

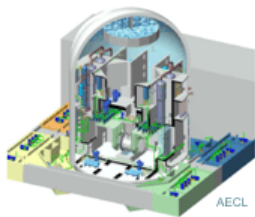
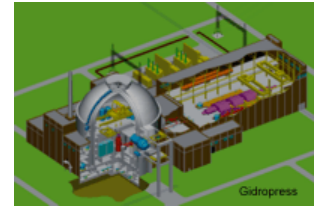
# Nuclear Reactor Technology Assessments

## Assessing all Major Global Reactor Technologies



In August 2008, UxC issued an addendum to the our Nuclear Reactor Technology Assessments (NRTA), which provides additional substantial information and analysis to support the initial report findings. The addendum table of contents is available for download.

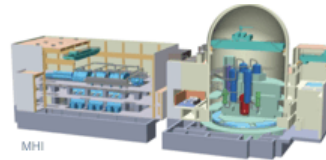
UxC, LLC (UxC) is pleased to announce the availability of a special report on Nuclear Reactor Technology Assessments. This in-depth study provides nuclear reactor technology assessments and overall evaluations of the major reactor designs currently available in the world. The decision of which reactor design to pursue is an extremely important one and must be based on many factors, such as the robustness of the technology, the constructability of the plant, the plant economics – both initial and operating, the type of fuel used, the ability to license and regulate, among a variety of other considerations.



This special report's main objective is to provide technical, economic and other commercial assessments of the leading light water reactor (LWR) and heavy water reactor (HWR) designs as well as some of the more advanced reactor concepts, such as pebble-bed modular reactors (PBMR), high temperature reactors (HTR) and fast breeder reactors (FBR). Each reactor technology is discussed both on an individual level as well as through a comparative matrix of pros and cons. The result of this analysis is a numerical rating of each reactor design to allow for easy comparisons of the different technologies. Additional thoughts on

what issues to consider when choosing a reactor design in the context of specific energy or commercial situations are also provided.

As a third-party, unbiased observer of the reactor technology market, UxC's assessments should be viewed as entirely impartial and based on our expert technical and commercial knowledge. Ultimately, the analysis and conclusions included in this report are intended to provide an overall picture of the current status of reactor technology and a roadmap for how best to evaluate each of the available designs.



### Reactor Designs Covered:

- |           |             |
|-----------|-------------|
| • ABWR    | • OPR-1000  |
| • ESBWR   | • APR-1400  |
| • AP1000  | • VVER-1000 |
| • EPR     | • VVER-1200 |
| • APWR    | • ACR-1000  |
| • ATMEA 1 | • PBMR      |
| • HTRs    | • FBRs      |

## Reactor Designs Covered:

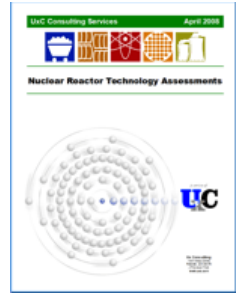
This special report assesses the following reactor designs and technologies:

- Advanced Boiling Water Reactor (ABWR) by GE-Hitachi or Toshiba
- Economic Simplified Boiling Water Reactor (ESBWR) by GE-Hitachi
- Advanced Passive 1000 (AP1000) by Westinghouse
- Evolutionary Power Reactor (EPR) by AREVA
- Advanced Pressurized Water Reactor (APWR) by MHI
- ATMEA 1 Reactor by AREVA & MHI
- Optimized Power Reactor 1000 (OPR-1000) by KHNP
- Advanced Power Reactor 1400 (APR-1400) by KHNP
- VVER-1000 and VVER-1200 (AES-2006) by Atomstroyexport (Russia)
- Advanced CANDU Reactor 1000 (ACR-1000) by AECL
- Pebble Bed Modular Reactors (PBMRs)
- High Temperature Reactors (HTRs)
- Fast Breeder Reactors (FBRs)

## Who Should Buy This Report?

There are numerous potential uses for the information in this study, such as:

- For any nation considering a commercial nuclear power program, this report should help in evaluating the global offering of reactors.
- For an electric power utility looking to develop a nuclear plant, the decision to choose the best fitting reactor design is paramount, and this study should help in that process.
- For those in the financial community considering investments in the nuclear industry, these assessments offer crucial perspectives on which companies may be the winners in the global reactor race.
- For nuclear fuel and reactor service suppliers, the future direction of their industry sectors depends greatly on which technologies take the lead. The information in this study is highly useful in developing appropriate market strategies.
- For government agencies and research organizations looking at the longer term potential of nuclear power, these reactor evaluations should help in providing thoughts on what technologies are best suited for the future.



UxC's 2008 *Nuclear Reactor Technology Assessments* (NRTA) special report is available for immediate purchase. Please see our product flier and the table of contents in Adobe Acrobat PDF  format.

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