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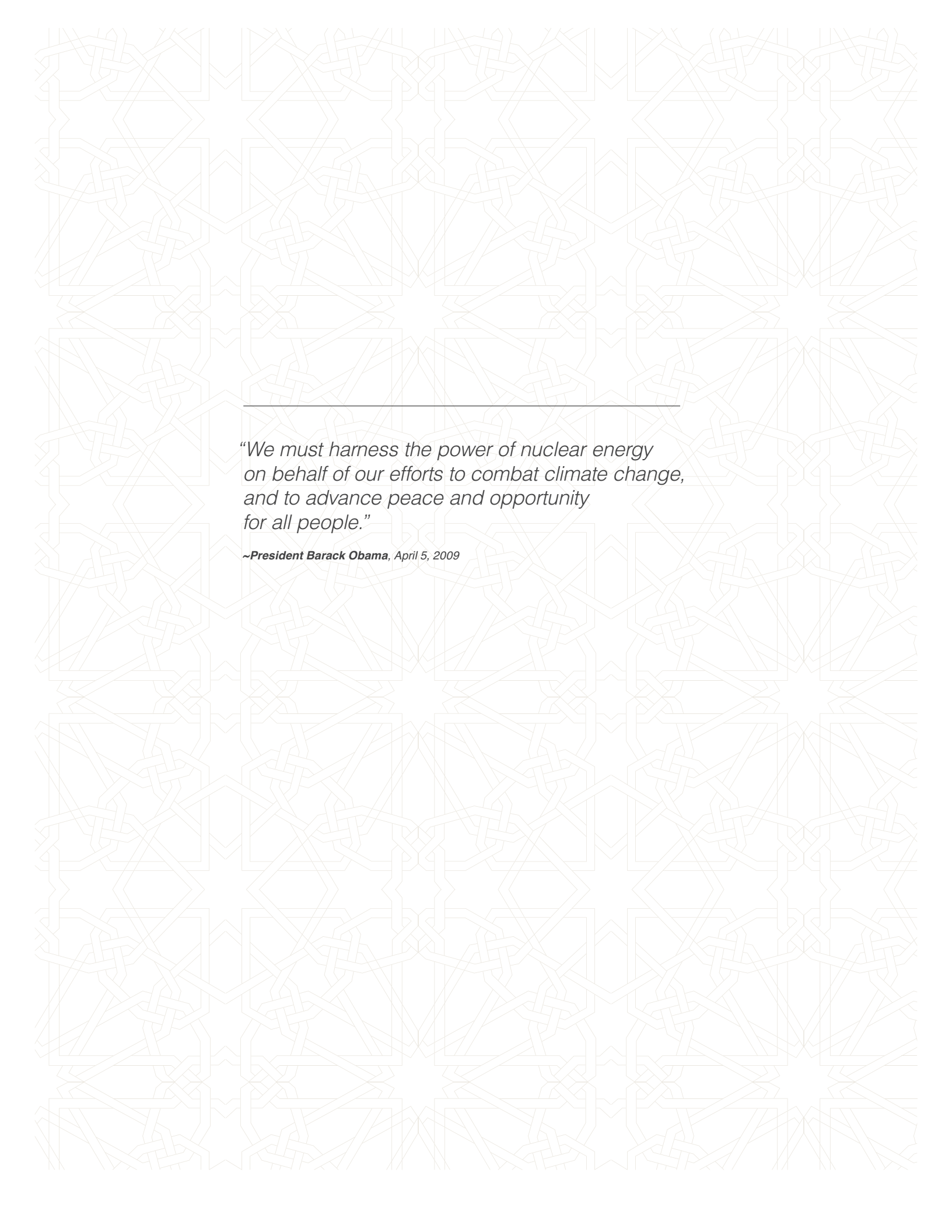
Agreement for Cooperation Between the U.S. and the U.A.E. Concerning Peaceful Uses of Nuclear Energy

Expanding Ties Between the United States
and the United Arab Emirates

40,000 megawatts.
\$40 billion.
10,000 U.S. jobs.

