INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE

Special Report on Renewable Energy Sources and Climate Change Mitigation

Government and Expert Review of the Second Order Draft
Jun 21, 2010 – Aug 16, 2010

Chapter 11

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[1] *see <<http://ipcc.ch/pdf/ipcc-principles/ipcc-principles-appendix-a.pdf>>, Section 4.1 and clarification in decision 8 on procedures taken at the 33rd Session of the Panel <<http://www.ipcc.ch/meetings/session33/ipcc_p33_decisions_taken_procedures.pdf>>*

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	0	-	-	-	11.6	-	-	The chapter is very prescriptive on the need of coordination among policies and among the sub-components of the enabling environment On one side this appears to be pretty obvious, but, on the other side, it provides few evidences of the existence of this coordination among listed examples and boxes, particularly on the coordination with agriculture or transportation sectors, or social and cultural dimensions of the enabling environment. There are several general and obvious phrases along the text, which will be listed below.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	0	-	-	-	-	-	-	11.6 and 11.7 are currently the weakest parts of the chapter and need a strong restructuring/rewriting (see specific comments to sections below). They currently read as a mismatch of information without a coherent story-line or message.	Accepted
United States (U.S. Department of State)	11	0	-	-	-	-	-	-	Be consistent with capitalization of the word ¿governments¿.	Accepted
United States (U.S. Department of State)	11	0	-	-	-	-	-	-	Check consistency with name and abbreviation for United States. It is U.S. in some places and US in others.	Accepted
United States (U.S. Department of State)	11	0	-	-	-	-	-	-	Check formatting of citations to make sure they are consistent in where the parentheses are included. Inconsistencies include entries such as "according to Smith (2009)" versus "according to (Smith, 2009)".	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	0	-	-	-	-	-	-	Executive Summary and Introduction say nearly the same thing. It should be avoided. Executive Summary could focus more on the conclusions while the Introduction does not need to anticipate them.	Accepted
Taishi Sugiyama (Central Research Institute of Electric Power Industry (CRIEPI))	11	0	-	-	-	-	-	-	Expanding RE itself should NOT be the policy goal. The goal should be cost-effective CC mitigation. Strong policy of RE without serious cost effecitvenessconsieration is called "governmental failure by pick and choose of technology", not a success story. You must discuss how the government can avoid such failure. Review, for example, Anthoff, David and Robert Harn, Government failure and market failure: on the inefficiency of envrionmental and energy policy, Oxford Review of Economic Policy, Volume 26, Number 2, 2010, pp. 197-224, doi: 10.1093/oxrep/grq004	this is dealt with in a new section in Section 1 which looks at the economics and costs of RE; criteria; and reasons for supporting RE, including the links between RE and CC policy
United States (U.S. Department of State)	11	0	-	-	-	-	-	-	If it falls within the time period allowed for IPCC report references, the authors should consider drawing upon a new study funded by the Asian Development Bank and the UN Foundation which includes input from leading practitioners of clean energy finance: "Engaging private sector capital at scale in financing low carbon infrastructure in developing countries". Available at: http://www.gtriplec.co.nz/assets/Uploads/papers/psi_final_of_main_report_full_version_31_may.pdf	Will review report if time.
United States (U.S. Department of State)	11	0	-	-	-	-	-	-	In reducing the page count of this chapter, please keep in mind that some of the most valuable portions are the discussion of key challenges to RE policies, FITs, and portfolio standards	Accepted
United Kingdom (Department of Energy and Climate Change)	11	0	-	-	-	-	-	-	No conclusions are made as to the optimal policy instrument/mix/design in terms of what might be most optimal & equitable or least distortionary/inefficient. Maybe because there¿s no ¿one-size-fits-all¿, but worth saying this.	This will be mentioned in the ES, introduction and elsewhere as/if appropriate.
United States (U.S. Department of State)	11	0	-	-	-	-	-	-	Structure The chapter¿s organization somewhat confusing and recommend exploring options for simplifying the presentation. The authors might consider a revised structure along the following lines: I. Policy framework for RE within climate stability portfolio II. Current landscape of RE policy III.Barriers to RE investment and deployment IV.Policy tools to address specific barriers V.Criteria for selecting, designing, and implementing policy options VI. Gaps in and limitations of existing policies and options for filling gaps VII. Conclusions	We are bound by structure dictated by IPCC, but will incorporate suggestions into current sections as possible.
Kristin Seyboth (IPCC WG III TSU)	11	0	-	-	-	-	-	-	The chapter contains a lot of good, clear information and the reader is able to navigate well through it. However, the framing of the chapter is focused very much on RE without placing it in the context of climate change mitigation strategies and explaining how RE policy fits into broader climate goals. Recommend pulling this discussion right up front in 11.1 (including Cameron Hepburn's box) to 1st explain RE in the context of carbon policies and providing a thorough explaination of why RE policies are still needed in the face of this (which Cameron's box achieves) THEN moving into the description of RE policies and an enabling environment.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Pekka Pirila (Aalto University)	11	0	-	-	-	-	-	-	The chapter declares in many places as success anything effective. While cost-efficiency is accepted in text as equally important in principle, this fact is neglected in in most parts of the text. It is obvious that increasing level of support increases always effectiveness but also decreases in most cases cost-efficiency. Thus real success can only be claimed, when real evidence can be presented that the level of support is close to the optimum for the particular form of support and in addition that some other form of support would not lead to significantly better combination of effectiveness, cost-efficiency (and other relevant criteria). Presenting such evidence is very difficult, but this is not a good justification for neglecting the whole issue and making strong insufficiently justified claims. The paper of Frondel et al. is just one example (see next comment) of arguments against the optimality of past or present policies.	this will be dealt with in re-write up throughout chapter
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	0	-	-	-	-	-	-	The chapter discusses the question how to push the development of RE only. That means there is not any kind of condition which has to be satisfied in order to make RE the optimal solution for the carbon problem. As a consequence, the chapter assumes that RE is in any possible case the best answer to climate change. There are several passages in this chapter which demonstrate that the development of RE is not treated as a mean to mitigate Climate change, but as an ultimate end. This is a very strange way to deal scientifically with this object. Science has to be open for all possible answers to a particular question. And the question the IPCC should answer is how to mitigate global warming and not how to push a particular technical development. The argumentation in this chapter does not fulfill elementary terms of scientific work. To give just one example: In order to use RE not only capital in a physical sense is needed, but also a complementary factor namely the renewable energy source, like wind or solar power. Obviously these sources are not uniformly distributed across the word. Thus it makes a huge difference if solar power is generated in an area with high solar radiation in the southern hemisphere or in the north were solar radiation is rather poor. As a consequence, all analysis of the conditions under which RE is a suitable way to fight global warming should account for regional differences. I could not find even one passage in the whole chapter discussing the effects of different regional endowments with renewable energy resources. Shortfalls of this kind cannot be excused in a scientific analysis. Summing up, the chapter does not really deliver a science-based analysis, but an instruction book for groups whose primary interest is to transform the energy systems to an RE-only system without any relatedness to the problem of global warming. In the following I will comment on some passages in order to give more reasons for this judgment. There is one fundamental argument which should be stated explicitly before starting to commend on particular passages. I assume that the final end of all efforts is to mitigate global warming by a significant reduction of GHG-emissions. Given this aim, I further assume, that firstly, the reduction of emissions will requires the use of scarce resources (in a general sense capital and work) and secondly that the amount of resources available for climate policy will be finite (how man resources we will spent ever). Putting things together, it follows that if we want to mitigate global warming with the use of a final quantity of resources, we have to use these resources in a way that ensures that the emission-reduction per resource unit is as large as possible. In short, we have to care for cost-efficiency of all investments we make to mitigate global warming. Whenever I criticize the report, this argument is in the background.	The first point is the responsibility of chapters 1, 8 and 10 primarily. section 11.1 is being re-structured to address concerns in the second half of this comment.
Switzerland (Swiss Federal Office for the Environment)	11	0	-	-	-	-	-	-	The chapter is mainly focussed on government actions. There should be more focus on the possible role of other actors (industry, NGOs, citizens, etc.)	Accepted
United States (U.S. Department of State)	11	0	-	-	-	-	-	-	The point of view of the chapter mutates from a neutral, non-judgmental one that simply reports dispassionately on various means by which renewable energy has been regulated, subsidized, encouraged, etc., to a point of view that seems to "cheer-lead" for RE, regardless of its form, merits, etc. It would be strongly preferable (and would greatly enhance the report's credibility) if the former point of view--a neutral, objective reporter and analyst--was the only point of view provided.	Accepted
Canada (Environment Canada)	11	0	-	-	-	-	-	-	The table 1.9 of Chapter 1 suggested that more details would be provided in Chapter 11 about the policy instruments included in the table. One of the instruments mentioned in table 1.9 was ¿international support for technology transfer (e.g. under the UNFCCC)¿. This issue was not substantively addressed in Chapter 11, with the exception of the Clean Development Mechanism. To enhance Chapter 11, other forms of international support/cooperation could be mentioned. In relation with the UNFCCC, the activities of the Global Environmental Facility and the Expert Group on Technology Transfer could be highlighted. Beyond the UNFCCC, international cooperation mechanisms that are meant to facilitate clean energy technology development and deployment could be presented in the chapter (e.g. activities related to renewable energy of some IEA implementing agreements, Asia Pacific Partnership, IRENA and REEEP). Other partnerships through forums such as the G8 and Major Economies Forum could also be discussed for their role in facilitating R,D&D investment, etc.	Will review chapter 1 again and align chapters; other forms of support listed in comment can be mentioned in ch. 11.

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Australia (0)	11	0	-	-	-	-	-	-	There is no reference to policy evaluation and measurement in Chapter 11. This omission needs to be rectified given that strategies/methodologies to collect baseline data and set KPIs for long term policy impacts is critical for design and implementation of policy from the outset. This chapter would benefit from engaging with the finance sector (incl multilateral financial institutions) on innovative funding models to support deployment of RETs. Policy solutions should be market-oriented to the greatest possible extent. Ch 11 has a heavy focus on R&D and technology development, despite earlier acknowledgement (Ch 1) that the structural shift to RE economies will require investment incentives for both technological and non-technological (e.g. new business models and modes of delivery) innovations. Innovation in services around RE is similarly limited in the IPCC report. Non-technological innovation is growing in importance and often goes hand in hand with technological innovation. Please refer to page 35 onwards of the recently released OECD Innovation Strategy. // Non-R&D expenditures are sometimes more important for innovation than R&D, and many of the countries with the highest proportion of successful innovators also have the highest propensity to engage in non-R&D innovation spending. New results from innovation surveys show that in most countries, more than a quarter of innovating firms introduced new products or processes without performing R&D. Moreover, a significant share of these non-R&D performing firms introduced product innovations that were first on their markets. Thus, non-R&D performing firms are able to develop new products or processes with an important element of novelty [OECD Innovation Strategy, 2010]. Ch. 11 needs to be better structured. Key messages, lessons learned and conclusions are presented throughout the Chapter in unexpected places. Although most elements are in the Chapter it does not at the beginning set up a clear framework for deciding good policy from bad. A suggestion is to provide the analytical framework and first establish the key policy objectives that RE policies might be aimed at. Then establish for each objective what the main barriers are - the barriers need to be linked to the objective, not independent as in Section 11.4. Then suggest policy options that address the barriers and give some analysis of which options would likely best address the barrier - this latter piece of policy option analysis needs some assessment criteria such as least-cost, environmental effectiveness, equity (who benefits and who pays) and administrative simplicity; and these same assessment criteria need to run across each of the options. In this way a matrix is created to logically develop policy: 1. choose the objective(s); 2. identify the barriers relevant to the each objective; 3. pose some policy options that address the barriers; and 4. assess each option against a set of criteria. At present it would not be unreasonable to conclude from the Chapter that subsidies will increase RE, and bigger subsidies will increase RE more. Whereas, the Chapter should lead us to least-cost "smart" policy options that breakdown identified barriers and lead to a specific policy objeective (eg emission reduction). It should be stated up front that this chapter is a policy toolkit for governments to use. However, the chapter would benefit from some discussion of whether to apply developed-world policies to developing countries, as these countries generally do not have the infrastructure, governance or policy frameworks in place to apply them.	this is a very good point - an one of a suite of points to be raised in the opening ppt of key issues we have to address - this cost/benefits/criteria is one of them
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	0	-	-	-	-	-	-	There seems quite some room to rationalize in terms of the Executive Summary, the introduction and the box on key messages. They are repetitive.	Accepted
Taishi Sugiyama (Central Research Institute of Electric Power Industry (CRIEPI))	11	0	-	-	-	-	-	-	This draft says : RE is cheep, but policy is unfair, that is why RE is not developing fastly, and strong policy should be in place. But, in reallity, RE is costly in most occasion, and that is why RE is not developing fastly despite costly policy interventions.	See response to comment 2 above
United States (U.S. Department of State)	11	0	-	-	-	-	-	-	To the extent possible, information in sections 1-4 should be consolidated with that in Chapter 1, as there appears to be significant overlap. Also, Chapter 11 is somewhat uneven in writing style and content. Some is a bit too academic, some needs significant editing, and the writing style needs to be more consistent.	Will work with Ch. 1 authors to ensure consistency and minimize overlap. Writing style will be addressed.
United States (U.S. Department of State)	11	0	-	-	-	-	-	-	Where the case study boxes have a clear purpose, are well-explained and interesting, and offer concise conclusions, they add value to this chapter.	Will discuss which to keep and which can be omitted.
