THE ABRAHAM GROUP LLC

Statement From Former U.S. Secretary of Energy Spencer Abraham Regarding ERI study

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As a former Secretary of the Department of Energy I am very concerned about recent decisions by the Administration and both Houses of Congress that impact the commercial markets for nuclear fuel goods and services. These actions jeopardize both the domestic uranium mining and conversion industries and, as a result, have a very dangerous potential impact on our national security.

First a little history is necessary. At the end of the Cold War as the U.S. worked to secure nuclear materials in the former Soviet Union, it entered into an agreement with the new Russian Federation to purchase large quantities of uranium fuel for US nuclear reactors. The deal was attractive to both sides. Russia needed US dollars and in exchange agreed to create the reactor fuel by down blending weapons grade uranium from their stockpile. We got fuel, Russia got money and the amount of weapons grade uranium vulnerable to theft or misuse was diminished.

Initially this program was run by the U.S. Department of Energy (DOE). Over time, though, the branch of DOE in charge was privatized and eventually became a publicly traded company. That company, the US Enrichment Corporation (USEC), has continued to have the exclusive right to deal with Russia under the terms of the agreement.

But over time things have changed. The Russians realize that the market for reactor fuel is more competitive and they prefer to sell their product into a sellers' market. Meanwhile, USEC has had trouble meeting various obligations imposed on it by DOE when its contract was renewed. Specifically, USEC has not been able to meet requirements that it develop a new U.S.-based domestic uranium enrichment capability so that the US has such capacity for national security purposes.

As USEC has struggled to meet this obligation it has worked hard to seek federal support in various forms including, among other things, the transfer of U.S. government property outside of the appropriations process. Most recently USEC was able to persuade DOE to transfer DOE inventories of depleted uranium into the civil nuclear fuel cycle for re-enrichment – a deal which gives USEC commercial contracts with two U.S. utilities. These transfers of DOE inventories of uranium have typically been justified with an independent market impact analysis leading to a Secretarial Determination of no market impact. Unfortunately, this latest analysis, like the previous ones, is fundamentally flawed and therefore does not support the Secretarial Determination.

The most recent determination was based on the study "Quantification of the Potential Impact on Commercial Markets of Introduction of DOE Excess Uranium Inventory in Various Forms and Quantities During Calendar Years 2012 through 2033" by Energy Resources International, Inc. for DOE's Office of Nuclear Energy, dated April 23, 2012. Are the conclusions in this study valid? I believe there are significant shortcomings with this study that raise serious questions about DOE's May 2012 determination of no market impact. Based on an analysis conducted by ConverDyn, the following concerns emerge:

1) ERI limited its analysis of market impact solely to the market price as a measure of market damage. This view ignores the fact that a conversion plant operates with a high ratio of fixed to variable costs. Hence, profitability is very sensitive to volume reductions. A reduction of 2,000tU as UF_6, which is the average from Table 3.6 of the ERI study, increases costs per kgU by 20% rather than the 4-5% price decrease.
2) Even if the estimated reduction in price due to DOE actions is correct, in a business that has almost no margin on sales, losing an additional 4-5% on price can be fatal.
3) ERI claims to have evaluated the price impact via a market clearing model, but does not give any details about this model that would enable an independent review of their findings.
4) DOE inventories are sold on the spot market since they have to be monetized quickly. Hence, the ERI analysis should concentrate on the spot market rather than the term market. But ERI states "it is very difficult if not impossible to accurately predict the specific change in spot market price that might result from a particular future event". This may be difficult, but isn't this the whole purpose of the ERI report?
5) ERI used the long term uranium market as proxy for the spot market and presented a correlation between the two. No such correlation is presented for conversion.
6) ERI claims that the increase in uranium prices that occurred during 2007 and 2008 could not be justified on the basis of economic production cost-based market clearing price analysis. If such a model was unable to account for the increase in price, then why assume it would predict the extent of a decrease in price?
7) Since the Metropolis, Illinois conversion facility is the only U.S. converter, it would be the most affected in a market clearing model and would bear the brunt of impact on the domestic market. This is even more significant when one considers that other converters are foreign state-owned and/or vertically integrated nuclear companies whose many nuclear activities can subsidize conversion.
8) ERI's analysis refers to an increase in demand for conversion but fails to account for the fact that most of this increase will come from China and Russia; two countries whose markets are not accessible to the U.S. converter even though both those countries sell in the U.S. market.
9) ERI ignores an assessment of the impact of the post-Fukushima decisions in Japan and Germany, two markets that were important for the U.S. converter.
10) ERI anticipates that the end of the HEU deal will result in a drop in supply of 9,000 tU per year. However, most of this volume will be replaced by direct Russian sales of Enriched Uranium Product (EUP) to U.S. utilities as well as the 10 year agreement to provide Low Enriched Uranium (LEU) to USEC. Both of these actions will bring additional conversion services to the U.S. and the other markets accessible to the U.S. converter.
11) ERI states that the industry recognizes the need for expansion. However, Canadian, French and Russian conversion companies have publicly announced curtailed operations because current market conditions do not justify expansion.
12) ERI estimates that only 15% of conversion services, or 3,000 tU, are purchased in the U.S. spot market. But DOE barters would account for 67% of this spot demand and thereby swamp it. ERI notes that most conversion transactions are in the long term market with base-escalated pricing, so a decline in market price would have no adverse impact. However, ERI conveniently ignores market reality which is that customers would exercise downward flexibility on their LT contracts.

As the price continues to drop they can and do pursue a "buy and hold" strategy. This further exacerbates the volume impact mentioned in concern number 1 above.

Given these infirmities in the ERI study, it is difficult not to conclude that the Administration's overriding concern is to help USEC. But, if DOE really believes that a domestic enricher is of great importance to National Security and Energy Security, it should also be equally concerned about existing U.S. uranium mining and conversion industries as well. Moreover, support for USEC should not result in irreparable damage to other private sector entities.

With these aims in mind, DOE reached agreement in December 2008 with the U.S. nuclear utility and supplier industry on a disposition plan for DOE owned uranium inventories that would allow DOE to make sales into commercial markets at a measured and predictable rate of no more than 10% of domestic requirements. However, DOE continues to refuse to honor the terms of this agreement. The U.S. uranium mining and conversion industries remain supportive of this original disposition plan. In light of DOE's consistent failure to work within that agreement, it appears the only way to bring some predictability to the uranium and conversion markets, as well as to protect American companies and secure American jobs, is to codify the original disposition plan.

Spencer Abraham was the Secretary of Energy from 2001-2005 and a U.S. Senator from Michigan from 1995-2000. He currently serves as Chairman & CEO of The Abraham Group, a management consulting firm, and is also an advisor to ConverDyn.