The United Arab Emirates intends to spend upwards of \$40B dollars on civilian nuclear energy to meet critical electricity needs. For U.S. companies to bid on this work and create jobs, Congress must first agree to a nuclear energy cooperation agreement that sets a new global standard for security, transparency, and safety. This agreement is critical in supporting broad U.S. economic, foreign policy, and security interests.





*“We must harness the power of nuclear energy
on behalf of our efforts to combat climate change,
and to advance peace and opportunity
for all people.”*

~President Barack Obama, April 5, 2009

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“We should build a new framework for civil nuclear cooperation...so that countries can access peaceful power without increasing the risks of proliferation. That must be the right of every nation that renounces nuclear weapons, especially developing countries embarking on peaceful programs. And no approach will succeed if it’s based on the denial of rights to nations that play by the rules.”

~President Barack Obama, April 5, 2009



Photo: White House photo by Pete Souza

Executive Summary

“The United States and the United Arab Emirates can advance critical security, economic and commercial goals with the 123 Agreement, while also creating a significant number of jobs. U.S. companies would have access to an important and potentially large market—and better position themselves as a global nuclear energy market continues to develop. The U.S. government would gain a greater role in supporting the U.A.E.’s model for the development of peaceful, civilian nuclear energy. Moreover, the U.A.E. would have access to some of the world’s safest and best nuclear energy technology.”

~Danny E. Sebright, President, U.S.-U.A.E. Business Council

The United States Congress has a unique opportunity to accomplish important foreign policy, security, and economic goals by supporting the Agreement for Cooperation Between the U.S. and the U.A.E. Concerning Peaceful Uses of Nuclear Energy. Also called a 123 Agreement after the relevant section of the U.S. Atomic Energy Act, the agreement significantly supports and advances long-term American interests in the Middle East, while simultaneously allowing U.S. companies to compete for new business that would result in creating high paying, skilled jobs.

The 123 Agreement with the U.A.E. creates a gold standard for the development of peaceful and safe civilian nuclear energy, critically needed to address urgent electricity needs in the country. This agreement will become a model for other countries in the region and around the world hoping to acquire nuclear power capabilities. There is already evidence that the U.A.E.’s approach has had a positive influence on others in the region.

The U.S.-U.A.E. 123 Agreement will advance and promote U.S. interests in peaceful and secure civilian nuclear energy development. Civilian nuclear cooperation with the U.A.E. will deepen bilateral strategic and economic ties and yield

wide-scale commercial opportunities for American companies beyond traditional business sectors. The U.A.E. program will generate contracts for services, construction, equipment, and long-term operations that could exceed \$40 billion in value. A rule of thumb is that every \$1 billion in U.S. exports supports 11,000 to 12,000 U.S. jobs.

American companies could participate in the U.A.E. civilian nuclear program as potential suppliers or as major players in consortiums bidding on projects. Should a U.S. company provide the technology—a step that is possible only with a 123 Agreement in force—thousands of U.S. jobs could be created. For example, the four plants that Westinghouse is building in China have supported more than 5,000 jobs, largely in Pennsylvania. The kinds of jobs that would be created or assured are high-quality, skilled craft and engineering jobs.

U.S. companies have already won significant business in the U.A.E. program, including CH2MHill, Rizzo, and Thorium Power.

“The U.A.E. approach provides a model that not only Iran but also other nations interested in developing nuclear energy should follow.”

*~Jim Hoagland, “Countering Iran in Gaza and Beyond,”
The Washington Post, January 4, 2009*

Opportunities for U.S. Business

U.S. companies are best served—and the creation of and support for American jobs is best facilitated—by access to credible nuclear energy programs such as the U.A.E.’s. Furthermore, the International Atomic Energy Agency (I.A.E.A.) estimates the market that emerges out of the coming global nuclear energy renaissance ranges from 178 to 357 new reactors worldwide. The approach being taken by the U.A.E. is creating a global model which the U.S. should strongly promote and is creating new business for which U.S. companies should be allowed to compete.

