Task 3: Social Cost of Carbon and Discount Rate – Polling Exercise for Data & Science Subcommittee

July 21, 2021
Agenda

Objectives for Today
Background
Polling Exercise
Wrap Up and Next Steps
Objectives
Social Cost of Carbon & Discount Rate

• Economic Analysis of the Costs and Benefits of greenhouse gas emissions and abatement to Inform Climate Action Plan
  • Adopted by the Federal Government starting in 2007 and States for Policy and Climate Action Planning

• A discount rate is a method for economic analysis to account for impacts that occur in the future
  • The selection of discount rate has a significant impacts
    • “Social Discount Rate” – puts a higher value on future impacts
    • “Private Discount Rate” – puts higher value on near term impacts

• Today we will present some statements and positions reflecting these perspectives and ask for your feedback in a poll.

• Then we will provide a set of values (from recent New York State DEC assessment) representing a range of discount rates (at the social end of the spectrum) and ask for your feedback via the poll.
Results from today’s poll will be anonymous and will be reflected in our Team’s Task 3 Social Cost of Carbon report.

We will take feedback or comments on the poll and structure via email after today’s session.

We anticipate polling the full Climate Council with this (or revised on feedback) poll to inform the September 15th deliverables and economic analyses for the Climate Action Plan.

For today, please keep questions and comments to clarifying to help us complete the poll as a group. We will welcome follow on questions and comments after today’s session.
Background
Methods for Social Cost of Carbon Estimation

**Damage Based Estimates**
- Global Damages – economic, health, and environmental impacts
- Based on Integrated Assessment Models (IAMs) geophysical and economic models
- Include items such as value of human health/life impacts, also based on best estimates of feedback loops, climate and economy interactions.
- Multiple runs and models used to estimate distribution of values. Accounting for range of inputs on demographic, technical, representative concentration pathways, and other variables.
- Appropriate for cross sector analyses like the Climate Action Plan
- Mean values from range of model runs –
  - Applied discount rate has large impact on values

**Marginal Abatement Cost Methods**
- Estimate of cost of abatement for last measure needed to meet targets
- Technology, sector and geography specific
- Also sensitive to discount rate

**Today’s Poll Based on Damage Based Estimates**
- Results on discount rates can also be applied to marginal abatement cost estimates
Polling Exercise
Process for Today’s Polling

• Link to Poll
• Please complete during the session
• Two Stages:
  2. Question 7: Preferences based on monetary values of cost of carbon dioxide from New York Department of Environmental Conservation and Resources for the Future Research
     • Mean values from multiple runs of 3 IAM’s
     • Impacts through 2300
     • Social discount rate of 0% to 3%
     • We are only considering the CO2 results, discount preferences would apply to other gases
Next Steps
Feedback and Use of Results

• Please email comments or follow on questions on the survey and today’s process to Dhill@energyfuturesgroup.com and Ebourguet@energyfuturesgroup.com

• Results from today’s Poll will be included in the Task 3 Social Cost of Carbon report

• The Climate Council will be asked to take the same, or revised poll in August to inform economic analysis of the Climate Action Plan

• Thank you for your participation and contributions to this work!