

# Essays from UxC's Nuclear Power Outlook

## **Toggle Descriptions**

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#### Q3 2023 Q3 Nuclear Power Market Trends & Analysis

2023 This quarter's Chapter 1 - Nuclear Power Market Trends & Analysis provides a review of the current state and recent trends for new nuclear power development in Africa. Our "In The Spotlight" section examines the latest report on World Energy Investments by the IEA and what these investments say about choices on new energy

## Q2 2023 Q2 Nuclear Power Market Trends & Analysis

2023 This quarter's Chapter 1 - Nuclear Power Market Trends & Analysis provides an update on the latest major trends in China's nuclear new build program with special focus on analyzing the growing list of new nuclear plant sites being developed around the country. Our "In The Spotlight" section reviews the recent "The Future of Nuclear Power: 2023 Baseline Survey" conducted by the Nuclear Energy Institute (NEI) as we examine key future trends shaping the U.S. nuclear power industry.

#### Q1 2023 Q1 Nuclear Power Market Trends & Analysis

2023 This quarter's Chapter 1 - Nuclear Power Market Trends & Analysis includes a review of the current state of the large LWR nuclear market with profiles and analysis of each of the main large LWR designs available in the world today. Our "In The Spotlight" section reviews the recent BP Energy Outlook 2023 report, which offers some unique views on the future direction of the global energy markets, including the prospects for nuclear power.

#### Q4 2022 Q4 Nuclear Power Market Trends & Analysis

2022 This quarter's Chapter 1 - Nuclear Power Market Trends & Analysis starts with our annual "Year in Review," which provides a full recap of the key developments and nuclear market trends from 2022. Additionally, we examine potential future developments through our take on expectations for the nuclear markets in the coming year. Our "In The Spotlight" section reviews several recent new global energy and nuclear power projections, including those published by the OECD IEA and IAEA.

## Q3 2022 Q3 Nuclear Power Market Trends and Analysis

2022 This quarter's Chapter 1 - Nuclear Power Market Trends & Analysis focuses on a recent survey and energy modeling study by the Nuclear Energy Institute (NEI) that evaluate the future potential for nuclear new build in the United States. Our "In The Spotlight" section this quarter reviews the OECD's International Energy Agency (IEA) latest report that examines how nuclear power can help respond to the twin energy security and climate crises.

#### Q2 2022 Q2 Nuclear Power Market Trends and Analysis

2022 This quarter's Chapter 1 - Nuclear Power Market Trends & Analysis focuses on the dramatic changes to national energy policies unfolding in Europe as a result of Russia's war in Ukraine and the implications this is having for nuclear power developments in the region. Our "In The Spotlight" section this quarter reviews a new report by the OECD's Nuclear Energy Agency focusing on nuclear power's role in reaching Net Zero targets by 2050.

## Q1 2022 Q1 Nuclear Power Market Trends and Analysis

2022 This quarter's Chapter 1 - Nuclear Power Market Trends & Analysis focuses on a detailed review and initial analysis of our new nuclear power projections that have now been extended through the year 2050. Our "In The Spotlight" section this quarter analyzes the implications of the European Union's inclusion of nuclear energy in its sustainable finance Taxonomy.

## Q4 2021 Q4 Nuclear Power Market Trends and Analysis

2021 This quarter's Chapter 1 - Nuclear Power Market Trends & Analysis starts with our annual "Year in Review," which provides a full recap of the key developments and nuclear market trends from 2021. Additionally, we examine potential future developments through our take on expectations for the nuclear markets in the coming year. Our "In The Spotlight" section reviews several recent new global energy and nuclear power projections, including those published by the OECD IEA, U.S. EIA, and

# Q3 2021 Q3 Nuclear Power Market Trends and Analysis

2021 This quarter's Chapter 1 - Nuclear Power Market Trends & Analysis provides a global analysis of the advanced reactor (AR) and small modular reactor (SMR) market with emphasis on the latest status and developments as well as the outlook for AR/SMR deployment in key countries over the coming two decades. Our "In The Spotlight" section this quarter reviews the key findings from the IEA's recent World Energy Investment 2021 report.