Taishi Sugiyama (Central Research Institute of Electric Power Industry (CRIEPI))	11	0	-	-	-	-	-	-	While the draft include many valuable information, they are masked by cheep policy propaganda of renewable lovers, unfortunately. Remove all policy prescription, put more emphasis on technical information so that the readers benefit from data. The current draft is highly plicy prescriptive, biased in support of RE policy, often lacking scientific substanciation. Without major revision, I am afraid that the reputation of IPCC may be in danger.	we take note of your comment. We are determined that the chapter will provide a balanced review and not be prescriptive. But this is not a technical chapter and we reject the notion of propaganda.

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Taishi Sugiyama (Central Research Institute of Electric Power Industry (CRIEPI))	11	0	-	-	-	-	-	-	You must address costs, intermittency, and stability of supply in the first place. These three are the key barries of RE.	These issues are relevant more to other chapters, but we look at where this information is appropriate for policy makers.
United States (U.S. Department of State)	11	0	-	-	-	11.3, 11.4	-	-	Analytic/conceptual framework The analytic framework applied in the chapter should be strengthened as follows: Balance the drivers of RE with discussion of its less attractive characteristics. More systematic disaggregation of RE, clarifying technology-specific barriers. Clarify conditions when policy interventions are necessary for RE to contribute efficiently to the overarching climate change mitigation goal.	these concerns will be addressed as chapter is revised
United States (U.S. Department of State)	11	0	-	-	-	11.5, 11.6??	-	-	The chapter fails to make some obvious distinctions among forms of RE, and that failure to make these distinctions reduces some of the discussion to generalizations. We recommend making these further distinctions in the relevant sections of the chapter: a) distributed intermittent electric RE--solar, wind, tidal/wave, low head hydro, which have requires strategies to confront the following issues: cost and risk, modifying the grid/institutions for bi-directional flow; modifying the grid/institutions to manage reliability and dispatchable sources in when a material portion of the electricity comes from intermittent sources. These technologies require special institutional accommodations for large scale deployment. b) dispatchable/constant flow electric RE--biomass combustion, large-scale hydro, biogas generation, geothermal, which generally have the following issues: cost and risk, but can usually be fit into existing institutional structures. c) biomass-based fuels, including biofuels and biogas, where there are issues of cost and risk; usability of the fuels in existing equipment vs. deployment of new equipment; and delivery infrastructure. While there are common challenges: above all cost, then technology and market risk; each category has its own unique policy challenges, that would be more usefully addressed individually.	need to clarify this but much of this should be in other chapters
Kristin Seyboth (IPCC WG III TSU)	11	0	-	-	-	KM	-	-	The key messages of the chapter are unnecessarily vague and miss an important opportunity to make strong conclusions about what aspects/features of RE policy have been successful and not, and why RE policies are important even in the face of climate change mitigation policies.	Accepted
United States (U.S. Department of State)	11	0	-	-	-	KM	-	-	This chapter should further highlight the following two messages on RE policies: - Policies are most effective where they are part of a comprehensive portfolio of measures that include regulatory standards, financial incentives, infrastructure development, education, business development, and capacity building. There are many examples of countries and states and cities that have borne out the value of a portfolio of measures (e.g. Texas coupling RPS with transmission investment, etc.) - Policies are most effective when they allow for adoption of a range of technologies to address specific circumstances and integrate RE and EE solutions.	good suggestions. We will include these among our key messages for the chapter.
Canada (Environment Canada)	11	2	1	-	-	-	-	-	The word "policy" is missing in the title.	Accepted
Canada (Environment Canada)	11	2	3	-	-	-	-	-	The word "policy" is missing in the title.	Accepted
Peter Johnston (Environmental & Energy Consultants, Ltd)	11	5	11	-	-	-	-	-	"¿ policies must be specifically targeted to RE." Well yes, but to be effective often policies must be targeted to a unified coordinated approach which simultaneously encourages and targets (for example) both RE and energy efficiency aspects of energy use & development.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	5	38	-	-	-	-	-	"the needed rate of deployment" - language sounds prescriptive. How do you define the needed rate of deployment? i.e. how much deployment is this exactly? Suggest rewording to 'increased rates of deployment'	Accepted

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United States (U.S. Department of State)	11	5	7	5	10	-	-	-	"Where renewable deployment has been successful, specific policies in support of RE have been put into place." The sentence construction goes against the intended meaning, making it sound as if politicians rushed to rubber-stamp successful RE deployments with after-the-fact policy support. It is possible the authors intend to say something like this: "Specific policies in support of RE have largely been a precondition to successful renewable deployment; only rarely has deployment occurred without such policies, such as with geothermal power in Iceland and solar thermal in China." This suggested fix would also address grammatical and syntax issues in the current draft here. Finally, any reader here will instantly wonder - why did RE work in those instances in Iceland and China without the alluded policy framework? Which common barriers to RE did these areas perhaps not face, or did peculiar exigencies overcome those barriers without public support?	to be checked in final text
Volkmar Lauber (University of Salzburg)	11	5	15	-	-	-	-	-	¿clear understanding of what works and what does not¿: too strong a statement because later in the chapter is shown that all policy is circumstantial, depending on so many variables, histories, etc...	Accepted
Australia (0)	11	5	29	-	-	-	-	-	Add sentence: It will be important to emphasise targeting market failures in particular such as the inability of first movers in the R&D phase of specific technologies to reap the benfits of their investment.	Accepted
Australia (0)	11	5	5	-	-	-	-	-	Add sentence: Over the medium to longer term, as carbon prices mature, market signals can be expected to play a greater role and direct Government support to be phased out.	will consider as we rewrite ES.
Peter Johnston (Environmental & Energy Consultants, Ltd)	11	5	38	4	42	-	-	-	As above in comment 29. RE systems can often be cheaper & more effective when implemented along with more efficient end-use. Therefore explictly include energy efficiency (EE) policies among those listed (as the chapter does in subsequent sections).	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	5	1	6	26	-	-	-	Executive summary could be more to the point, more concrete regarding findings and key recommendations	Accepted
Seth Dunn (GE)	11	5	-	8	-	-	-	-	I thought the intro read like the executive summary and vice versa. You might try reversing them and then slimming down.	will consider as we revise.
United States (U.S. Department of State)	11	5	2	-	-	-	-	-	In revising the introduction (see related comment), keep in mind the need to explain (A) to what extent RE is a critical feature of mitigation need ; and (B) what barriers stand in the way for RE to achieve the full extent of this mitigation potential and how additional policies (beyond the market signals provided by commitments to reduce GHG emissions) may be necessary to surmount such barriers to cost-effective deployment.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	5	-	6	-	-	-	-	It is difficult for the reader to pull concrete lessons from the ES. See ES of the AR4 Policy Chapter (Ch. 13), which gives clear recommendations from assessing the performance of different instruments. Such a presentation of analysis for RE instruments is critical, and is missing. On p. 7 line 19 it is stated that one of the main goals of the chapter is to examine which policies have been most effective and efficient to date and why. An answer to this question should be clearly presented up front, and also as part of the key messages of the chapter.	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	5	18	5	29	-	-	-	It would be useful for the reader to expand this pargraph, giving a brief overview of the different types of instruments, the lessons learned, and the different possible targets (e.g. capacity, generation, technological maturity)	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	5	26	5	29	-	-	-	Sentence currently reads "EFFORTS are deployed in the marketplace' - Don't you mean rather that technologies on which R&D efforts have been spent are deployed in the marketplace?	Accepted
United States (U.S. Department of State)	11	5	26	5	29	-	-	-	Sentence is speculative, unsupported and unclear. Recommend deleting.	Accepted
United States (U.S. Department of State)	11	5	5	-	-	-	-	-	Statement is unsubstantiated and does not reflect that RE is a means to an end (i.e. climate mitigation goals) and not a goal in and of itself. Recommend removing and replacing with the recommended new first paragraph for the introduction section (see above)	Accepted

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Volkmar Lauber (University of Salzburg)	11	5	4	-	-	-	-	-	substitute ¿are not¿ for ¿have not been¿ (because it is not something to change in the future)	Accepted
Australia (0)	11	5	2	5	3	-	-	-	Suggest wording change: 'Government policies are required for the substantial increase in deployment of RE which would make a vaulable contribution to global efforts to mitigate climate change'.	Accepted
Felix Creutzig (TU Berlin)	11	5	-	6	-	-	-	-	The competitiveness of renewable energies not only depends on RE development, learning curves and corresponding policies but also on subsidies/taxes of non-renewable (fossile) energies, its competitors (see, e.g., Myers, 1998 (http://www.duke.edu/~mmv3/biocon/documents/Myers1998.pdf)). Consider putting this crucial dimension into the summary. This perspective is given on p.35 line 28-37.	chapter 1 responsibility, but might be mentioned in revised introduction.
United States (U.S. Department of State)	11	5	14	5	17	-	-	-	The line "there is now a clear understanding of what works and what does not" is too strong an assertion. Lines could be changed to something like, "there is a great deal of evidence on the impacts of policies in particular circumstances, with the bulk of the experience to date in the electricity sector" to indicate that we have lots of examples and case studies that indicate best practices, but that will not necessarily guarantee success in any particular instance.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	5	26	5	29	-	-	-	The logic to this sentence is missing. Deployment does not inherently make a policy successful, but is rather a sign that the policy has been successful. It is the design features of the policy that make it successful.	Accepted
Oluf Ulseth (Statkraft AS)	11	5	-	-	-	-	-	-	The report should mention the governmental use of energy master plans, establishing goals, direction and type of Energy system to be developed as a policy tool. Plans should be coordinated with protection plans, environmental plans and regional development plans. Energy Master plans are recommended by the World Bank and provides a safer environment for investment and establishes dialogue between the government and the stakeholders in the development of the plan. The plan could also establish the merit order for development.	Accepted
United Kingdom (Department of Energy and Climate Change)	11	5	1	6	26	-	-	-	The text could be shortened significantly avoiding word repetions and more concise sentences (for example pag 5 line 26 'Successful policy ultimately will be successful'	Accepted
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	5	14	-	-	-	-	-	There are policies that have no clear understanding of the effectiveness and efficiency. For example, an evaluation of quota systems with banding is not clear. ¿After more than 30¿, there is now a clear understanding of what works and what does not¿ is an overstatement.	Accepted
United States (U.S. Department of State)	11	6	3	6	4	-	-	-	"Deployment of RE provides opportunities for international cooperation, while wide-scale integration of RE will demand it." Delete "while wide scale integration of RE will demand it." Comment is unsubstantiated. Wide-scale integration of RE may or may not be promoted by international cooperation, depending on the technology, the size of the country, the depth of penetration (for intermittent renewables), and the extent to which the national grid is interconnected with other national grids. International cooperation is a double-edged sword. In many cases, the added complexity of getting more than one national government/electric power agency to agree on a course of action may hamper integration rather than advance it.	Accepted
United States (U.S. Department of State)	11	6	1	6	11	-	-	-	"The global dimension of climate change and the need for sustainable development call for a global partnership for deploying RE that recognizes the diversity of countries, regions, and business models." recommend deletion. Policy advocacy--in this case a global partnership--is outside the remit of the IPCC, and will tend to cause readers to view the IPCC as a policy advocate rather than an interpreter of science. In any case, the sentence is substantively a non sequitur. The global dimension of climate change calls for global measures to reduce emissions. RE is one method of reducing emissions. Whether a particular form of RE is particularly desirable in a particular country or location is determined by national or even local circumstances. The global dimension of climate change and the need for sustainable development don't tell us whether or not putting solar panels above the arctic circle is a good idea. In order to argue for a global partnership, one would have to argue that there is some particular aspect of RE that requires a global partnership.	Will revise this and add supporting information to chapter.
