Thorium Power Ltd. News Update
November 30, 2008

Letter from the CEO

Dear Stockholders:

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

Corporate Developments

We reported an increase in revenues to $6.7 million for the third quarter of 2008, up from the $4.3 million of revenue reported in the second quarter. We take great pride in our recent 5-year consulting contracts with governmental entities in the United Arab Emirates, and both sides are pleased with the progress. We are also encouraged by the recent legislative milestones, including the U.S. Senate's introduction of the "Thorium Energy Independence and Security Act of 2008" and the passage of the U.S.-India Civilian Nuclear Cooperation Agreement, which provides us with a broadened market for our advisory services and opportunities to license our technology.

We capped November by naming James D. Guerra as our new Chief Operating Officer (COO) and interim Chief Financial Officer. As a proactive and results-oriented leader, Jim has played an instrumental role in overseeing Thorium Power's rapid transition to profitability, enhancement of business processes and ongoing corporate expansion. We have entered a rapid period of growth and we will continue to benefit from Jim's comprehensive knowledge of the nuclear power industry as well as his keen judgment and insight. As COO, he will provide Thorium Power with the integrated expertise we need to maintain our rapid growth and seize new opportunities in the consulting field.

Speaking Engagements

The MENA Nuclear Forum, which took place in Doha on November 10th – 11th, was a successful event attended by numerous governmental, business and industry leaders from the Middle East-North Africa region. Dr. Tidu Maini, a member of Thorium Power's International Advisory Board, chaired the forum and I delivered a presentation titled "Nuclear Power for the 21st Century: Safe, Economical and Secure." We discussed the various challenges and opportunities facing "new nuclear" MENA nations and engaged in productive discussions with numerous attendees. We are encouraged by the growing interest in peaceful nuclear energy throughout the Gulf region.

Latest Media Coverage

In November, Thorium Power was featured in various outlets including *Power Today* (India), *Platts Inside NRC* and *Platts Nucleonics Weekly*. In commenting on the UAE's ongoing exploration of nuclear power, *Platts Nucleonics Weekly* noted Thorium Power's role as the UAE's "high-level strategic adviser" as well as the Company's capacity to "set standards for nuclear power excellence." The trade journal also referred to a recent public statement by the UAE, noting the government's eagerness to "establish a new model through which non-nuclear states may explore and potentially deploy nuclear

energy with the full support and confidence of the international community." Separately, a recent *Mining Weekly* article reflected the growing interest in thorium fuel. In the article, Uranium One's CEO noted that "thorium will become more and more important in the nuclear fuel cycle" and "thorium could well, in the next 15 to 20 years, become a replacement for uranium."

Industry News and Developments

During November, we witnessed a number of interesting industry reports. First, the UK's House of Lords Economic Affairs Committee concluded that "nuclear energy is the most reliable viable low-carbon alternative." This view was echoed by a recent YouGov (UK) poll commissioned by EDF Energy, which noted that the UK public is "increasingly concerned about energy supplies and support for nuclear energy is growing as a means of both meeting future demand and reducing emissions." Elsewhere, the European Commission made the case for more nuclear power in a recent energy review, and concluded that "the choice to include nuclear energy in the energy mix lies with [EU countries]." Also, the International Energy Agency reaffirmed the importance of the nuclear option in its recent *World Energy Outlook* report, which stated that "nuclear capacity must grow to least 1.8 times current capacity by 2030 if global temperature rises are to be kept to 2oC."

Finally, the election of Barack Obama was warmly received by the Nuclear Energy Institute and other industry groups. President-elect Obama has promised to pursue the nuclear energy option provided it is "clean and safe." His approach reflects the growing support for non-proliferative solutions and we are hopeful that the new administration will pursue a comprehensive approach to nuclear energy and energy reform. Just last week, President-elect Obama set a target of reducing US greenhouse gas emissions to 1990 levels by 2020 and reducing them by a further 80% by 2050. We expect nuclear energy to play a key role in the energy reform agenda.

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 Ltd. News Update
November 30, 2008

Company News

Project Today – Grae Matters (11.01.08) – In an extensive Q&A, Seth Grae talks about new business opportunities in India and Thorium Power's unique advisory and technological capabilities. Mr. Grae addresses India's longstanding interest in thorium fuel and notes Thorium Power's unique advantages as the only U.S. company with a proven track record in deploying thorium fuels.

Platts Inside NRC – UAE Searches for Personnel to Staff Regulatory Agency (11.24.08) – Platts comments on the UAE's ongoing recruitment efforts, noting that the country has "launched a drive to hire a large number of experienced foreign experts to staff a regulatory agency it is setting up to oversee nuclear program that might be formally announced sometime in 2009."

Platts Nucleonics Week – US-UAE Cooperation Pact Initialed; Approval Left to Obama, new Congress (11.20.08) – Platts reports on the next steps in the US-UAE Cooperation Pact and comments extensively on the UAE's ongoing evaluation of nuclear power. The article notes Thorium Power's role as the UAE's "high-level strategic adviser" and capacity to "set standards for nuclear power excellence."

Industry News

Mining Weekly – Uranium Restraint Ends in January (11.28.08) – The trade journal carries an interview with Neal Froneman, in which the Uranium One CEO notes that "uranium still has a good long-term future, and I also think that other elements, such as thorium, will become more and more important in the nuclear fuel cycle." Froneman goes further to state that "thorium could well, in the next 15 to 20 years, become a replacement for uranium" and "thorium will ultimately surpass uranium following the development of a fuel cycle for thorium by the Indians."

