

Comments and Responses on Public Review Draft of SOCCR/SAP 2.2 (September 2006)

| COMMENTS FROM PUBLIC REVIEWERS | | | | | | AUTHOR'S RESPONSE | | | | | | |
|--------------------------------|-------------|---------|------|------|--|---|--|------------------------------------|---|-----------------------------------|--------------------------------|--|
| Comment Number | Reviewer ID | Chapter | Page | Line | Comment Text | Acknowledged, but no further response or revisions are required | Revisions have been incorporated as suggested in the comment | Agree, but see "Notes on Response" | Agree, but elaboration is precluded by length limitations | Disagree; see "Notes on Response" | Beyond scope of report/chapter | Notes on Response |
| 04-001 | 13 | 4 | All | | First, at the end of the chapter there are several pages of "Chapter 4 References" to sources (pp. 4-15 - 4-18). However, few statements in the chapter refer to such sources, which is inconsistent with, for example, Chapter 2. There are many statements that should be based on identified sources. For consistency's sake among chapters, the sources need to be referred to in the chapter, not just listed in the end of the chapter. | | | | | X | | All of the references provided are cited in the text, footnotes or the table. |
| 04-002 | 13 | 4 | All | | Second, the title to this chapter is "What Are The Options and Measures that Could Significantly Affect the Carbon Cycle?" This question differs from what we assume is the corresponding question in the Preface (p. ix) and the Executive Summary (p. ES-9) (which actually refers to Chapter 4), which is "What are the options and measures <u>implemented in North America</u> that could <u>significantly</u> affect the <u>North American and global carbon cycles</u> (e.g., <u>North American sinks and global atmospheric concentrations of carbon cycle</u>)?" (emphasis added). There is no mention of North America in the Chapter 4 title, and both questions refer to the global carbon cycle. What significance is there to differences in the question? Are these policy options intended for North America only or do they apply globally? | | | X | | | | Title changed to match the question in the Ex Sum. "What are the options that could significantly affect the North American and global carbon cycles?" The options discussed can be implemented in North America (and in many cases in other regions of the world). Options that have limited application in North America, such as reducing emissions from rice paddies, are not discussed. |
| 04-003 | 13 | 4 | All | | We also question the use of the word "Measures" in the title. As far as we can determine, the chapter concerns a "portfolio of options" for the short and long terms (p. 4-9). Apparently, the authors view source-related reductions, such as efficiency improvement and fuel switching, as options but not "measures," as that term is defined in footnote 19 below, while so-called "policy instruments," such as command and control regulations, taxes and cap-and-trade, are "measures." We do not understand the differences or distinctions among options, measures and policy instruments, or why they are being made. They are all options or policy instruments. We suggest deleting from the above questions the word "measures." | | | X | | | | Will drop "measures" from the title and text. |
| 04-004 | 13 | 4 | All | | Third, we question the location of this chapter in Part I, particularly since it indicates that its sources are later chapters. Much of the support for the chapter appears to be contained in later chapters. | X | | | | | | The structure of the report was agreed previously in stakeholder consultations. |
| 04-005 | 13 | 4 | All | | Fourth, an extremely significant policy option that is missing from the chapter is adaptation. This option is the focus of international attention in the FCCC bodies and by many Parties to the FCCC. It is important for North America as well. We question the total lack of consideration of the adaptation option, and strongly urge that the final report include significant discussion of adaptation. | | | | | X | | The scope is options that significantly affect the North American and global carbon cycles. Adaptation does NOT affect the carbon cycle. |

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| 04-006 | 13 | 4 | All | | Fifth, this draft, while changed from the draft of last May, continues to downplay voluntary agreements between industry and North American governments. EEI commented on the earlier draft, and the Peer Reviewers said the "[t]ext on voluntary agreements [is] revised to acknowledge that some programs have reduced emissions." (see Comments and Responses SOCCR/SAP 2.2 Draft 1 (May 2006) Chapter 4, p. 9 of 9). We appreciate that. However, the revision appears to be undercut by p. 4-10 footnote 18 of the draft. It asserts that information and voluntary programs <u>may have some impact on behavior through appeal to patriotism or an environmental ethic</u> " (emphasis added), again downplaying their importance and effectiveness. We fundamentally disagree with this assertion and believe that voluntary actions by industry and others are recognized by governments as important and meaningful. | | | X | | | | | Further attention to voluntary agreements added and footnote modified. |
