

Update: NE Issues and Programs For EFCOG Community

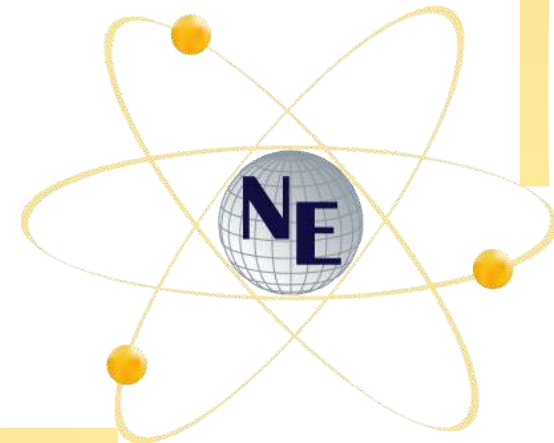
September 18, 2008

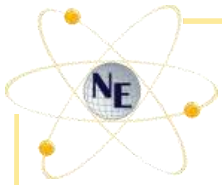


Dennis Miotla

Office of Nuclear Energy

Deputy Assistant Secretary for
Nuclear Power Development





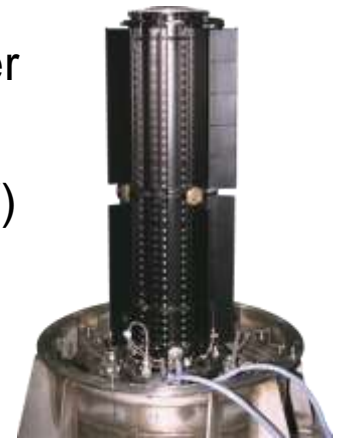
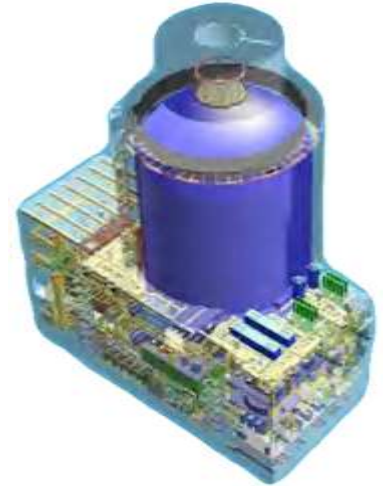
NE Leads and Advances Nuclear Energy as a Vital Resource to Energy and National Security

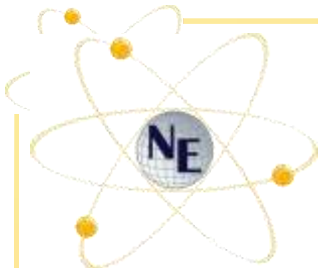
◆ Our top priority is the deployment of new nuclear plants and the safety, security and longevity of the current fleet

- NP 2010
- Standby Support
- Loan Guarantees
- Light Water Reactor Sustainability

◆ We are also investing in the future

- Infrastructure and Capabilities with investments at INL, other national laboratories, and universities
- Next Generation Nuclear Technologies (NGNP and GEN IV)
- Sustainable Fuel Cycle (Uranium Management Plan and AFCI/GNEP)
- Radioisotope Power Systems





We See a Great Deal of Progress

Early Site Permits Issued	3
Permits Under Review	1
Total COL Applications Submitted	12
COL Applications Docketed	9
Certified Reactor Designs	2
Reactor Designs Under Review	4
Expected License Applications	23
Expected Number of Reactors	34
Announced Plant Locations	20
Companies Applying for COL	20