World Nuclear News – Nuclear less risky than renewables, UK government told (11.27.08) – WNN reports on developments in the UK and the recent recommendations of the House of Lords Economic Affairs Committee. According to the Committee, the "UK's renewable energy targets could prove both costly and risky, and nuclear energy is the most reliable viable low-carbon alternative."

World Nuclear News – Obama taps nuclear for 80% emissions cut (11.20.08) – Speaking at a bipartisan energy summit convened by Gov. Schwarzenegger, President-elect Obama "set a target of reducing US greenhouse gas emissions to 1990 levels by 2020 and reducing them by a further 80% by 2050, with safe nuclear energy being used alongside other clean energies."

The Guardian (UK) – Let's get on with building new nuclear plants, says British Energy chief (11.18.08) –The Guardian reports on recent comments by British Energy's chief executive on the growth of nuclear power in the UK. Bill Coley noted that [the UK]

should press ahead with building a new generation of atomic power stations as part of a nuclear "new deal" to attract investment and create jobs.

Platts – Nuclear key to EU's drive to low-carbon economy, security: EC (11.13.08) – The nuclear trade journal reports on the European Commission's recent energy review, which noted that "the choice to include nuclear energy in the energy mix lies with [EU countries]." As reported by Platts, "nuclear accounts for two-thirds of the EU's existing low carbon power, making it an important contributor to mitigating global climate change."

Washington Business Journal – Thorium Power Generates $6.7M (11.13.08) – The Journal reports on Thorium Power's third quarter earnings, noting that the company generated $6.7m, up from the $4.3 million of revenue reported in the second quarter.

World Nuclear News – Poll shows growing UK public support for nuclear (11.12.08) – According to a recent YouGov poll commissioned by EDF Energy, the UK public is "increasingly concerned about energy supplies and support for nuclear energy is growing as a means of both meeting future demand and reducing emissions."

World Nuclear News – IEA: Nuclear capacity must grow 80% by 2030 (11.12.08) – WNN reports that the International Energy Agency has published the latest edition of its *World Energy Outlook*. The report "states that nuclear capacity must grow to least 1.8 times current capacity by 2030 if global temperature rises are to be kept to 2oC."

Platts – Utility personnel say new nuclear capacity is top priority (11.11.08) – Platts reports on a recent Black & Veatch survey, in which 55% of utility personnel concluded that New nuclear capacity "should have top priority" to meet future US electricity demand. This is up from 50% of personnel who ranked nuclear power at the top in last year's survey.

Platts – NEI says industry will work with new administration (11.05.08) – Platts reports on post-Election comments by Frank "Skip" Bowman, President and CEO of the Nuclear Energy Institute. Bowman expressed the NEI's commitment to work with the Obama administration to "continue developing a comprehensive energy policy that includes nuclear power and other low-emission generation sources."

Xinhua – China aims at higher nuclear power capacity (11.05.08) – The national news agency reports that "China may raise its total installed nuclear power generating capacity to 70 million kilowatts by 2020,75 percent higher than government target set in 2006." According to the report, the government is considering revising the 40-million-kw goal in the 2006 national nuclear power development plan.

Reuters – Election breathes new life into nuclear debate (11.03.08) – Writing on the eve of the U.S. Presidential Election, Reuters reporter Susan Cornwell comments on the likely reopening of the non-proliferation dialogue, noting President-elect Obama's campaign promise to make "[the elimination] of nuclear weapons worldwide a central element of U.S. nuclear policy."

Power Today (India)
October, 2008

INTERVIEW

SETH GRAE

Grae Matters

POWER TODAY talks to Seth Grae, President and Chief Executive Officer, Thorium Power, on the company's foray into India and how the country would be far more nuclear energy-sufficient if it fast tracks its thorium-based nuclear power program.

SETH GRAE,
President and Chief Executive Officer, Thorium Power

Could you tell me a bit about the business model of Thorium Power?

Thorium Power has two main business lines - we are engaged in technology development using thorium fuels for reactors. Thorium-based technology stops the reactor from producing weapons grade plutonium. This technology makes reactors safer, and not suitable for nuclear weapons program and results in better operating economics

Our second business line is of strategic advisory services, where we provide consulting services to governments and companies to establish nuclear power programs that meet highest international standards safety and transparency, operational excellence in non-proliferation targets.

I read somewhere that the world basically ran off to develop uranium-based technologies, but forgot about developing thorium as well. Did the world, in developing nuclear weapons, forget about thorium?

Right. There are several reasons. One is that the development of nuclear technology did not happen in countries that had a great deal of thorium. If nuclear technology was first developed in countries like India or Australia, which have extensive thorium deposits, the story could have been somewhat different.

Another is that United States and certain other countries engaged in the development of nuclear power were also enriching uranium for their nuclear weapons program, and the same technologies and facilities were used for the reactor programs. For example, in Oak Ridge, Tennessee, the uranium for reactor fuel and the uranium for the bomb was enriched in the same building, in the same facility. I agree with what you said - that there was certainly a link to weapons program and there was not enough focus on non-proliferation for researching other fuel cycles.

Seth Grae has played an active role in all business activities of Thorium Power since the company's founding. He led the efforts that resulted in Thorium Power becoming one of the first Western companies to contract with Russian nuclear institutes and become one of the first grant recipients from the United States Department of Energy for nuclear non-proliferation related work in Russia.

As a member of the board of directors of the Lawyers Alliance for World Security, Mr. Grae helped advise on the drafting of nuclear export control regulations in China and Belarus, and he participated in consultations with the government of India on nuclear power and weapons.