| 04-007 | 13 | 4 | All | | In its March 2006 report, <u>Voluntary Reporting of Greenhouse Gases 2004</u> , EIA addressed voluntary commitments and reductions in the U.S. as follows (pp. 11-12 and 16): Under the Energy Policy Act of 1992 section 1605(b) voluntary reporting program, in 2004 the power sector reduced, avoided or sequestered 282 million MTCO _{2e} , or nearly two-thirds of all reductions reported. | X | | | | | | This is one report on voluntary agreements. The emission reductions reported to the 1605(b) registry are dominated by reductions claimed for the increased output of nuclear generating units. Some experts believe that the level of output is no higher than would have occurred in the absence of the voluntary registry, in which case the calculated reductions could not be attributed to the voluntary program. | |
| 04-008 | 13 | 4 | All | | The draft report relies extensively on EIA as a source for data and information. Accordingly, the authors should rely equally on the above EIA information and abandon their negative attitude toward such agreements as well as their obvious biases in favor of policies such as cap and trade, taxes and command and control regulations (see, e.g., "Key Findings," pp. 4-1 – 4-2). | | | | | X | | Statements edited, but relying on the 1605(b) data reported by EIA does not constitute an assessment of the literature on the effectiveness of voluntary agreements. | |
| 04-009 | 13 | 4 | All | | Moreover, the draft totally ignores agreements between Parties under the FCCC, which, among other things, are aimed at encouraging the development of climate technologies. This includes the Asian-Pacific Partnership on Clean Development and Climate (APP), whose six Parties (U.S., Japan, China, India, South Korea and Australia) comprise half of the world's CO ₂ emissions. | | X | | | | | The APP is an agreement to cooperate on technology development. Footnote 27 notes that international cooperation to stimulate the research and development is appropriate. The APP will be added to the footnote as an example, noting that one of the North American countries is a member. | |
| 04-010 | 13 | 4 | All | | Sixth, while the chapter generally recognizes the importance of technologies and, as noted above, states that in "long-term" improvements in "energy efficiency. . . depends largely on technological developments," that observation applies as well to issues of emission reductions and sequestration. The chapter focuses too little on the difficulties, obstacles and efforts to develop and deploy technologies. Instead, the chapter emphasizes reduction policies or instruments as influencing "the rate and direction of technological change" and as a means of "stimulating additional technological change," asserting that "such policies can reduce the cost of meeting a given reduction target" and that "[s]uch induced technological change justifies earlier and more stringent emission reduction targets" (see p. 4-13, lines 24-26). | | | | | X | | The chapter focuses on options that can significantly affect the North American and global carbon cycles. It acknowledges that technology research and development is important, but only has an impact in the long-term. And it notes that technology development is more effective if combined with options to reduce emissions that create a market for the technology, which is a clear message from the literature. Cite the recent CBO report and Stern review on this subject. | |

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| 04-011 | 13 | 4 | All | | The draft provides no support for a reference to targets or to their stringency, nor a discussion, in the context of greenhouse gas reductions, on how and to what extent targets of any kind will result in "technological change," particularly in the long term. It merely implies that "reduction targets" are justified because they induce "technological change." Justification by implication is unsupported here. | | X | | | | | Revise the text to indicate that in addition to inducing emission reductions directly, targets induce technological change. Cite CBO report and Stern review report. |
| 04-012 | 13 | 4 | All | | Overall, this chapter is unconvincing and largely unsupportable. | | | | | X | | This is an unsupported opinion. The chapter covers the options that significantly affect the North American and global carbon cycles. |