Kristin Seyboth (IPCC WG III TSU)	11	6	4	-	-	-	-	-	How does the need for 'creative policies' fit with the statement on p. 5 line 15 that there is a clear understanding of what works and what doesn¿t? Even though we know what works, we're arguing here for creativity? Why?	Accepted

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Kristin Seyboth (IPCC WG III TSU)	11	6	21	-	-	-	-	-	previous ones' - brief examples would be useful to the reader here to clarify exactly what previous energy transitions are being discussed.	Accepted
Greece (National Observatory of Athens)	11	6	7	6	7	-	-	-	Replace "is partner in" with "supports" in order to emphasise the role of the private sector	Accepted
Australia (0)	11	6	1	-	-	-	-	-	Suggest wording change: 'the global dimension of climate change and the need for energy sector development call...'	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	6	21	-	-	-	-	-	The 'now required energy transition' is used here and throughout the chapter. This language is prescriptive and should be avoided and replaced throughout the chapter. An alternative may be 'a transition in energy use that targets goals of climate change mitigation'.	Accepted
Volkmar Lauber (University of Salzburg)	11	6	6	6	8	-	-	-	unclear what is really meant here.	Accepted
United States (U.S. Department of State)	11	7	5	7	7	-	-	-	"a transition of the scale required and the speed in which it must occur": As stated, this sounds like policy advocacy. Is this defined elsewhere in the report with a clear technical/factual basis (if so, it should be pointed to here), or can the authors point the reader to some published analysis making this transition path concrete and clear?	Accepted
Felix Creutzig (TU Berlin)	11	7	35	-	36	-	-	-	"Enabling Environment" is the keyword. Consider putting it on the beginning of the sentence "An enabling environment makes ... more likely" to get the emphasis right.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	7	9	7	10	-	-	-	¿and have described the required issues of integration' - suggest replacing with '¿and have described issues of integration that accompany increasing shares of RE'.	Accepted
Seth Dunn (GE)	11	7	2	-	7	-	-	-	Is this paragraph needed?	Accepted
United States (U.S. Department of State)	11	7	24	-	-	-	-	-	It's true there are many success stories that should be learned from, but there is also a challenge in that it appears that policy effectiveness is determined by the context in which the policy is in place. It would be more complete to add to these results the concept that effective policies address the needs of and resources in the specific jurisdiction to which the policy applies.	Accepted
United States (U.S. Department of State)	11	7	22	8	5	-	-	-	The list of 11 key messages for this chapter is not compelling. This is partly due to the fact that this messages cover a broad range of themes and there is not a logical flow between the topics. The recommendation is to delete this bullet-pointed list and moving a similar list in box 11.1 to the Executive Summary.	Accepted
Greece (National Observatory of Athens)	11	7	31	7	32	-	-	-	The meaning of this finding is not clear as successful policies are usually well-designed and -implemented.	Accepted
United States (U.S. Department of State)	11	7	2	7	21	-	-	-	The recommendation is to revise the first paragraph of the introduction to state the need for climate change mitigation and the role of RE in climate change mitigation. This paragraph should place RE within a portfolio of technologies and energy demand drivers (including improved energy efficiency) that interact to meet a climate stability goal. (should be repeated as the first paragraph in the executive summary as well).	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	7	22	8	5	-	-	-	This list appears here, in Box 11.1 on p. 11/12 and on p. 113. This level of repetition is unnecessary. Recommend cutting this summary bullet list to 11.7.8 to replace the full explanatory summary in that section. Pull Box 11.1 here and insert into text (i.e. remove box around text). That would leave you with one complete text here, and a summary text at the end of the chapter - that's all that is needed.	box to be deleted
Felix Creutzig (TU Berlin)	11	7	24	-	-	-	-	-	This seems to be a meta-message. Consider deleting it here.	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	7	2	7	4	11.1	-	-	Next to reviewing the potential of RE the report and notably Ch.11 deals with facilitating and reinforcing deployment of RE.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	7	35	7	35	11.1	-	-	the term 'well-designed policy' - here appearing for the first time, turns out to be a catch word in Ch.11. For the interested decision maker who would like to know what essential features such design should have in her/his case, this term should be made concrete later on in the chapter (but that is not happening) e.g. by means of summary tables indicating what options typically suit or not suit certain conditions (e.g. regarding market form, administrative capacity, ease of fund raising, etc.)	Accepted
United States (U.S. Department of State)	11	8	14	8	15	-	-	-	"RE policies have a critical role to play... based on low-CO2 RE." This sentence is circular and not necessary - it should be deleted.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	8	36	8	39	-	-	-	Again, seems misplaced. Recommend cutting to introduction of chapter structure to help reader understand how finance appears throughout chapter, i.e. p. 7 lines 16-21. Either that or delete as the exact sentence appears again on p. 11 lines 5-7	Accepted
United States (U.S. Department of State)	11	8	36	8	39	-	-	-	Besides the missing word in the first sentence (should read "multiple ways"), this whole paragraph is out of context. The exact same material is repeated in the chapter roadmap where it fits better - this paragraph should be dropped here.	Accepted
Felix Creutzig (TU Berlin)	11	8	6	-	15	-	-	-	Consider deleting this lines if shortening is required.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	8	28	8	30	-	-	-	Has the IEA said this or Lipp?Use of referencing here is confusing.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	8	8	8	10	-	-	-	Note on large-scale hydro would be better as a footnote.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	8	28	8	30	-	-	-	Paragraph seems misplaced - recommend cutting it to section discussing effectiveness/efficiency.	Accepted
Youba SOKONA (Sahara and Sahel Observatory)	11	8	23	8	27	-	-	-	Please give some references	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	8	31	-	-	-	-	-	Reference to relevant sections in 11.4 would be useful here.	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	8	40	-	-	-	-	-	The phrase is very general and pretty obvious.	Accepted
Geoffrey Heal (Columbia University)	11	8	16	8	19	-	-	-	This seems to imply that Brazil reached its substantial penetration of biofuels without strong policy measures. This is not true: in 1973 the Brazilian government made a policy decision to reduce dependence on imported oil and passed a variety of measures to subsidize the biofuels industry.	Accepted
Karen Pittel (ETH Zurich)	11	8	-	10	-	11.1	-	-	Inroduction partially repetitive (e.g. need for taylored approach and integrative solutions)	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	8	36	8	36	11.1.1	-	-	..of finance can be examined in ??? ways ¿ "" add: 'various' or 'many' or ..	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	8	40	8	41	11.1.1	-	-	The message of this phrase is so flexible that it doesn't say anything. Furthermore, being responsive to local political, economic, etc. conditions by no means guarantees effective nor boosted deployment of RE. Better phrasing would be: 'Local physical and social circumstances often merit to be seriously considered in order to improve up-take in various regions. Yet, this should be balanced against risks of increased administrative burden of elaborate policy differentiation and of biases due to local vested interests'	will consider as we revise text

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Kristin Seyboth (IPCC WG III TSU)	11	8	-	9	-	11.1.1	-	-	Whole section 11.1.1 seems unnecessary and repetitive. If Box 11.1 is pulled forward to page 7, most of this text could be inserted as explanation of the key messages and the section heading itself deleted, which would be much more useful to the reader. Suggested key messages follow: P. 8 line 40 to P. 9 line 4 - key message #6 p. 9 lines 5-10 - delete. Repetitive with exact text of key message #8 p. 9 line 11 to p. 9 line 16 - key message #8 p. 9 lines 19-21 - key message #5 or 7 p. 9 lines 22-24 - key message #10 p. 9 lines 30-33 - key message #10 p. 9 lines 34-38 - key message #8	section to be rewritten.
United States (U.S. Department of State)	11	9	22	9	24	-	-	-	"Finally, achieving a sustainable energy system....will require a structural shift...to a more integrated energy service approach.... Comment: this is arguably accurate (though overstated) for dispersed intermittent renewables, esp. PV and small scale wind, but isn't necessarily the case for geothermal/hydro/biofuels/biomass combustion. This statement should be supported and would be better placed where it is substantively relevant in the chapter.	Accepted
United States (U.S. Department of State)	11	9	30	9	34	-	-	-	"To enable this shift, a combination of well-designed policies...is required which address the broad spectrum of issues barriers.... It implies important changes in societal activities, practices, institutions, and social norms." Recommend deletion. This is actually a counsel of despair, because if absolutely everything must change, then nothing will change. It seems to me that much higher electricity prices, net metering, time-of-day pricing, modifications to the grid, targeted special short-term weather forecasting, and a cross-subsidy for distributed renewables don't really amount to "important changes in societal activities, practices, institutions, and social norms.	Accepted
United States (U.S. Department of State)	11	9	7	-	-	-	-	-	A direct quotation begins on this line; the quotation purports to define "enabling environment." The quotation (which may have lost something in translation?) seems vacuous; in any event if it is to be retained a reference needs to be added.	Accepted
Frank Krysiak (University of Basel)	11	9	22	9	23	-	-	-	A much more specific concept of ""sustainability"" is used here than in Ch. 9.	need to to be unified across chapters
Sweden (Swedish Environmental Protection Agency)	11	9	5	9	10	-	-	-	Circular argument - can be removed	Accepted
United States (U.S. Department of State)	11	9	4	-	-	-	-	-	Distinction between well-designed and well-tailored policies is not clear.	Accepted
Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	9	1	9	4	-	-	-	here it is in principle said that well-designed policies are well-designed, which is a tautology	Accepted
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	9	-	-	-	-	-	-	It is demanded that policy has to be ¿well designed and ¿tailored¿. This includes that policy leads to ¿efficient¿ solutions (line 3). But to meet this requirement it is necessary that the possibility that RE are not the right instruments to fight global warming is admitted! To see that RE in same cases does not lead to an efficient climate policy one has to account for the marginal abatement cost (MAC) for CO2. Unfortunately, the whole chapter totally ignores an analysis of MAC.	will include economic discussions in intro and throughout; refer back to earlier chapters?
Kristin Seyboth (IPCC WG III TSU)	11	9	42	10	3	-	-	-	Paste relevant aspects of finance contents from p. 11 lines 7-11 here. Suggested rewrite: "¿and 11.4 briefly reviews the many market failures and barriers that impede the development of RE policies as well as the barriers to financing. Section 11.5¿and discusses which have been most effective and efficient to date and why. 11.5 also includes a discussion of the links between policies and financing, and how best to maximize public funds and encourage private investment."	Accepted
Youba SOKONA (Sahara and Sahel Observatory)	11	9	7	9	10	-	-	-	Please give reference	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	9	19	-	-	-	-	-	policy and regulation are said to improve the economics of RE; maybe it would be more appropriate to say that policy and regulation improve the efficient establishment and development of RE use?!?	Accepted
Seth Dunn (GE)	11	9	22	-	38	-	-	-	Seems redundant since you address structural shift and innovation in later sections.	Accepted
Volkmar Lauber (University of Salzburg)	11	9	6	9	10	-	-	-	Source of this definition? Must policies be only effective and efficient, or also fair? Importance to legitimacy of a policy	Accepted
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	9	19	9	21	-	-	-	The authors ask for a massive influence on private investment decision. This leads to massive distortions of investments and accompanied welfare losses. Whenever this is demanded, it has to be demonstrated that the gains of the distorted investments (via the internalization of external effects) exceed the welfare losses. The whole chapter ignores this necessity.	will be addressed
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	9	37	-	-	-	-	-	The last phrase should be dropped or transferred to the Roadmap.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	9	25	9	29	-	-	-	These sentences belong rather with discussion of RE's contribution to climate change mitigation on p. 7 lines 2-7.	Will consider as we rewrite section.
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	9	5	9	13	-	-	-	These three phrases should be condensed in order to avoiding repeating the dimensions of the enabling environment in two consecutive phrases	Accepted
United States (U.S. Department of State)	11	9	5	9	10	-	-	-	These two paragraphs deal with the enabling environment. Delete the end of line 6, "An 'enabling environment is defined as:" and lines 7-10. Tautology, and duplicates the more compact language in lines 11-13. After eliminating the numerous subordinate clauses these two paragraphs boil down to: "RE is more likely to emerge from an enabling environment. An enabling environment is a set of institutions, values, and circumstances that can create a rapid increase in RE."	Will consider as we rewrite section.
United States (U.S. Department of State)	11	9	11	-	-	-	-	-	This is a critical point and this paragraph lays it out well, but it should be placed in the chapter roadmap.	Accepted
Volkmar Lauber (University of Salzburg)	11	9	19	9	21	-	-	-	This short statement says about as much as the preceding paragraphs (tip for text reduction)	Accepted
United States (U.S. Department of State)	11	9	24	-	-	-	-	-	What are the "synergies between RE and energy efficiency?" These cannot simply be asserted here, but must at least be identified and placed into context. Is this some kind of nod to distributed generation and net-zero buildings or something like that?	will refer to chapter 1, where this discussion will occur
Volkmar Lauber (University of Salzburg)	11	9	34	9	35	-	-	-	What does this sentence mean?	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	9	23	9	24	-	-	-	What exactly is a 'more integrated energy service approach'? One with higher shares of RE? If so - state as much.	Accepted
Canada (Environment Canada)	11	9	6	9	10	-	-	-	What is the source of the quoted definition of "enabling environment"? If the definition was developed by the SRREN authors for the purposes of this report, it should be framed as such.	Accepted
Steve Sawyer (Global Wind Energy Council)	11	9	12	9	12	11.1.1	-	-	"and well as" change to "as well as"	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	9	31	-	-	11.1.1	-	-	missing "and", should read: "issues and barriers"	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	9	-	-	-	11.1.1	-	-	the authors might look at this entire section more closely to remove redundancy and make sure the flow is logical, it is OK but could use a little editing	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Lori Bird (National Renewable Energy Laboratory)	11	9	7	-	18	11.1.1	-	-	The discussion of enabling environment is a bit repetitive. It needs some reworking. The quote and following paragraph say the same thing. Also, the grammar in the second paragraph needs work.	Accepted
Australia (0)	11	10	13	-	-	-	-	-	Add sentence: while a high-cost approach there are useful lessons to be learned from Germany's programs.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	10	21	-	-	-	-	-	If you're describing information that is not covered here, but rather to elsewhere in report, please give specific examples for where that information can be found - here e.g. energy access in Ch. 9, integration in Ch. 8	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	10	4	-	-	-	-	-	Include here that innovation will be conceptualized in this section	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	10	18	10	22	-	-	-	It would be better for the reader if you could be explicit about what is covered in the chapter and what is not. Here you say energy access is not covered, but it is listed in Figure 11.1 - is it covered, or not? It would also be useful to know why you've selected specific aspects to include and why not others.	Accepted
Seth Dunn (GE)	11	10	7	-	22	-	-	-	Not sure these paragraphs are necessary.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	10	16	10	18	-	-	-	Recommend deleting half of sentence after dash (i.e. "¿-scale of projects¿and so forth"). This information is either repeated in figure or is inconsistent with figure 11.1. If further information is needed to explain what is contained in figure, cut it to the figure caption.	Accepted
Sweden (Swedish Environmental Protection Agency)	11	10	19	10	22	-	-	-	Remove sentence.	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	10	8	-	-	-	-	-	That is not the best place to include a box. It could be included in an addition sub-section on most successful policies	box to be moved
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	10	18	-	-	-	-	-	The figure 11.1 also should not be included in the roadmap of the chapter.	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	10	19	-	-	-	-	-	This last phrase should be eliminated.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	10	9	10	13	-	-	-	This text and Box 11.2 do not belong in section outlining the structure of the chapter. Recommend cutting to p. 80, section 11.5.7 demonstrating the benefit of 1) predictable long, term policies 2) policies that adjust over time; and 3) policies enacted alongside policies to create an EE.	box to be moved
United States (U.S. Department of State)	11	10	1	-	-	-	-	-	Would this also impede "the deployment of RE technology"?	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	11	14	-	-	-	-	-	"Appropriate market signals" - what exactly is an appropriate market signal? Better to be clear with language and explain "Market signals that do X and Y are crucial¿"	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	11	17	11	18	-	-	-	"have an impact on emissions reductions and enhanced access to clean energy". Chapter doesn't actually show how policies help to reduce emissions or to enhance access to energy. Rather you focus on how policies help to increase deployment of RE. Rephrase this to focus on RE, and ideally include information on the types of policies that HAVE BEEN most successful. The reader sorely misses this information.	Accepted
United States (U.S. Department of State)	11	11	25	12	2	-	-	-	"In low-lying developing countries, RE's potential for climate change mitigation becomes an issue of economic and physical survival." recommend deletion. Inaccurate and reduces credibility. The context indicates that authors are writing about attitudes towards domestic deployment of RE in various categories of countries. The 'physical survival' of the Bahamas may perhaps depend on climate change mitigation via RE or other methods in the USA, EU, Russia, China, India, etc, but the extent to which the Bahamas or other small island nations individually or as a group adopt RE will have not have an appreciable effect on sea level rise and hence their physical survival.	has been rewritten
Australia (0)	11	11	19	-	-	-	-	-	Add sentence: It is important to look also at which are the most cost-efficient mechanisms for encouraging RE uptake.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Kristin Seyboth (IPCC WG III TSU)	11	11	17	-	-	-	-	-	Avoid policy prescriptive language by rephrasing from "the right policies" to "policies to support RE"	Accepted
United States (U.S. Department of State)	11	11	12	-	-	-	-	-	Box 11.1 - This box, which is a very helpful summary of the Chapter's key messages, would belong better in the Executive Summary, not where it is currently found in the Chapter Roadmap. It should displace similar, lengthier text in the Executive Summary, rather than simply add new length.	Box will be deleted.
