



Near-Term Deployment Roadmap

Presented to the

Nuclear Energy Research Advisory Committee



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Near Term Deployment Group

- ◆ **Mission - Identify the technical, institutional and regulatory gaps to the near term deployment of new nuclear plants and recommend actions that should be taken by DOE.**
- ◆ **Participants - multi-disciplined nuclear industry group**
 - Nuclear Utilities - Duke, Southern Nuclear, Exelon
 - Reactor Vendors - Westinghouse, General Electric, General Atomics
 - National Laboratories - ANL, INEEL
 - Academia - Penn State
 - Industry - EPRI
 - NERAC
- ◆ **Oversight by NERAC GRNS members**



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◆ Request for Information (RFI)

- Issued April 4, 2001, to reactor designers, AEs, nuclear plant owners/operators, Gen IV participants, NEI New Plant Task Force members
- Public notice through Commerce Business Daily (CBD)
- Solicits identification of design-specific, site-related and generic barriers to deployment of new nuclear plants by 2010
- Responses received from 12 organizations

◆ NTD Roadmap

- Target completion date - September 30, 2001



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RFI requested information in two areas:

- ◆ **Specific Deployment Candidate Designs that meet six criteria**
 - Credible plan for gaining regulatory acceptance
 - Existence of industrial infrastructure
 - Credible plan for commercialization
 - Cost-sharing between industry and government
 - Demonstration of economic competitiveness
 - Reliance on existing fuel cycle structure
- ◆ **Generic & Design Specific Gaps**
 - Known gaps provided requiring ranking and possible solutions
 - Other gaps to be identified by respondent



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◆ Design Specific Responses

- SW 1000 Framatome
- PBMR Exelon/PBMR
- AP600 Westinghouse
- AP1000 Westinghouse
- IRIS Westinghouse
- GT-MHR General Atomics
- ABWR General Electric
- ESBWR General Electric

◆ NTD Recognition of other potential candidate designs

- System 80+ Westinghouse
- CANDU
- EPR - Framatome



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◆ Generic Gaps Responses

- ESP Demonstration
- COL Demonstration
- Construction Inspection & ITAAC
- Rick-Informed Regulation for Future Design Certifications
- Advanced Fabrication, Modularization and Construction Technologies,
- Standardized Life-Cycle Information & Configuration Control Systems
- High Level Waste Disposal Resolution
- Risk Management Tool
- Public Influence and Acceptance
- Appropriate Resource and Financial Arrangements