

# Essays from UxC's Fabrication Market Outlook

## **Toggle Descriptions**

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#### Oct Recent Fabrication Market Highlights and Trends

2023 This year's in-depth topical essay, titled "Recent Fabrication Market Highlights and Trends" reviews all the major new and exciting developments shaping the global fuel fabrication markets these days. This includes analysis of shifts in demand, the evolving situation in Europe's VVER market, the latest status of new fuel designs, efforts to deploy Accident Tolerant Fuels (ATFs), High Burnup Fuels (HBFs), and LEU+ fuel, as well as various other interesting developments.

## Sep Implications of Russia's War for the Fabrication Market

2022 This year's essay, titled "Implications of Russia's War for the Fabrication Market," delves into the anticipated changes to VVER fuel supply and demand and market trends due to Russia's war on Ukraine as several VVER operators look to shift away from reliance on Russia. Other expected changes to TVEL's position in the fabrication market due to fallout from the war are also analyzed.

## Aug Impacts from Unique Reactor Operating Issues

2021 This year's in-depth topical essay titled "Impacts from Unique Reactor Operating Issues" examines the various effects on the fabrication industry from non-standard reactor operating conditions. This includes a discussion of recent and anticipated future trends and their impacts on fabrication from such reactor conditions as new reactor first cores, extended outages and reactor restart cores, final cores for retiring reactors, and unused fuel from canceled or abruptly closed reactors.

## Aug HALEU Implications for the Fabrication Industry

2020 This year's essay, titled "HALEU Implications for the Fabrication Industry," examines the increasing interest in high assay low enriched uranium (HALEU) fuel, especially by utilities looking to enhance fuel performance and fuel cycle economics through higher burnups. The essay examines both the drivers and challenges to implementing HALEU fuel, and how fabrication vendors are tackling the issues that this type of fuel presents.

## Aug How Fabrication Fits Into the Bigger Fuel Picture

2019 This year's essay, titled "How Fabrication Fits Into the Bigger Fuel Picture," examines the role that fuel fabrication plays in terms of utility operating and fuel cycle costs and also what recent and near-term new industry trends will affect the way that fuel fabrication fits into utility fuel cycle and procurement considerations in the future.

## Aug Realignments in the Global Fabrication Industry

2018 This year's essay, titled "Realignments in the Global Fabrication Industry," reviews the major changes affecting the various vendors and how these are likely to shape the future of the industry. Corporate restructurings, consolidation, and reorganizations are occurring with significant implications for suppliers and buyers alike.

#### Aug An Update on Accident Tolerant and Advanced Fuels

2017 This year's in-depth topical essay entitled "An Update on Accident Tolerant and Advanced Fuels" provides a review of the latest status on Accident Tolerant Fuels (ATF), which have seen some rapid advances since we last published an essay on this topic in 2015. The essay focuses on the recent developments related to ATF and the future prospects for their testing and eventual commercial deployment.

## Jul Is There MOX In Your Future?

2016 This year's essay, entitled "Is There MOX In Your Future?" focuses on the status and future deployment (or not) of mixed-oxide (uranium oxide, UO2, + plutonium oxide, PuO2) fuel throughout the world. Once thought to be standard practice, MOX fuel utilization, while being advanced in some nations, has become highly controversial in others due to the rising cost of reprocessing and MOX fabrication, the difficulties in bringing new facilities on line in many areas, and the nonproliferation safeguards and other political factors associated with MOX fuel.

## Jul Look What's Coming: Nuclear Fuels of the Future

2015 This year's in-depth topical essay in "Look What's Coming: Nuclear Fuels of the Future" provides a review of the advanced research being conducted on new nuclear fuel designs and concepts around the world, including Accident Tolerant Fuel (ATF) among other new technologies.

#### Jul The Death of Competition?

2014 This year's in-depth topical essay entitled "The Death of Competition?" pulls together the competition-related portions of previous essays, adds additional analyses and insights and presents a comprehensive assessment of the present declining trends in competition, how the fabrication markets may develop in future years and what (if anything) can be done to enhance competition in various global markets.

## Jul The International Fabrication Industry in 2030

2013 This year's essay, titled "Challenging Niels Bohr: The International Fabrication Industry in 2030," provides UxC's assessment of the factors that will impact fabrication markets over the next two decades, how those factors will affect the industry, and how the various suppliers will evolve over this period. It also addresses the path of competition in various market segments.

#### Jul Competition in the Nuclear Fuel Fabrication Markets

2012 This year's in-depth topical essay "Competition in the Nuclear Fuel Fabrication Markets" provides an analytical discussion of what constitutes competition in the fabrication markets from the utility and vendor standpoints, the changing nature of competition in contemporary markets, and how this is being manifest in each geographic and technical fuel fabrication market segment.

## Jul Fukushima, Fabrication and the Future

2011 This year's in-depth topical essay entitled "Fukushima, Fabrication and the Future" provides an analytical discussion of the likely impacts of the Fukushima accident on all aspects of the fuel fabrication market as well as addressing other recent trends in the industry.

## Jul (In)Security of Supply - What About Fabrication?

2010 In this year's essay, (In)Security of Supply - What About Fabrication?, we provide an analytical discussion on the question of security of fabrication supply. This is a topic that has gotten little attention in the industry despite the substantial discussion that has taken place regarding security of natural and enriched uranium supplies.

## Jul Changing Partners - Shifting Alliances in the Fabrication Industry

2009 In this year's essay, Changing Partners - Shifting Alliances in the Fabrication Industry, we describe and assess all of the principal initiatives, joint ventures, or "marriages and divorces" among the world's fuel suppliers, and their potential future impacts on the market. This year is the first time we include a detailed analytical essay on the fuel fabrication market.

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