Canada (Environment Canada)	11	11	12	13	13	-	-	-	Box 11.1 duplicates exactly the chapter conclusions (p. 113-114) and could be deleted to shorten the chapter.	will be deleted
United States (U.S. Department of State)	11	11	12	-	-	-	-	-	Box 11.1 should be moved to the executive summary, replacing existing paragraphs in the executive summary that say the same thing. The conclusions section also duplicates Box 11.1 -- these changes also apply to the key messages section in the conclusion, and the conclusions section could be deleted if it simply duplicates the key messages stated earlier. Add language to this effect at the top: Policies supporting renewable energy are part of a portfolio of solutions in mitigating climate change. Within that context, the following key messages apply: Revise key message 1: Targeted policies should address barriers to RE, including market failures. Appropriate market signals are crucial to trigger significant RE growth, but may not address all barriers. Revise key message 2: "Right policies" is problematic -- what about implementation concerns and the need for adaptive policy response? There are failure stories as well as success stories, and we can learn from them as well. Rephrase to the effect of: There are both positive and negative experiences, and policymakers can learn from both. Revise key message 3: The first sentence crosses the line into advocacy. The point is to state that there are linkages between climate change mitigation and other policy goals. The third sentence doesn't make sense and should be deleted.	Key messages are being revised and box deleted.
Seth Dunn (GE)	11	11	3	-	11	-	-	-	Can probably be trimmed to one sentence listing sections where financing is addressed.	will consider as we revise
United States (U.S. Department of State)	11	11	8	11	9	-	-	-	delete: "followed by...investments."	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	11	7	11	11	-	-	-	It's confusing for the reader to have ANOTHER list of chapter contents here. Better to combine list of policy and financing aspects in one list - ideally on p. 10 with lines 1-6.	Accepted
United States (U.S. Department of State)	11	11	12	-	-	-	-	-	Revise key message 4: Language should be more consistent with the chapter section on barriers, where these concepts are more clearly stated. As stated, it's too judgmental and not substantiated. Revise key message 5: Replace "virtuous" with "positive feedback" and "promotion" with "deployment." Revise key message 6: Does a successful policy really have to take all of these factors into account? Need to soften this language to be less prescriptive. Key message 7 buries the key point: Policies that successfully address risk can reduce public and private costs. Key message 8: Avoid implying that all of these factors are necessary for policies to succeed. They should be considered, but they don't all have to be "right" as preconditions for RE policy to succeed. This description of an enabling environment is an ideal, and all countries fall along a continuum from 0 to this ideal. Key message 10 should be deleted - the tem "political will" is particularly problematic. Move the reference to structural shift to the introductory text in this box: a structural shift is required to meet mitigation goals, and policy is required to effect that shift. Key message 11: Rephrase "must" statements with "if ... then" statements: If governments choose to use RE policies to meet CC mitigation goals, then a rapid timeframe is required. The portion from "Thus it is ..." on confuses the point and should be deleted.	Key messages are being revised and box deleted.
Kristin Seyboth (IPCC WG III TSU)	11	11	12	13	13	-	-	-	The current list of key messages does not answer the basic questions that a policy maker would ask: What RE policies are successful? Under what conditions are they successful? What RE policies are less successful? Why have they been less successful? What other factors outside of policy affect RE deployment? When is RE policy unnecessary? The key message list would very much benefit from a clear focus on answering these questions.	Key messages are being revised
Kristin Seyboth (IPCC WG III TSU)	11	11	13	11	19	-	-	-	The distinction between Key Message #1 and Key Message #2 is unclear. Policies accelerate RE deployment (KM 1) - isn't this the definition of a successful policy (KM2)? May be better to focus KM2 on the lessons that have been learned, explaining in summary what qualifications/conditions make a policy successful.	Key messages are being revised and box deleted.
Youba SOKONA (Sahara and Sahel Observatory)	11	11	12	15	11	-	-	-	the successive boxes seem to me too long. Each could be shorten	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Seth Dunn (GE)	11	11	12	13	13	-	-	-	These are the same key findings shown a few pages ago; not sure they need repeating, or at least in a roadmap section.	will be deleted
Kristin Seyboth (IPCC WG III TSU)	11	11	12	13	13	-	-	-	This box does not belong in a section on 'Roadmap for chapter'. As before, recommend cutting this to page 7 to replace short-list of bullets and remove the box.	will be deleted
Greece (National Observatory of Athens)	11	11	12	13	13	-	-	-	This Box summarises the key messages related to policy, financing and implementation. All points are well addressed. I think that emphasis should be put on point 10 which should be the key objective of any long-term policy	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	11	4	11	7	-	-	-	This exact sentence also appears on p. 8 lines 36-39. Delete either here or there.	Accepted
United States (U.S. Department of State)	11	11	20	11	25	-	-	-	This section includes assertions that are not valid, at least not in the unqualified forms they are presented here. Regarding "economic development and job creation": since the rest of the chapter rather matter-of-factly notes that large subsidies, tax preferences, compulsory consumption mandates, and other potentially distorting and economically costly are necessary for RE research, development, diffusion and use to occur, one cannot have any confidence that the net effect of these interventions is to promote economic development and job creation. That is not so say they are not, on net, beneficial interventions. Regarding "increased security of energy supply": this too cannot be supported as a blanket, unqualified statement. Individual RE policies may increase energy security, but (to take the case of biofuel mandates) others are at best neutral. Regarding "reduced indoor air pollution": dung is arguably a premier RE source, yet burning it indoors is likely to pollute indoor air more severely than, say, an gas stove would. Substituting gas (or, especially, electricity) for wood or any other form of biomass combustion indoors will generally result in much cleaner indoor air. Finally, while RE may have the potential to mitigate climate change, there are (as noted elsewhere) RE policies that worsen climate change. In the developed countries, one could argue that it is these that have received the lion's share of public support thus far, and that will be the most difficult to dislodge.	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	11	3	-	11	-	-	-	This whole paragraph should be dropped. It is not aligned with the scope of the roadmap. The content of the sections must follow that adopted in page 19, from line 1. The phrase starting with ""the issue¿"" is repeated in page 8, lines 36-39.	will consider as we revise
Karen Pittel (ETH Zurich)	11	11	-	12	-	11.1	-	-	Box 11.1 should be abolished as it is repeated in subsection 11.7.8 (see comment 29).	to be deleted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	11	12	12	43	Box 11.1	-	-	Skip Box 11.1. It replicates the conclusions, whereas on page 7/8 already a short list of key findings was presented. The latter key list suffices at that stage of the chapter.	will be deleted
Kristin Seyboth (IPCC WG III TSU)	11	11	-	-	-	-	11.1	-	More information would be useful in the caption, e.g. are these aspects listed in any kind of heirarchy? Which considerations are most important for policy-makers?	to be deleted
Kristin Seyboth (IPCC WG III TSU)	11	12	8	-	-	-	-	-	"counteract" would be a better word-choice than 'undermine'.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	12	5	-	-	-	-	-	"of climate change policies.." Why all of the sudden are you talking about climate policies here when the focus of the chapter is on RE policy?	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	12	18	12	21	-	-	-	"policies CAN immediately start" - yes, they can, but is this necessarily recommended? If so, in what circumstances? I.e. wouldn't it be better to start with a stable framework if that's possible?	Accepted
United States (U.S. Department of State)	11	12	15	12	16	-	-	-	"Successful polices are well-designed and implemented, conveying clear and consistent signals." Suggest changing to: "Policies should convey clear and consistent signals." 'Successful policies are well-designed and implemented" is yet another tautology that conveys no useful information to the reader, particularly because the reader isn't quite sure yet as to the metric for "successful," and isn't learning (yet) what attributes the authors think makes a policy "well-designed and implemented." Anyway, policies that are politically well-designed and successful may be abysmal instruments of public policy.	Accepted
United States (U.S. Department of State)	11	12	34	12	40	-	-	-	"The global dimension of climate change...call for new international public and private partnerships... Recommend deletion. This is a policy recommendation to the international community, and is inappropriate in an IPCC report.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Steffen Schlömer (IPCC WGIII)	11	12	13	-	-	-	-	-	¿, drives down costs [add: inter alia] through economies of scale, ¿	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	12	34	12	36	-	-	-	Cut message to the essence 'International public and private partnerships and cooperative arrangements facilitate the deployment of RE'. This supports the claim that new partnerships are needed. As currently worded, you're only supporting the notion that we have a global problem.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	12	31	-	-	-	-	-	Cut 'the dimensions of the enabling environment' here. It does not differ from the sentence above, and is therefore unnecessarily repetitive.	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	12	27	12	33	-	-	-	is the key insight that follows not (i) design of policy has to be sufficiently comprehensive to assess the broader environment, and to ensure that potential barriers are identified, so as to create an enabling environment. .... (ii) the government level that has the capacity to deliver the enabling environment should both be committed to renewable targets and be empowered to manage the policy instruments necessary to deliver these targets	ask reviewer for literature.
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	12	41	13	4	-	-	-	is the main message not related to the need to facilitate entry of (new) renewable energy sources in the systems and market structures that are dominated by conventional energy sources. Given vested interest of stakeholders benefiting from incumbent status with regard to conventional energy sources, this might require tailored support.	will consider as we revise.
Kristin Seyboth (IPCC WG III TSU)	11	12	5	-	-	-	-	-	replace "the problem" with 'climate change'	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	12	4	12	9	-	-	-	Sentence seems run-on - would be easier for reader if all of these aspects were presented as a list.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	12	41	13	4	-	-	-	The reader cannot pull a clear message from KM #10. Suggest to reword as "If REs are to consititute an increasing share of the energy supply structure - eventually to account for a majority - a structural shift in terms of not only policy and decreasing energy intensity would be required, but also in terms of changes in societal activities and practices, business conditions and institutions." Then more supporting material/evidence/explanation would be helpful.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	12	36	12	37	-	-	-	What is a 'suitable finance mechanism'? Clear language would be helpful, e.g. 'finance mechanisms that do X and Y¿'	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	13	11	13	13	-	-	-	"Critical¿situations change" Sentence is more part of KM #6. Recommend moving accordingly.	Accepted
Volkmar Lauber (University of Salzburg)	11	13	21	-	-	-	-	-	¿difficult for RE to compete economically¿ better replaced by ¿difficult for RE to compete in the market place¿, because when all external costs would be included in fossil fuel use the economic balance RE/fossil fuels is favorable for RE. This truth has to be clear throughout the SRREN with no slippery language here and there.	will consider as we revise
Pekka Pirila (Aalto University)	11	13	41	14	2	-	-	-	A reference is given to Frondel et al. but its content is totally neglected. It is dishonest to leave out its conclusion that the German renewable energy support is not a success story but largely a failure, whose positive results are much less that the cost of support, and which ""has failed in harnessing the market incentives needed to ensure a viable and cost-effective introduction of renewable energies into the country's energy portfolio". The article indicates a cost commitment of 65 billion € in solar energy investments to be done by the end of 2010, a very different figure from 4.3 billion € mentioned in the text and taken (selectively?) from another reference.	will include in text box and/or elsewhere in chapter
Kristin Seyboth (IPCC WG III TSU)	11	13	15	15	11	-	-	-	Box 11.2 should be cut to 11.5.7, as should related text on p.10. It is misplaced here - should not discuss the specifics of a set of policies when the different policy options haven't even been presented.	to be moved
United States (U.S. Department of State)	11	13	11	-	-	-	-	-	Box 11.2. The word ¿obliged¿ is used at least 3 times in the box. Consider selecting other words.	Accepted
United States (U.S. Department of State)	11	13	15	-	-	-	-	-	Box 11.2: Consider mentioning transmission requirements in this text box. Also, has Germany's approach been universally accepted within the country? Are there lessons to share in how to address concerns by those less than supportive of the German policy? Suggest rewriting so that the text is tighter and clearly demonstrates what Germany has accomplished.	will include if possible.
