OUO – Includes Business Proprietary Information from multiple sources

NE Analysis of the Potential Impacts of Planned DOE Uranium Transactions

Background

Over the last several years, the Department has engaged in transfers of its excess uranium inventory to fund work in support of NNSA and EM programs. The Department has broad authority under the Atomic Energy Act of 1954, as amended, to transfer, sell, acquire and dispose of depleted, natural and enriched uranium, and also to barter its uranium for payment of services to support Departmental programs and missions. While the Department maintains these general authorities, section 3112(d) of the USEC Privatization Act places additional requirements on transfers or sales of natural and enriched uranium from the Department's inventory, namely: 1) the President must have determined that material intended to be transferred is not necessary for national security needs; 2) the Secretary must determine that the transfer or sale will not have an adverse material impact on the domestic uranium mining, conversion or enrichment industries, taking into account the sales of uranium under the Russian Highly Enriched Uranium Agreement and the Suspension Agreement (Secretarial Determination); and 3) the Secretary must receive fair market value for the material. Sales or transfers subject to section 3112(d) require a Secretarial Determination that these requirements have been met. Sales or transfers of depleted uranium are not constrained by these requirements, nor are sales or transfers of natural or enriched uranium for national security purposes as provided in section 3112(e).

In addition to these statutory authorities and requirements, the Department has internal policies and guidelines concerning sales and transfers of excess uranium to minimize the impacts on the domestic uranium industry. In 2008, then-Secretary Bodman issued the "Policy Statement on Management of the Department of Energy's Excess Uranium Inventory" (Policy Statement), which was followed in December by the Department's "*Excess Uranium Inventory Management Plan*" (2008 Plan), which provided further detail regarding the Department's inventory of excess uranium and plans for or under consideration for the disposition of its excess uranium. The Policy Statement and 2008 Plan recited the Department's guideline of keeping its uranium transfers within 10 percent of annual domestic nuclear power plant fuel requirements, except where special circumstances necessitate transfers above that amount to support Departmental needs or objectives. The Department issued the 2013 "*Excess Uranium Inventory Management Plan*" (2013 Plan) to replace the 2008 Plan. The 2013 Plan identified uranium inventories that have entered the uranium market since the 2008 Plan and those anticipated to potentially enter the market through the end of Calendar Year 2018.

Based on experience gained since the issuance of the 2008 Policy Statement and Plan, including in particular the market impact analysis that supported the May 15, 2012 Secretarial Determination (the May 2012 Determination),the Department has determined it can meet its statutory and policy objectives in regard to DOE uranium sales or transfers without an established guideline. In addition, as discussed below, decisions to introduce uranium into the market pursuant to section 3112(d) must be reviewed every two years. Accordingly, the 10 percent guideline is no longer used.

Section 306 of the Consolidated Appropriations Act, 2014 (Public Law No. 113-76) affects a Secretarial Determination by providing that any determination by the Secretary pursuant to section 3112(d), including prior determinations, are valid for no more than two calendar years subsequent to such determination. There are prior Secretarial Determinations impacted by this recent law: the 2005, 2008, and 2012 Secretarial Determinations approving the transfer of LEU to DOE contractors responsible for down-blending surplus HEU to LEU for use by NNSA in support of the American Fuel Supply Program (formerly known as the Reliable Fuel Supply Program) and the project currently referred to as the Mixed Oxide Fuel (MOX) LEU Backup Inventory Project.

As described above the Department is required under section 3112(d) of the USEC Privatization Act to analyze the market impacts only for the EM GDP Cleanup Program and the NNSA Down-blending Contracts (in order to meet the requirements of section 306 of the Consolidated Appropriations Act, 2014). The Department contracted with Energy Resources International, Inc. (ERI), an experienced and well-regarded nuclear fuel consulting firm, to assess the potential impact on the domestic uranium mining, conversion and enrichment industries from the transfers of uranium.