## Q2 2021 Q2 Nuclear Power Market Trends and Analysis

This quarter's Chapter 1 - Nuclear Power Market Trends & Analysis analyzes the new 14th Five Year Plan issued by China's government and how the country's specific targets for nuclear power through 2025 will be implemented. Our "In The Spotlight" section this quarter reviews the important recent actions taken by governments in Central and Eastern Europe that could lead to multiple nuclear new build projects materializing.

## Q1 2021 Q1 Nuclear Power Market Trends and Analysis

This quarter's Chapter 1 - Nuclear Power Market Trends & Analysis provides a thorough update of the state of nuclear power in China, including analysis of the latest 2020 annual generation data as well as trends for new reactor development in the country. Our "In The Spotlight" section provides a detailed look at the state of the nuclear hydrogen market, which is rapidly evolving into an exciting new growth area for the nuclear industry.

## Q4 2020 Q4 Nuclear Power Market Trends and Analysis

2020 This quarter's Chapter 1 - Nuclear Power Market Trends & Analysis starts with our annual "Year in Review," which provides a full recap of the key developments and nuclear market trends from 2020. Additionally, we examine possible future developments through our take on expectations for the nuclear markets in the coming year. Our "In The Spotlight" section reviews several recent new global energy and nuclear power projections, such as the latest World Energy Outlook 2020 published by the OECD's International Energy Agency.

## Q3 2020 Q3 Nuclear Power Market Trends and Analysis

2020 This quarter's Chapter 1 - Nuclear Power Market Trends and Analysis focuses on China with two special analysis sections. The first is a review of China's nuclear regulatory system and discussion of how new reactor project applications are reviewed and processed. Our "In the Spotlight" section presents an analysis of the state of the Westinghouse AP1000 design in China and future prospects for reactor projects based on this design.

## Q2 2020 Q2 Nuclear Power Market Trends and Analysis

2020 This quarter's Chapter 1 - Nuclear Power Market Trends and Analysis includes detailed discussions of the implications of the COVID-19 pandemic for global nuclear power as well as specific analysis of the impacts on China's nuclear power developments. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

#### Q1 2020 Q1 Nuclear Power Market Trends and Analysis

2020 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis includes a detailed look at the successes and challenges related to Germany's energy transition.

Our "In The Spotlight" section reviews the latest status of the nuclear power industry in China with specific emphasis on the emergence of three new utilities as future majority owners of nuclear power plants. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

#### Q4 2019 Q4 Nuclear Power Market Trends and Analysis

2019 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis starts with our annual "Year in Review," which provides a full recap of the key developments and nuclear market trends from 2019. Additionally, we examine possible future developments through our take on expectations for the nuclear markets in the coming year. Our "In The Spotlight" section reviews global forecasts recently published by the International Energy Agency, U.S. Energy Information Administration, and International Atomic Energy Agency focusing on their takes on the future of electricity supply and the role of nuclear power. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

#### Q3 2019 Q3 Nuclear Power Market Trends and Analysis

2019 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis includes a detailed analysis of the International Energy Agency's latest "World Energy Investment 2019" report, in which it tracks investment trends across the energy sector. Our "In The Spotlight" section examines the situation in Belgium given recent statements by the grid operator that the country will face power shortages if it shuts down all seven operating reactors by 2025. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

#### Q2 2019 Q2 Nuclear Power Market Trends and Analysis

2019 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis includes a detailed analysis of the growth in electricity demand due to various factors (e.g., housing electrification, electric vehicles, etc.) and how nuclear power might play a role in supplying more of this electricity in the future. Our "In The Spotlight" section provides a review of the latest status of the emerging market for micro-reactors, including profiles of some of the leading technologies, and discusses the future outlook for these designs. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

#### Q1 2019 Q1 Nuclear Power Market Trends and Analysis

2019 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis includes a detailed analysis of the latest status of nuclear power in China with focus on recent electric power market reforms and their potential impacts on new reactor construction. Our "In The Spotlight" section reviews the latest energy forecasts issued by the U.S. Energy Information Administration (EIA) and in the 2019 BP Energy Outlook. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

#### Q4 2018 Q4 Nuclear Power Market Trends and Analysis

2018 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis starts with our annual "Year in Review" that provides a full recap of the key developments and nuclear market trends from 2018. Additionally, we examine possible future developments through our take on expectations for the nuclear markets in the coming year. Our "In The Spotlight" section reviews the International Energy Agency's World Energy Outlook 2018 report and its perspectives on the future of electricity and the role of nuclear power. Lastly, we identify who is up and who is down with-in the global nuclear industry over the past quarter.

