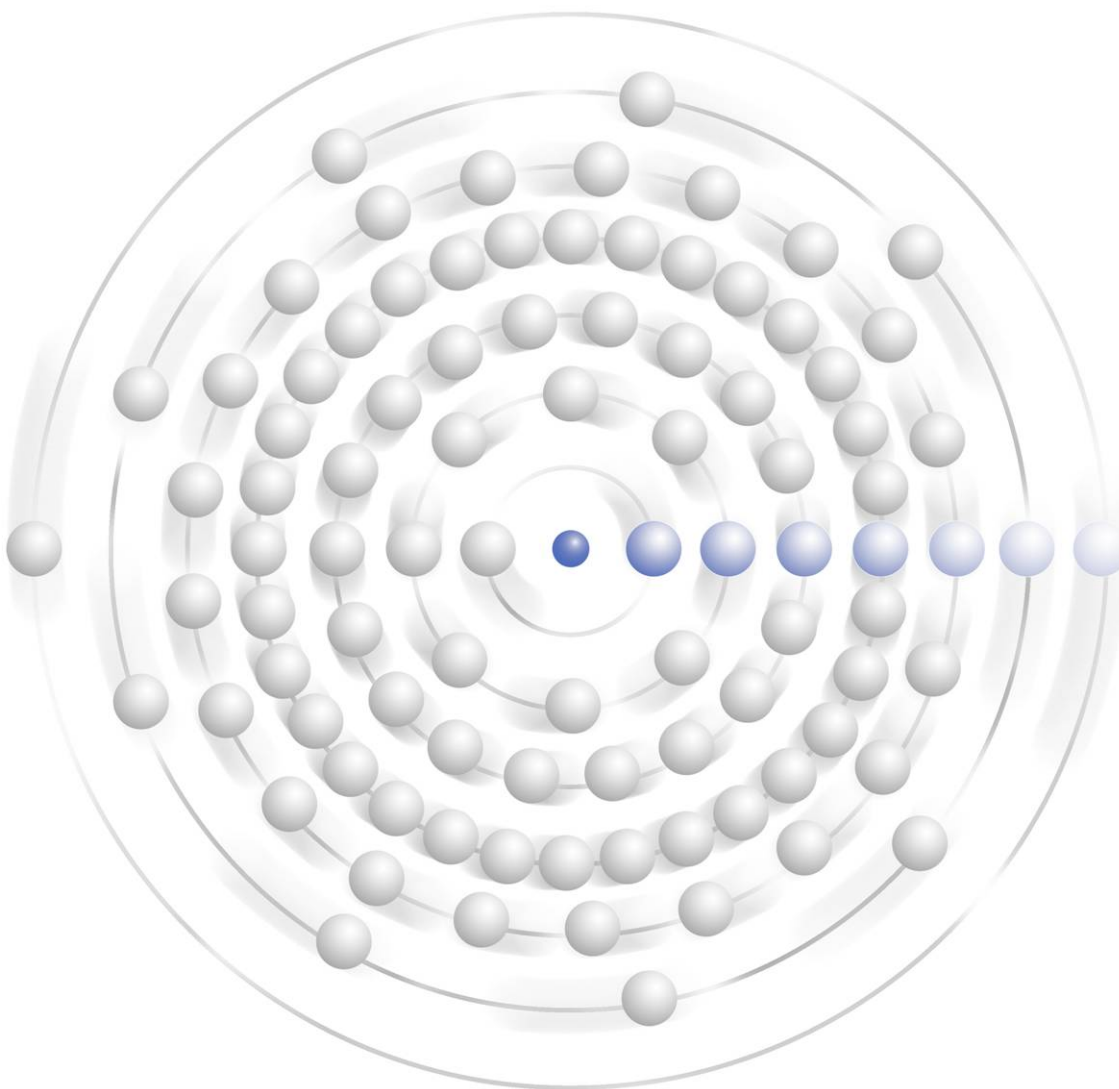




Russia's Enrichment Industry in the Post-Fukushima Era



A service of



Ux Consulting
1501 Macy Drive
Roswell, GA 30076
(770) 642-7745
www.uxc.com

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Table of Contents

Executive Summary	i
<i>Russia's Enrichment Industry in the Post-Fukushima Era</i>	i
Introduction	4
Structure of Report	4
1 – Winds of Change	6
2 – Restructuring of the Enrichment Sector	9
TVEL Takeover: Consolidation within “Fuel Company”	9
Consolidation within “Fuel Company”	10
TENEX's New Role	12
Demise of Atomenergoprom	13
3 – Enrichment Supply & Demand Balances	14
4 – Russia's Enrichment Supply Analysis	16
Russia's Operating Enrichment Capacity	16
Utilization of Existing Capacity	17
• Tails Re-Enrichment – European and Russian Tails	17
• HEU-LEU	18
• RepU Enrichment	18
• SWU Requirements for Russian-designed Reactors	19
• SWU Exports	19
Modernization and Expansion of Russia's Enrichment Capacity	20
• Centrifuge Replacement Program	20
• Rethinking the Uranium Enrichment Center (UEC)	20
• ECP – Flagship Enrichment Plant	21
• Expansion Plans	21
5 – Russia's Centrifuge Manufacturing Industry	23
Consolidation	23
Gen IX Centrifuge Development	24
Export of Gas Centrifuge Technology	25
Recent Developments	26
6 – Russia's Enrichment Demand Analysis	27
SWU Requirements for Russian-Designed Reactors	27
Determining “Marketable SWU”	29
Geographic Distribution for Russian Enrichment Sales	30
European Union	31
• Fukushima Impacts	32
United States	33
• TENEX-USEC Contract	33
Asia-Pacific and Africa	35
• Fukushima Impacts	36
Rest of the World	37
7 – Excess Enrichment Capacity: Russia's Options	38
Reduction of Supply	39
Foreign Tails Re-Enrichment	40
Decreasing Tails Assay	40
Finding Alternate Sales Pathways	41

8 – Conclusions	42
Appendix 1 – Relevant UxC Policy Watch Updates	44
Russia-Japan Nuclear Energy Cooperation (July 22, 2009)	44
Nuclear Trade in the Russia-EU Energy Dialogue (July 30, 2009)	48
Russian Suspension Agreement Update (August 16, 2010)	52