For the complete article, please visit:

http://media.corporate-ir.net/media_files/irol/12/121550/graematters.pdf

UAE Searches for Personnel to Staff Regulatory Agency
By Mark Hibbs
Platts Inside NRC
November 24, 2008

platts

www.platts.com

Inside NRC

Volume 30 / Number 24 / November 24, 2008

INTERNATIONAL REGULATION

UAE searches for personnel to staff regulatory agency

The United Arab Emirates, or UAE, in recent months has launched a drive to hire a large number of experienced foreign experts to staff a regulatory agency it is setting up to oversee a nuclear power program that might be formally announced sometime in 2009, according to sources in the Middle East close to the UAE nuclear program and foreign experts in Asia, Europe, and the US.

The UAE, they said, is willing to pay salaries as high as US$40,000 per month to recruit personnel for the top echelons of the Federal Authority for Nuclear Regulation, or FANR. The UAE is establishing FANR with the assistance of US-based consulting firms it has hired this year to manage its nuclear development effort.

Two months ago, the UAE hired William Travers to head FANR. Travers served at NRC for three decades, including as regional administrator for Region II and as executive director for operations before joining the IAEA's Department of Nuclear Safety and Security in 2007.

According to Vienna sources, in recent months the UAE has been intensively recruiting at the IAEA to staff FANR, and has focused on trying to hire senior officials, and in some cases chairpersons, of national regulatory agencies in Western countries who are close to retirement. "If you are in your mid-60s and about to retire, the prospects of making that kind of money to get things done in a hurry somewhere else is very tempting," an Australian official said.

Said one former Western country regulator who is consulting with states in the Persian Gulf to start up national nuclear energy development programs, the UAE "has to offer big money because for foreigners, theirs is a difficult environment to work and live in, especially for families, if you are going to make a commitment to stay for at least several years."

Under the UAE's nuclear energy development plan, charted out in detail earlier this year, if the UAE announces in 2009 that it will deploy power reactors, FANR will immediately emerge as an independent nuclear regulatory body, ready to begin work on site selection and safety analyses and on licensing.

Before that, the UAE must make significant amendments to nuclear legislation it passed in 2007 and establish legal liability coverage, consultants said.

Reactors in the UAE will be owned by the Emirates Nuclear Energy Corp. ENEC should be prepared to sign contracts as early as 2010 with a prime contractor to build and operate the reactors, UAE officials said this fall (Nucleonics Week, 9 Oct., 8).

In the case of both FANR and ENEC, the UAE is relying heavily on recruitment of foreign experts to assure that the country will have safe and economical power reactors operating by 2017, sources close to the program said. Setting up of FANR has been aided by Thorium Power, a US company that describes itself as a strategic consultant to the UAE nuclear program. Thorium Power has signed contracts with the UAE worth about $10 million and has hired subcontractors to work on regulatory issues, including the firm Talisman International in Washington, DC. Lars Hoegberg, former director of Swedish regulator SKI, is also working with Thorium Power on the UAE project, sources said.

A large amount of the project management at ENEC, sources said, will in effect be in the hands of another US consultant to the UAE, CH2M Hill.

All told, several hundred foreign personnel soon will be working in Abu Dhabi, the UAE capital, to move FANR and ENEC forward, sources said.

IAEA monitors

The UAE nuclear development project is being closely watched by the IAEA Department of Nuclear Safety and Security. Officials there said last month that they are aware of both the opportunities and risks associated with the UAE's chosen path to quickly generate electricity with reactors. The UAE's heavy reliance on purchased foreign expertise addresses the country's near-term deficits in qualified and seasoned personnel, they said, but leaves open questions concerning the long-term viability of the regulatory and project management infrastructure and presents project management and legal liability complexities.

The UAE, a country about the size of Austria, has a population of about 4.4 million. About 98% of the skilled workforce of 1.5 million consists of foreign residents, according to US government data. "They are approaching their nuclear program the same way they approach the rest of their economy," said one Vienna official, who had been approachd by the UAE to work for FANR.

The UAE is one of six members of the Cooperation Council for the Arab States of the Gulf, or GCC, a regional trade bloc that aspires to evolve into a political union. The UAE launched its nuclear program after the GCC announced in 2006 that it advocated a common approach to develop nuclear power.

One GCC official involved in an ongoing review of nuclear power development options by the GCC said at the MENA Nuclear Forum conference in Qatar earlier this month that the UAE is planning to eventually replace foreign experts at FANR and ENEC with UAE citizens. But, he said, doing so will not be easy, in part because it is difficult to persuade young, rich Emiratis to undertake years of foreign training in engineering and nuclear science.

The UAE science and education administration is keen to develop the intellectual resources of its native population of only 800,000 people, and it heavily subsidizes its citizens to study abroad, the official said. "The difficulty has been in motivating enough of them to complete their degree studies on a fast track."

Foreign experts warned that, while the UAE can count on attracting experienced foreign personnel to run FANR by offering high salaries, if advanced countries go forward with new reactor projects, these governments will go far to retain experienced, highly skilled nuclear safety personnel. Advanced countries already face manpower shortages in areas critical to safety oversight. Foreign regulators say they are concerned about the fact that the average age of most reactor operations and regulatory personnel in China is under 30. "Before the UAE arrived, the world's existing regulatory expertise was already stretched to the limit," one IAEA official said.

A French economist attending the Qatar meeting said that he estimated that the UAE would spend about $20 billion on two power reactors and supporting infrastructure it would set up over the next 10 years. "As long as they pay cash for this investment, they can decide for themselves to take the risk that the reactors might have to be shut down indefinitely at some point because there aren't enough people to keep them safe," he said. "But if a country with fewer resources than the UAE goes to banks to get the money, the banks won't be enthusiastic."