ERI Analysis/ Report Summary

To ensure that this requested Secretarial Determination is fully informed, the Office of Nuclear Energy (NE) tasked Energy Resources International, Inc. (ERI), an experienced and well-regarded nuclear fuel consulting firm, to assess the potential impact on the domestic uranium mining, conversion and enrichment industries from the transfers or sales of uranium being considered. The ERI analysis allows NE to estimate the potential quantitative impact of DOE actions on the markets, to understand where industries positions lie, and to formulate a recommendation for the Secretary.

While NE tasked ERI to use methodology similar to that used in past analyses, the analysis was to be supplemented, as needed, to give a full and accurate picture of the industry beyond simply impact on market prices. ERI clearly identified the three categories of DOE uranium inventory within the scope of its analysis: 1) historical DOE transfers, some of which will continue to displace commercial supply in the future until used in a reactor; 2) ongoing inventory transfers by EM and NNSA in exchange for services; and 3) proposed transfers of DOE inventory. As the current NE staff were not involved in the previous analyses and Secretarial Determinations, it was important to them that the scope and breadth of ERI considerations (e.g. employment, sales volumes, etc.) were clear and well documented.

The following is a summary of the findings from ERI's analysis. ERI's full summary can be found in Section 6 of their report.

- The global uranium, conversion and enrichment industries are all in a state of considerable over-supply. While long-term prospects for nuclear power growth

and subsequent growth in fuel supply are generally viewed as positive, particularly for the uranium market, the amount of time it will take to recover from the post-Fukushima-driven state of the current markets is unclear.

- During the period from 2014 to 2033, the total DOE inventory entering market equals more than 49,000 MTU as UF_6, which is roughly equivalent to 129 million pounds of U_3O_8. A total of 9.7 million SWU will enter the market during the period 2014 to 2023. No additional equivalent SWU are identified to enter the market after 2023. The DOE inventory entering the commercial markets over the next ten years (2014 through 2023) averages nearly 2,850 MTU as UF_6, equivalent to 7.4 million pounds U_3O_8 per year. This is equivalent to approximately 15% of annual U.S. uranium requirements and 15% of U.S. conversion requirements. During the subsequent ten years (2024-2033) the DOE inventory entering the commercial uranium market declines to an average equivalent of 5.5 million pounds per year, or nearly 12% of U.S. uranium requirements. The equivalent enrichment services contained in DOE inventory entering the market through 2023 is approximately one million SWU per year. This is equivalent to 1.7-2.5% of worldwide enrichment requirements and 6-7% of U.S. requirements. No additional enrichment services from DOE inventory is expected to enter the commercial enrichment market in the subsequent ten years. (DOE Note: these inventory amounts cited in ERI's analysis differ from the amounts that DOE has transferred and plans to transfer each year. This is because ERI is capturing the year in which the uranium is used in a reactor, not when DOE releases the material "into the market." This should not be construed to mean that DOE is exceeding the amounts identified in the Secretarial Determinations. Instead, it is intended to recognize that ERI is accounting for complex realities of the nuclear fuel markets – that material is not ultimately consumed for years after it's produced, or released in this case. This approach is consistent with that taken in previous years that informed previous Determinations.)

- ERI continues to believe that the change in market price due to DOE inventory entering the market provides an important measure of the DOE material's impact on the domestic industry.

- DOE inventory entering the commercial markets is certainly one of the market factors, but the DOE inventory must be judged in the context of its relative importance when compared to other market factors.

- The results of ERI's market clear price analysis indicate that the price impact attributed to DOE inventory entering the uranium market averages $2.8 per pound over the period 2014-2023. This is equivalent to 8% of the current spot price and 6% of the current term price. The price impact attributed to DOE inventory entering the conversion market averages $1 per kgU as UF_6 over the next ten years. This is equivalent to 12% of the current spot price and 6% of the current

term price. The price impact attributed to DOE inventory entering the enrichment market averages $4 per SWU over the next ten years. This is equivalent to 4% of the current spot price and term price.