Nuclear Power Deployment Scorecard

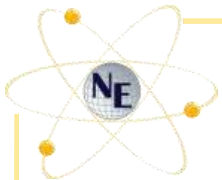
Powering Future Decades



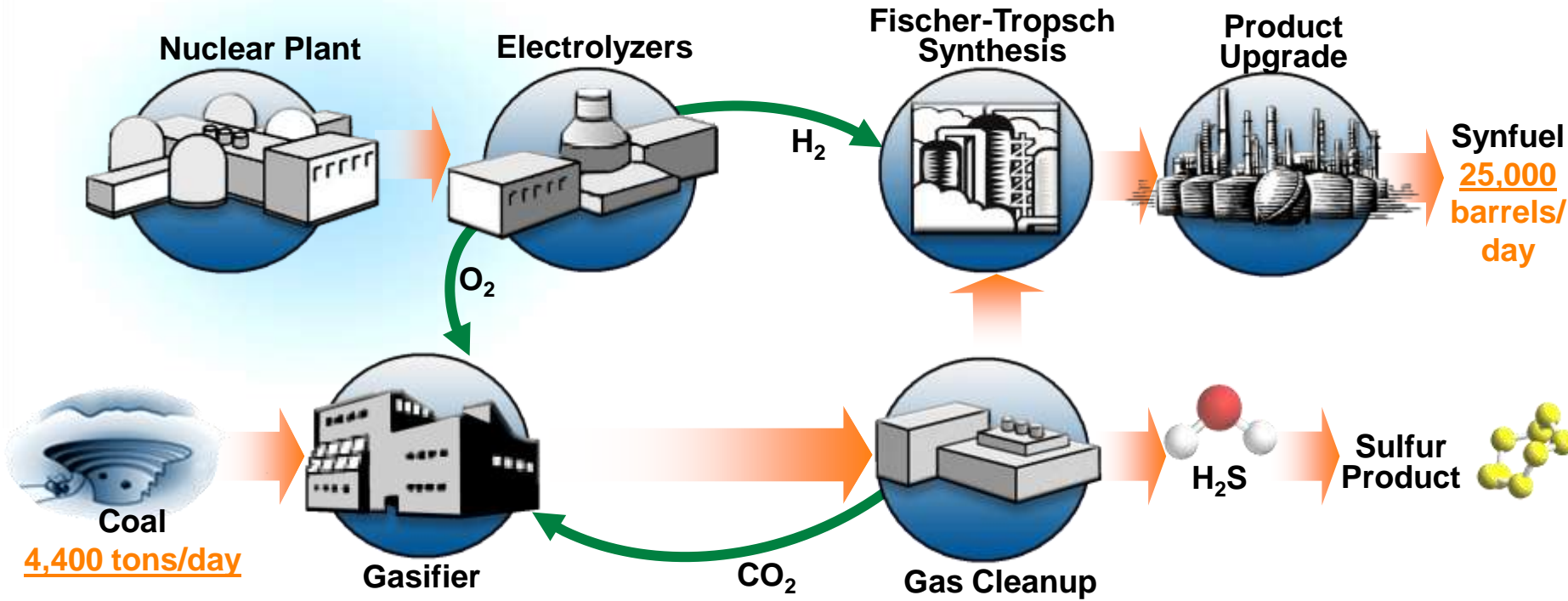
U.S. Department of Energy
Office of Nuclear Energy