U.S.-Russia 123 Agreement Update (January 13, 2011)	55
Appendix 2 – Relevant UxC USEC Watch Update	58
USEC Announces Contract With TENEX to Extend SWU Supply	58
Appendix 3 – Relevant UxC EMO Updates	65
Q3 2011 EMO Rosatom/TENEX Updates	65
• Impact of Fukushima	65
• AECC	65
• Electrochemical Plant	65
• Siberian Chemical Combine	66
• TENEX Contracting	67
• TENEX Receives Syndicated Loan	67
Q2 2011 EMO Rosatom/TENEX Updates	67
• Centrifuge Manufacturing	67
• Impact of Fukushima	68
• Electrochemical Plant	68
• U.S. Enrichment Plant	69
• TENEX Contracting	69
• Uranium Enrichment Center	69
• U.S.-Russian Nuclear Trade Issues	70
Q1 2011 EMO Rosatom/TENEX Updates	70
• Production Association “Electrochemical Plant”	70
• Siberian Chemical Combine	70
• Tochmash	71
• TENEX Preliminary Annual Results for 2010	71
• Contracting with U.S. Utilities	71
• Russian Suspension Agreement and Domenici Amendment Implementation	72
• TENEX-USEC Contract	72
• TENEX-Toshiba Cooperation	72
• TENEX-Japan Relations in the Aftermath of the Fukushima Accident	73
• International Uranium Enrichment Center	73
• Uranium Enrichment Center	74

List of Figures

Figure 1. Russian Target Enrichment Market Share vs. Capacity	7
Figure 1. Organizational Structure of Russia's New Fuel Company	10
Figure 2. Russia's Forecasted Enrichment Supply and Demand, 2010-2020	15
Figure 3. Russian Enrichment Capacity Allocation in 2010.....	17
Figure 4. Russia's Operable Enrichment Capacity.....	22
Figure 5. Gas Centrifuge Manufacturing at Tochmash	23
Figure 6. Russian Domestic Reactor Enrichment Requirements, 2010-2020.....	28
Figure 7. Russian Export Reactor Enrichment Requirements, 2010-2020	28
Figure 8. Deployment of Russian Enrichment Capacity, 2010-2020	29
Figure 9. TENEX's Target Market Share	30
Figure 10. Geographical Distribution of TENEX's Enrichment Sales, 2007-2010.....	31
Figure 11. Supply of Enrichment to EU Utilities by Country, 2001-2010.....	32
Figure 12. Flat Enrichment Capacity Scenario, 2010-2020.....	39

