

PBMR PROGRAM UPDATE

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P B M R

Purpose of PBMR Program

- A South African strategic national project
- Energy and environmental goals
- National capacity building
- Component of nuclear vision with ALWRs



Current Program Elements

- Demonstration Power Plant
- Pilot Fuel Plant
- Extensive Test Facilities
- US Design Certification
- Process Heat Co-Gen Plants including NGNP



Project Status in RSA

- ~750 RSA staff / ~1700 globally
- > \$600M invested; next \$800M committed
- Manufacturing long lead items
- First fuel from full size coater in 2008 available for testing
- Construction start in 2009
- Initial Criticality - 2013



US Design Certification

- Began pre-application in 2005
- Most topics generic to htgrs
- Paced by NRC resources and RSA progress
- End tied to demonstration plant operations date
- Highly applicable to NGNP



Process Heat Plants

- Working with industrial users
- From demonstration plant base, developing designs that match market needs:
 - Process heat industry needs
 - NGNP advanced requirements
- Lead NGNP pre-conceptual engineering team



Necessary NRC Support

- Effective engagement in key issues
- Solutions sets appropriate to non-LWR designs
- Embrace risk informed process at outset; not at end
- Recognize synergy with NGNP
- Qualified resources matching agreed schedule