United States (U.S. Department of State)	11	13	15	-	-	-	-	-	Box 11.2: There is only one mention of the limitations or downside of Germany's policies (line42, page 13). To be fair, this should be elaborated (i.e., total expenditures by taxpayers, costs...), or other downsides should be mentioned (exploitation of generous benefits?).	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	13	15	-	-	-	-	-	Box 11.2: This case study is premature in the "Chapter Roadmap" section. Because it precedes all of the Chapter's discussion of key concepts, it suggests to the reader that "basically, we should all emulate German policies" - which ignores the careful considerations expressed later on in the chapter's body. It should be moved later in the chapter following whatever text best sets forward the concepts that are captured in the German experience described here.	Accepted
Steffen Schlömer (IPCC WGIII)	11	13	15	15	11	-	-	-	Case Study German EEG: One very important aspect of the German EEG is missing, which is the the fact that its remuneration structure is degressive. Once installed systems get a fixed tariff per kWh produced over 20 years depending on the year of installation and the type and size of the system. However, this tariff is reduced each year for new installations to account for technological progress and cost reductions. Tariffs have also been reduced discretely in order to avoid overcompensation due to unexpectedly quick cost reductions. References can be found on www.erneuerbare-energien.de/english.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	13	5	13	13	-	-	-	Reader misses the key point of the message. Suggest to reword as "If RE is to contribute substantially to climate change mitigation a transition in the current energy system is required. Such a transition differs from previous transitions by¿"	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	13	9	13	11	-	-	-	Sentence "Thus¿mitigating climate change" doesn't tell reader anything new. Delete.	Accepted
Volkmar Lauber (University of Salzburg)	11	13	5	13	13	-	-	-	the second of two points is inherent to a transition from an existing to a new system, i.e. That the existing system is in place. More fundamental as a difference with the previous transitions is that the present transition is one from ¿inherited energy stocks in the ground¿¿ to ¿harvesting (mostly diffuse) energy flows in nature¿ with all related economic effects.	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	13	17	-	-	-	-	-	the technology improvement was not only result of GERMAN R&D effort, but reflected the learning from many countries	will consider as we revise
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	13	15	15	11	-	-	-	The whole discussion of the German RE policy is based on quotations from only one journal (Energy Policy). An economic analysis is completely missing. The German example needs to be viewed critical, but in the report not even one critical remark can be found. Two examples for critical aspects of the German policy: First the FIT for RE is very successful insofar as Germany now has a high proportion of wind and solar energy. But this policy totally ignores the existence of the European emission trading and therefore all the RE energy leads not to additional reductions of CO2 emissions (a fact that is admitted at the end of chapter 11 on page 101!). The only effect of the RE-subsidies is that it becomes very expensive for Germany to meet the requirements of the cap set by the EU. For example, the subsidies for solar power in Germany already guarantied sum up to 100 billion Euros! This is very much money for a policy that does not save additional emissions. The second critical point is that the German policy totally ignores MAC. The consequence is that the same CO2 reduction could be reached with much less effort. As is argued in the first remark, cost efficiency is a necessary condition for rational climate policy. The German way to trigger RE is highly inefficient and wastes valuable resources we need to fight global warming. About this entire not even one word can be found in chapter 11.	can reviewer send us some references? We will address this issue.
Seth Dunn (GE)	11	13	15	15	11	-	-	-	This box strikes me as both long and out of place. It belongs later and in shorter form.	to be moved
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	13	15	-	-	Box 11.2	-	-	I recommend referring to fights of the German government against the European Commission etc. regarding a FIT, which are shown in pages180-183 of ¿Green Power Markets: Support Schemes, Case Studies and Perspectives¿ edited by Luts Mez, Multi-Science Publishing, 2008. It would be useful for policy-makers.	will consider but probably not relevant for our purposes.
Steve Sawyer (Global Wind Energy Council)	11	13	16	13	16	BOX 11.2	-	-	in this paragraph, it should also be addressed that the anti-nuclear movement in Germany was also an important factor for the wind sector to become one of the options in the 1980's	will consider as we revise
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	14	2	14	2	-	-	-	It would be helpful to include the "merit order effect" (i.e. avoided electricity generation of the most expensive fossil fuel plants) of the German EEG (FiT) policy. DBCCA finds that this is ¿9.4 billion. For further information on this, see SRREN_Draft2_Review_Fulton_Mark_Material_05.pdf; page 9. This is DBCCA's "Paying for Renewable Energy - TLC at the Right price," December 2009 report.	Accepted
Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	14	11	-	-	-	-	-	please insert a blank behind 1991	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	14	15	14	16	-	-	-	Sentence is misplaced in paragraph. Cut to paragraph discussing details of the EEG on p. 13 lines 33-41.	will consider as we revise.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Australia (0)	11	14	1	-	-	-	-	-	The sentence 'additional costs amounted to 4.3 billion ¿ in 2007' could be clearer - is this referring to the cumulative total costs of the EEG to 2007, or the cost only in that year? It may be useful to add the total costs of the EEG to date, and the impact on electricity prices.	Accepted
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	14	1	-	-	Box 11.2	-	-	The additional cost in 2007 is described, but the latest figure would be better.	will update if possible.
United States (U.S. Department of State)	11	15	13	15	16	-	-	-	delete: "such as...light or power;" delete "include tax incentives and rebates" This will shorten text and make list parallel.	Accepted
United States (U.S. Department of State)	11	15	7	-	-	-	-	-	It would bring the Germany case study full circle with the rest of the chapter if it included a sentence talking about how since 1990 Germany has created an enabling environment for innovative policies and programs (as well as technologies).	Accepted
Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	15	7	-	-	-	-	-	Shift the hyphen at the end of this line to the next line	Accepted
Karen Pittel (ETH Zurich)	11	15	-	29	-	11.2	-	-	Also: The focus of 11.2 is almost entirely on technicalities and institutional details of financing instruments, too little attention devoted to their different economic impact (at least provide reference?)	A subsection on economics is planned.
Karen Pittel (ETH Zurich)	11	15	-	29	-	11.2	-	-	Too many specific examples, too little general approach. General trends are sometimes lost in the vast amounts of statistics supplied. (Holds also for some later sections of this chapter). Better: Reference to general trends and principles in text and more of the statistics and numbers relegated to tables. (Regarding subsetion 11.2 see also comment 16)	will consider as we revise
Emmanuel Branche (Electricité de France)	11	15	30	22	2	11.2.1	-	-	Reference should be made to the Renewables 2004 conference Political Declaration which states inter alia that "Ministers and Government Representatives from 154 countries gathered in Bonn, Germany, June 1-4, 2004, for the International Conference for Renewable Energies, acknowledge that renewable energies, combined with enhanced energy efficiency, can significantly contribute to sustainable development, to providing access to energy, especially for the poor, to mitigating greenhouse gas emissions, reducing harmful air pollutants, thereby creating new economic opportunities, and enhancing energy security through cooperation and collaboration.", link : http://www.renewables2004.de/pdf/conference_report.pdf	will consider as we revise
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	16	-	19	-	-	-	11.1	Among the instruments listed in this table, emission trading and CO2 tax are missing. Why? Are these instruments not rated as adequate to develop RE-technologies? Emission trading and CO2 tax both assure cost efficient realizations of any reduction-level. Does this mean that RE-technologies are no element of any efficient CO2 reduction policy?	can be accomodated by adding in the title : Existing RE specific Policy Mechanisms.
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	16	-	-	-	-	-	11.1	Quota driven: there are also hybrid forms that include both energy efficiency AND renenwable energy under some kind of (attributed) emission reduction quotum. This is especially relevant in the built environment. The UK Carbon Emissions Reduction Target (CERT) is good example of this. Also several so-called White Certficate schemes reward mixed efforts (i.e. replacing a less efficient oil boiler by a new high efficient boiler using wood pellets). These kind of hybrid instruments also offer good possibilities to illustrate the importance of energy efficiency - renewable energy synergy	the point of combined efficiency-RE obligations will be made explicit.
Canada (Environment Canada)	11	16	-	-	-	-	-	11.1	This table will be a useful tool to review quickly the various policy options to accelerate the deployment of clean energy technologies. However, given the length of the table, the presentation could be enhanced. For instance, it would be more reader-friendly to repeat the main titles on the top of each page.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	16	-	19	-	-	-	11.1	Would be useful to include PACE incentives (as appear on p. 21 line 34/35) in table.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	18	-	-	-	-	-	11.1	Including additional columns on the level of technology maturity to which a specific policy can be applied would be useful to include. Then, policies such as technology incubators, convertible loans, etc, from p. 46 could be included in the table and have a clear differentiation (as they only apply to pre-commercial stage technologies) from other policies that apply to only later technological maturity stages.	valid suggestion, but the authors consider it not feasible in an appropriate and satisfying way within the context of this table; comment is accepted but suggestion cannot be followed-up.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Kristin Seyboth (IPCC WG III TSU)	11	18	-	-	-	-	-	11.1	Smart subsidies and grant-support models are introduced on p. 45 but are not placed into the context of this table. May be useful to include in table, at the very least as a sub-category to give reader context to that text.	because this table is focused on existing RE specific policy mechanisms, more general policies such as these are not included; the authors agree that the distinction is often blurred.
Kristin Seyboth (IPCC WG III TSU)	11	18	-	-	-	-	-	11.1	The reader misses a clear placement of R&D policies. Is this not included in the table? If so, where? If it has been excluded purposefully, please explain why in the text.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	18	-	-	-	-	-	11.1	Would it be possible to deliniate which policies are technology-push and which demand-pull (as described on p. 39) in this table, e.g. by adding another set of columns on the right? This would help the reader to understand specifically which policies were being discussed when you refer to technology-push and demand-pull in the text.	valid suggestion, but the authors consider it not feasible in an appropriate and satisfying way within the context of this table; comment is accepted but suggestion cannot be followed-up.
Kristin Seyboth (IPCC WG III TSU)	11	19	5	-	-	-	-	-	Brackets should be removed from around numbers 55, 100 and 80	Accepted
United States (U.S. Department of State)	11	19	2	-	-	-	-	-	Footnote 1 should be changed from normal to superscript text.	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	19	2	19	13	-	-	-	it might be suitable to more clearly differentiate between policy targets (metric and time frame used, type of committment) and the policy instruments used to deliver these targets (quantity based, or price based, perhaps commenting that the adjustment of price based policy instruments for new investment allows for their use to deliver quantitative policy targets)	will consider as we revise.
Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	19	-	20	-	-	-	-	On page 19, numbers of countries are stated which adopted policy targets, while on page 20 numbers of countries are provided which adopted policies to promote RE. The numbers are quite similar and probably there is an overlap of countries in both categories. Maybe a footnote could be included (to make it easier to the reader to immediately understand why there is a difference in the numbers) which annotates that one/some countr(y)ies have adoptred policies without setting a target.	Accepted
United States (U.S. Department of State)	11	19	2	-	-	-	-	-	The assertion that REN21 is the only source that currently tracks RE policies annually on a global basis seems very strong. If this is REN21's assertion, indicate it. Otherwise, caveat with "believed to be" or that they do the most comprehensive job.	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	19	-	-	-	-	-	11.1	Voluntary (or Negotiated) Agreements often serve as framework packages helping to build trust and maintain coherence within a policy area. For deployment of renewable energy options (with or without joint efforts with energy efficiency) this will be a helpfull construct as well.	We take your point. We may mention voluntary agreements in the chapter and agree that they can be important, but these are not policy and won't be in the table.
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	19	-	-	-	-	-	11.1	What is missing are broadly set-up energy performance standards for buildings encompassing renewable solutions (e.g. by counting fossil fuel consumption only, incl. fossil based electricity). Such as system is in place in the Netherlands, both for existing and new buildings. It has enhanced the uptake of solar collectors. Interestingly, comparable concepts are also applied at higher aggregation levels (e.g. neighbourhood and city part level). See for example: Milou Beerepoot - Energy Policy Instruments and Technical Change in the Residential Building Sector, TU Delft, 2007. http://books.google.fi/books?id=jd0vDg1ZqxgC&printsec=frontcover&hl=en&source=gbs_ge_summary_r&cad=0#	We agree that this is important. We will include text on building regulations, though we're not yet sure where, and will consider for table.
Kristin Seyboth (IPCC WG III TSU)	11	20	19	-	-	-	-	-	Footnote 2: Can cut entire footnote to 'Note' following figure caption. Information is better accompanying figure directly.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	20	19	-	-	-	-	-	Footnote 2: Do not need to repeat sources here - already listed in figure caption.	Accepted
United States (U.S. Department of State)	11	20	0	-	-	-	-	-	This section should also highlight RPS's or quotas as effective examples (e.g. U.S., China, etc.).	already included in text but will consider how to improve balance if necessary.