- ERI has also developed a multivariable correlation between the monthly spot market prices for uranium concentrates published by TradeTech and the monthly spot market values of supply and demand, which are also published by TradeTech. This correlation was then used to simulate the 2009 through 2021 spot market price for uranium concentrates with and without the DOE inventory entering the spot market. The results of applying this correlation are projections of a potential spot market price decrease of $2.8 per pound U_3O_8 over the next three years (2014-2016) rising to an average decrease of $5.5 between 2017 and 2021 as spot market prices recover. This represents an estimated impact on spot market price of 7% to 9% from DOE inventory entering the uranium market.

- As a point of comparison, it is noted that uranium price indicators have declined by 50% for the spot market and 35% for the term market in the three years following the Fukushima accident.

- Based on the $3/lb estimated impact of DOE material, ERI calculates the potential long-term employment loss to be 44 person-years over the next ten years, meaning that future employment is reduced by approximately 4% on average as a result of the DOE inventory releases.

- While U.S. uranium industry production has risen since 2003 and continued to rise after the start of the DOE uranium inventory barters in December 2009 as well as during the market decline in 2013, there has been an impact to the actual and planned production of some U.S. operations. There have been announced cutbacks in existing U.S. uranium production in 2012 and 2013. In 2013, the reduction in production from these cutbacks was limited but is expected to be about 1.0 million pounds in 2014. Total U.S. production is expected to increase in 2014 as new production more than offsets the cutbacks.

- Comparing market factors that contributed to 2013 uranium supply excess relative to 2008 shows that the increased supply from the DOE inventory entering the market was responsible for about 10% of the total of all market factors increasing excess supply in 2013 and a projected 8% for 2014. If DOE inventory entering the commercial markets had remained at 2008 levels then the net supply excess for 2013 and 2014 would decline by 15% to 20%, but the uranium market would still be considerably over-supplied.

- Review of market capitalization for U.S. uranium producers shows that it is sensitive to changes in the spot market price, particularly for smaller mining companies. Following the Fukushima accident in March 2011, market capitalization declined rapidly. While the impact of large changes in the spot

market price is obvious, the effect on market capitalization from the smaller price changes attributed to DOE inventory entering the market is not as clear. It is of interest to note that the market capitalizations have been increasing during the last six months even though market prices have declined.

- Comparing realized prices to the spot market price during the period 2011 to first quarter 2014 shows that some mining companies' realized prices are spot-market based while others have hedged their exposure to the spot market by locking in prices using a base price escalated approach for a portion of their portfolio. Less than 30% of the production came from companies that were effectively unhedged (no long-term contracts with higher fixed prices).

- If market prices remain at the current depressed levels for several years, which seems to be the consensus view of many in the industry, then more U.S. production will be impacted and may be put on standby, as existing longer term contracts at higher prices are completed and can only be replaced by new, lower-priced contracts.

- The introduction of DOE inventory into the conversion market results in a sales volume impact of 0.6 to 0.7 million kgU, which is a 7% to 8% reduction in sales volume. This is on top of Converdyn's stated 25% sales volume loss associated with Fukushima. Total secondary market supplies in 2014 are expected to be approximately 16.5 million kgU. The DOE inventory represents 18% of secondary market supply in 2014, enricher underfeeding will be 29%, upgrade of tails in Russia will be 32%, plutonium and uranium recycle will be 16% and Russian HEU feed will be 4% of secondary market supply.

- DOE inventory is projected to have a 7% to 8% impact on Converdyn sales volume in 2014. The production of UF_6 has high fixed costs. The loss of sales volume associated with DOE the entry of DOE material in the conversion market, assuming that the fixed portion of production costs range from 80% to 100%, results in a production cost increase of 6% to 8%.

  Based on the analysis contained in this study, it is not clear that a reduction in DOE inventory releases would cause the overall market conditions to change enough to make a significant difference in the health and status of the domestic industries.

- As stated by ERI in its 2012 market impact study, even if the potential impact of any individual transfer by DOE is not in itself significant, the nuclear fuel markets recognize that DOE controls a very large amount of material. The predictability of DOE's transfer of that material into the commercial markets over time is very important to the orderly functioning of these markets. In this regard, it is critical for long-term planning and investment decisions by the domestic industry that

there can be confidence that DOE will adhere to what it presents as being established guidelines and plans.