A former Western government official close to the UAE project said that it is not certain that the UAE model for developing nuclear power will work. "There is no question that they have a political commitment right now to do it," he said. "The question marks are about the mechanics, and whether they can assure down the road there will be continuity in operations and regulation."

—*Mark Hibbs, Doha, Qatar and Bonn*

US-UAE Cooperation Pact Initialed; Approval Left to Obama, new Congress
By Mark Hibbs
Platts Nucleonics Week
November 20, 2008

platts

www.platts.com

Nucleonics Week

Volume 49 / Number 47 / November 20, 2008

US-UAE cooperation pact initialed; approval left to Obama, new Congress

A bilateral nuclear cooperation agreement between the US and the United Arab Emirates, or UAE, was quickly negotiated, initialed by both countries two weeks ago, and is ready to be signed, Middle East diplomatic sources said.

According to sources, the UAE and the US will sign the agreement after President-Elect Barack Obama is inaugurated in January and after the UAE is confident that the US Congress will approve the accord.

The agreement was negotiated after UAE Sheikh Abdulla bin Zayed al Nahyan, and US Secretary of State Condoleezza Rice signed a memorandum of understanding on nuclear cooperation on April 21.

In parallel, the UAE is preparing to launch a nuclear power program, working with a group of international consultants. The UAE is also establishing the Emirates Nuclear Energy Corp., or ENEC. This organization would eventually become the owner of one or more nuclear power plants set up in the UAE, provided that the UAE government makes a formal decision to implement a nuclear power program, said officials in Abu Dhabi, the UAE capital. Some sources, attending the MENA Nuclear Forum conference in Qatar last week, said that might happen in early 2009.

An ENEC official at that meeting said that the company is still in the process of formation, including the identification of shareholders and defi-

(Continued on page 9)

For the complete article, please visit:

http://www.thoriumpower.com/files/Platts_Nucleonics_Week_20081120.pdf

Thorium Power Generates $6.7M
By Tierney Plumb
Washington Business Journal
November 13, 2008

Thorium Power Ltd. narrowed its loss for the third quarter and says cash flow is coming from its consulting services.

The McLean-based nuclear programs adviser had a net income of $853,000 for the three months ended Sept. 30, compared to a net loss of $2.3 million reported a year earlier.

Revenue for the quarter was $6.7 million.

At quarter's end, the company had approximately $10.4 million of cash and cash equivalents and $5 million of working capital.

Cash flow is supporting the company's goal to license and deploy its low-waste, nonproliferative nuclear fuel designs.

For fiscal year 2008, the company reaffirms a revenue range of $22 million to $27 million.

"The U.S. Senate's introduction of the 'Thorium Energy Independence and Security Act of 2008' announced in October is a major industry milestone for the use of thorium as the basis for non-proliferative, low waste nuclear fuel designs," said Seth Grae, chief executive of Thorium Power, in a statement. "At the same time, the U.S. approval of the U.S.-India Civilian Nuclear Cooperation Agreement provides us with a broadened market for our advisory services and future opportunities to license our technology."

Uranium restraint ends in February – Neal Froneman
By Martin Creamer
Mining Weekly
November 28, 2008

Former Uranium One CEO Neal Froneman is looking forward to the day when his uranium restraint of trade falls away in February 2009, the new Gold One CEO tells Mining Weekly.

Froneman says that he, personally, cannot become involved in uranium as a business, at this stage, but that Gold One's Etendeka asset in Nambia has uranium-bearing material, as do some of the other gold assets of AfleaseGold, which is being converted into Gold One by way of a reverse takeover of the ASX-listed BMA Gold, of Australia.

'I am under a restraint of trade, which falls away in February. I look forward to that date.

"We have an iron oxide/copper/gold deposit in Namibia, which certainly has uranium-bearing material in it.

"It's very much an Olympic Dam-type deposit, but it's also well known that many of the reefs that we are dealing with in AfleaseGold also have uranium-bearing material in them.

"Uranium is not something on which we are focused, but that does not mean that we are not bullish on uranium.

"In fact, I think that uranium still has a good long-term future, and I also think that other elements, such as thorium, will become more and more important in the nuclear fuel cycle.

"And again, I am pleased to say that Etendeka has high amounts of thorium as well."

Thorium, a chemical element with the symbol Th and atomic number 90, is also a nuclear fuel.

There are significant quantities in India and the Indians have done a lot of work on the thorium nuclear fuel cycle, Froneman reports.

"At this point in time, the rest of the world is not set up to use thorium, but thorium could well, in the next 15 to 20 years, become a replacement for uranium and we would like to be on the front foot if that is the case."

Dominion Uranium

As Uranium One CEO, Froneman was instrumental in developing the Dominion uranium operation in Klerksdorp before quitting suddenly earlier this year and concentrating solely on Uranium One's associate company, AfleaseGold.

Uranium One has taken a decision to close Dominion and concentrate on its uranium assets outside South Africa.

“What has happened at Dominion is disappointing,” says Froneman, who says that it is inappropriate for him to comment, in that he is no longer CEO of Uranium One.

“But, perhaps, all I can say is that the Dominion orebody is exactly the same orebody we thought it was – the plant works, and I look past Dominion to the rest of Uranium One, and see a very bright future for Uranium One.”

Pressed further on what went wrong at the high-profile and much-publicised Dominion, Froneman put the uranium project’s demise down to cash becoming a scarce resource in the wake of the global credit crunch.

“The ramp-up took longer than expected, the consumption of a scarce resource like cash probably caused the Uranium One management to say it is going to be difficult to raise money and, therefore, it cannot continue funding the mine until it gets to commercial production.

