How to develop scenarios: methodologies for LCS
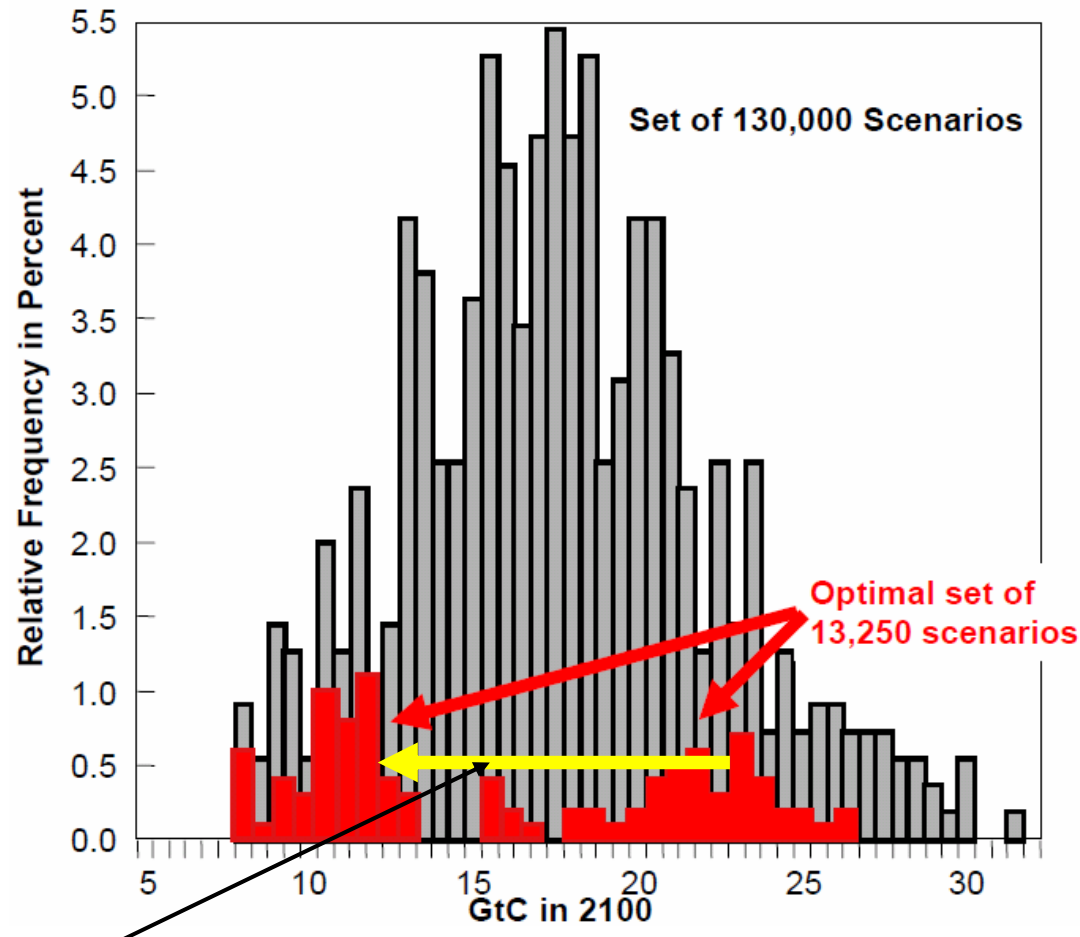# Points to be discussed

♦ **Forecasting v.s. Backcasting, and their methodologies, e.g., static/recursive and intertemporal models, equilibrium and optimization models**

♦ **Treatment of technology learning:**
Exogenous v.s. Endogenous
Methodological difficulty for the endogenous treatment: non-convex issue

♦ **Baseline scenarios/emissions are key for the reduction cost of CO_2 emissions. How should we distinguish between Non-intervention and Intervention scenarios and treat them?**

♦ **Global warming is a serious issue, but we also have many other issues, e.g., poverty, energy security, to be tackled. How should we consider the priority of global warming and integrate them?**

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June 14, 2006

Technology Learning

The results of a model treating endogenous technological change. Two emission peaks can be seen in energy systems having low-costs.