DOE Comments on the ERI Report

The final ERI report is comprehensive and provides a professional and independent assessment of the market place and DOE's proposed uranium sales. DOE staff thoroughly reviewed the initial draft report and gave several comments to ERI seeking clarification on their approach and findings and correcting information on DOE actions or relationships that could otherwise be misconstrued by an outside reader. The major comments can be summarized as follows:

- In some cases the narrative gave the reader a different impression than what was meant. For example they note that they said in 2012 that the DOE uranium sales were not an adverse material impact, but they could not say that this year. It gave the reader the impression that ERI believes it is an adverse impact, whereas verbal discussions revealed that the statement was intended to convey that ERI would not state a position in this report.

- Market prices were quoted from only one company (Trade Tech) when there are several other market indicators available.

- The report seemed to indicate that DOE material was continuing to enter the market, so DOE sought clarification on whether the material was entering the market or continuing to displace demand that would otherwise exist.

- A number of clarifications were provided by DOE on amounts and forms of material and the timing of their transfer (e.g. off-spec UF6 and non-UF6 being analyzed separately).

- DOE sought additional information and discussion as to why ERI's particular approach (i.e. market clear analysis) was used, why it was more appropriate than other possible approaches, and whether it was supplemented to address any shortfalls of the modeling technique.

- DOE sought additional information on the quantitative impacts of other events (e.g. reactor shutdowns post-Fukushima, production increases in Kazakhstan) to provide a basis/context for evaluating DOE's relative impact.

Through two additional revisions, ERI adequately addressed DOE's comments and concerns, with both parties recognizing that DOE was seeking an independent analysis. In fact, ERI added a very good summary of their findings across the range of factors (including, but going well beyond price) in Section 6 of the final report that has aided in accurately relaying their findings here.

In addition to providing a comprehensive analysis, ERI also sought input from industry to ensure that any valid market-related aspects could be factored into their analysis. While

NE includes discussion of additional factors below, ERI's analysis is considered complete and consistent with DOE's tasking.

Meetings with Industry

In order to better understand the view of the nuclear fuel cycle industries, the Department routinely meets formally and informally with representatives from industry. Over the past several months, the Department met with a number of entities that have an interest in the Department's uranium transactions, including:

- **URENCO - March 19, 2104** w/ S1, NE and S2 staff
- **UPA and Converdyn - February 6, 2014** w/ NE, EM, NNSA, and GC
- **UPA - January 23, 2014** w/ S2, EM, and NE
- **Converdyn - November 14, 2013** w/ NE
- **NEI Fuel Supply Forum - July 30, 2013** NE presented an overview of the 2013 Excess Uranium Inventory Management Plan and had several discussions with fuel producers, enrichers, fabricators, and utilities

These meetings and follow-up communications provided valuable information from their respective points of view.

It is impossible to summarize all of the points in UPA's 9 page letter to Dr. Lyons. However, in general, the uranium production industry feels that DOE material, and maybe more importantly actions and communications, are having an adverse material impact on the industry. They claim that past ERI analyses underestimate the impact of DOE material on the industry and do not account for a number of factors besides market prices. They are unhappy that DOE no longer intends to use the previous 10% guideline, which they saw as a "cap," even though DOE was clear as to its use as a guideline with latitude to exceed it in any given year. The uranium producers, through UPA, are advocating that DOE reduce the amount of material transferred in the near term in order to show that DOE recognizes the current condition of the uranium market.

ConverDyn, the sales agent for conversion services from the only uranium conversion facility in the United States, also provided input to the Department on the condition of the market, the impact it believes DOE material is having on the market, and recommendations on how DOE could improve the way it conducts its analysis and uranium transactions. ConverDyn asserts that it is experiencing a "material adverse impact" due to DOE uranium transactions in the form of reduced sales, reduced production volumes, and depressed prices. ConverDyn says Fukushima-related volume lost over 2014-2016 projected to be [REDACTED] and that reduced sales volume from DOE uranium sales will be [REDACTED] over that same period.