“Costs have gone up, and all of this I quote from Uranium One’s own reports. I have no inside information – I am just guessing from what I read. “So, from that aspect, putting the mine on care and maintenance until the financial markets change may have been a very smart decision.

“Certainly, I am still a strong believer in Uranium One and also in Dominion,” he says.

Froneman still finds uranium as attractive as ever and believes that the uranium price will rise in the future.

From the point of view of Gold One, he makes the point that right now his focus is gold, and that Gold One will take decisions on what to do with the uranium and thorium material within its portfolio, at the appropriate time.

In the interim, however, he is prepared to say that thorium will ultimately surpass uranium following the development of a fuel cycle for thorium by the Indians.

“I dare say, you will hear a lot more about thorium from an energy point of view in the not-too-distant future.”

In Etendeka, Gold One has an exclusive prospecting licence over an area of 65 000 ha in the Outjo district of north-western Namibia.

Nuclear less risky than renewables, UK government told
World Nuclear News
November 27, 2008

The UK's renewable energy targets could prove both costly and risky, and nuclear energy is the most reliable viable low-carbon alternative, according to the House of Lords Economic Affairs Committee.

The committee's report - entitled *The Economics of Renewable Energy* - acknowledges government commitments to increase renewable energy use, but is sceptical as to whether the target of 15% renewables for the UK by 2020, proposed by the European Union (EU), can be met. It also warns that an over-reliance on intermittment power generation options, such as wind energy, could prove both costly and risky in terms of security of supply.

Scope for significant increases in hydroelectricity, domestically produced biomass and solar energy - the most reliable renewable sources - is limited in the UK, the report notes. This leaves wind turbines, which only operate when the wind is blowing, as the chief way in which the country's renewable share can be increased. The committee warns that meeting the government's own targets is likely to result in a dependence on intermittent renewables for electricity generation at a level unprecedented in Europe. "Wind generation should be viewed largely as additional capacity to that which will need to be provided, in any event, by more reliable means," the report finds, noting that it should be seen as supplementary to, rather than a substitute for, the coal and nuclear plants that are due to be replaced by 2020.

What is more, renewables will not be cheap, the report finds, with the evidence suggesting that the full costs of wind energy, although declining over time, remain significantly higher than those of conventional or nuclear generation. Under current policies, renewables would need to grow from their current 5-6% to 30-40% to meet the 2020 targets. The higher costs associated with renewable generation, in comparison to conventional or nuclear, would raise electricity generation and transmission costs by £6.8 billion ($10.5 billion) per year, a 38% increase that would have to be met by UK consumers.

The cost of nuclear power is little affected by the oil price or by the cost of carbon, by virtue of nuclear plants' very low emissions, the report noted, and found that "all the cost estimates" showed nuclear to be cheaper than renewable energy. "We cannot consider renewable energy in isolation from the rest of the UK energy system and we support measures to include nuclear plants as an essential element of the UK's energy mix," the report stated.

Committee chairman Lord Vallance, commenting on the report, said that although the government must take steps to reduce carbon emissions, the dash to meet the 2020 targets risked drawing attention and investment away from cheaper and more reliable low carbon generation such as nuclear and potentially fossil fuels with carbon capture and storage. "The government should not allow its pursuit of the immediate 2020 target to take its eye off the longer term", he warned.

The UK's Climate Change Act, which sets legally binding targets for greenhouse gas emission reductions including a carbon dioxide reduction of at least 26% by 2020, against a 1990 baseline, became law on 26 November.

Obama taps nuclear for 80% emissions cut
World Nuclear News
November 20, 2008

President-elect Barack Obama has set a target of reducing US greenhouse gas emissions to 1990 levels by 2020 and reducing them by a further 80% by 2050, with safe nuclear energy being used alongside other clean energies.

President-Elect Obama (Image: Change.gov)

Speaking by video at a bipartisan summit convened by Arnold Schwarzenegger, Republican Governor of California, Obama said that few challenges facing America, and the world, are more urgent than combating climate change. Obama said the science of climate change is beyond dispute and the facts are clear. Unless addressed, he said, climate change and the USA's dependence on foreign oil would continue to weaken the economy and threaten security.

Obama praised state governors and business that had already invested in clean energy, and said that Washington would no longer fail to show the same kind of leadership, delay was no longer an option, nor denial an acceptable response.

He announced that he would introduce a federal cap and trade system, a similar cap and trade emissions trading scheme is already in operation in the European Union.

Strong annual targets would be established that would reduce greenhouse gas emissions to return them to 1990 levels by 2020 and reduce them by a further 80% by 2050.

$15 billion will be invested each year to catalyse private sector efforts to build a 'clean energy future'. Obama said there will be "investment in solar power, wind power and next-generation biofuels. We'll tap nuclear power, while making sure it is safe, and we will develop clean coal technologies." This investment would help generate five million green jobs.

Obama also said that the work being carried out at the United Nations Framework Convention on Climate Change (UNFCCC) meeting in Poznan, Poland, in December was vital to the planet. Although he would not be attending that meeting, Obama committed the US to engage vigorously in future meetings once he had taken office and to lead the world to a new era of global cooperation on climate change. He closed by saying that any nation to join the cause of combating climate change would have an ally in the USA.

Let's get on with building new nuclear plants, says British Energy chief
By Terry Macalister, industrial correspondent
The Guardian (UK)
November 18, 2008

The country should press ahead with building a new generation of atomic power stations as part of a nuclear "new deal" to suck in investment and create jobs, British Energy said today.

The company, which runs most of the UK's fleet of reactors and which reported a 50% slump in profits today, has held talks with local communities around four possible sites.