American companies could participate in the U.A.E. civilian nuclear program as suppliers or as central players in consortiums bidding on projects. Those contracts would create jobs in the United States (even though the plants would be located in the U.A.E.). For example, the nuclear power plants that Westinghouse is building in China and that GE is building in Taiwan have helped create and support 10,000-plus U.S. jobs over a period of years. Moreover, the jobs themselves are high-quality, skilled craft, and engineering positions.

The agreement would unlock business for a range of U.S. firms supporting the civilian nuclear effort, such as services in construction, plant management, operations, logistics, plant safety, training, and transportation for the plant workers. A formula developed by the U.S. Department of Commerce is that every \$1 billion in U.S. exports supports 11,000 to 12,000 U.S. jobs. With more than \$40 billion in potential contracts, even a portion of the business would be significant to U.S. job creation in the current economic downturn.

Key U.S. companies have already won business and are involved in the U.A.E.’s nuclear energy policy formulation and technology evaluation process:

CH2MHILL, headquartered in Colorado with 25,000 employees worldwide, is serving as the managing agent for the U.A.E. Civil Nuclear Power Program currently under evaluation. Interestingly, CH2MHILL is also program manager for the development of Masdar City, a sustainable city in the heart of Abu Dhabi which is focused on the development and commercialization of advanced and innovative renewables, and alternative and sustainable energy technologies.

Thorium Power, based in Virginia, is providing extensive consulting services to help ensure that the U.A.E. nuclear energy program meets its goals of operational transparency and the highest standards of nonproliferation, safety and security.

Paul C. Rizzo Associates, a leading global engineering and consulting firm based in Pennsylvania, is working on power plant siting and engineering during the preliminary planning process.

“The 123 Agreement...is, I think, very robust...They are doing it very logically, step-wise and they understand that it’s not a one-year program, it will take years to get their laws, regulations, their people trained and implemented.
...This can serve as a model for other countries.”

~Dale Klein, Chairman, U.S. Nuclear Regulatory Commission

A 123 Agreement is the only way for the U.A.E. to consider American technology and know-how for its program. Failure to complete the U.S.-U.A.E. Agreement would mean U.S. companies could not compete in the U.A.E nuclear energy program. It would also put U.S. companies at a significant, long-term disadvantage in the global marketplace. Without an agreement with the U.S., the U.A.E. government will pursue its civilian nuclear energy program with the assistance of other nations.