Hahne Analysis Summary

NE staff also met with Frank Hahne of Flour-B&W Portsmouth, LLC (FBP) (Frank also serves as NEI Nuclear Fuel Supply Committee Chairman) who had completed a similar analysis with input from [REDACTED REDACTED]. FBP is the contractor responsible for the accelerated cleanup activities at the Portsmouth site, which benefits from EM's uranium transactions. Important points from this analysis are presented below.

- As reported by EIA, the **price** paid for U.S. origin uranium over the past 20 years has been at its highest in the last 5 years, since the barter program started.
- US uranium **production** has been increasing since the beginning of the barter program, and is at its highest level now since 1997 (EIA Data).
- US uranium **employment** has grown (2009-2012) since start of barters.
- US uranium producers **Market Cap** has increased significantly over time, with many approaching pre-Fukushima highs over the last 3 months
- US producer Capital Expenditure decisions are made based on **long-term U3O8 prices**, not spot prices. U3O8 Term price is $50/lb.—up from the decades before level of $10/lb.
- Term & spot **UF6 conversion prices** are up 40% to 45% since barters began.

Viewpoints from a Utility Perspective

The ERI report states: "The most important factors in addition to the DOE inventory releases are listed below:

- Increased uranium production in Kazakhstan
- Direct demand losses, primarily in Japan and Germany, related to the March 2011 accident at Fukushima Daiichi in Japan
- End of U.S.- Russian HEU Agreement in 2013
- Increase in net demand outside of Japan and Germany
- Changes in secondary supply"

In addition to information that was directly supplied to DOE from industry sources for its consideration, the following are additional pieces of relevant information captured from industry trade publications, reports, and other openly available sources.

1. Increased uranium production is also occurring in Canada and Niger. In an oversupplied market the established suppliers also have to cut back on their production to bring the market into balance. While there are indications that some suppliers are curtailing production it hasn't occurred to the extent needed.

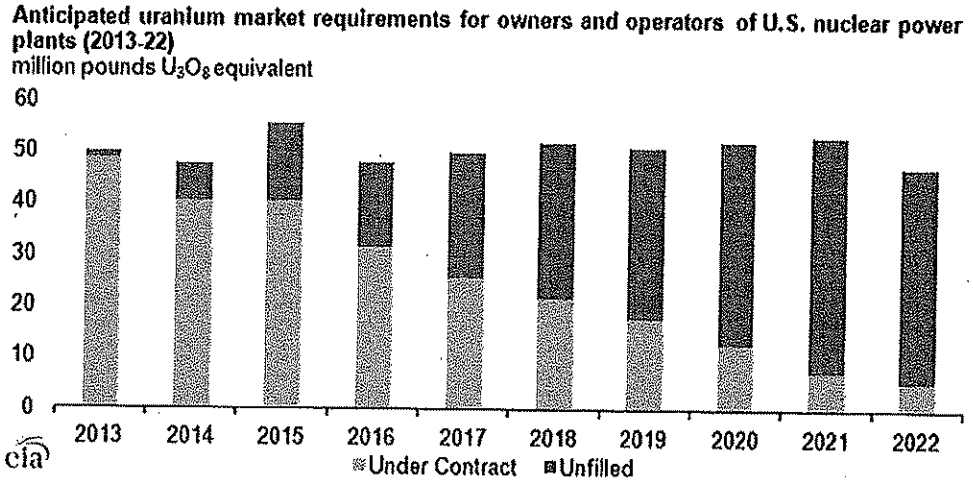
In addition, new sources of supply will also impact the market.
1. Cigar Lake: starts production in Q4 2013/Q1 2014. Projected 18 million pounds by 2018
2. CGNPC Husab Project: begins production in 2016. Projected 10 million pounds by 2019
3. AREVA's Imouraren: begins production in 2016. Projected 9.5 million pounds by 2019
Source: UxC DOE barter program: approximately 6 million pounds U3O8e through 2021

2. Declined direct demand not due to Fukushima: In the U.S., steam generator issues have forced Crystal River #3 and San Onofre 2 & 3 to shut down early. In 2013, Ft Calhoun was also closed. In addition, Kewaunee and Vermont Yankee were closed (according to NEI) for "adverse market conditions". This represents an 8% decline in nuclear capacity in the US.