| 04-013 | 12 | 4 | 4-1 | 17 ff | In many ways, the topic of this chapter is the most challenging aspect of this report. The chapter is a compilation of options, with a laudable effort at integrated assessment based primarily on cost-effectiveness. Unfortunately this basis for assessment does not lend itself to easy connection with the rest of the report, which puts primary emphasis on carbon mass balance. The lack of connection is exacerbated by the chapter's tendency toward statements that are not supported by citations. | X | | | | | | The structure of the report was agreed previously in stakeholder consultations. The chapter does attempt to compare options based on marginal costs. It also reviews possible policies. Statements are supported by literature citations. The reviewer does not identify any statements not supported by citations. |
| 04-014 | 12 | 4 | 4-1 | 17 ff | The chapter would be greatly improved if chapters 6-15 each included an analysis of options and measures with potential carbon mass rates and capacities for each action. This would provide the scientific information needed for more comprehensive assessment, and would serve as an example of how the participation of scientists can improve consideration of policy and management options. | X | | | | | | Such assessments are provided in some of the chapters and are not relevant for others. |
| 04-015 | 12 | 4 | 4-1 | 26-31 | This is a good and succinct summary assessment of biosinks. It is not clear why no similar assessment of carbon capture and storage is included in this chapter. This is a serious oversight. | | X | | | | | Additional material on CO2 capture and storage has been added. |
| 04-016 | 12 | 4 | 4-1 | 32-35 | The effectiveness of a mitigation policy option also depends on the potential rate and capacity of the proposed action. This chapter is based primarily on comparison of cost-effectiveness, without adequate consideration of carbon-budget implications. Consideration of carbon mass rates and capacities would greatly improve the integration of this chapter with the rest of the report. | | | X | | | | A second table added. |
| 04-017 | 12 | 4 | 4-1 to 4-2 | 36 to 5 | This chapter is based primarily on comparison of cost-effectiveness, without adequate consideration of carbon-budget implications. Consideration of carbon mass rates and capacities would greatly improve the integration of this chapter with the rest of the report. | | | X | | | | See response above. |
| 04-018 | 12 | 4 | 4-2 | 6-11 | The endorsement of national government programs is not well substantiated in this chapter or elsewhere in the report; in particular, the report does not contain any comparative assessment of voluntary vs. government measures. | | | X | | | | Text edited substantially, including recognition of the relevance of voluntary measures. |

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| 04-019 | 3 | 4 | 4-3 | 25 | This section should highlight the overwhelming potential of improvements in energy efficiency to reduce greenhouse gas emissions. Add the sentences "The United States uses nearly twice as much energy per person as Japan, the United Kingdom, and other countries that enjoy a high material standard of living (IEA 2005). The United States could significantly improve the efficiency of its energy use and reduce greenhouse gas emissions by up to half using existing technology without major sacrifices to the material standard of living." Reference: International Energy Agency (IEA). 2005. Key World Energy Statistics 2005. IEA, Paris, France. | | X | | | | | Add at line 25 "Energy consumption per capita in Canada and the United States is more than 80% higher than that of other high income countries, suggesting considerable potential to reduce energy use and associated CO2 emissions with little impact on the standard of living (IEA, 2006). |
| 04-020 | 3 | 4 | 4-4 | 27 | This section should highlight the overwhelming potential of renewable energy sources to reduce greenhouse gas emissions. Add the sentence "In 2003, the world rate of energy use totaled 14 TW or 14 trillion watts. Nevertheless, available solar and wind power resources could potentially provide energy to the world at a rate of 70 TW (UNDP 2000)." Reference: United Nations Development Programme (UNDP). 2000. World Energy Assessment. UNDP, New York, NY. | X | | | | | | The proposed citation is not appropriate since it is global rather than specific to North America. The North American potential should be discussed at greater length in Chapter 6. |
