GOAL - to understand possible energy futures to 2050 identifying the role that policy actions could play to help or hinder the achievement of:

*Accessibility* to affordable modern energy services for all

*Availability* of reliable and secure energy supplies

*Acceptability* of energy services and supplies with minimal damage to environment and future welfare

- Unique truly bottom-up effort
- 5 major regions - 7 supporting groups
- 390 participants - 60 countries - 22 workshops
- World Energy Congress in Rome (November)
Possible Policy Scenarios

Scenario 1
LG-LC

Scenario 2
HG-LC

Scenario 3
HG-HC

Scenario 4
LG-HC

More government engagement

Less government engagement

More integration/co-operation

Less integration/co-operation

WEC Energy Policy Scenarios To 2050 Study
• Baseline is the situation today
  - we are looking at derivatives in 3 timeframes (2020, 2035, 2050)
    - GDP growth rate?
    - Population growth rate?
    - Energy intensity accelerating or decelerating?
    - Growth rates in energy requirements and E mix?
    - GHG emissions growing or declining?
    - Supply/demand tension (oil, gas, etc.) increasing or decreasing?
    - Progressing toward meeting the 3 As? Or not?
• Technologies
  - Mobility
  - Electricity (generation, stationary & end-use)

• Price Drivers

• Investment & Funding √

• Climate Change
• Government involvement and high-levels of cooperation/integration are the desired state to achieve conditions for sustainable development and stability (lowest tension)
  - dilemma is how to advance from regional to global cooperation and manage the result

• Without high cooperation/integration international financing and investment suffers, along with economic health
  - need stability to send consistent long-term signals to investors while protecting the public’s interests
• Governments and markets each alone tend to get the signals wrong (investors shy away)
  - governments need to set ground rules (robust regulatory frameworks - establish rules, transparency, assure compliance)
  - too much interference means decisions are not market driven

• Public-Private partnering is important in other ways
  - technology transfer requires new paradigms with governments and industry working together to develop a new framework
  - research, development and demonstration require coordinated government - industry cooperation (too much duplication as well as omission)

• There are great differences between perceptions of self and perceptions of others