September 3, 2008

Updates available at
<http://www.nuclear.gov>

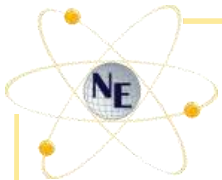


We Are Expanding Our View of Nuclear Power's Contribution to Energy Security

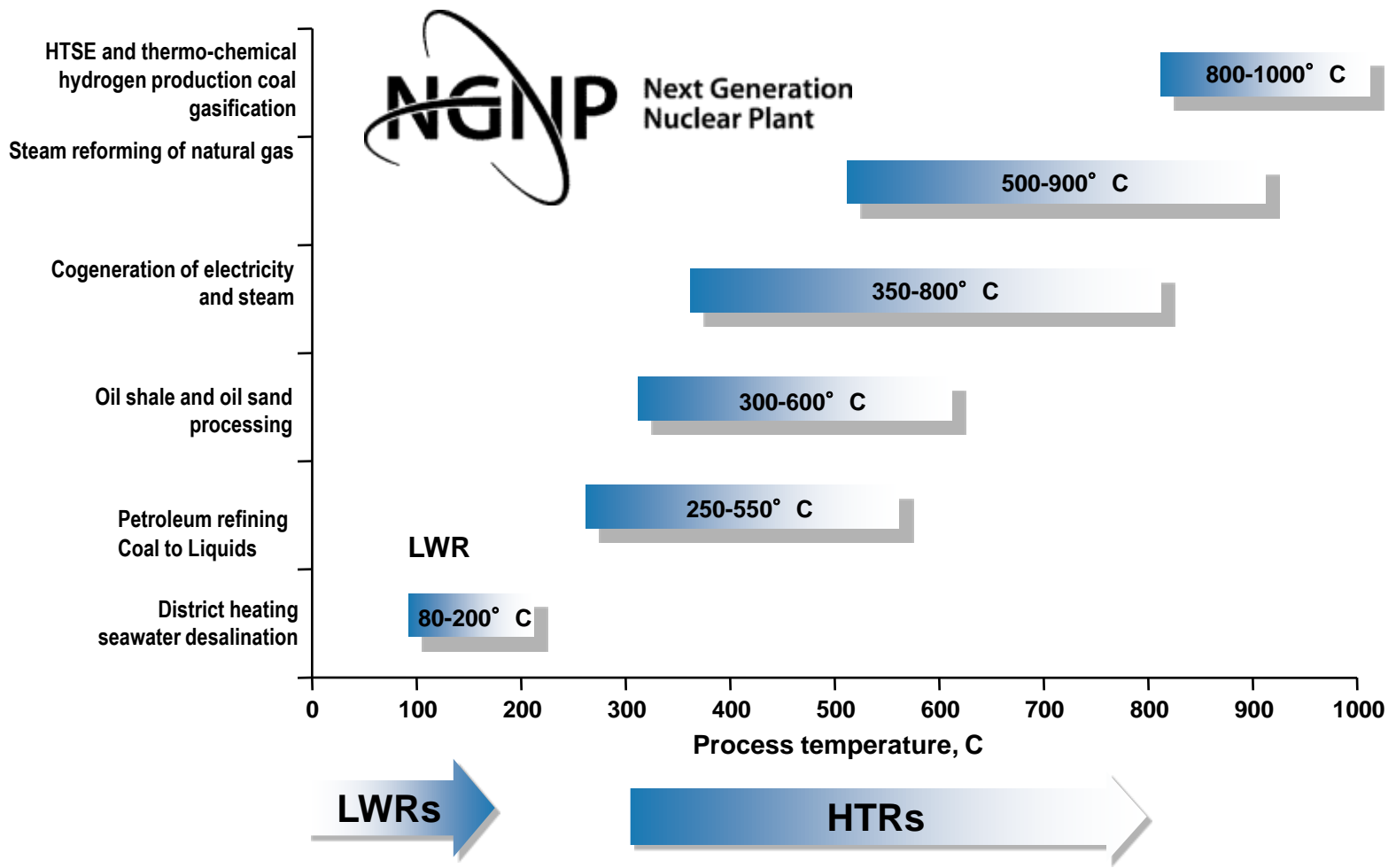


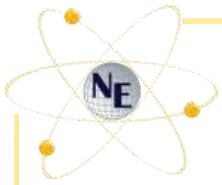
- Hybrid systems use 70% less coal
- Little carbon is converted to CO₂

- Small amount of CO₂ is recycled to gasifier
- No CO₂ emissions

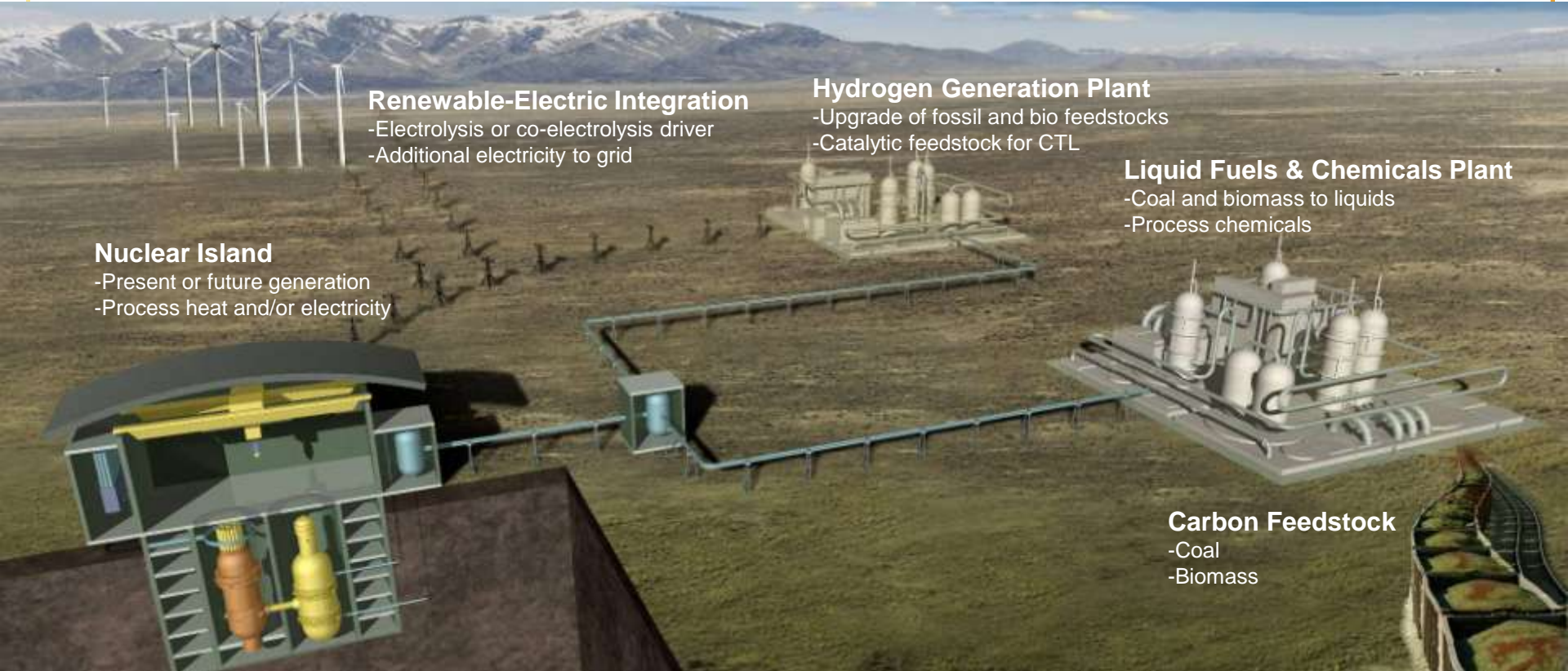


Hybrid Systems can be Extended Beyond CTL but may Require High Temperature Reactors





We See a Future of Energy Production Efficiency Through Hybrid Energy Systems



Diverse Carbon Resource → Nuclear Hybrid Energy Systems → Strategic Energy Parks = Resilient & Secure Energy

A systems approach to energy supply combines nuclear, renewables and fossil in a single plant, capable of producing fuels, chemicals, and electricity