Bill Coley, the chief executive, said it was important to halt the discussions at some stage and start the serious planning and building phase. "I think it's really important that the country gets on with this. We have a very old generating fleet and the UK needs new capacity. We can't meet our climate change obligations without nuclear. It's just got to be done," he said.

British Energy expects to be at the forefront of a new-build programme with EDF of France, which has tabled a takeover offer for the UK firm which has been agreed by its board. Coley said he was waiting for the green light from his shareholders and the European competition authorities.

The British Energy chief defended the £12.4bn deal, which came under renewed attack from some elements of the City, with broker Evolution Securities saying it significantly undervalued the power company.

"We continue to consider the action by the British government in forcing the bid through as wrongheaded — but as we say, the offer is a done deal," said Lakis Athanasiou, analyst at Evolution.

The United Nations environment programme called recently for a green new deal that would kickstart a faltering global economy by switching public money from carbon to clean energy projects.

Coley said nuclear new-build would offer similar benefits. "It would bring a tremendous amount of investment into the country, create hundreds of jobs and would be great business for the domestic supply chain in this country," he said.

British Energy, which operates 15 reactors at eight nuclear power stations around the country generating electricity, posted a 49.7% fall in first-half earnings today due to power station shutdowns and lower electricity output, but said it hoped for a better second half.

The group's pre-tax earnings before interest, depreciation and amortisation in the six months to September 28 fell to £257m from £511m a year ago. It said it had put aside £2m to meet possible liabilities from using failed investment bank Lehman Brothers as a counterparty.

The company has seven reactors out of action due to unexpected or routine repairs, but Coley said five would return before the end of December and two after January 1.

The group said there was potential to improve its output and performance in the second six months of 2008-09. "We're looking forward to a good second half," he said.

Nuclear key to EU's drive to low-carbon economy, security: EC
Platts
November 13, 2008

The European Commission has stopped just short of directly exhorting EU countries to develop nuclear power in its updated overview of the EU nuclear sector unveiled Thursday as part of its second strategic European energy review.

"The choice to include nuclear energy in the energy mix lies with [EU countries]," said the EC in its nuclear overview, known by its French acronym PINC.

"Nevertheless, it should be noted that if strategic investment decisions about power generation capacities in nuclear as well as in renewable energy are taken rapidly, nearly two-thirds of the EU's electricity generation could be low carbon in the early 2020s," the EC added.

The EC is aiming to de-carbonize the EU's power sector entirely by 2050.

"To develop the next generation of nuclear reactors required to meet the ambitious 2050 EU low carbon vision," it said, "research and development effort...on [nuclear] fission energy needs to be progressively stepped up."

Nuclear accounts for two-thirds of the EU's existing low carbon power, said the EC, making it an important contributor to mitigating global climate change.

It is also "one of the most economic energy sources," less vulnerable to fuel price changes than other power generation fuels, said the EC, and highly secure, as uranium nuclear fuel is widely available in geopolitically stable areas.

The EU's role, the EC said, was to ensure that nuclear was developed while meeting the highest level of safety.

The EC plans to make a revised proposal for an EU nuclear safety law by the end of the year, after EU governments failed to agree whether to adopt or reject an earlier proposal.

There should also be "more coherent rules" on licensing and safety for building nuclear plant, said the EC, to encourage investment and public acceptance.

Poll shows growing UK public support for nuclear
World Nuclear News
November 12, 2008

The UK public is increasingly concerned about energy supplies and support for nuclear energy is growing as a means of both meeting future demand and reducing emissions, according to a poll commissioned by EDF Energy.

The online poll on energy policy was conducted by YouGov between 30 October and 3 November. There were 4449 respondents to the survey.

When asked about their level of interest in certain issues, 85% of respondents said they were 'very or fairly interested' in where the UK's future electricity will come from, compared with 82% in a similar poll conducted in 2007. Also, 69% of respondents said they were interested in the issue of nuclear energy. 78% thought that energy was the biggest challenge facing the UK and its government, up from 60% in 2007.

43% of people questioned said that their opinions or impressions of the current use of nuclear energy were either 'very or mainly favourable,' while 29% said they were 'very or mainly unfavourable.' More respondents considered nuclear power plants favourably than they did coal or gas fired plants (24% and 26%, respectively), but wind farms were seen as most favourable (76%).

The majority of respondents (61%) were aware that most of the UK's older nuclear power plants and some coal power plants will shut down by 2020, resulting in a substantial gap in energy supplies. Just over half of those questioned (53%) support the construction of new nuclear reactors to replace the ones closing down in order to help fill this gap. 27% said they opposed this.

Some 62% said that they agreed with the statement 'Nuclear energy has disadvantages but the country needs it as part of the energy balance, with coal, gas and wind power,' while 13% disagreed. Additionally, 63% agreed that 'the best solution is to replace nuclear power stations with new ones and expand renewables like wind power at the same time,' with just 15% disagreeing.

Nearly half of respondents (47%) think that planning regulations to construct new nuclear power plants on the sites of old ones should be eased. This compares with 43% in 2007. Some 42% of people said that nuclear power plants spoil the landscape, compared with 48% for coal power plants and 47% for wind turbines. However, just 24% said that gas power plants are an eyesore.

Concerns about the safety of nuclear energy have fallen slightly, with 76% of respondents saying there is an issue of safety with nuclear power plants, down from 79% in 2007.

Vincent de Rivaz, Chief Executive of EDF Energy, said: "This latest poll shows increasing support for nuclear power to be part of the solution to meet the looming energy gap in the UK."