#### Q3 2018 Q3 Nuclear Power Market Trends and Analysis

2018 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis begins with a detailed analysis of the Chinese nuclear reactor construction situation, includ-ing discussions on current status and future prospects for new build in the world's fastest nuclear growth market. Our "In The Spotlight" section next provides a re-view of the International Energy Agency's World Energy Investment 2018 report and its implications for the nuclear industry. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

#### Q2 2018 Q2 Nuclear Power Market Trends and Analysis

2018 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis begins with an in-depth analysis of the state of battery electricity storage and the potential that such storage, when coupled for example with renewable power generation, has to compete with nuclear power for baseload electricity supply. Our "In The Spotlight" section provides an update on the state of nuclear power and prospects in the United States. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

## Q1 2018 Q1 Nuclear Power Market Trends and Analysis

2018 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis starts with a detailed analysis and update on the electricity market in China and implications for the country's nuclear power program. Our "In The Spotlight" section reviews the latest energy outlooks published by BP and the U.S. Energy Information Administration (EIA). Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

# Q4 2017 Q4 Nuclear Power Market Trends and Analysis

2017 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis starts with our annual "Year in Review" that focuses on analyzing the key developments and nuclear market trends from 2017. Additionally, we examine possible future developments through our take on expectations for the nuclear markets in the coming year.

Our "In The Spotlight" section reviews the latest global energy outlooks published by the International Energy Agency(IEA) and U.S. Energy Information Administration (EIA). Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

## Q3 2017 Q3 Nuclear Power Market Trends and Analysis

2017 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis includes a detailed analysis of the uncertain future of global nuclear power in key countries and highlights the recent major changes to UxC's nuclear power forecasts for this quarter. Our "In The Spotlight" section reviews a recent International Energy Agency (IEA) report on "World Energy Investment 2017." Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

# Q2 2017 Q2 Nuclear Power Market Trends and Analysis

2017 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis includes a detailed analysis of the Westinghouse bankruptcy and its impact on the company's future prospects, especially its new reactor construction projects around the world. Our "In The Spotlight" section reviews a recent Global Nexus Initiative (GNI) report on "Evolving Nuclear Governance for a New Era." Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

## Q1 2017 Q1 Nuclear Power Market Trends and Analysis

2017 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis includes a detailed analysis of China's electricity market and related government reforms and how these could impact the role of nuclear energy in this key country. Our "In The Spotlight" section reviews the latest BP Energy Outlook and how BP's independent analysis views future energy trends and evaluates the future of nuclear energy. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

#### Q4 2016 Q4 Nuclear Power Market Trends and Analysis

2016 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis starts with our annual "Year in Review" that focuses on analyzing the key developments and nuclear market trends from 2016. Additionally, we examine possible future developments through our take on expectations for the nuclear markets in the coming year. Our "In The Spotlight" section this quarter provides additional analysis of the situation in France, where upwards of 20 reactors have been offline due to safety and quality assurance reviews. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

#### Q3 2016 Q3 Nuclear Power Market Trends and Analysis

2016 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis provides a detailed analysis of the increasing rivalry between the global reactor exporters of Russia and China. This in-depth analysis reviews both country's current state of reactor projects abroad and how the two nations are competing for new projects in many parts of the world. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

#### Q2 2016 Q2 Nuclear Power Market Trends and Analysis

2016 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis provides a detailed analysis of the state of the U.S. nuclear industry in light of negative market pressures and the drive for operating cost reductions by the utilities. Our "In the Spotlight" section this quarter reviews the International Energy Outlook 2016 published by the U.S. Energy Information Administration. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

#### Q1 2016 Q1 Nuclear Power Market Trends and Analysis

2016 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis includes a summary review, with specific focus on nuclear energy-related aspects, of the latest OECD International Energy Agency's "World Energy Outlook 2015," which was published late last year. Our "In the Spotlight" section this quarter provides an in-depth analysis of the latest situation of nuclear energy in the Middle East. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

