

**“TOWARDS INDUSTRIAL IMPLEMENTATION:
PUBLIC AND PRIVATE INITIATIVES INTERCONNECTIONS”**

REMARKS

Edward McGinnis (*Panel Chair*)

U.S. Department of Energy (*Edward.McGinnis@hq.doe.gov*)

Panelists in the industry session of the GIF Symposium discussed both the private-sector and government perspectives and roles for the commercial deployment of Generation IV International Forum reactor concepts.

The dialogue focused on specific areas that should be taken into consideration as the nuclear renaissance moves beyond Generation III reactors to deployment of Generation IV reactors.

The specific areas covered during the private-sector discussions were safety and market requirements; innovative and collaborative developments, sustainability and economics.

As the nuclear industry implements deployment to commercialization, Generation IV reactor's safety case must be clear, transparent and convincing to nuclear regulators in countries exploring the need for these reactors and the general public.

Industry and government must partner in the development process to ensure innovative and collaborative technical advances while minimizing technical, market, and financial risks.

Leveraging industry collaboration with government can move technology more quickly to a stage of maturity that provides more acceptable risk profiles for financing.

As they emerge into the market, Generation IV reactors should remain economically comparable not only to other energy sources but to modern Generation III + reactors.

As Generation IV reactors come to the market, there will be significant shifts in key sectors of the reactor market globally, increasing costs and overall financing and increasing demand for human capital infrastructure to support construction, operation, maintenance and inspection/regulation of the new reactors.

The specific areas covered during the government discussion were Japan's Sodium Fast Reactor approach, the French strategy and the United States approach.

Japan's Sodium Fast Reactor approach includes early establishment of roles and duties between the public and private sector during the development project: integration of utilities and vendors at the early stages, to include at the conceptual design phase, to further enhance safety, reliability, sustainability, non-proliferation and economic competitiveness.

The French presentation of their strategy, described in multiple phases, outlines their approach to secure the current fleet of power water reactors: deployment of 4th generation fast reactors and waste management, and participation in ITER for fusion technology.

The U.S. approach described the Department of Energy’s focus on transformational research in the areas of nuclear science and technology to address climate change and energy security. One highlight is the expansion of the U.S. Generation IV research

and development to solve underlying technology challenges of advanced reactor concepts. The expanded areas of research and development are design development, support for new regulatory framework and government and industry partnership on design development.