He added, "The survey shows that the public has a strong understanding of the nature and scale of the energy challenge facing the UK. People are keenly aware of the need for action to be taken to keep the lights on, address climate change and maintain affordable prices. To help meet this challenge, we've set out our plans for four new nuclear plants in the UK, with the first one operational by the end of 2017."

IEA: Nuclear capacity must grow 80% by 2030
World Nuclear News
November 12, 2008

The International Energy Agency (IEA) has published the latest edition of its World Energy Outlook (WEO). The report states that nuclear capacity must grow to least 1.8 times current capacity by 2030 if global temperature rises are to be kept to 2oC.

Nobou Tanaka, IEA Executive Director, said that "current trends in energy supply and consumption are unsustainable - environmentally, economically and socially" and called for the medium- and longer-term target of secure sustainable energy for all not to be ignored. The current economic climate has, however, effected both investment and policy priorities.

On the current trajectory, the WEO predicts that world temperatures will rise by 6oC. The report explores two alternative scenarios: the '550 policy scenario', where carbon dioxide (CO2) will be stabilised at 550 parts per million (ppm) and temperatures will rise by 3oC; and the '450 policy' scenario, with CO2 stabilising at 450 ppm and temperatures rising by 2oC.

"Limiting temperature rise to 2oC will require significant emission reductions in all regions and technological breakthroughs," according to the IEA. Both scenarios assume that at the meeting of the parties of the United Nations Framework Convention on Climate Change (UNFCCC), planned in Copenhagen next year, agreement is reached on global cap and trade policies and that these policies are properly implemented.

Tanaka and Fatih Birol, lead author of the WEO, have stated that, although power generation is only part of the problem, the "energy sector is central to stabilising emissions". At a press conference to launch the latest edition, Birol said, "Two thirds of the reduction must come from power generation sector." To achieve this, Tanaka said, "40% of global generation must be derived from low carbon sources."

"The biggest challenge is to get the developing countries on board," said Birol. He added, "OECD countries roles in energy demand is becoming less and less important - their contribution in net terms to growth of fossil fuel consumption will be negligible."

Tanaka emphasised that "the low price energy age is over." Global energy demand will grow, and just to offset oil field decline another 400 million barrels per day would need to be brought on line. The price of oil is expected to increase and will average $100 per barrel up to 2030, when the price will increase further. Oil will increasingly come from OPEC countries and national companies.

The WEO suggests that $23 trillion dollars of investment is needed to arrive at the '450 policy scenario', 52% of which should be in the power generation sector. Retiring generation will need to be replaced and new generation brought online to keep up with demand. The credit squeeze could delay investment and cause supply crunch when the world economy begins to stabilise.

"We cannot let the financial and economic crisis delay the policy action that is urgently needed to ensure secure energy supplies and to curtail rising emissions of greenhouse

gases. We must usher in a global energy revolution by improving energy efficiency and increasing the deployment of low-carbon energy," said Tanaka.

Utility personnel say new nuclear capacity is top priority
Platts
November 11, 2008

New nuclear capacity "should have top priority" to meet future US electricity demand, 55% of utility personnel said in a survey released November 11 by Black & Veatch. This is up from 50% of personnel who ranked nuclear power at the top in last year's survey.

In a separate survey question, 59% of investor-owned utility personnel and 71% of municipal utility personnel surveyed said nuclear energy should be given the "most emphasis" as an environmentally friendly technology. " The economics in favor of nuclear generation vs. conventional coal are compelling if carbon prices stay north of about $30 per ton of CO2," Bill Kemp, a Black & Veatch managing director, said in the survey report. "However, the issues ofnuclear spent fuel disposal, safety, and security will continue to slowdevelopment of this resource until they are adequately resolved."

Also, the "cost and performance" of new power reactor designs "must be proven," and "capital cost estimates continue to rise," Kemp said. The non-nuclear generation options most favored in the survey, in order of preference, were wind, solar, and coal gasification for investor-owned utilities; and hydroelectric, wind and solar for municipal utilities.

The survey of 501 utility personnel was conducted for Black & Veatch by Sierra Energy Group, and is at www.bv.com/Downloads/Resources/rsrc_BVStrategicDirectionsSurvey.pdf

NEI says industry will work with new administration
Platts
November 5, 2008

The nuclear industry will work with the new administration to continue developing a comprehensive energy policy that includes nuclear power and other low-emission generation sources, Nuclear Energy Institute President and CEO Frank "Skip" Bowman said in a November 5 statement.

Bowman stressed the cooperation that has existed over the past few years between the executive and legislative branches to establish public-private partnerships and other measures that encourage the construction of new reactors. President-elect Barack Obama has said he is open to nuclear expansion if spent fuel is safely stored and nuclear materials are safeguarded.

But he opposed disposing of nuclear waste at the government's planned repository at Yucca Mountain, Nevada. Bowman said the industry wants to develop an integrated spent fuel management strategy that looks at spent fuel storage, research on advanced recycling technologies and permanent disposal.

China aims at higher nuclear power capacity
Xinhua
November 5, 2008

CHENGDU, Nov. 5 (Xinhua) -- China may raise its total installed nuclear power generating capacity to 70 million kilowatts by 2020,75 percent higher than government target set in 2006, says a senior energy official.

The government was considering revising the 40-million-kw goal in the 2006 national nuclear power development plan, said Huang Li, head of energy conservation and equipment at the National Energy Administration (NEA).

"The severe winter weather earlier this year in southern China that paralyzed electricity supplies and coal transportation exposed risks and vulnerability in the traditional power supply system," said Huang.