U.S. Companies at Competitive Disadvantage Without Agreement

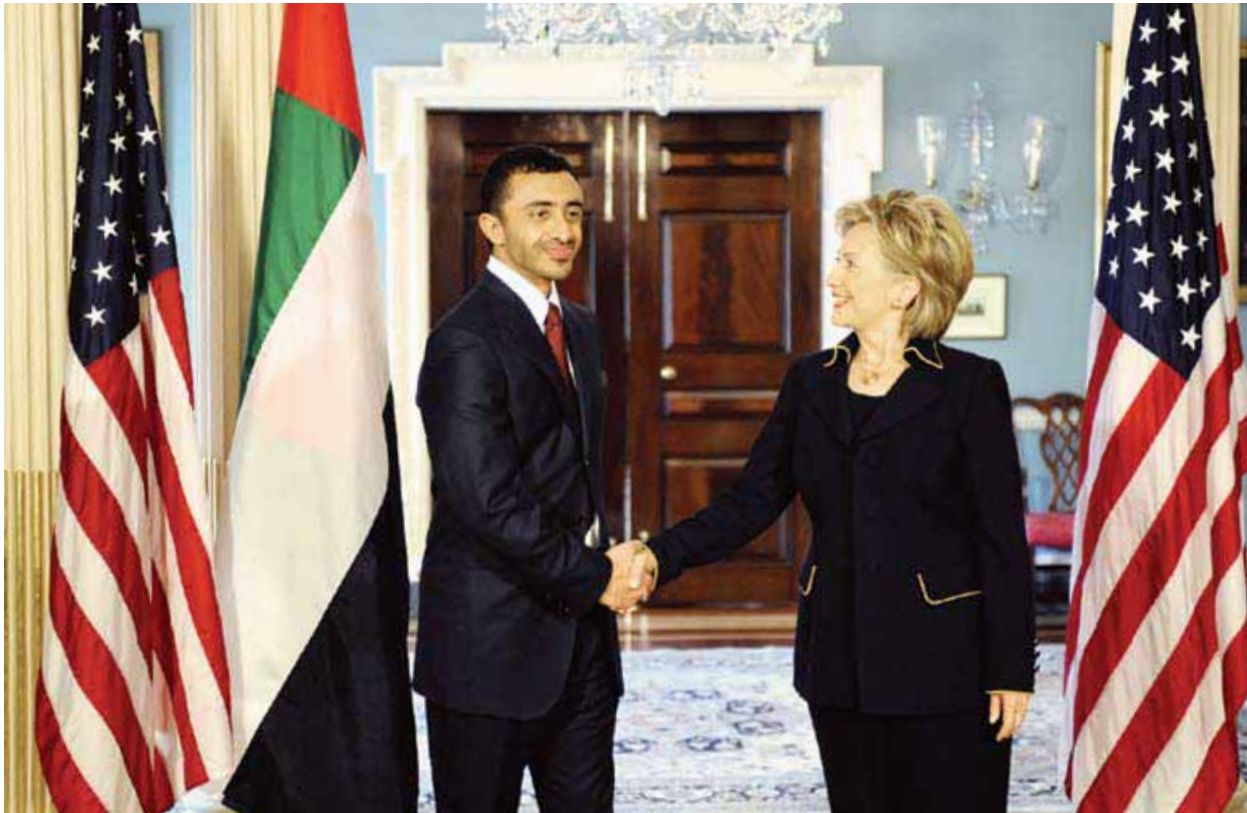
“Failure to reach a 123 Agreement with the U.A.E. will put U.S. companies at a significant, long-term, competitive disadvantage.”

~Danny E. Sebright, President, U.S.-U.A.E. Business Council

The global civilian nuclear energy industry is very competitive, with companies from the European Union (E.U.) and the Far East competing for these types of projects. The U.S. should work to keep its competitive advantage. France, Japan, South Korea, and other countries in Europe and Asia are the most likely beneficiaries of a U.S. decision not to go forward, as such a decision would not only make it impossible for U.S. firms to participate, but may also raise concerns about U.S. reliability as a nuclear supplier in the other emerging markets as well.

“We and our member companies were most impressed with the seriousness with which the U.A.E. is approaching the important issue of nuclear power in all its aspects, including the non-proliferation and environmental commitments.”

~John Engler, President of the National Association of Manufacturers



His Highness Foreign Minister Sheikh Abdullah bin Zayed al Nahyan meets with Secretary of State Hillary Clinton at the U.S. Department of State on April 7, 2009.

The U.A.E.'s Energy Challenge: Soaring Electricity Demand

Annual peak demand for electricity in the U.A.E. is likely to rise to more than 40,000 megawatts by 2020, reflecting a cumulative annual growth rate of about nine percent since 2007. Current capacity can meet only half these increased requirements. This intense demand is driven by expanded urbanization, industrial growth, and enormous water desalination requirements.

The U.A.E. demand is reflected across the region. Moody's Investor Service recently observed that "the Gulf is likely to see more power shortages as regional utilities struggle to deal with fast-rising power demand." In February 2009, AT Kearney noted that "Growing demographics and wealth in the Middle East will lead to an ongoing increased demand for utilities of more than four percent per annum in the coming decades, with selected countries such as United Arab Emirates, growing even stronger."