Kristin Seyboth (IPCC WG III TSU)	11	21	33	21	35	-	-	-	How do PACE incentives fit into Table 11.1? Would be useful to include there.	Accepted
United States (U.S. Department of State)	11	21	30	12	39	-	-	-	If PACE is included, also discuss current/recent problems with PACE in U.S. (major holder of mortgages rejected PACE) both here and in Box 11.10. refer to Box 11.18 for Guessing and Rizhao in paragraph.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	21	16	-	-	-	-	-	It must be clear that blending shares in the 20-25 percent range is just for ethanol into the gasoline.	Accepted
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	21	33	-	-	-	-	-	Need to clarify the status of PACE programs, especially after crisis of Fannie Mae and Freddie Mac.	Accepted
United States (U.S. Department of State)	11	21	9	-	-	-	-	-	Page 21 line 9 IEA acronym repeated too many times.	Accepted
Christoph von Stechow (IPCC WGIII TSU)	11	21	18	21	22	-	-	-	Please insert a cross-reference to the relevant sections in chapter 2 (e.g. 2.4.4.2 and 2.5.5.1) and 9.	Accepted
United States (U.S. Department of State)	11	21	16	-	-	-	-	-	Potentially confusing to say blending of 20-25% since so many of Brazil's vehicles can run on pure ethanol.	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	22	2	-	-	-	-	-	Following the previous standard, it should be included the case of the ethanol: ""In the case of ethanol, United States and Brazil represented 91% of world production in 2008 (REN21, 2009b)""	will consider
Kristin Seyboth (IPCC WG III TSU)	11	22	19	23	8	-	-	-	i, ii, iii, iv and v should be replaced with heading numbers 11.2.2.2, 11.2.2.3, 11.2.2.4, 11.2.2.5 and 11.2.2.8 respectively. I assume 11.2.2.6 and 11.2.2.7 should also be included under 'Trends in new generating capacity'.	Accepted
United States (U.S. Department of State)	11	22	7	-	-	-	-	-	In the use of the word "possible", it's unclear whether public R&D is included in the figure of $117 billion. Is it included or not? State one way or the other.	Accepted
United States (U.S. Department of State)	11	22	14	-	-	-	-	-	Is "demonstration" meant instead of "development". The first area (i) is R&D and D stands for development. Therefore the second area (ii) should not also include development.	Accepted
Volkmar Lauber (University of Salzburg)	11	22	-	28	-	-	-	-	Section 11.2.2 is interesting, but is it really that relevant to policy makers?	Accepted
United States (U.S. Department of State)	11	22	19	23	8	-	-	-	This is a great example of well-organized text.	Accepted
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	22	13	22	14	-	-	-	Why are the pure R&D investments missing?	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	22	-	23	-	11.2.2.1	-	-	How does financing carbon fit in with other trends/financing types? It is missing in this introductory section so reader has difficulty placing the discussion in 11.2.2.7	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	22	5	23	14	11.2.2.1	-	-	Just to get an idea of the chaning position of RE in comparision to fossil and nuclear energy supply capacity it would be valuable to show the investment figures for those conventional sources as well. This would help to make a distinction in the growth in RE investment tied to economic growth (notably in China, India, etc., but there fossil & nuclear investments were/are growing as well) and the actual increase in market share. E.g. fig. 11.4 could be extended in 11.4a and 11.4b showing investment developments for both RE and fossil/nuclear next to each other.	Good idea, but this is outside the scope of this chapter.
Kristin Seyboth (IPCC WG III TSU)	11	22	-	-	-	-	11.4	-	Does this figure describe global investment across all 5 areas described in the paeragraph following (e.g. R&D, commercialization, manufacture, project reconstruction, etc) or does it focus only on e.g. project construction? Please clarify. Also does the figure include both public and private investment? Please clarify.	Accepted
Emmanuel Branche (Electricité de France)	11	22	-	-	-	-	11.4	-	In order to give an accurate picture of globale investment in RE, the figure should include not only small hydro but all hydro (comparable to wind and more than solar in 2008)	will include if possible
Kristin Seyboth (IPCC WG III TSU)	11	22	-	-	-	-	11.4	-	Note that the SRREN does not differentiate between small and large hydro. Please include note to figure explaining the differentiation that was used in the literature and liase with Ch. 5 CLAs.	Accepted
Volkmar Lauber (University of Salzburg)	11	23	36	23	39	-	-	-	% and absolute figure information is mixed - somewhat confusing.	will attempt to resolve if possible.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Greece (National Observatory of Athens)	11	23	32	23	32	-	-	-	Is it an exception or another option for RE development?	The statement in the chapter refers to an earlier sentence in the same paragraph.
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	23	33	23	35	-	-	-	It is not possible to justify the German subsidies for solar power with the expectation of high exports. In the meantime Germany is net importer of solar modules!	This may be true but is not relevant here as the chapter is discussing motivations for policy.
United States (U.S. Department of State)	11	23	40	-	-	-	-	-	need to include relevant info for: "an overview of the kind of research being funded around the world in these areas can be found in (European Commission 2006)" if this line is included.	will address or omit sentence.
United States (U.S. Department of State)	11	23	34	-	-	-	-	-	Need to indicate that PV is intended for export because Germany has a poor solar resource for domestic use	Accepted
United States (U.S. Department of State)	11	23	23	-	-	-	-	-	NEF has newer data than 2006.	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	23	5	23	8	-	-	-	perhaps formulate slightly more indicative ""trends in industry mergers and acquisitions (v) can reclect the overall maturity of ..."" After all, they might also respond to demand and finance situations	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	23	34	-	-	-	-	-	think the german policy has three additoinal objectives frequently voiced (ii) reducing dependency on oil/gas (e.g. security of supply) (iii) direct environmental benefit (iv) developing a technology for global use to tackle climate change	These drivers are addressed in 11.3.
Sweden (Swedish Environmental Protection Agency)	11	23	24	23	35	-	-	-	This section is unexpectedly turning to talk about security of supply. Should be moved to 11.3.3 if relevant, otherwise remove.	will be moved
Kristin Seyboth (IPCC WG III TSU)	11	23	-	24	-	11.2.2.2	-	-	A figure (line graph) depicting R&D spending as compares with oil prices over time would be interesting to accompany text. Could also include the amounts spent on different technologies as described on p. 23 lines 36-41	Good suggestion but not feasible - lack of good global data and not necessary for section.
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	23	15	24	27	11.2.2.2	-	-	The same comment (no.14) applies to R&D as well, even though there is some information on breakdown of R&D efforts by type of energy.	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	23	15	24	27	11.2.2.2	-	-	This section needs editing, there is a lot of awkward phrasing. The last sentence (line 27) is unclear - what does this mean?	Accepted
United States (U.S. Department of State)	11	24	16	24	27	-	-	-	Note also that to the extent that electricity supply companies are regulated, R&D investment would only be undertaken with the explicit approval of regulatory authorities, who will often take the view that such investment is too risky and uncertain to be charged off to the ratepayers. On the other hand, modern oil and gas production is pretty technology-intensive and there has been a lot of innovation in this area, paid for by somebody.	Accepted
United States (U.S. Department of State)	11	24	33	-	-	-	-	-	"Renewable Energies" shouldn't be capitalized. And, "energies" should be "energy"	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	24	3	-	-	-	-	-	536 M USD should be converted to 2005 USD	Accepted
United States (U.S. Department of State)	11	24	21	-	-	-	-	-	Believe that the word "between" should be "among".	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	24	21	24	27	-	-	-	Clear presentation of R&D re-investment rates of companies in Europe and active in the energy business. But what are re-investment rates for companies headquartered outside of Europe? For companies inactive in the energy business?	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	24	11	24	12	-	-	-	do the nuclear numbers include fusion? (further source: JRC (2009), R&D Investment in the Priority Technologies of the European Strategic Energy Technology Plan, http://publications.jrc.ec.europa.eu/repository/bitstream/111111111/2899/1/rd%20investment%20carbon%20%28web%29.pdf)	Accepted
United States (U.S. Department of State)	11	24	28	-	-	-	-	-	Finally, the definition of "R&D" in corporate financial statements is often influenced by the tax treatment of different categories of capital and operating expenditures, and other more ephemeral factors.	Accepted
United States (U.S. Department of State)	11	24	16	24	27	-	-	-	In this section, the authors apparently confuse "turnover" ("sales," in US accounting-speak), with "earnings," (or "profits" in US-accounting-speak). The statistics that the authors R&D reinvestment rates are defined as a fraction of turnover (sales), but the authors then go on to say that reinvesting a high share of 'earnings' (profits) is A Good Thing. This confusion leads the authors astray down at lines 25-27, where they note that firms in the wind, PV, and biofuels industry have reinvestment rates (measured against turnover) that are consistent with other firms producing capital goods, but that electricity supply companies and oil majors have much lower rates, and quote the Commission as saying these industries are "supplier dominated." Actually, the relevant distinction is between sellers of commodities generally (like electricity or oil) which sell huge volumes of a standardized product at a relatively tiny profit per unit, against technology and capital goods firms, which sell limited volumes of customized and ever-evolving products, with relatively high margins per unit sold. It may well be true that European oil majors and electricity companies don't invest a lot of money in R&D, but the metric chosen by the Community and the authors doesn't prove anything one way or another. In fact, to call R&D/turnover a "reinvestment" rate is actively misleading. This error may originate in the source document used by the authors.	Accepted
United Kingdom (Department of Energy and Climate Change)	11	24	29	-	-	-	-	-	Increasingly governments fund 'demonstrations' perhaps a reflection of the advances in innovation. Also from UK perspective the statement that Government funds basic research and large corporation fund R&D is limiting, it doesn't take into account of the public/private partnesrhip models such as collaborative R&D and ETI. This is however clear from figure 11.6 page 45, whuich suggest that text might be shortned in this section?	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	24	31	-	-	-	-	-	lab-bench' and 'early market deployment phase' are terms that should be included in Table 11.2 if table is actually organized by phase of technology deployment.	Accepted
Volkmar Lauber (University of Salzburg)	11	24	36	-	-	-	-	-	mention the years the numbers refer to	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	24	29	24	30	-	-	-	Sentence 'while governments¿lab-bench R&D" is a good summary sentence, but content was never introduced in 11.2.2.2. The content and terminology (lab-bench R&D) should appear in 11.2.2.2 if it is summarized here.	Accepted
United States (U.S. Department of State)	11	24	0	-	-	-	-	-	Suggest using newer NEF data here	Accepted
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	24	34	25	3	-	-	-	The increase of risk capital investments in the RE sector can only be explained by the high subsidies and not by the expectation that these technologies will become competitive in the next decade.	Accepted
Volkmar Lauber (University of Salzburg)	11	24	21	24	27	-	-	-	The paragraph contains interesting info, but the last statement is unclear: what is now the message a reader should get from this paragraph?	Accepted
Pekka Pirila (Aalto University)	11	24	21	24	27	-	-	-	The purpose and logic of this text is not obvious. The data presented is just a consequence of the fact that most of the R&D is presently directed towards improving the products of the company. Power company sells electricity, which cannot be improved. Generating technology is produced by technology companies. Therefore the related R&D is done by technology companies not power companies. This applies both to conventional and RE solutions with some exceptions in less mature technologies.	Accepted
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	24	16	-	-	-	-	-	The term "private sectors support for R&D" is interesting from the point of view, who actually does the R&D. It can be assumed that much is done by private companies and it is the public sector supporting these R&D activities, not the other way around.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	24	1	24	6	-	-	-	This paragraph is very confusing and needs to be rewritten. As indicated in the first sentence, it should compare R&D spending in years where support for renewable has been growing 2002-2006, to prior years (where support for renewable is less). As it currently reads, it seems like you are just trying to compare R&D spending across countries ¿ not focus of paragraph.	Accepted
United States (U.S. Department of State)	11	24	21	-	-	-	-	-	This section is very EU centric. Would be nice to add some info/data from other countries, or at least say that the info is limited because of data limitations.	Accepted
Volkmar Lauber (University of Salzburg)	11	24	10	24	12	-	-	-	What R&D spending is considered here? EU funding? Member states? All EU? Surprising to see about 35% ¿chiefly¿ for energy efficiency (what is ¿chiefly¿? Be more precise)	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	24	21	24	27	11.2.2.2	-	-	The comparison with oil and power companies is interesting, but comparability may be problematic. To what extent this is just a matter of (inevitable) market maturity and size. In young growth markets it is quite logic that R&D expenditure shares are larger. Furthermore, to what extent are different types of activities compared ? i.e. energy technology development & construction (inherently more R&D inclined) vs. energy conversion and supply (predominantly bulk industry and/or network services).	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	24	-	-	-	11.2.2.3	-	-	Heading 'Financing technology development and commercialization' is inconsistent with Table 11.2 (which presents 'Technology Commercialization', and is confusing in terms of how 'development' relates with 11.2.2.2 R&D. I.e. what is the difference in 'development' in the two sections? Suggest renaming simply as 'Technology Commericalization'	Accepted
United States (U.S. Department of State)	11	25	1	-	-	-	-	-	How much in USD was the impact of the downturn?	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	25	-	-	-	-	-	11.2	All terms defined (venture capital, private and public equity, asset finance, project finance, corporate finance, bonds) would be useful to include in glossary	Accepted
Karen Pittel (ETH Zurich)	11	25	-	26	-	-	-	11.2	R&D"": Sentence explaining R&D financing says basically nothing. Something at least a little more specific should be said, or a reference should be provided thats points to the subsection discussing R&D financing.	Accepted
Karen Pittel (ETH Zurich)	11	25	-	26	-	-	-	11.2	Superfluous in this detail as again explained in text (e.g. 5th row ""small scale technology deployment"" can be found almost identically in 11.2.2.6)	Accepted