How to achieve low-carbon society beyond the death valley
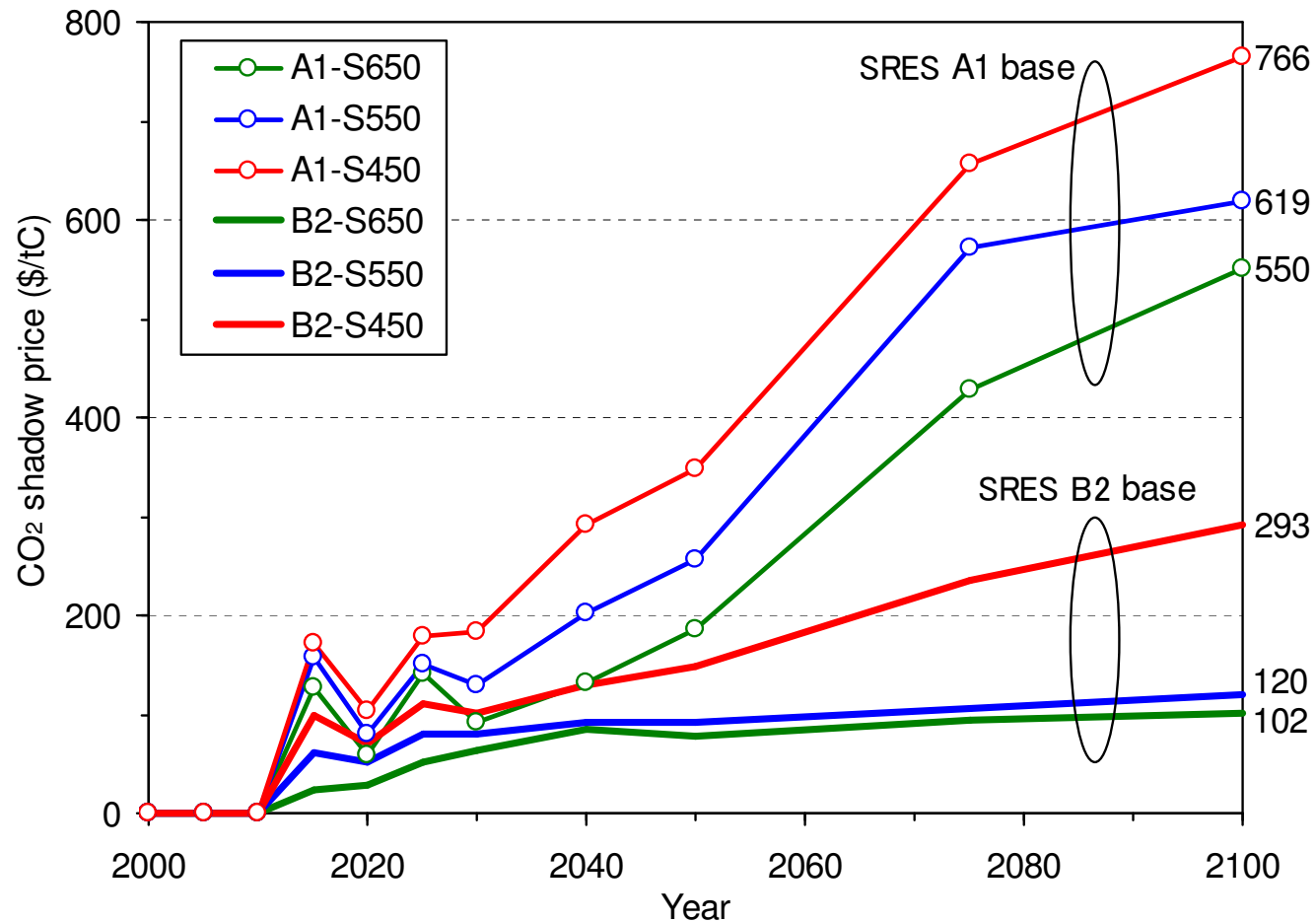
Source: Gritsevkyi & Nakicenovic, Energy Policy, 2000

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Effects of Baseline on Mitigation Costs

- ◆ **Baseline would be more important for the mitigation costs than the stabilization levels of atmospheric CO_2 concentration.**

Source: Akimoto & Tomoda, *Avoiding Dangerous Climate Change*, 2006

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