The U.A.E. is oil-rich, but burning petroleum for base-load electricity makes little sense when considering the global oil supply, and the economic and environmental impacts. Fuel accounts for 80 percent to 90 percent of electricity costs produced by fossil fuel-fired generation, while nuclear power is the lowest variable cost producer of base-load electricity. Currently, the U.A.E. burns natural gas for the majority of its electricity. The U.A.E. is a net importer of natural gas, with roughly 60% of natural gas used in the utility sector being imported from outside of the U.A.E. Nuclear power generation will best help the country meet the electricity challenge with a clean and reliable supply.

"Unprecedented economic and demographic growth is creating a strain on power supplies in the region. Philipp Lotter, Senior Vice President at Moody's Middle East Limited in Dubai, says 'Moody's believes that these exceptional growth trends are likely to challenge local utilities, which will need to install significant additional capacity to meet rising demand.'"

~Growing GCC Electricity Demand Poses Future Challenges, Moody's Report. October 7, 2008, AME Info.

Strategic Benefits to the U.S.-U.A.E. Relationship and Gulf Security

A 123 Agreement between our two countries will further bolster a vital American partner in a strategically important region. The U.A.E. and the U.S. are close allies with shared security and economic interests. Both countries are focused on stability and security in the Arabian Gulf, confronting terrorism and extremism, and encouraging global trade. The U.A.E. Ambassador to the United States and Mexico, H.E. Yousef Al-Otaiba, has said "The relationship between the United Arab Emirates and the United States has been positive and productive for more than 30 years. In the past decade alone, we have witnessed an exponential growth in our military, security, economic, and cultural relations."

The U.A.E. is the largest export market for U.S. goods in the Middle East, generating \$15.7 billion in exports during 2008. Every state in America exports to the U.A.E. There are over 30,000 Americans and 750 U.S. companies operating in the United Arab Emirates. U.A.E. investment has been a dependable and long-term engine of growth for the U.S. economy, injecting capital, expanding market access, creating American jobs and contributing to mutual prosperity.



His Highness Foreign Minister Sheikh Abdullah bin Zayed al Nahyan and Secretary of State Condoleezza Rice sign the U.S.-U.A.E. 123 Agreement on January 15, 2009.

“The United Arab Emirates and the United States have a strong and enduring relationship based on mutual and reinforcing policy interests: political and security as well as economic and financial.”

~ **Robert Kimmitt**, *Former U.S. Deputy Secretary of the Treasury*



“The U.S.-U.A.E. defense and security partnership is extensive and deep in a number of areas critical to mutual interests in the region and around the world. In a volatile and dangerous region, the U.A.E. is a friend and a partner in pursuing stability and a path of moderation. The strength of the proposed U.A.E. 123 Agreement is due, in large part, to the forward-looking policies already adopted by the U.A.E., as building blocks for its peaceful nuclear energy program. The proposed U.S.-U.A.E. 123 Agreement will materially advance important U.S. interests and set an important example in contrast to the one being pursued by extremists.”

~William S. Cohen, CEO and Chairman of The Cohen Group and former Secretary of Defense and U.S. Senator.

This common commitment is demonstrated in recent decisions by the U.A.E. to cancel Iraq’s debt and expand diplomatic engagement with Baghdad. The U.A.E. is also working closely with the U.S. on addressing the current global financial crisis and resisting protectionist pressure.

In the defense sector, more U.S. naval vessels—over 600 in 2006—visit U.A.E. ports than any other port outside of the United States. Congress affirmed its support to the U.S.-U.A.E. relationship by approving a highly sophisticated defensive arms package totaling approximately \$15 billion, including the sale of PATRIOT PAC-III and THAAD missile defense systems.

The U.A.E. is not only a consumer of security, but it is also a provider. The U.A.E. works closely on the ground with U.S. and N.A.T.O. forces in Afghanistan and in re-integrating Iraq into the international community.

Improving Global Nonproliferation Benchmarks

Acknowledging the sensitivities related to the acquisition (or even consideration) of nuclear energy production capabilities, the U.A.E. has set out to develop a civilian nuclear energy program that provides rock-solid assurances as to its peaceful goals and intent. Working closely with other responsible governments (including the United States), the I.A.E.A. and reputable advisory firms, the U.A.E. has developed a peaceful civilian nuclear energy policy that commits to the highest standards of nonproliferation, safety, security, and operational transparency.