| 04-021 | 12 | 4 | 4-6 | Fnote 9 | Capture and storage of emissions from biomass-burning plants will result in "negative emissions" only if the energy required for production, operation, and capture-to-storage is derived from non-fossil sources. | | | | | X | | The energy generated by a biomass burning plant is greater than the energy needed to capture and store its CO2 emissions. Thus CO2 capture and storage for a biomass burning plant yields negative emissions if the biomass is replaced. |
| 04-022 | 12 | 4 | 4-6 | 22-23 | This sentence sounds as if forests and soils "can't trap it all, but can trap much of it." The wording is somewhat misleading – the text should more accurately reflect the footnote for this sentence. Also, agricultural soils and forests should not be lumped together. Their sink rates and capacities are very different, and the text should consider them separately. | | X | | | | | Sentence replaced with "Forest growth and soil sequestration currently offset about 30% (15-45%) of the North American fossil fuel emissions." Taken from Executive Summary for the report -- p. ES-4, lines 24-25. |
| 04-023 | 12 | 4 | 4-6 | Fnote 12 | The estimates given are for potential sequestration, not actual rates. The actual rates should be given as an indication of the gap between the potential and reality. | X | | | | | | Sentence replaced with one that indicates the current rate of sequestration. The footnote has been deleted. |
| 04-024 | 12 | 4 | 4-7 | 1 ff | The integrated comparison would be greatly improved by including comparison of carbon mitigation rates and capacities, not just incremental costs. The emission reduction supply curve (p. 4-19) is limited in that it represents annual rates only, with no uncertainties, and it is very scenario-dependent. | | | X | | | | The information in the Table 1 is what is available. |
| 04-025 | 13 | 4 | 4-7 & 4-19 | 28 & 1-21 | This refers to a "TEXT Box on "Emissions Reductions Supply Curve," with the text thereof appearing on p. 4-19. There is no source for this text. Moreover, it apparently applies to local jurisdictions, not globally or to North America. Furthermore, it apparently depends on the existence of "a given emission reduction target." We question its application to this chapter. | | | | | X | | The text box was drafted by the chapter authors, so there is no source. An emissions reduction supply curve can be constructed for a local jurisdiction, a country, North America or the world. The geographic scope does not affect the difficulties associated with developing and using such a curve. |
| 04-026 | 12 | 4 | 4-8 | 27-28 | Terms are not explained ("Feebate," "CAFÉ"). | | X | | | | | Feebate and CAFÉ should be added to the glossary |
| 04-027 | 12 | 4 | 4-9 | 1-9 | This paragraph contains sweeping generalizations regarding costs, incentives, and the role of policy. More caution and more references are needed. | | X | | | | | Edited. |

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| 04-028 | 12 | 4 | 4-9 | 23-24& Fnote 16 | The statement of a CO2 lifetime or residence time is based on fundamental misconceptions and understates the long-term persistence of anthropogenic CO2. The point to be made is that immediate action affects ultimate cumulative emissions even if the action appears to have a minor effect on current rates. | | | | | X | | The sentence deals with the effect of CO2 emissions on atmospheric concentrations and is well documented and explained. Clearly reducing CO2 emissions reduces cumulative CO2 emissions, but the cumulative emissions don't matter if the removal rate is equal to the actual emissions (i.e., the atmospheric life is |
| 04-029 | 8 | 4 | 4-10 | 13-19 | GHG mitigation policies should drive innovations that reduce energy and capital intensity of industry, while stimulating economic activity. It is recognized that increased economic activity may result in increased energy usage; however, GHG mitigation policies should favor low-carbon emissions so that the economic stimulation has lower overall carbon emissions. | X | | | | | | The paragraph deals with voluntary agreements. Policies that reduce energy intensity and induce innovation are discussed later . |
| 04-030 | 12 | 4 | 4-10 | 13-19 | The discussion of voluntary programs is cursory and not sufficient to support the chapter's controversial statements of preference for national government policies. | | X | | | | | Language added. |
| 04-031 | 8 | 4 | 4-10 | 20-21 | Governments should not determine the price of CO2 for taxing purposes. The price of CO2 credits should only be determined by market mechanisms under flexible trading schemes. | X | | | | | | The reviewer is entitled to his/her opinion on the appropriate role of government. The chapter discusses emissions taxes and emissions trading programs without expressing a preference. |