In addition, the low price of gas has an impact on the uranium industry. In NEI's financial briefing, given in February 2014 to Wall Street analysts noted that for a single unit NPP its cost is $50.86/MWhr while a new combined cycle gas plant at $3.50 is $46.60/MWhr. If gas prices increase to $5 then the gas plant costs of electricity increase to $57.30/MWhr. The NEI presentation also notes that merchant markets do not recognize or monetize the valuable attributes of nuclear such as grid reliability, price stability, clean air compliance etc. These factors have also led to 45% of the coal generation in the US being shut down since 2010. EEI is expecting 100 GW of fossil capacity to be retired by 2020.
3. Increase in net demand is occurring in China where generally the market perception is that it will meet its target for growth of new nuclear of 58GWe by 2020. However, China is probably not buying US uranium because of American proliferation policy.
4. Changes in secondary supply – Underfeeding and projects under construction will account for most part of supply growth between 2014 and 2018. In 2014, DOE material will account for 4% of total uranium supply in the world.
5. Increased Production and Sales in Kazakhstan- In 2012, Kazakhstan produced 54.3 million pounds U3O8, which amounted to 36% of global output. Kazakhstan uranium production has targeted one third share of the US market by 2015.

Other important factors that have an impact on the uranium market–

1. Below is from EIA's February 2014 announcement of the impact on domestic uranium production from the completion of the Megatons to Megawatts program (from the 2012 Uranium Annual report produced in 2013, so slightly outdated):



2. UX's April 7th weekly newsletter noted the decision of two major investment banks in December to close their trading desks for a number of commodities including uranium, will impact liquidity in the spot market.

DOE Recommendation and Underlying Basis

Upon reviewing the ERI Report and other reports as well as meeting with industry on many occasions, it is clear that the nuclear fuel market (it is a global market) is in a weakened state due to many factors. The factors include reactor shutdowns after the Fukushima events (price was reduced by 50 percent afterwards) which greatly diminished demand, Kazkhstan's rapid expansion of production and sales which increased supply while keeping market prices at low levels, and the underfeeding of the enrichment plants (29 percent of conversion market secondary) and stripping the uranium tails (32 percent of conversion secondary market) which adds both uranium and conversion to the marketplace. It is important to note that DOE's uranium transfers (2705 MTU natural uranium equivalent, equivalent to 4.5% of the annual global production and 15% of annual U.S. reactor demand) are significantly less of an impact than the other factors.

Industry meetings continue to help in understanding their concerns and advice related to the sales of DOE uranium into the market. First and foremost, the industry looks for DOE to be transparent and a predictable source of supply. In this respect, our data given to ERI for analysis laid out our absolute best estimation of planned DOE sales from this year through 2033. ERI accounted for complex realities of the nuclear fuel markets, such as the fact that material transferred in one year will continue to exist in "the market" until ultimately used in a reactor. Perhaps more importantly, we do not plan to increase our sales or transfers this year in light of the weakened market.

Industry also stressed the point that we should be selling in the long-term market instead of the spot market. We agree that, where we can, it is better to seek to fill contracts in the long-term. However, DOE cannot require the recipient to take specific actions with the

material. It is our understanding, however, that one recipient (FBP) has taken steps to split the uranium they receive between the spot and term markets, thus significantly reducing any impact.

Another important industry talking point is the loss of jobs due to DOE sales. While we clearly disagree that DOE sales are the predominant reason for job losses and the potential jobs losses attributed to DOE (ERI estimates 44 person-years over 10 years) are not significant, especially compared to the losses that would be incurred under different course of action, we agree that continued job losses are fundamentally harmful to the viability of the industry.