“President Barack Obama sees the U.A.E. program as a ‘model for the world,’ according to a senior White House official.”

~Wall Street Journal, April 4, 2009.

Within this policy framework, the U.A.E. has officially renounced uranium enrichment and spent fuel reprocessing, creating a significant barrier to any possible future militarization. As part of the overall process of developing its program, the U.A.E. is committing to all major international nonproliferation instruments, including the I.A.E.A. Additional Protocol to the Safeguards Agreement which the U.A.E. and I.A.E.A. signed in April 2009.

The voluntary Additional Protocol is designed to strengthen and expand existing I.A.E.A. safeguards for verifying that states are not using their nuclear energy programs for nuclear weapon purposes. The Protocol substantially expands the I.A.E.A.'s ability to check for clandestine nuclear facilities by providing the agency with authority to visit any facility, declared or not, to investigate questions about or inconsistencies in a state's nuclear declarations.

The U.A.E. is ascribing to the N.S.G. Export Guidelines and the I.A.E.A. Amendment to the Convention on Physical Protection. In 2008 the U.A.E. also contributed \$10 million towards an I.A.E.A. fuel bank proposal launched by the Nuclear Threat Initiative. The fuel bank helps create a dedicated low-enriched uranium I.A.E.A. stockpile to provide states with assurances of nuclear fuel supply.

Former Chairman of the Senate Armed Services Committee Sam Nunn has said, “The U.A.E. decision to join the U.S. and the European Union to fund a ‘fuel bank’ mechanism for the International Atomic Energy Agency demonstrates their commitment to nonproliferation principles.”

“We are very grateful for the important leadership of the U.A.E. in showing the world how nuclear power can be advanced safely, without contributing to nuclear proliferation dangers. The example that the U.A.E. has shown as a state that intends to develop nuclear power based on international sources of fuel services is especially powerful.”

~Senator Sam Nunn, Co-Chairman, Nuclear Threat Initiative

These steps have influenced other states in the region:

Saudi Arabia and Bahrain signed separate MoU's on Nuclear Energy Cooperation with the U.S. in May 2008. Both included the same commitments to forego domestic enrichment and reprocessing that the U.A.E. had earlier put forward in its policy white paper.

Earlier this year, Kuwait also contributed \$10 million to the NTI-sponsored fuel bank, following the U.A.E.'s lead.

U.A.E. actions continue to positively impact the broader regional discussion concerning internationally acceptable paths to nuclear power, including the conversation about Iran's program.

With the policy established, the U.A.E. has begun to develop the regulatory, operational, and commercial framework necessary to ensure that these standards are implemented and enforced. They then began negotiating nuclear energy cooperation agreements with other countries that supply nuclear energy technology and know-how.

Now that the Obama Administration has notified Congress of the Agreement, Congress has 90 days to consider the merits of the program. Once Congress has allowed the agreement to come into force, U.S. companies will be fully competitive in the procurement process, which is well underway. Because of its urgent electricity needs, the U.A.E. is on a tight timeline and intends to select, in the fall of 2009, the consortium of companies which will design, build, and operate a planned fleet of nuclear reactors.

“Nuclear cooperation deals should be an Obama priority.”

~Miles Pomper, January 7, 2009

The U.A.E. is creating an important precedent for other nations interested in pursuing peaceful nuclear energy. For the United States to turn its back on this “gold standard” would be a serious setback to broad global nonproliferation efforts and specific policy goals in the Middle East region. Finally, in rejecting the U.S.-U.A.E. 123 Agreement, the United States could also boost Iran's standing in the region. Iran promotes the concept that the United States does not really want the region to obtain nuclear energy technology—even in the case of the most non-proliferative and collaborative program like the U.A.E.'s.