| 04-032 | 8 | 4 | 4-10 | 24-29 | By introducing absolute quantitative emission reduction targets, a cap and trade emissions trading system sets artificial restrictions on growth, potentially jeopardizing the industry's competitiveness. Furthermore, if the imposed absolute targets are not consistent with technological innovation and capital stock turnover, the scheme sets severe limitations on market liquidity and creates significant barriers to effective implementation. | | | | | X | | There is no literature supporting the reviewer's assertions that an emissions trading program (limit on emissions) constrains growth, jeopardizes competitiveness, hampers technological innovation and capital stock turnover, limits market liquidity, and creates significant barriers to effective implementation (of what?). Indeed there is evidence that emissions trading promotes technological innovation. |
| 04-033 | 12 | 4 | 4-11 | 3 ff | Much of this discussion could be written about any form of government regulation of activities for societal benefit. Sweeping generalizations are made with very thin documentation. | | | X | | | | The statements could be made for other forms of government regulation of activities for societal benefit. Here they are being made in relation to government regulations intended to reduce CO2 emissions. No changes to the text are needed. |
| 04-034 | 10 | 4 | 4-11 | 4 | "such the" should be "such as the" | | X | | | | | Insert "as" |
| 04-035 | 3 | 4 | 4-12 | 12 | Add the sentence "Twenty states and the District of Columbia have enacted policies that set a target for the fraction of electricity that utilities generate from renewable sources from 5% to 30% (REN21 2005)." Reference: REN21 Renewable Energy Policy Network. 2005. Renewables 2005 Global Status Report. Worldwatch Institute, Washington, DC. | | | | X | | | The proposed sentence adds too much detail for Chapter 4. Similar statements would need to be added for Canada and Mexico. The proposed addition is more appropriate for Chapter 6. |
| 04-036 | 3 | 4 | 4-12 | 13 | Add the sentence "Raising U.S. Corporate Average Fuel Efficiency (CAFE) motor vehicle standards from the current level of 22.2 miles per gallon for light trucks and 27.5 miles per gallon for passenger cars to 39 miles per gallon, a level still lower than current standards in the European Union and Japan, could reduce oil consumption and carbon emissions by 37% (National Commission on Energy Policy 2004)." Reference: National Commission on Energy Policy. 2004. Ending the Energy Stalemate: A bipartisan Strategy to Meet America's Energy Challenges. National Commission on Energy Policy, Washington, DC. | | | | X | | | The proposed sentence adds too much detail for Chapter 4. Similar statements would need to be added for Canada and Mexico. The proposed addition is more appropriate for Chapter 7. |
| 04-037 | 13 | 4 | 4-13 | 24-26 | The sentence beginning on line 24 cites a source, while the sentence beginning on line 25 provides no source reference. | | X | | | | | The sources, which are the same for the two sentences, will be added at the end of the second sentence. |

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| 04-038 | 10 | 4 | 4-14 | 12 | "reasonable cost" as used in this context implies an unsupported value judgment: given the true costs of global warming, it is eminently "reasonable," for example, to incur the economic costs of shifting as rapidly as possible away from traditional coal fired power plants, regardless of where the plants may be in their life cycle. | X | | | | | | "Reasonable" does indeed involve a value judgment. That judgment will be made when governments adopt specific policies. In this context it highlights the fact that the costs rise as replacement of capital stock is accelerated. Governments will need to decide on what is a reasonable acceleration and a reasonable cost. |
| 04-039 | 13 | 4 | 4-13 to 4-14 | 21 to 5 | First, it is unclear whether these comments on "policies" are addressed to North America or the international community. If the former, we point out that one of the three countries is a developing country and a member of the G-77 and China, which opposes new commitments and especially targets for developing countries. If the latter, FCCC Article 2 calls for a concentration "level," not a target, and does not consider "least costs" or costs of any kind. | X | | | | | | The report deals with the North American carbon cycle. This chapter, therefore, is addressed to a North American audience. The differences in the international commitments of the three countries is correct. However, the current international commitments do not extend to the period covered by the discussion in the chapter -- short term (2015-2025 and long term (post 2050) -- as defined on page 4-2. |
