Commercial Viability of USEC and ACP Update – 2009

A service of UxC®

Ux Consulting
1401 Macy Drive
Roswell, GA 30076
(770) 642-7745
www.uxc.com

Pictures on cover are from GobalSecurity.org and DOE.

Table of Contents

List of Figures

List of Tables

1 – Introduction

In January 2008, The Ux Consulting Company, LLC (UxC) published the third report in our series of viability assessments of the United States Enrichment Corporation (USEC) along with an update to a previous UxC study on USEC's American Centrifuge Project (ACP). Over a year and a half has passed since these reports were issued, and a number of significant events have occurred that are having both positive and negative impacts on the near and long-term viability of USEC. Recent turbulent events involving whether or not the U.S. Department of Energy (DOE) would award a $2.0 billion loan guarantee to help finance the completion of the ACP project has raised concerns about USEC's viability, especially among interested parties in the nuclear industry, investment community, and policy world.

USEC also has other fundamental business issues that it is facing, besides the intricacies of the ACP project. USEC's business will be strongly impacted by the level of the uranium market price, the end of the Russian high enriched uranium (HEU) agreement in 2013, and the need to renegotiate a new power contract with the Tennessee Valley Authority (TVA) after the current contract expires in May of 2012. USEC also has to manage a massive downsizing of its structure and market presence after the end of the HEU agreement, when it will go from a company selling 12-13 million Separative Work Units (SWU) per year (approximately $1.8 billion in revenue) to one selling 3.5-4.0 million SWU per year (approximately $750 million in revenue). Moreover, these changes will all be occurring while the company is being buffeted by the winds of rapid movements caused by its competitors and a volatile uranium market.

This report builds on the January 2008 report by analyzing and reviewing how these issues are impacting USEC's financial performance and how they will likely influence the company's long-term outlook. In addition, as a follow-on to our 2006 and 2008 ACP analyses, this report also presents an in-depth review of the ACP project as it stands today. Our findings for the ACP project are troublesome and lead us to a number of conclusions and strategic alternatives that we believe USEC should be considering. We also discuss the activities of USEC's competitors and how their rapid SWU capacity expansions could be closing the door on USEC's future options in the global uranium enrichment market. In the end, we look at USEC's situation as we see it from the results of our technical, financial, and market analysis, and offer some possible future scenarios.

Overview of the Report

This report is a comprehensive, updated review of the current status and future prospects for USEC as a company, especially in light of the July 28 DOE announcement regarding its initial evaluation of USEC's $2.0 billion loan guarantee application for completion of the ACP project. The DOE had technical and financial concerns with the ACP technology and with USEC's financial wherewithal to repay such a large loan and did not award a loan guarantee to USEC. Instead, DOE offered USEC $45 million to continue ACP testing for 12-18 months. Although the DOE initially requested USEC to withdraw its loan guarantee application, the DOE reversed that request and has allowed USEC another six months or so to further test the ACP technology. At the end of the additional ACP testing, the DOE will re-evaluate the USEC application. All of this has resulted in delays in the ACP program (on top of delays that were already inherent in the program execution) that will impact USEC's timely commercialization of the ACP. In this report, we discuss USEC's current situation stemming from the DOE's recent actions and the impact this, and other business items, will have on USEC's future as an on-going concern. This report is structured as follows:

In **Chapter 2 – UxC Update of the American Centrifuge Plant**, we look at the progress of the USEC American Centrifuge Plant project since our last report of January 2008. USEC's many announcements on ACP events since January 2008 are listed and analyzed for insights into technical progress. We also look closely at the progress on milestones jointly established by USEC and the DOE in 2002 that were created to mark key and timely events in the commercialization of the ACP. Our findings are telling and interesting, not only about the progress made on the ACP but also about the manner in which the ACP was launched and later managed by USEC.

In **Chapter 3 – DOE's Evaluation of USEC's Loan Guarantee Application,** we construct an in-depth analysis of what we think were the technical and financial issues with the ACP project and with USEC that caused the DOE initially to deny a loan guarantee for the ACP project. After an initial request for USEC to withdraw its loan guarantee application, the DOE reversed its position one week later and agreed to allow USEC an additional six months or so to further test the ACP machines for readiness for commercial startup.

In **Chapter 4 – DOE Deferment of USEC Loan Guarantee Application Review**, we analyze this DOE deferment of a review of USEC's loan guarantee application for six months (or longer), and we make a prediction, not only on the outcome of a loan guarantee, but also on the more comprehensive outlook for what this means for USEC.

Chapter 5 – Repercussions from Loan Guarantee Delay discusses the obvious and potential consequences of even a six-month delay for USEC in getting a DOE loan guarantee and the possibility of a longer delay.

Chapter 6 – USEC's Recent Financial Performance reviews and analyzes the movements in USEC's stock price, the basis of its recent earnings, USEC's debt structure, and key items on its balance sheet, including USEC's rapid reduction in cash over the last 9-12 months. We look closely at USEC's uranium and SWU inventories and why it is important to understand how USEC accounts for these inventories.

In **Chapter 7 – USEC's Business Segments**, we delve deeply into USEC's sources of revenue and their costs and margins to ascertain if USEC will have the wherewithal to sustain itself as an on-going, private corporation through at least 2018.

Since USEC does not operate in a vacuum, in **Chapter 8 – The SWU Market: USEC's Window of Opportunity Is Closing,** we take an over-arching view of the SWU market today and in the future from both the supply and demand sides, and analyze where USEC might fit in this market with or without an ACP facility. The current activities of USEC's competitors are critically important to USEC's future position in the market, and we explore these in some depth in this chapter.

Making assumptions about USEC's sources of revenues and costs, we then analyze its long-term profitability through 2018 in **Chapter 9 – USEC's Long-Term Profitability and Viability.** Power costs to run the Paducah gaseous diffusion plant and purchase price costs for SWU under the HEU agreement are critical to this analysis. USEC's non-SWU sources of income are also comprehensively explored.

Lastly, the report examines a number of potential strategic alternatives that could be available to USEC. **Chapter 10 – Strategic Alternatives** examines several strategic options for USEC and ranks them by probability of occurrence and benefit to USEC. Some alternatives provide better outcomes than others, and some are more under USEC's control than others.

Chapter 11 – Final Observations and Conclusions wraps up the report with some final words on USEC's latest predicament regarding a delay in a DOE loan guarantee and also with issues in the ACP program itself.

In **Chapter 12 – Supporting Data and Calculations**, we include detailed data spreadsheet analyses for USEC's sources of revenue and its future profit and loss comparisons based on UxC's expert judgments.

A number of useful reference items are also included in the attached **Appendices** and **Glossary of Terms** at the end of this document.

– DISCLAIMER –

The Ux Consulting Company, LLC (UxC) wishes to note that all of the information and analysis in this report is based on publicly available information. Because USEC is a publicly traded company on the New York Stock Exchange it is required by U.S. securities laws to distribute various financial reports and to include certain types of key information in those reports. As a result, one can often estimate certain costs and revenues based on USEC's published financial information. However, because the USEC published information is mostly retrospective rather than prospective in nature, UxC must make certain assumptions when projecting into the future. This update report also assumes that the reader has significant background knowledge of USEC, its American Centrifuge Plant (ACP) project, and the context in which the company is operating in today's nuclear fuel markets.

Also, UxC notes that the ACP is a classified technology program, and UxC has no access whatsoever to any classified information on the ACP. Our technical analysis of the ACP is done completely from information in USEC's own press releases and financial statements.