#### Q4 2015 Q4 Nuclear Power Market Trends and Analysis

2015 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis starts with our annual "Year in Review" that focuses on analyzing the key developments and nuclear market trends from 2015. We also look at expectations for the nuclear markets in the coming year. Our "In the Spotlight" section this quarter provides an indepth look at the key drivers and challenges influencing China's nuclear power program, including an in-depth discussion of public acceptance issues in the country. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter

#### Q3 2015 Q3 Nuclear Power Market Trends and Analysis

2015 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis includes a detailed review of UxC's new Low case forecast for nuclear power and examines the factors behind a possible "Perfect Storm" that could lead to a worst case future scenario for the industry. Our "In the Spotlight" section examines the new Clean Power Plan in the U.S. and its potential impacts on the nuclear power sector. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

#### Q2 2015 Q2 Nuclear Power Market Trends and Analysis

2015 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis includes a detailed analysis of the current and future state of nuclear power in the Central and Eastern European (CEE) region. Our "In the Spotlight" section" this quarter includes an in-depth review of the state of nuclear power in Japan and prospects for restarts as well as long-term energy policies. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

#### Q1 2015 Q1 Nuclear Power Market Trends and Analysis

2015 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis starts with a detailed review of recent trends in public opinion related to nuclear power in key countries around the world. Our "In the Spotlight" section this quarter takes an in-depth look at the OECD Nuclear Energy Agency's (NEA) recent "Technology Roadmap" report, which provides a vision of the role nuclear energy could play in a low-carbon energy system. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

# Q4 2014 Q4 Nuclear Power Market Trends and Analysis

2014 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis starts with our annual "Year in Review" that focuses on analyzing the key developments and nuclear market trends from 2014. We also look at expectations for the nuclear markets in the coming year. Our "In the Spotlight" section this quarter provides an indepth look at Sweden's nuclear power prospects following the recent change to a new government that opposes nuclear. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

## Q3 2014 Q3 Nuclear Power Market Trends and Analysis

2014 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis provides a sneak peek at some of UxC's latest in-depth analysis of the nuclear reactor technology marketplace in our new 2014 Reactor Technology Outlook (RTO) special report. Our "In the Spotlight" section looks at whether Belgium's nuclear phase-out will happen sooner than previously expected. Lastly, we identify who is up and who is down within the global nuclear industry over the past quarter.

#### Q2 2014 Q2 Nuclear Power Market Trends and Analysis

2014 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis analyzes the biggest challenges to nuclear power today along with ways that these can be overcome. Our "In the Spotlight" section reviews the latest U.S. Energy Information Administration's Annual Energy Outlook. Lastly, we identify who is up and who is down within the global nuclear industry since the last quarter.

# Q1 2014 Q1 Nuclear Power Market Trends and Analysis

2014 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis begins with a detailed analysis of the two big questions in the nuclear markets today: China's new reactor program and Japan's reactor restarts. Our "In the Spotlight" section provides a review of the key conclusions in this year's BP Energy Outlook 2035. Lastly, we identify who is up and who is down within the global nuclear industry since the last quarter.

## Q4 2013 Q4 Nuclear Power Market Trends and Analysis

2013 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis starts with our annual "Year in Review" that focuses on analyzing the key developments and nuclear market trends from 2013. Our "In the Spotlight" section this quarter provides an in-depth look at China's rising reactor export ambitions and prospects for more developments in this area in the future. Lastly, we identify who is up and who is down within the global nuclear industry over the past year.

## Q3 2013 Q3 Nuclear Power Market Trends and Analysis

2013 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis starts with a section entitled "Is it Really Déjà vu All Over Again?," which offers a retrospective look at nuclear power forecasts from five and ten years ago and compares the current outlook to that of the recent past. Our "In the Spotlight" section provides a summary of the U.S. EIA's International Energy Outlook 2013, which includes forecasts for global nuclear power. Lastly, we identify who is up and who is down within the global nuclear industry since the last quarter.