| 04-040 | 13 | 4 | 4-13 to 4-14 | 21 to 5 | Second, the above draft text appears to provide a blanket endorsement of "targets" of any kind and appears to justify even "more stringent" targets in order to induce "technological change." However, there is no indication as to what economic sectors would be subject to such targets, whether they would be imposed upstream or downstream, and what would be the resource capability and desire of the affected sectors to both comply with those targets and also "support" (presumably nearly simultaneously) research and development of future technology choices "for the long-term" -- especially when faced with targets of the more immediate future, where "there is considerable ambiguity about" which technologies "will ultimately prove most useful" in reducing emissions and also be "acceptable" and "cost-effective." | | | | X | | | The purpose of the chapter is to provide a review of the options. It does not recommend one option over another. Space does not allow discussion of the detailed design of possible emissions trading programs, which for balance reasons, would need to be accompanied by similar discussions of the design of possible emissions taxes and regulations. It also is not the purpose of the chapter to predict which technologies will ultimately prove most useful or cost-effective. |
| 04-040 (cont) | | | | | It is likely that when a sector is under a target, it is not going to engage in speculation on future technologies, but will resort to what is available then in order to continue to operate. The above discussion is too superficial and inappropriate for a CCSP report. Discussion of targets is not the role or forte of the CCSP. | | X | | | | | The chapter discusses options that could significantly affect the North American and global carbon cycles. Binding emissions targets are one such option and hence need to be addressed by the chapter. The chapter does not advocate targets over other options nor does it propose levels for possible targets. The experience of emission trading programs is that affected sources look for the lowest cost ways to reduce emissions and that this often leads to innovations that reduce the cost of lowering emissions. Firms that supply emissions technologies that reduce or control emissions also look for ways to improve the cost-effectiveness of their technologies to increase the market for their products. Disclaimers that no reduction target is proposed and no policy or option is recommended have been added to the introduction. |

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| 04-041 | 13 | 4 | 4-14 to 4-15 | 7 to 13 | Although little attention is paid in either Chapter 4 or Part I to methane, the "CONCLUSIONS" state that "[p]olicies to reduce <u>projected CO₂ and CH₄ concentrations</u> . . . <u>must recognize</u> ," among other things, that: "[e]missions are produced by millions of diverse sources" that "have lifetimes of 5 to 50 years, and <u>so can adjust slowly at reasonable cost</u> " (p. 4-14, lines 8-12); "[t]echnological change <u>will have a significant impact on the cost because</u> emission reductions will be <u>implemented over a long time</u> , and <u>new technologies should</u> lower the cost of <u>future reductions</u> " (lines 15-16); "[u]nder a wide range of <u>assumptions</u> , <u>cost-effective</u> policies to <u>reduce</u> atmospheric <u>CO₂ and CH₄ concentrations</u> <u>cost-effectively</u> in the short and long term would. . . <u>encourage</u> adoption of <u>cost-effective</u> emissions reductions and sink enhancement measures" (lines 20-22) and " <u>stimulate development</u> of technologies that lower cost of emissions reduction, geological storage, and sink enhancement" (lines 28-29); | X | | | | | | | The Co-ordinating Team indicates that methane can be discussed. |
| 04-041 (cont) | | | | | an <u>emissions trading program</u> or <u>emissions tax</u> that covers <u>as many sources as possible</u> , combined with <u>regulations</u> where appropriate, <u>could achieve this</u> (lines 22-24); "[u]se of revenue from <u>auctioned allowances</u> and <u>emission taxes</u> to reduce existing distortionary taxes <u>can reduce</u> the economic cost of emission reduction policies" (lines 26-27); and "[i]mplementation of such policies <u>is best achieved</u> by <u>national governments with international cooperation</u> " (p. 4-15, lines 8-9) (emphasis added). | | | | | | | | |
| 04-041 (cont) | | | | | First, it is unclear whether these conclusions are intended to be applicable globally or just for North America. We presume they are intended for North America, which is the focus of the draft report. However, it should be made clear. | X | | | | | | The report is about the North American carbon cycle. Hence it should be clear as the reviewer infers that the options are those relevant for North America | |