Volkmar Lauber (University of Salzburg)	11	25	-	-	-	-	-	11.2	the first and second column of this table do not match well (as the authors also see); in addition the text following the table make the link better. Proposal: delete first column ¿ reduce so also a bit the text of the table.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	25	-	-	-	-	-	11.2	Though table claims to be ordered by 'phases of tech development', terminology in the left column does not necessarily match tech. development phases (e.g. carbon? sale of companies? how are these tech development stages?). Suggest replacing/utilizing terminology that appears in text e.g. lab-bench, early market deployment phase (from p. 24 line 31), development stage (from p. 26 line 2), etc. I.e. table categories should more clearly represent phases of technology development if that is in fact what it is intending to do.	Accepted
United Kingdom (Department of Energy and Climate Change)	11	25	4	-	-	-	-	11.2	venture Capital is not the only source of finance for technology development (large corporate aslo do so).	Accepted
United States (U.S. Department of State)	11	26	27	26	30	-	-	-	"This rate of growth outstrips actual growth...industry actors." What does this mean?	Accepted
United States (U.S. Department of State)	11	26	21	-	-	-	-	-	50/50 is conservative in U.S. Some projects are heavily equity financed (especially, higher risk projects such as geothermal where lenders won¿t lend). It is suggested that the authors remove all references to specific debt to equity ratios (i.e.. It isn¿t meaningful.)	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	26	18	27	7	-	-	-	How are you defining 'large-scale' and 'small-scale'? I.e. what capacity or generating capability constitutes small or large?	Accepted
Emmanuel Branche (Electricité de France)	11	26	25	26	27	-	-	-	In order to give an accurate picture of globale investment in RE, the figures should include not only small hydro but all hydro (comparable to wind and more than solar in 2008)	Accepted
Canada (Environment Canada)	11	26	25	26	26	-	-	-	It seems that the price index equation may have been used backwards. Current 2002$ should translate to a higher nominal value when converted to constant 2005$ and current 2008$ should convert to a lower 2005$ value (given that the time period in question was mildly inflationary). Please verify.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Canada (Environment Canada)	11	26	7	26	8	-	-	-	It seems that the US dollar index might have been used backwards. Current 2002$ should translate to a higher nominal value when converted to constant 2005$ and current 2008$ should convert to a lower 2005$ value (given that the time period in question was mildly inflationary). Please verify.	Accepted
United States (U.S. Department of State)	11	26	15	26	17	-	-	-	Note that any discussion of why particular share prices declined more than average is speculative.	Accepted
Steve Sawyer (Global Wind Energy Council)	11	26	15	26	17	11.2.2.4	-	-	For stock in companies with an expected high future sales and earnings growth the investors are normally prepared to pay a high price for the current earnings (P/E) expecting to get higher returns later on. If the uncertainty about the future overall economic growth increases significantly this will reduce this willingsness for investor to pay high price for high growth stock as the near-term outlook becomes more questionable. It is therefor normal that that high growth stock reacht more to increased uncertainty.	Accepted
Steve Sawyer (Global Wind Energy Council)	11	26	13	26	14	11.2.2.4	-	-	supply glut' may accurately describe the solar sector (I wouldn't know), but not the wind sector. Suggest¿'major oversupply in the solar pv industry and elimination of the order backlog in the wind industry'.	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	26	-	26	-	11.2.2.4	-	-	The authors might clarify that it is not always necessary to establish local manufacturing facilities even to ramp up deployment, there are global markets for these technologies now.	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	26	15	26	17	11.2.2.4	-	-	This needs further clarification. Also it might be better to tie it to manufacturing implications.	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	26	18	26	36	11.2.2.5	-	-	Also with reference to the comments no.15 and 16 it is important to remain clear about economic notions of sectors. What does the RE sector encompass? This is also important to understand it in relation to overall energy capacity investment (and R&D effort, which can be included in investment figures as well).	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	26	25	26	-	11.2.2.5	-	-	this dollar conversion to 2005 dollars must be wrong	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	26	33	26	36	11.2.2.5	-	-	this is unclear. What does this mean?	Accepted
Inmaculada Martínez-Zarzoso (Georg-August Universitaet Goettingen and Universitat Jaume I)	11	27	14	27	17	-	-	-	According to the Risø CDM Pipeline analysis¿the date in which the Pipeline was access shall be added	Accepted
Axel Michaelowa (University of Zurich)	11	27	26	27	26	-	-	-	Add sentence "Under typical baselines of 800 g CO2/kWh, a carbon price of 15 US$/ t CO2 will provide a revenue of 0.012 US$ per kWh generated. Thus carbon finance mechanisms cannot close the gap between fossil and renewable energy generation costs unless carbon prices increase substantially. "	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	27	15	-	-	-	-	-	Clarify which are the other components or instruments of the ""overall carbon market"" which makes the sector to grow despite the reduction in the primary carbon markets.	Accepted
United States (U.S. Department of State)	11	27	11	27	15	-	-	-	delete: "Carbon markets...mitigation projects." Why did primary carbon markets decrease so much in one year?	Accepted
Volkmar Lauber (University of Salzburg)	11	27	23	27	26	-	-	-	info about period/time is missing	Accepted
United States (U.S. Department of State)	11	27	14	-	-	-	-	-	somewhere there needs to be a footnote or explanation of what CDM, JI are -- those not familiar with the FCCC/KP will be lost in this section.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	27	8	27	28	-	-	-	The high ratio of RE investments among the CDM¿s is worth to be analyzed carefully. Such an analysis would show that it is the high variance of RE resources across counties that drive this result. But the report does not account for regional differences!	Accepted
Inmaculada Martínez-Zarzoso (Georg-August Universitaet Goettingen and Universitat Jaume I)	11	27	23	27	26	-	-	-	The Risoe CDM Pipeline Analysis has also calculated the total underlying investment associated with building the proposed 4,968 carbon mitigation projects. A date for this number is missing	Accepted
Volkmar Lauber (University of Salzburg)	11	27	18	27	20	-	-	-	Unclear: what is ¿now¿? And ¿to date¿? Also text can shorter and more clear	Accepted
Volkmar Lauber (University of Salzburg)	11	27	28	-	29	-	-	-	what is this US$2005 values?	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	27	-	-	-	11.2.2.7	-	-	Current title 'Financing Carbon' seems to lose focus on RE and makes it difficult for reader to place discussion in context. Suggest replacing as "Financing RE projects via climate change mitigation instruments' or something of the like.	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	27	14	27	17	11.2.2.7	-	-	Is the latter figure (overall carbon market 126 bln. Dollar) also from the same World Bank source?	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	27	-	-	-	11.2.2.7	-	-	Section fails to answer three questions: 1) what is the mechanism by which RE projects are funded through cc mitigation instruments (brief explanation of the link between RE projects and CDM/JI is critical for a reader uninformed in the topic) 2) Do most CDM projects finance large-scale or small-scale RE projects? 3) What % of total RE investments are accounted for by CDM/JI projects?	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	28	37	-	-	-	-	-	"¿depends on many factors." For example?	Accepted
Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	28	13	-	-	-	-	-	"here" instead of "hear"	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	28	20	28	26	-	-	-	Are bullets in list ranked? If so or not, please state clearly.	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	28	32	-	-	-	-	-	Be clearer on which ""driver"", the text refers here.	Accepted
Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	28	6	-	-	-	-	-	bracket is missing	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	28	24	28	26	-	-	-	Bullet should be split into two, individual bullets (esp. b/c above you have said that drivers covers both opportunities and benefits). Recommend the following bullets to replace existing: - Decreasing health impacts associated with energy production and use - Increased economic development and job creation	will consider as we revise text.
ICHIRO MAEDA (The Federation of Electric Power Comapanies of Japan)	11	28	36	28	37	-	-	-	Comment: Keep in mind that generation from renewables is only part of the solution to climate change issues; it can be douted, for example, that renewables will be able to supply the adequate energy to meet the increasing demand especially in developing countries.Generation from renewables can be integrated only in a robust generating system, such as powered by nuclear or thermal power, and with a robust grid, which can absorb the flucturations of renewables.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Kristin Seyboth (IPCC WG III TSU)	11	28	14	-	-	-	-	-	delete 'opportunities or benefits'. Two lines above you just stated that 'driver' will be used to describe opportunities and benefits, so there is no need to use the 3 terms anymore.	Accepted
United States (U.S. Department of State)	11	28	6	28	7	-	-	-	delete: "Drivers are...energy sector)."	will consider as we revise text.
Kristin Seyboth (IPCC WG III TSU)	11	28	2	28	13	-	-	-	Drivers, opportunities and benefits definitions should appear in glossary. As the definitions are written here they are confusing to the reader. Are drivers negative factors for which RE can contribute to changing? It is unclear how drivers and opportunities fit together. A schematic explanation may be useful for clarity.	Accepted
Seth Dunn (GE)	11	28	19	-	26	-	-	-	Economic development and job creation is also an important driver (and deserves a bullet).	see comment # 491
United States (U.S. Department of State)	11	28	25	-	-	-	-	-	Formatting comment: "economic development and job creation" merits its own bullet point. As currently written it appears to be a subpoint to "decreasing health impacts".	This will be corrected.
Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	28	27	28	34	-	-	-	I suggest to state that also health and local air quality benefits are playing an important role in developing countries; on pages 32 and 33 this issue is discussed in a nice way.	Accepted
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	28	12	-	-	-	-	-	In this line it is said that the term driver in this section is used in "its narrower sense as well as opportunities and benefits". It is unclear what this refers to. This narrower definition is not distinguished from any wider definition in the section and it is not clear how the remainder of the sentence relates to it. It seems like the information you want to convey is in the paragraph, but it is not completely clear.	will consider as we revise text.
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	28	22	-	-	-	-	-	It could be included in the list: increasing diversity of supply options	Accepted
United States (U.S. Department of State)	11	28	36	29	2	-	-	-	It is misleading to say that renewable energy may increase greenhouse gas emissions. This sentence refers the reader to Chapter 10, in which a single instance seemingly related to this idea was located - on page 44 of Chapter 10, lines 15-17, there is an argument that non-renewable biofuels or solid biomass consumption may increase GHG emissions. This is an important point - obviously if biomass is burned faster than it can re-accumulate, or if we shift the form of biomass sinks to store less carbon, we are still throwing the carbon cycle out of balance. However, the problem is not that RE, in it of itself, may increase GHG emissions - the problem is that unsustainable resource consumption may continue to drive climate change. This language should be altered to say that "The degree to which RE mitigates climate change depends on many factors, including whether natural resources such as solid biomass are consumed sustainably; the effect of land-use patterns on GHG emissions; and the design of RE policies consistent with climate goals." It is recommended to drop the notion that RE, writ large, would increase GHG emissions, which just would not ring true or make sense to most readers.	Accepted
Seth Dunn (GE)	11	28	2	-	13	-	-	-	Paragraph could be condensed or removed.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	28	14	28	34	-	-	-	Paragraphs on lines 14-18 (which states importance of drivers varies) contradicts that on lines 27-34 (which claims relative importance of specific drivers).	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	28	3	28	4	-	-	-	Recommend cutting sentence to read 'This section sets out some of those factors'. Mitigation potential is a driver so shouldn't be listed separately.	will consider as we revise text.
Kristin Seyboth (IPCC WG III TSU)	11	28	13	-	-	-	-	-	Replace 'hear' with 'below'	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	28	32	28	33	-	-	-	Sentence "In addition¿.in some countries" should be cut to bullet list above. Suggest rewording as - increasing opportunities for developing new export industries	will consider as we revise text.
Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	28	19	28	26	-	-	-	the categories overlap (as is stated also on the follwoing pages). Of course, the mitigation of climate change (category 1) is also a decrease of environmental impacts of energy supply (category 4). Maybe the distinction of these two categories becomes more clear when the category is denoted like headline 11.3.5 (Non-climate change environmental benefits) instead. If however you decide to keep the current denomination of category 4, I would recommend to include "and consumption/use" (so that it reads: decreasing environmental impacts of energy supply and consumption/use). The distinction between "enhancing access to energy" and "improving security of energy supply" is blurred. There are different concepts of energy security and some may consider a lack of "access to energy" as energy insecure. Maybe it should be explained why a distinction is made at all between categories 2 and 3. The category 5 consists in fact of two different categories: "decreasing health impacts" and "fostering economic development and job creation"; maybe category 5 should be split in two different categories accordingly.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	28	32	-	-	-	-	-	the driver¿ should be replaced with ¿this driver¿. Sentence does not make sense otherwise.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	28	27	28	34	-	-	-	The entire paragraph is not supported by literature. It is difficult to understand and could use a complete rewrite. E.g. sentence "In terms of RE capacity added globally in the last 20 years, the driver has been most important" -- What driver?	Accepted
Volkmar Lauber (University of Salzburg)	11	28	27	28	28	-	-	-	the phrase ¿ ... in most developing countries, where RE are often the only affordable means for providing energy access¿ requires more detail: in so many publications is argued that ¿RE is too expensive / not affordable¿ for the rich industrialized nations, and for developing countries it should be affordable?	Is this also something we should discuss, or should we just assign a team member with the task of finding appropriate lit.? CM _ this is part of problem of overall weakness about DC literature/discussion.