#### Q2 2013 Q2 Nuclear Power Market Trends and Analysis

2013 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis reviews findings from a recent OECD NEA study on Long-Term Operations of NPPs and implications for nuclear power's future around the world. Our "In the Spotlight" section provides a summary of the U.S. EIA's Annual Energy Outlook 2013 and forecasts for U.S. nuclear power. Lastly, we identify who is up and who is down within the global nuclear industry since the last quarter.

#### Q1 2013 Q1 Nuclear Power Market Trends and Analysis

2013 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis introduces UxC's latest major addition to the NPO forecasts, namely our extension of all three reactor scenarios to 2040 (previously we ended our reactor forecasts at 2030). We are also introducing a new gigawatt-hour (GWh) forecast, which allows for better visualization of future nuclear power operations. Given the continuing uncertainty around Japan, our "In the Spotlight" section provides an updated analysis of the Japanese nuclear power situation. Lastly, we identify who is up and who is down within the global nuclear industry since the last quarter.

#### Q4 2012 Q4 Nuclear Power Market Trends and Analysis

2012 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis reviews the major trends in the industry over the past year and looks specifically at the long-term development of nuclear power in key countries and regions after Fukushima. The chapter also includes a special spotlight on the broader energy forecasts presented in the latest OECD International Energy Agency's World Energy Outlook 2012 report. Lastly, we identify who is up and who is down within the global nuclear industry over the past year.

## Q3 2012 Q3 Nuclear Power Market Trends and Analysis

2012 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis reviews the trends in the industry over the past quarter and looks specifically at the impacts of post-Fukushima safety requirements on operating reactors and implications for nuclear reactor economics. The chapter also includes a special spotlight on the U.S. NRC's decision to halt reactor licensing decisions until it updates its Waste Confidence Rule. Lastly, we identify who is up and who is down within the global nuclear industry since the last quarter.

#### Q2 2012 Q2 Nuclear Power Market Trends and Analysis

2012 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis reviews the trends in the industry over the past quarter and looks closely at the regional variation in terms of nuclear power markets after the Fukushima. The chapter also includes a special spotlight on the French and UK nuclear programs, with analysis of their current status and future prospects. Lastly, we identify who is up and who is down within the global nuclear industry since the last quarter.

#### Q1 2012 Q1 Nuclear Power Market Trends and Analysis

2012 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis reviews the trends in the industry over the past quarter and looks closely at the state of the global nuclear power markets nearly one year after the Fukushima accident. The chapter also includes a special spotlight on the U.S. nuclear industry status and prospects. Lastly, we also identify who's up and who's down within the international nuclear industry over the quarter.

#### Q4 2011 Q4 Nuclear Power Market Trends and Analysis

2011 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis reviews the year's annual trends in the industry and looks closely at the deeper meaning behind the Fukushima accident in terms of both positive and negative indicators for nuclear power. The chapter also includes a special spotlight on the International Energy Agency's World Energy Outlook 2011 and the vision this report presents on the future of nuclear power after Fukushima. Lastly, we also identify who's up and who's down within the international nuclear industry over the year.

#### Q3 2011 Q3 Nuclear Power Market Trends and Analysis

2011 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis reviews both the positive and negative nuclear market trends since Fukushima with special focus this time on the nuclear power program in Japan and its prospects after the fateful accident of March 11, 2011. We also identify who's up and who's down within the international nuclear industry this quarter.

## Q2 2011 Q2 Nuclear Power Market Trends and Analysis

2011 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis reviews the major global and regional trends in nuclear power over the past quarter with special focus this time on the worldwide ramifications of the Fukushima Daiichi nuclear plant accident in Japan. We also identify who's up and who's down within the international nuclear industry this quarter.

## Q1 2011 Q1 Nuclear Power Market Trends and Analysis

2011 This quarter's Chapter 1 – Nuclear Power Market Trends and Analysis reviews the major global and regional trends in nuclear power over the past year. It also identifies who's up and who's down within the international nuclear industry. In addition, this quarter's "In the Spotlight" section evaluates the difficulties being encountered by the U.S. nuclear renaissance.

## Q4 2010 Nuclear Power Market Trends and Analysis

2010 The essay reviews and analyzes the major global and regional trends in nuclear power over 2010. It also identifies who's up and who's down within the international nuclear industry in terms of countries, utilities, NSSS vendors, and EPCs/Component suppliers. Lastly, it includes a spotlight discussion on the IEA's World Energy Outlook 2010 forecasts for global energy supply and demand.