The global efforts to reduce greenhouse gas emissions had prompted China, which relied heavily on coal, to revise its energy strategy and increase the proportion of clean energy, she told a Sino-U.S. symposium on nuclear equipment in Chengdu, capital of Sichuan Province

The move reflected China's determination to develop sustainable energy to fuel its fast expanding economy and fulfill its commitment to environmental protection, said Huang Xueqing, vice president of the Nuclear Power Institute of China.

The installed capacity of thermal power stations already accounted for 76 percent of China's total installed generating capacity. Contributing about 84 percent of the overall power supply, coal-based power has become a major source of carbon dioxide emissions.

The current installed capacity of nuclear power is only about 9million kw, or 1.3 percent of the total installed electricity generating capacity. It provides 2.3 percent of China's power.

Nuclear power reactors with a total installed capacity of 12.1 million kw are under construction across China.

Zhang Guobao, head of NEA, said in March that China would try to raise the proportion of nuclear power to 5 percent of the total installed generating capacity by 2020, up 1 percent from the goal set in 2006.

China has 11 nuclear power reactors in operation, all employing second-generation nuclear power technologies.

The establishment of the State Nuclear Power Technology Corporation could speed up the research and application of modern third-generation technologies, said Zhang.

Preparations were underway for the construction of four nuclear power plants -- two in Zhejiang Province and two in Shandong Province -- that would use advanced AP1000 technologies designed by U.S. firm Westinghouse.

Nuclear power should take priority in China's energy plan, and was an ideal option for boosting clean energy, said Huang Xueqing.

Election breathes new life into nuclear debate
By Susan Cornwell
Reuters
November 3, 2008

WASHINGTON (Reuters) - Whether it is Barack Obama or John McCain, the new U.S. president will take over one of the most awesome of responsibilities -- his finger will be on the trigger of the country's huge nuclear arsenal.

In advance of the election, some of Washington's most influential national security thinkers have argued for a dramatic shift in U.S. policy, to actively pursue the eventual elimination of all nuclear weapons from the Earth.

Many dismiss this goal as a dream, given the lack of trust among the nuclear weapons powers and the entrenched role that atomic weapons have in the global balance of power.

But Democratic front-runner Obama, who is leading in polls before Tuesday's election, endorsed it and his Republican rival John McCain said he hopes to move to "the lowest possible number" of U.S. nuclear weapons.

"I will not authorize the development of new nuclear weapons," Obama said in September. "And I will make the goal of eliminating nuclear weapons worldwide a central element of U.S. nuclear policy."

The debate, which dates back to the early days of the Cold War, was revived around the start of the election campaign in January 2007 when four Washington national security heavyweights published a call for a total ban.

They were Henry Kissinger and George Shultz, who served as secretaries of state in Republican administrations, William Perry, who was Democratic President Bill Clinton's defense secretary, and former Senate Armed Services Committee Chairman Sam Nunn, who has been advising Obama.

In 2008, they said their vision was supported by 14 more former top national security officials from recent administrations.

WORLD WITHOUT NUCLEAR WEAPONS

George Perkovich, director of the nonproliferation program at the Carnegie Endowment, says nuclear weapons can be banned even if they cannot be "disinvented" -- much like Nazi-style gas chambers.

"Those (gas chambers) haven't been disinvented but we don't have them around now and don't think they should be around and we're prepared to take action to enforce that," he told a Washington audience last week.

"The next American president should emphasize the goal of a world without nuclear weapons -- and really mean it," Perkovich said. Most nuclear weapons, which for many are a symbol of the Cold War, are still held by the United States and Russia.

President Ronald Reagan discussed the idea of a total abolition of the weapons in 1986 with Soviet leader Mikhail Gorbachev -- to the shock of some of their advisers.

The 1968 Nonproliferation Treaty obliged the five declared nuclear weapons states -- China, France, Russia, Britain and the United States -- to work toward disarmament.

India, Pakistan and North Korea have all since tested nuclear weapons and Israel is widely assumed to have them. The United States accuses Iran of wanting to build a bomb, although Iran says its nuclear program is for peaceful purposes.

In their January 2007 article in the Wall Street Journal, the four prominent figures noted a growing fear that non-state groups like al Qaeda could get their hands on a bomb -- and use it as the "ultimate means of mass devastation."

But if the world had zero nukes, there would be none for either governments or non-state groups to acquire, they said.

REALISTIC PROPOSAL?

Some worry about how to reach such a goal given the perils for Washington of leading by giving up bombs when others, like Russia and China, are modernizing their stockpiles.

In the current edition of the journal "Foreign Affairs" two other U.S. experts say Washington must launch a vigorous diplomatic effort to convince the world of "the logic of zero."

Ivo Daalder, senior fellow at the Brookings Institution and Jan Lodal, immediate past president of the Atlantic Council, say that a "remarkable" bipartisan consensus has grown around the idea. They said as part of the process Washington should reduce its arsenal to no more than 1,000 total weapons.

Defense Secretary Robert Gates last week said the United States should update its nuclear arsenal. But he added he would advise the next president to seek agreement with Russia on cuts in nuclear warheads below the limit of 1,700 to 2,200 deployed warheads in an existing treaty.

Gates noted that three past presidents he had worked for favored eliminating all nuclear weapons and said so publicly. They were Jimmy Carter; George Bush, the current president's father; and Reagan.

But Gates said some efforts toward a nuclear weapons-free world had not been realistic.

"All have come up against the reality that as long as others have nuclear weapons, we must maintain some level of these weapons ourselves to deter potential adversaries and

to reassure over two dozen allies and partners who rely on our nuclear umbrella for their security, making it unnecessary for them to develop their own," he said.