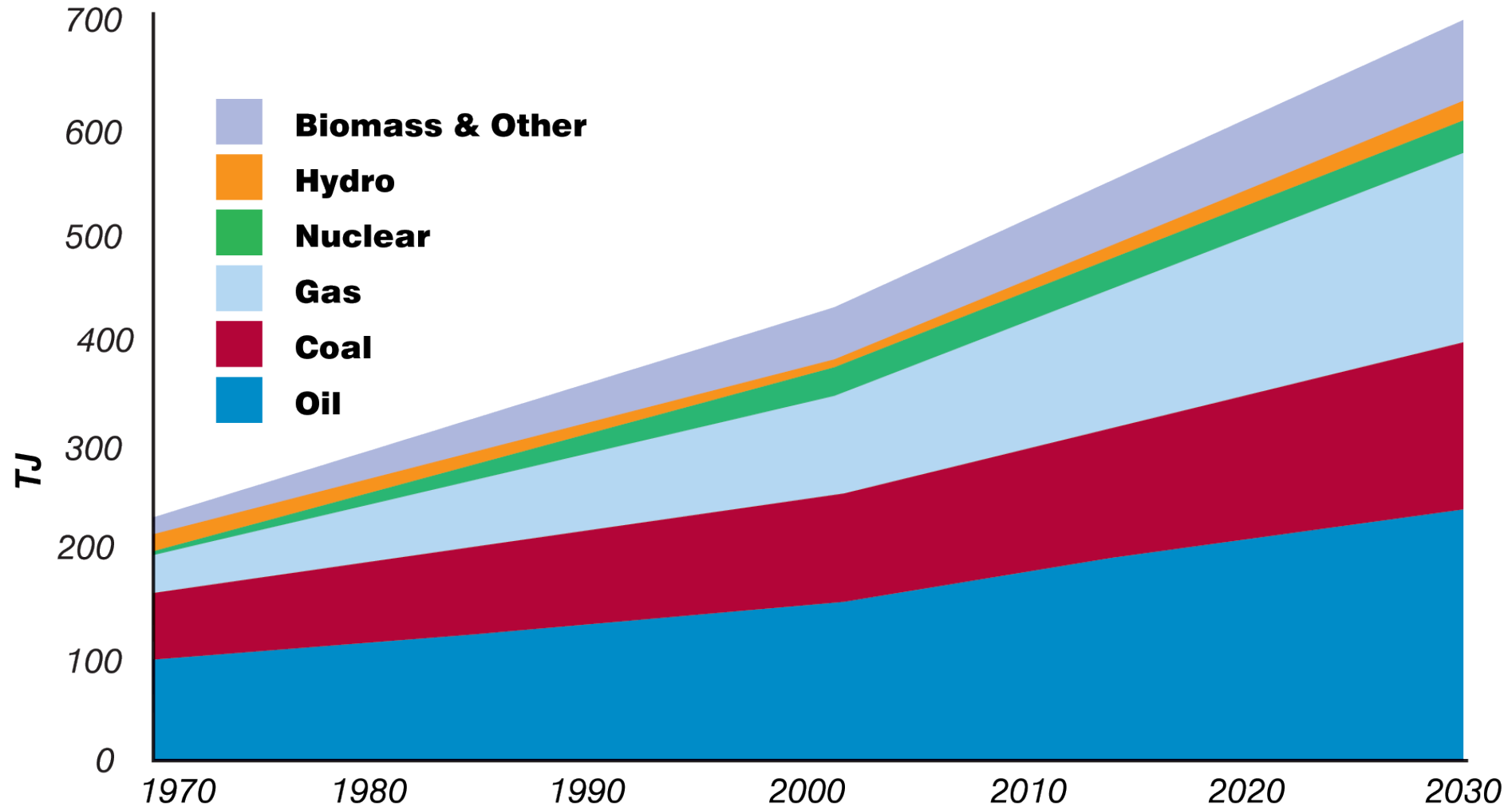


Creating an Energy Future Sustainable for All: Energy Efficiency and Renewable Energy

Young Ku, Chair Professor
Department of Chemical Engineering,
National Taiwan University of Science and Technology

The Energy Issue



- Government needs to set inclusive policy framework
- Businesses need to make the investments.

Options and Choices of Energy Policy

- Different countries have **different energy policy options and choices** depending on their culture and resources.
- The options will play out differently in terms of **security and cost**.
- The choices are **essentially political**, the economic and political consequences of making wrong choices are potentially enormous.
- Balance between **developing portfolios (diversity)** and **focusing topics (picking winners)**

Possible Developments for Energy Sector in Next Decade

- **Supply-side options for energy are more clarified** (How much renewable energy? Does CCS work? Which countries will go for nuclear? How much distributed energy generation?)
- **Demand reduction and demand response technologies for energy are clarified and installed.**
- **International and national regulations are put in place.**

Summary

- **Unsustainable growth in energy production** will not last beyond this century.
- Developing and deploying renewable energy technologies and energy efficient products **may require huge investments.**
- Implementation of renewable energy and energy efficiency options is **politically difficult.**
- Comparatively **high-growth countries** in the future will be those that **have developed, and can export, renewable energy technologies and energy efficient products.**