An Enhanced Export Control System

Working closely with senior American officials, the U.A.E. crafted and created a new export control law in 2007. The new law strengthens the government's ability to ban the transfer of goods which threaten the U.A.E.'s national security and/or foreign policy. In conjunction with this, the bill authorizes the formation of a National Commission with broad oversight to crack down on illegal trans-shipments. The law details stiff and specific penalties to people and companies caught trans-shipping sensitive military and pro-scribed dual-use items to Iran. Finally, and again working closely with U.S. authorities, the U.A.E. undertook in 2008 to further amend its export control law to toughen its implementation.

As a result of these efforts, the U.A.E. reports it has shut down 40 Iranian companies based in Dubai in the last three years over either export-control violations or a lack of proper licenses, according to the Wall Street Journal. The U.A.E. has blocked more than ten shipments of goods for potential military use heading to Iran through Dubai, largely from Asia, in the last six months alone.

As part of its own independent review, the Washington Institute for Near East Policy published a report in November 2008 concluding that, "The U.A.E. was forward-leaning in its attempts to tackle these issues... More recently the U.A.E. also launched an initiative to try to regulate the many brokers located there."

"It would be inadvisable to hold up the proposed 123 agreement with the U.A.E. on other grounds, such as the past history of Dubai as a hub for the Khan nuclear black market network... Delaying the 123 agreement with the U.A.E. would weaken the strong political signal that is sent by offering nuclear cooperation to a country that has accepted all of the nonproliferation conditions asked of it and that can make a legitimate economic case for nuclear power."

~Mark Fitzpatrick, "Drawing a Bright Redline: Forestalling Nuclear Proliferation in the Middle East," Arms Control Today, January/February 2009

“There is a very strong alliance on all issues between the U.S. and the U.A.E. and the issue of Iran as well. They also take seriously their commitments as a country that has articulated its support for the Financial Action Task Force principles and they take very seriously the future of their financial system and the reputation of their financial system.”

~Stuart Levey, U.S. Treasury Undersecretary for Terrorism and Financial Intelligence, November 19, 2008

Cementing these export control initiatives, the United Arab Emirates has also committed to a constellation of related U.S. security agreements, including the:

- U.S. Container Security Initiative and a security agreement authorizing U.S. Customs agents forward deploy to Dubai ports to inspect cargo inbound to the U.S.
- The Emirates have enlisted in the Proliferation Security Initiative as well, which focuses on stopping Weapons of Mass Destruction (W.M.D.) shipments, their delivery systems, and related materials internationally.
- Dubai Ports World has signed up for the Homeland Security Department’s Security Freight Initiative to evaluate the methods used to detect radiation in containers headed for America.
- The State Department is also working with the U.A.E. to help improve its export controls through Washington’s Export Control and Related Border Security Assistance Program, in order to crack down on the trans-shipment of illicit materials.



Answers to Frequently Asked Questions

How many U.S. jobs would really be created by a U.S.-U.A.E. 123 civilian nuclear energy cooperation agreement?

The agreement would unlock business for a range of U.S. firms supporting the civilian nuclear energy effort, such as services in construction, plant management, operations, logistics, plant safety, training, and transportation for the plant workers. These jobs are high-quality, skilled craft and engineering positions.

A formula developed by the U.S. Department of Commerce is that every \$1 billion in U.S. exports supports 11,000 to 12,000 U.S. jobs. The U.A.E. contracts are estimated at \$40 billion. For example, the nuclear power plants that Westinghouse is building in China and that GE is building in Taiwan have helped create and support over 10,000 U.S. jobs.

Will American companies really have a chance in the competition, or have other countries like France, already won the business?

The U.S. is considered to have some of the safest, most efficient, and most reliable nuclear energy technology in the world. The U.A.E. wants U.S. companies to be part of the competition and has not signed any agreements with any companies. As recently as April 6th, 2009 the U.A.E. Foreign Minister Sheikh Abdullah bin Zayed committed to U.S. industry that American companies will be given an equal and fair chance in the competition, if the U.S.-U.A.E. agreement proceeds through Congress. If however, the U.S. Congress does not consent to the agreement, the U.A.E. will be forced to go forward with other supplier nations, like France.