The Secretary, in determining whether DOE uranium sales would create an "adverse material impact", must answer whether DOE uranium sales alone cause the uranium industry to change from its position in the market without DOE sales. The expert staff within the Office of Nuclear Energy believe that the uranium industry would be in the same position in the market with or without DOE sales due to the limited ability of the relatively small amount of material and services being displaced to significantly influence the domestic uranium mining, conversion, and enrichment industries. We believe that it is much more important for DOE to adhere to its stated plans and provide industry with a predictable supply on which they can base their business decisions

For these reasons, the staff recommend that the Secretary determine that the Department's planned uranium sales do not have an adverse material impact.

Attachment A: ERI's Statement of Work

Statement of Work
for Task 17

Prepare an Analysis of the Potential Impact on the Commercial Markets of the Introduction of DOE Excess Uranium Inventory in Various Forms and Quantities During Calendar Years 2014 Through 2033

Energy Resources International, Inc. (ERI) will perform the following work for the Office of Uranium Management and Policy in the Office of Nuclear Energy, Department of Energy (DOE) as Task 17 under GSA FABS Contract No. GS-23F0242P and DOE Contract No. DE-DT0000752.

Background

ERI will prepare an updated analysis of the potential impact on commercial markets associated with the introduction of DOE excess uranium inventory through sale or transfer. The need for a new market impact study arises from Section 306(a) of The Consolidated Appropriations Act, 2014, which states that *"Any determination...shall be valid for not more than 2 calendar years subsequent to such determination."* The last significant market impact study that was conducted by ERI was dated April 23, 2012 and was used to support DOE's Secretarial Determination of May 15, 2012.

Scope

ERI will prepare an analysis and report of the potential impact on the commercial markets of the introduction of DOE excess uranium inventory in various forms and quantities through sale or transfer during Calendar Years 2014 through 2033 from information provided by DOE. The analysis will be based on DOE planed uranium sales and transfers. The sales and transfers include natural UF_6 barters by DOE's Office of Environmental Management, down blending of highly enriched uranium (HEU) by the National Nuclear Security Administration (NNSA) including the BLEU program with the Tennessee Valley Authority, and the transfer of high assay depleted uranium (DU) to Energy Northwest. The quantities provided in the DOE Excess Uranium Inventory Management Plan, Report to Congress issued by DOE in July 2013 will be updated to reflect the most recent status of existing initiatives and current plans.

ERI's report may also include sensitivity analyses on the quantities introduced by DOE as well as a scenario assuming the same quantities as stated in the 2012 Secretarial Determination. The task may also include efforts to respond to questions by DOE and others subsequent to the report's issuance.

The methodology to be used by ERI in this business analysis will be generally consistent with that used by ERI in previous market impact analyses prepared for DOE for the sale or transfer of other materials identified. The methodology may need to be supplemented by analysis to provide additional detail on the impact on commercial markets and the domestic industry. The analysis will be based upon the most recent forecasts of requirements published by ERI and others, corresponding supply forecasts, and any other industry information necessary to ensure the most current and accurate analysis possible. It will address the potential effect of such sales or transfers by DOE on the commercial markets for uranium concentrates, conversion services and enrichment services, as well as their potential impact, if any, on initiatives that are presently underway, including current uranium extraction operations, uranium exploration and development, previously announced plans to license and construct new enrichment facilities, or the U.S. Russia Suspension Agreement as amended during 2008

Price

The estimated level of effort for this task is the range of 240 to 300 hours provided from two subject matter experts and editors. At the current DOE-ERI contract rates the estimated cost range is $[REDACTED].

Schedule

DOE has requested that the analysis be completed and a report delivered by March 20, 2014. This schedule represents a significant compression of the timeline originally envisioned by ERI. ERI will use its best efforts to meet the March 20 delivery date, but cannot guarantee this. ERI's ability to meet the desired schedule will be assisted by DOE's authorization for ERI to begin work on this task as soon as possible and by DOE's transmittal to ERI of relevant information on a timely basis.