsightedness of the past continues to put us at risk." Italy once had a thriving nuclear power sector, but a referendum called after the Chernobyl disaster in led to the country's five reactors being shut down by 1990.

In recent days Slovakian and Bulgarian leaders have mooted the possibility of restarting nuclear reactors shut down as part of EU accession agreements. Another European country forced to connect the current gas crisis to its past nuclear power policies is Germany. A coalition government helped to power by a minority Green contingent put in place legislation to force all nuclear power plants to close early. The country has since worked hard to build sufficient wind and solar power to replace the reactors that still provide about one third of electricity, but as the dates for nuclear shutdown approach it seems increasingly likely that coal will be the fuel of choice to replace nuclear power. German voters will go to the polls in September, with the future use of nuclear power in terms of energy security and climate protection as a major issue.

Gas Row May Trigger New Look at German Nuclear
By Vera Eckert
Reuters
January 9, 2008

FRANKFURT (Reuters) - Germany must reassess its nuclear phase out plan as this week's Russian gas supply crisis has highlighted the need for a fresh look at all its energy options, analysts say.

Fresh doubts over the reliability of its mighty energy partner, Russia, will force Europe's biggest economy to try to reduce its future exposure to spats between Russia and Ukraine over transits, which are causing disruptions to European supply.

German decision makers, who are usually faithful energy partners to Russia, need to present more independent scenarios including a reconsideration of plans to shut nuclear reactors.

"It would be very rational indeed to allow the nuclear plants to run longer than under Germany's exit program," said Manuel Frondel of the Essen-based RWI institute.

"I hope there will be a reassessment of the role nuclear energy can play, as the current gas supply crisis is fuelling the discussion."

The eight-year old nuclear withdrawal program for Germany's 17 reactors by 2021 is enshrined in law and has broad support of voters just nine months before a federal election.

Nuclear contributes a third of all power generation and 11.5 percent of primary energy but is due to shrink to zero as opponents cite safety and waste issues.

This will harm baseload or 24-hour supply of power, of which nuclear provides 45 percent, while gas-fired power generation makes economic sense only for expensive peaktime hours.

Germany has stuck to its staunch opposition to atomic energy despite its low cost and environmental merits -- it emits virtually no carbon dioxide -- deliberately risking isolation.

The nuclear link to gas is indirect. Russia supplies over 40 percent of German gas, just 10 percent of which goes into power generation, while half of all gas is used for home heating.

But the prospect of industry or households lacking energy due to external disruption -- which has become a reality in south-east Europe while German gas inventories protect consumers -- has refocused energy priorities this week.

"The fact is we are an industrial nation and cannot rely too much on gas for either industry or heating," said Roland Schmied, spokesman for the VIK lobby of industry energy users.

ARGUMENTS FOR NUCLEAR

The nuclear industry sees this as a good moment to weigh in with its arguments. September's federal election could result in a win for the conservatives, who support atomic power and want to readdress the nuclear issue.

Proposals for gas as a possible future baseload power provider sounded "like sheer mockery" in light of the current transit crisis, said president Walter Hohlefelder.

"Should Germany stick to its exit from the peaceful use of nuclear energy, the risk for a safe power supply will inevitably rise," he said in a statement on Thursday.

Arguments for other obvious alternatives to gas, coal and renewable energies such as wind or solar, are also thinning as the industries edge toward their limits.

As for coal, which provides half of German power, the country must obey last month's European Union decision which forces operators to pay dearly for every tonne of heavy carbon emissions from coal burning after 2013. That will dent the competitiveness of coal.

Renewable operators, supplying seven percent of primary energy, are seeing their investment plans curbed in the credit crunch, despite generous subsidies for existing plants.

With all energies bearing risks and limits, the net must be cast wider for new channels and consumption must go down, argued Berthold Hannes, a partner at the Bain & Company consultancy.

"The crisis shows the need for action on the gas supply side. We need a diversification of supply routes and more use of liquefied natural gas (LNG)," he said.

"On the demand side, there is a need for better energy management -- energy savings, more efficiency, better insulation to name but a few."

There is also room to garner even more government support for existing energy savings programs, which compensate consumers for optimizing their handling of energy, said Holger Krawinkel, energy expert at consumer lobby VZBV.

"It comes down to loans or other subsidies in the form of tax relief. Ten billion euros are needed."

He also said more heat from the power generation process must be piped directly to customers in densely populated areas.

(Editing by James Jukwey)

Utilities Offer 'Green' Nuclear Plans to Customers
By James Kanter
New York Times
January 1, 2009

Some utilities are allowing customers to request that a percentage of their power come from nuclear energy. (Photo: Constellation Energy Group)

Thinking about making over your home or business so that it runs greener? What about going nuclear?

That seems to be what at least two utilities are hoping customers will opt for as concerns grow about the damage created by planet-warming emissions from highly polluting sources like coal and from other fossil sources like gas.

R.W.E., a utility based in Germany with significant nuclear operations, began marketing what it calls a "zero-carbon energy purchasing" plan in November, allowing customers to specify electricity supplied mainly from nuclear plants.

The plan, called ProClimate Power 2011, promises customers that nearly 70 percent of their electricity will come from nuclear power with the remainder from other low-carbon sources like hydroelectricity and renewable energies.

The company said that nuclear energy was helping Germany avoid around 150 million tons of CO2 emissions annually (R.W.E. added that German road traffic produces some 160 million tons of CO2 every year). R.W.E. also said it would promote the plan on radio, TV, print and online.

Fortum, a major Scandinavian nuclear producer based in Finland, has launched a similar plan for business customers in Finland and Sweden early last year.

Fortum sells electricity using two labels, one called Fortum Carbon Free that includes a mix of mainly nuclear and hydroelectricity, and another called Fortum Renewable that includes a mix of power generated from renewable sources of energy.

The new labels aim at "helping our customers make decisions that are important in terms of the future," said Jukka Toivonen, vice president of large customer sales at Fortum Markets.

Fortum said large business customers wanted to purchase CO2-free electricity and that the company was seeking to meet that demand.

Nuclear operations seem to be more broadly accepted in Nordic countries like Finland than in other parts of Europe including areas of Germany, where anti-nuclear sentiment still runs high. That may mean the success of the strategy for R.W.E. could rest largely on politics.

Germany has pledged to phase out nuclear power over the next decade or so — although concerns about CO2 from coal-fired stations still could lead to an official reversal of that policy.