#### Q3 Small Modular Reactors: Is Smaller Better?

2010 This quarter's essay in Chapter 1 – Essay: Small Modular Reactors: Is Smaller Better? provides an overview analysis of the latest trends with small modular reactors (SMR) and the reasons for increased interest in SMRs around the globe as an alternative to large 1,000 MWe plus reactors.

## Q2 Nuclear Energy Prospects in Southeast Asia

2010 This quarter's essay in Chapter 1 – Essay: Nuclear Energy Prospects in Southeast Asia analyzes the potential for nuclear power plants being deployed in various countries within the Southeast Asian region.

# Q1 Nuclear Power and Climate Change

2010 This quarter's essay, "Nuclear Power and Climate Change" analyzes the nexus between carbon-neutral nuclear power and the policies around the world to reduce greenhouse gas emissions that are believed to be the cause of man-made global warming and climate change.

#### Q4 A Forecast For Every Season

2009 Given the intriguing results from multiple recent nuclear power forecasts from the WNA, IAEA, EIA, and OECD-IEA, the purpose of this essay is to examine both the common themes and the variations among these forecasts as well as to compare and contrast them with our own UxC reactor growth scenarios that are presented on a quarterly basis through the NPO.

# Q3 A New Model to Forecast Fuel Cycle Requirements

2009 The purpose of this quarter's essay, "A New Model to Forecast Fuel Cycle Requirements", is to provide a detailed explanation of how the UxC Requirements Model (URM) was developed, how it functions and is updated, and how the results for each quarter's fuel cycle requirements are created and used. We also examine how the URM ties in to the reactor forecasts presented in UxC's Nuclear Power Outlook reports.

#### Q2 Nuclear Energy Prospects in the Middle East

2009 The goal of this essay is to understand the current status of nuclear energy development in the Middle East, identify potential challenges, and discuss future trends. We also focus on some concrete steps to introduce nuclear reactors into the energy mix of a few key countries in the region and provide detailed forecasts for nuclear power development in the Middle East by 2030.

## Q1 From 0 to 1000 MWe: What It Takes To 'Go Nuclear'

2009 One important aspect to the anticipated growth in global nuclear power is that numerous new countries (mostly emerging economies) are taking serious steps towards developing their own domestic nuclear power programs. in this qessay we present a brief overview and initial analysis of the primary technical and logistical issues for any country attempting to "go nuclear," i.e. from zero megawatts (MWe) of nuclear electricity to a fully operating commercial reactor.

#### Q4 Nuclear Power in an Uncertain World

2008 The global financial meltdown and near collapse of the credit markets in 2008 altered everyone's view of the future in one way or another. This essay explores in detail how the current and potential future economic uncertainties may alter the course of nuclear power developments around the world. We also assess the impact of the financial crisis on selected countries and report UxC's revised nuclear power forecasts.

#### Q3 New Nuclear Power Plant Financing

2008 In this essay we examine the issue of new nuclear plant financing in detail and analyze some of the different ways that utilities and countries are tackling the question of how to raise the necessary large capital funds to finance new reactor projects. This is a global review of the reactor financing issue and should provide insights into various approaches that may work as well as the common themes and lessons learned from different country experiences.

#### Q2 Top Ten Challenges to Nuclear Power

2008 In our desire to present a fair and balanced view of the future of nuclear power, this essay delves deeper into an examination of the "Top Ten Challenges" to nuclear power expansion around the world. While some challenges to nuclear power are well known, there are others that are ei-ther discounted or not often considered. We hope to highlight the nature of these challenges as well as discuss how some are responding to them.

#### Q1 Why Nuclear? Why Now?

2008 Top Ten Reasons for Nuclear Power: We examine the global dimension to nuclear power and the various rationales used by electric utilities and governments around the world pursuing new nuclear reactor construction. Much has been made of the "nuclear renaissance," but it is not often that we discuss the underlying reasons why this renaissance is real and what is driving this growth. There are clearly multiple reasons why nuclear power is back on the table in countries that appeared to moving away from it, and why nuclear is taking hold in parts of the world that had heretofore found other avenues to energy production.

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