List of Tables

Table 1. Nameplate and Operable Capacities of Russia's Enrichment Facilities: 2010	16
Table 2. SWU Quantities under USEC/TENEX Supply Contract	34

Introduction

This special report by the Ux Consulting Company (UxC) on *Russia's Enrichment Industry in the Post-Fukushima Era* emanates from a recent essay on the same topic as published in our 2011-Q3 *Enrichment Market Outlook* (EMO) report. This detailed special report looks at the prospects for Russia's enrichment business after the Fukushima accident.

The accident that took place on March 11, 2011, at the Fukushima Daiichi nuclear power plant in Japan created turmoil in the global nuclear fuel markets and has had a profound impact on Russia's entire nuclear industry. Russia's flagship enrichment program, which provides one of the country's key nuclear exports, has also felt the impact of these recent events. These negative events are taking place amidst exciting times for the Russian enrichment industry as the country is normalizing trade relations with some of its key markets. Furthermore, as a number of key programs (e.g., enrichment of the European tails and the HEU Agreement) come to an end, Russia is focusing on sale of its commercial SWU. All of this is taking place as the Russian nuclear industry has embarked on a new wave of restructuring. These numerous changes make this an important time to examine the current state and future prospects of Russia's enrichment sector.

At the heart of this special report is UxC's analysis of the Russia's enrichment supply and demand balances. One of the key questions for the global enrichment industry is how Russia will deploy its substantial excess production capacity. With this large, although restricted, volume of SWU supply overhanging the market, one of the biggest questions for the enrichment market for the next decade is "What will Russia do next?" Russia's task of finding markets for this SWU has become even more difficult after the Fukushima accident. As such, this new report takes a detailed look at how Russia's capacity expansion and marketing in particular might react to the reduction in global and regional market sizes stemming from the Fukushima accident. Russia is one of the world's key enrichers, and it had ambitious expansion plans prior to Fukushima. These plans will need to be altered in light of the accident, and this essay explores how this may be accomplished.

Structure of Report

This report includes separate chapters that provide information and analysis on various aspects of Russia's enrichment industry. The report proceeds along the following format:

Chapter 1 – Winds of Change looks at the changing environment in which the Russian enrichment industry finds itself as it normalizes trade relations with key market players, frees up more of its SWU for commercial sale, and now faces the changed global market conditions in wake of the Fukushima events. This chapter sets the stage for the rest of the report.

Chapter 2 – Restructuring of the Enrichment Sector covers major changes that the enrichment complex has experienced up to day, examines both the reasoning behind the changes and the implications of these changes for Russia's exporters of enrichment services, TENEX and TVEL.

Chapter 3 – Enrichment Supply & Demand Balances presents UxC latest estimates of Russia's enrichment supply and effective demand, which presents our finding that Russia is left with a significant amount of excess SWU capacity. In the next chapters we take a closer look separately at supply and demand for Russian enrichment services.

Chapter 4 – Russia's Enrichment Supply Analysis takes a look at both the present state and future prospects of the Russian enrichment supply, including the current operating capacity and its allocation, as well as modernization and expansion plans.

Chapter 5 – Russia's Centrifuge Manufacturing Industry is new and was not included in the Q3 2011 EMO essay. This chapter examines the current state of Russia's gas centrifuge manufacturing, which is key to the industry's ability to modernize and expand, and the latest efforts in developing the newest Generation IX centrifuges.

Chapter 6 – Russia's Enrichment Demand Analysis takes a close look at demand for Russian enrichment services on regional basis, paying special attention to the changes in demand brought about by the Fukushima accidents.

Chapter 7 – Excess Enrichment Capacity: Russia's Options tackles the question at the heart of this report: how Russia will deploy its sizable excess enrichment capacity.

The final **Chapter 8 – Conclusions** offers final thoughts on the future of Russia's enrichment industry in light of its current status and future prospects in the new post-Fukushima era.

Several additional useful items are included in the accompanying **Appendix**, including:

- Relevant UxC Policy Watch Updates
- Relevant UxC USEC Watch Updates
- UxC 2011 EMO quarterly updates on Russia