| 04-042 | 13 | 4 | 4-14 to 4-15 | 7 to 13 | Second, until now, the chapter has been about different "policy options" for the "short-term" of "2015-2025" and for the "longer-term" of "post-2050." These conclusions do not seem to indicate what options or policies should be applied short term and long term, nor do they address the medium-term period of 2025-2050. | | | | | X | | The page and line reference appear to be incorrect. This comment appears to apply to the Conclusions section p. 4-14 l. 7 to p. 4-15, l.13. The policies are suitable for both the short and long term as stated in the text. | |
| 04-043 | 13 | 4 | 4-13 to 4-14 | 21 to 5 | Third, the conclusions refer to a "wide range of assumptions," but give no hint as to what they are. Yet under those assumptions, they state that "cost-effective policies" to reduce CO ₂ and CH ₄ concentrations "cost-effectively" in both the "short and long term" would encourage adoption of "cost-effective" measures, without explaining in each context what "cost-effective" means or how it is determined. | | | | | X | | The page and line reference appear to be incorrect. This comment appears to apply to the Conclusions section p. 4-14 l. 7 to p. 4-15, l.13. The reviewer has missed the point. The point is that the policies listed are cost effective under a wide range (i.e., almost all realistic circumstances) in both the short and long term. | |
| 04-044 | 13 | 4 | 4-13 to 4-14 | 21 to 5 | There is no recognition in the conclusions that one of the three countries of North America is subject to the Kyoto Protocol, with its five-year commitment period, and the other, while also a Protocol Party, is a developing country with no legally binding commitments. | X | | | | | | The page and line reference appear to be incorrect. This comment appears to apply to the Conclusions section p. 4-14 l. 7 to p. 4-15, l.13. The differences in the international commitments of the three countries do not extend to the period covered by the discussion in the chapter -- short term (2015-2025 and long term (post 2050) -- as defined on page 4-2. | |

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|--------------------------------|-------------|---------|--------------|-----------|---|---|--|------------------------------------|---|-----------------------------------|--------------------------------|---|
| Comment Number | Reviewer ID | Chapter | Page | Line | Comment Text | Acknowledged, but no further response or revisions are required | Revisions have been incorporated as suggested in the comment | Agree, but see "Notes on Response" | Agree, but elaboration is precluded by length limitations | Disagree; see "Notes on Response" | Beyond scope of report/chapter | Notes on Response |
| 04-045 | 13 | 4 | 4-13 to 4-14 | 21 to 5 | Lastly, the conclusions are far too simplistic to be meaningful or helpful because they lack sufficient discussion of the potential implementation details of such policies. Most importantly, they are made with no reference to the sources for the conclusions. In short, they appear to be those of the authors. We question the appropriateness of that. | | | | | X | | The page and line reference appear to be incorrect. This comment appears to apply to the Conclusions section p. 4-14 l. 7 to p. 4-15, l.13. The conclusions are based on the discussion in the body of the chapter. Sources are cited in the body of the chapter. |
| 04-046 | 12 | 4 | 4-15 | 8-9 | "Implementation of such policies is best achieved by national governments with international cooperation." This crucial recommendation is not well supported in this chapter. Without more substantial documentation, it appears to be a very subjective judgment. | | X | | | | | Statement significantly reworded. |
| 04-047 | 12 | 4 | 4-21 | Table 4-1 | This table is a valuable compilation, but would be more useful with an added column tabulating potential cumulative capacities. It should also specify uncertainties. Cross-references to chapters 6-10 should be itemized specifically. Percentage reductions should be converted to carbon mass to enable comparison among all entries. | X | | | | | | Data on cumulative capacities are not available. If they were available, they would apply to different time periods for different measures and hence would not be comparable. Citations for the sources of the information is sufficient; the relevant chapter should be obvious given the source of the emissions. |
| 04-048 | 13 | 4 | 4-21 | Table 4-1 | We question the inclusion of this table in Chapter 4 when its sources are apparently in Part II of the draft. The sources for the columns of estimates are listed in the fourth column of the table. However, several of those sources do not appear in the "Chapter 4 References" (p. 4-15). | | X | | | | | The structure of the report was agreed previously in stakeholder consultations. The References have been checked to ensure that all sources cited in Table 1 are included. |
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