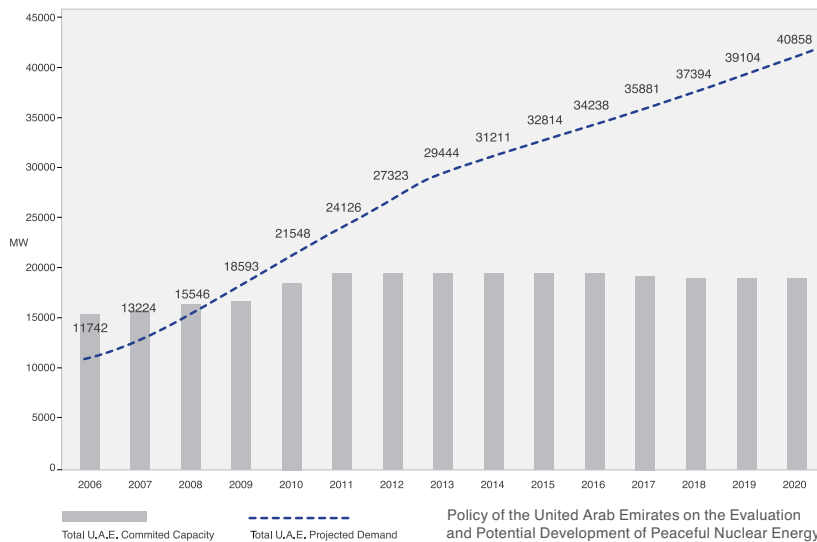
Why does the U.A.E. need nuclear energy when it has extensive oil and gas reserves?

The U.A.E.'s electricity demand will outstrip its current production capability between two and three-fold by 2020. Moreover, the U.A.E. is a net importer of natural gas. While increased burning of crude oil to generate electricity is one option, it would have a huge financial and environmental impact. Investment in nuclear energy and in renewables is the most environmentally promising and commercial competitive options to meet future electricity demand. (See *Figure 1*)

But is the program really safe? If the U.S. gave its nuclear technology to the U.A.E., won't Iran somehow get access?

The U.S.-U.A.E. 123 Agreement sets a gold standard for how to prevent proliferation or militarization. First, the U.A.E. civilian nuclear energy program is designed with unparalleled operational transparency. Unique to 123 agreements, the U.S.-U.A.E. agreement includes provisions forswearing domestic enrichment and reprocessing. The agreement includes provisions for nuclear assurance inspections conducted by the I.A.E.A. Under the agreement, the U.S. and U.A.E. governments would also work together in establishing and fulfilling key safeguards and physical protection requirements.

Figure 1: U.A.E. Demand for Electricity is Outpacing Current Supply





“The United States welcomes the U.A.E.’s decision to pursue the development of peaceful uses of nuclear energy. The U.A.E. has committed to complete operational transparency and to pursuing the highest standards of non-proliferation safety and security.”

~U.S.-U.A.E. Joint Statement, November 17, 2008

Additional Resources

www.usuaebusiness.org

The U.S.-U.A.E. Business Council has developed an extensive set of resources on the U.A.E. Peaceful Civilian Nuclear Energy Program and the U.S.-U.A.E. 123 Agreement on our website, there are links to original source documents from the U.A.E. and U.S. governments, recent articles in the media, and other background, including:

- Congressional Research Service Report:
“The United Arab Emirates Nuclear Program and Proposed U.S. Nuclear Cooperation”
March 2, 2009
- State Department Official Statement on the
U.S.-U.A.E. 123 Agreement
January 15, 2009
- U.A.E. Peaceful, Civilian Nuclear Power Generation
Program Factsheet
January 26, 2009

In addition, the U.A.E. Embassy has developed a dedicated website at www.usuae123.org



U.S.-U.A.E. Business Council

U.S. Chamber of Commerce
1615 H Street, NW
Washington, DC 20062-2000
www.usuaebusiness.org
(202)463-5880

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