

# Nuclear Power: A New Generation

KPMG INTERNATIONAL

“ Nuclear is now firmly at the center of the energy debate – it is a crucial component in meeting the twin challenges of reducing carbon emissions and helping ensure security of supply. The next challenge will likely be delivering a new generation of nuclear reactors that generate appropriate returns.”

John Kunasek

KPMG's Global Power & Utilities Segment Leader

The last 12 months have seen a continued global increase in nuclear build: applications for new plants have been filed in the U.S. new reactors are at advanced stages of planning in Eastern Europe; the UK Government has formally announced its support for a new build programme; work has started on Europe's second third generation reactor in Europe at Flamaville in France and a number of Gulf states are actively considering nuclear options.

There is clear evidence that the private sector is keen to be involved in delivering a new wave of nuclear reactors. But this is not at any price – nuclear needs to be commercially attractive and the challenge will likely be delivering these projects on time and on budget which requires a strong hand from Governments. The nuclear sector presents unique risks in many ways but particularly in terms of build times, costs and licensing requirements.

All of these are expected to play a key role in whether nuclear attracts investment going forward. Public opinion is also a vital factor – in particular it will

likely look for answers on how long term waste is dealt with and what the real cost of nuclear energy is.

There are many interdependencies in Nuclear power generation; some of the major issues include:

- Length and complexity of the licensing, planning and construction process
- The appetite for investment in the sector - both at equity and senior debt levels – and whether elements of project financing can be brought to bear
- Dealing with nuclear waste and decommissioning
- The role of nuclear operators and the private sector in general.
- Securing public acceptance for new nuclear power
- The skill base that currently exists and its projection out over the construction and operating cycle.

## Global Centers of Excellence for the Nuclear Sector

KPMG's Global Energy & Natural Resources practice has established 12 dedicated Power & Utilities Centers of Excellence in key locations across the world. The global centers are a direct response to the rapid evolution of the

Power & Utilities sector and the specific challenges that this is placing on industry players. The Centers support companies in the nuclear sector throughout the world to anticipate and meet their business challenges.

### KPMG's Experience in the Nuclear Sector

KPMG firms have broad experience in understanding the nuclear sector, and can provide you with insight and help you make the most of private and/or public investments. Recent engagements conducted for our firms' clients covering the entire value chain in this sector include:

- Advising Toshiba on the USD 5 billion acquisition of nuclear engineering company Westinghouse. The Corporate Finance transaction (one of the largest in history for an accounting firm by a considerable margin) also included Transaction Services, Valuations, HR and Tax services
- Advising a major UK utility on their plans for investing in new nuclear build in the UK
- Acting as strategic and financial adviser on the integration and restructuring of one of the largest conventional power plants in the world, including business model design, market forecasting, financial modelling and valuation
- Advising a bidder for the contract to clean up the UK's Sellafield site, one of the world's oldest and most complex nuclear sites
- Providing support to government bodies in several countries on both new nuclear programmes and nuclear decommissioning, including partner selection and their financial evaluation as well as program implementation
- Auditing several world leaders in nuclear power; many of KPMG firms' clients are active in the areas of the nuclear fuel cycle including power generation, plant design, construction, equipment supply and services to reactors
- Auditing some of the world's largest uranium producers
- Advising a major utility with significant nuclear power generation on its IFRS conversion project
- Advising a national government on policy making and new plant financing options, and carrying out independent contractual reviews of major projects for another
- Monitoring the restructuring of nuclear operators around the globe
- Advising on the development of a business case and strategy to support the decision for a high value alternative for storage of spent nuclear fuel, including the review of storage options development of economic assessment tools, stakeholder value proposition, risk management and implementation strategies.

## Industry-Specific Professionals at Your Service

KPMG can draw on its wider global network of Power & Utilities practitioners including financial and engineering professionals to provide you with access to the latest nuclear sector knowledge, skills, resources, and technical developments.

To help respond to the nuclear renaissance, KPMG created a Nuclear Task Force, offering specific audit, tax, and advisory services surrounding uranium mining, new plant construction, existing operations auditing, cost-efficient plant operating, regulatory advisory as well as plant decommissioning to the global nuclear industry.



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## Our Involvement in the Power & Utilities Industry and Nuclear Sector

KPMG professionals work towards providing valuable insight and sharing industry leading practices as a vital part of our role as advisers to the nuclear industry. Our firms contribute to the development of the nuclear sector, conducting studies, sponsoring conferences and participating in various other industry related initiatives such as taking leadership roles in presenting industry positions to authoritative and governmental bodies.

Our involvement in the Power & Utilities industry includes:

- Organizing the 6th Annual KPMG Global Energy Conference in Houston, U.S., May 20-21, 2008
- Sponsoring the 20th World Energy Congress in Rome, Italy, November 11-15, 2007
- Sponsoring and presenting at the Westminster Energy Forum in the UK
- Patronage of the World Energy Council and leading the task force to produce the inaugural World Energy in 2006 Yearbook
- Conducting and publishing public opinion surveys on nuclear power in the UK
- Contributing several articles to World Power's annual publications, including Nuclear Power – Competitive Fission by Tim Stone, KPMG in the UK
- Contributing an article on the prospects for new nuclear build in the UK to a PFI magazine report on clean power
- For the latest information on issues affecting the energy sector visit [www.kpmgglobalenergyinstitute.com](http://www.kpmgglobalenergyinstitute.com)

For more information on how KPMG can help you and your business, please contact:

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## Publications of Interest for You



**Energy and Mining Outlook for Australia 2006/07**  
This report discusses Australia's energy and mining industry and draws attention to both the minerals and the Oil & Gas markets.



**India Energy Outlook 2007**  
This report summarizes the issues and challenges facing the Indian government at present and examines each energy segment in detail.



**KPMG and the Power & Utilities Sector**  
This publication includes information on KPMG's regional capabilities, the Power & Utilities Centers of Excellence and sector credentials.



**Energy Outlook for China**  
KPMG in China is pleased to introduce this second paper which revisits the complexities and challenges of meeting the growing energy needs of China.



**Powering Ahead: Mergers and Acquisitions in the Global Power & Utilities Industry**  
This report reveals that the unprecedented spate of global power industry transactions is likely to continue.



**Energy & Natural Resources Annual Review**  
Our annual publication reviewing KPMG's activities in the Energy & Natural Resources sector.



**Central and Eastern European Electricity Outlook 2007**  
Gives an overview of the most important challenges the region's electricity markets face and their future implications on the sector.



**Global Mining Reporting Survey**  
This 2006 survey shows that significant progress has been made in financial reporting in the mining industry.



**World Power**  
KPMG is pleased to be associated with the global energy publication for the eight year running. This is distributed to leading energy executives and deals with the major issues affecting the industry.

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