Kristin Seyboth (IPCC WG III TSU)	11	28	12	-	-	-	-	-	What exactly is 'drivers in its narrower sense'? There has been no discussion of narrow or broad definitions of drivers in text.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	28	2	28	34	11.3	-	-	Section introduction needs to be restructured to focus on a logical flow. Suggest structuring paragraphs according to the following: - Introduction of drivers/definitions of drivers/opportunities/benefits - List drivers for policies (not ranked) - Explain that priorities differ across countries - List drivers of primary importance for developing countries - List drivers of primary importance for developed countries AND BE SURE TO SUPPORT WITH LITERATURE.	Accepted
Karen Pittel (ETH Zurich)	11	28	-	33	-	11.3	-	-	Section should include more about costs that are associated with RE policies (so far only short reference on page 33).	This issue will be covered in detail somewhere in the chapter.
Kristin Seyboth (IPCC WG III TSU)	11	28	-	33	-	11.3	-	-	Subsections 11.3.1-11.3.5 lack a common structure. Recommend restructuring paragraphs within sections according to: 1) Introducing problem (if relevant) e.g. in 11.3.3 why conventional sources may create problem of energy security 2) How RE can contribute to solving problem 3) Exceptions to when RE can contribute (if relevant) 4) Where e.g.s of policies developed with this driver exist in developing countries 5) Where e.g.s of policies developed with this driver exist in developed countries	Accepted
Steve Sawyer (Global Wind Energy Council)	11	28	26	28	26	11.3	-	-	Suggest two more bullets: " - to attract investment and foster the development of new industries; - to provide long term price stability and insulation from macro-economic shocks due to the risk of fossil fuel price fluctuations'	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	28	-	33	-	11.3	-	-	This entire section needs rework. It is not clearly written and the points are not clearly articulated and supported.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	28	36	29	2	11.3.1	-	-	These lines are the meat of the section and should be expanded upon. Reader misses more information substantiating why climate change mitigation is a driver for supporting RE and literature references. A reference to Ch. 1 (E.g. Section 1.1.3) would also be useful	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	29	2	-	-	-	-	-	"¿in particular cases" Example is needed here with reference to where more information appears in respective technology chapter. Reference to Ch. 10 may be completely misplaced.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	29	24	29	26	-	-	-	"distributed RE can avoid the need for costly transport and distribution network..." Suggest redraft as follows: "Distributed RE can provide a more attractive alternative to extending energy and transportation networks to remote or isolated communities, which will, in principle, permit more extensive rural electrification than would otherwise be possible." Distributed RE does let one avoid those transport and distribution networks, but only if one invests in a relatively expensive power source plus costly distributed energy storage, and is willing to give up or substitute for the reliability provided by the grid. Diesel generators are often cheaper, but for really isolated communities, hauling in the fuel can be a nightmare. So, there are many situations where distributed RE is a highly attractive solution. Energy IS more costly to provide for people in remote communities than for urban populations, and always has been. Distributed RE won't change this--it may, however, be less costly to provide solar panels and batteries to remote communities than running empty-ump km of vulnerable distribution line. As a matter of public policy or administrative convenience, rural tariffs rarely reflect underlying costs. Usually, developing country electricity decision-makers tend to try to provide electricity to as many citizens as possible within a limited budget, which creates a strong urban bias. So, some rural communities receive heavily subsidized electricity, while many others receive nothing at all.	Accepted
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	29	21	29	23	-	-	-	"Renewable energies have the ability to effectively and quickly provide access to affordable modern energy services, including lighting, communication, and refrigeration, and therefore RE plays an important role in achieving the millennium development goals (Flavin and Aeck, 2005)." This is in contradiction with Figure SPM 7 in the "Summary for Policymakers" pg 21 of 32. The SPM carries the message that RE are less affordable at a $/kwh level. Potentially the term "affordable" needs to be explained better, as one might generally understand this as linked to resulting in low tariffs that come from the grid. The counterargument on low RE costs is that more scalable RE saves the cost of grid and distribution infrastructure development. This is true, but at the cost of keeping $/kwh prices very high for the poorest countries. Also, what money is saved on grid and distribution infrastructure is lost on the high cost. US EIA data (http://www.jcmiras.net/surge/p130.htm) supports this notion and makes RE take an economically untenable position if there is either (a) a substantial policy-based disincentive for carbon-based technologies and/or (b) a similarly sized incentive for RE. While many countries have adopted policies for rural and off-grid RE, there is no evidence presented of implementation. This project could serve as example: http://www.greenempowerment.org/website_PDFs/casestudy.pdf. Furthermore, the experience of developed countries for small RE power generation projects is highly irrelevant for developing countries and particularly for LDCs as much of it will relate to on-grid areas whereby communities can draw extra electricity (from affordable coal, gas, oil or nuclear) when their RE projects are at low output (water, wind, sunlight) and where those same suppliers have an obligation and/or incentives to buy excess power from micro RE plants, and actually make good on their payments. This is an extremely important factor as it is linked to the possibility of access to finance for building micro RE plants.	Accepted
United States (U.S. Department of State)	11	29	21	-	-	-	-	-	"renewable energies" should be "renewable energy" in US, British, Canadian, and Australian English. Suggest global search & replace.	Accepted
Sweden (Swedish Environmental Protection Agency)	11	29	18	29	20	-	-	-	Remove sentence.	will consider as we revise text.
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	29	3	29	16	-	-	-	The reduction of CO2-emissions are described as one of the drivers for the development of RE. This statement includes RE development in the EU. What is missing is the explanation that RE development is a redundant instrument in the EU because of the parallel existence of the emission trading system.	this is a point of view that Cermom's piece is meant to be addressing - need to be tighter about this as feeds into the pro-RE argument.
Karen Pittel (ETH Zurich)	11	29	13	29	13	11.3	-	-	here"" instead of ""hear"".	Accepted
Karen Pittel (ETH Zurich)	11	29	21	29	29	11.3	-	-	Issue mixing: Paragraph refers not only to Access to Energy but also other aspects than are dealt with in other subsections of 11.3. (economic and health improvements¿).	Accepted
Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	29	-	30	-	11.3.2	-	-	The access to energy might shrink in some world regions due to climate change. Problems may arise concerning hydro power generation in some regions in Africa, for example. Therefore, the use of other (non hydro) RE in such affected regions might be regarded as adaptation to climate change. This could be stressed in this Section 11.3.2. Then, in Section 11.4.2 it could be suggested that international adaptation funds (like the funds of the Global Environmental Facility or the Adaptation Fund) could partly be emplyed for supporting RE.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Kristin Seyboth (IPCC WG III TSU)	11	30	43	-	-	-	-	-	"Re sources are not necessarily domestic" - but in many/most cases RE sources are used locally. Should discern here what % of RE is used locally and what % is either traded by source (e.g. bioenergy) or by power (e.g. solar)	will consider as we revise text.
Kristin Seyboth (IPCC WG III TSU)	11	30	15	30	31	-	-	-	Arguments for the advantages of decentralized energy systems now appears at the end of 11.3.2 (Access to Energy) as well as the beginning of 11.3.3 (Energy Security). To which heading does it belong? Recommend consolidating argument in one place, possibly as its own driver - decreased dependence on central energy supply structures.	Accepted
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	30	8	30	11	-	-	-	It is correct to state the RE is able to serve the poor in low developed countries with energy. But to state that this is also true for developed countries is simply wrong. In Europe, energy prices sharply rise because of the subsidies for RE development and poor people are hit more strongly by this increase than rich people.	Not appropriate for this section, but related issues will be addressed in a new sub-section on economic implications of policies.
Volkmar Lauber (University of Salzburg)	11	30	21	-	-	-	-	-	local initiatives and control are important, but I would not oppose them ¿to centralized decisions of companies not controlled by public will¿ without more extensive references and debate; in some cases arbitrariness and exclusion may reign in local communities, and larger-scale companies may be steered by enligthened regulators that provide excellent services. The main message of the paragraph is fine, but do not endanger it by the last addition.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	30	4	-	-	-	-	-	Nepal - was already mentioned on p. 29 line 38-40. Should be deleted from this list of supplementary examples.	Accepted
ICHIRO MAEDA (The Federation of Electric Power Comapanies of Japan)	11	30	25	30	27	-	-	-	Should be deleted. Generation from renewables can be integrated only in a robust generating system, such as powered by nuclear or thermal power, and with a robust grid, which can absorb the fluctuations of renewables. In addition there is a concern that this fluctuation could decrease the realiability of the grid.	will consider how to integrate this message as we revise text.
Volkmar Lauber (University of Salzburg)	11	30	29	30	31	-	-	-	the ¿emergency preparedness¿ is delivered mainly by fossil fired distributed generators (gensets), and therefore the argument here is dubiously in favor of RE. Or is this a different practice?	?? - this may be true in most places, but at least in the US some agencies or regions have started turning to RE because it can be brought online faster.
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	30	22	31	21	-	-	-	The discussion of the energy security is highly selective. The examples presented in the text are only of one kind. In all cases the energy security increases by the introduction of RE. But there are counterexamples which show that energy systems become more vulnerable and their management becomes much more difficult after the introduction of RE relying on very variable available sources like wind and the sun. None of these counterexamples is mentioned in the text.	Accepted
Volkmar Lauber (University of Salzburg)	11	30	8	30	14	-	-	-	the energy access issues here are less related to RE than to energy efficiency (weatherization; carbon emissions reduction, ...); this has to be clarified	Accepted
United States (U.S. Department of State)	11	30	12	-	-	-	-	-	The weatherization assistance program is directly related to RE? Isn't it more related to energy efficiency.	Accepted
United States (U.S. Department of State)	11	30	23	30	31	-	-	-	This paragraph seems to miss the big picture of what energy security means. Can you briefly define it here and note how RE contributes to improving it in both the larger and smaller senses? Also, if you mention that RE can make grids more robust, don't you need to say how?	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	30	8	-	14	11.3.2	-	-	The Weatherization program in the U.S. is largely efficiency, not RE. This argument that RE will save money seems difficult to substantiate for low income consumers, because up front costs are still higher. I think it needs to be clear that this only works if heavily subsidized. It is not correct, or at least not clear, as written.	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	30	-	31	-	11.3.3	-	-	This section should be clearer that the benefits depend on what fuels are being displaced - is it electricty from coal or transportation fuels (gasoline). This matters tremendously in terms of energy security benefit. The examples sometimes mix the two (p. 33, line 1-5).	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	31	10	-	-	-	-	-	"loom large" - please explain. I.e. Upon what fact in the Energy Master Plan can you base that Res are 'looming large'? Is there some % target?	Accepted
United States (U.S. Department of State)	11	31	5	31	11	-	-	-	A different example, such as a Gulf country like UAE, would be more appropriate than Nigeria. Could also add a reference to natural gas and energy security in Europe.	Accepted
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	31	22	32	12	-	-	-	Also the discussion of the fostering of economic development and job creation is highly selective and ignores the economic literature on this topic totally! There are several CGE-models that show very clearly that in the developed countries in which RE is highly subsidized the net employment effects are negative.	to be overcome - probably with new CA

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Kristin Seyboth (IPCC WG III TSU)	11	31	18	31	21	-	-	-	Delete. This information does not strengthen section, seems disconnected to the issue of security of energy supply and rather connected to security in general.	Will consider as we revise the chapter.
Kristin Seyboth (IPCC WG III TSU)	11	31	40	-	-	-	-	-	Footnote 6 - Information should be presented in text and should include specific section number e.g. (See 9.X.X for full discussion of employment effects)	Accepted
United States (U.S. Department of State)	11	31	12	31	14	-	-	-	Fossil fuel imports should not, in principle, cause budget deficits unless the government is purchasing fossil fuels at world prices, and then selling them either directly or in the form of electricity, to consumers at lower-than-world prices. Of course many governments are doing exactly that. However, the solution is market pricing or taxation of fossil fuels and electricity, rather than selling renewable energy that would have to be subsidized to the same degree as the fossil fuels.	see above
United States (U.S. Department of State)	11	31	26	31	27	-	-	-	If 'on the promotion of the use of energy from renewable sources" is a title, rather than a paraphrase, it should be capitalized.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	31	26	-	-	-	-	-	in the reasoning for the Directive¿" Which states? Without explicitly stating the reasoning for the directive (here you've only named it), the sentence is incomplete.	Accepted
United States (U.S. Department of State)	11	31	24	-	-	-	-	-	Is it possible to provide an example of the jobs-to-capacity ratio for RE installations or maintenance/operation versus fossil-fuel and nuclear systems? Something like, for each GW installed, RE produces X people-years of work versus fossil's Y people-years or nuclear's Z people-years?	New Fraunhofer/Ecofys study (2009). M. Frondel article?
Emmanuel Branche (Electricité de France)	11	31	22	32	33	-	-	-	It would be useful to quote one example showing the effect of hydropwoer development on economic development an job creations. Reference (Navigant Consulting, 2009 - "Job Creation Opportunities in Hydopower"). Proposition "With increased hydro capacity comes increased hydro industry employment, Frantzis said, noting that up to 700,000 jobs could be directly or indirectly related to hydropower by 2025 if potential industry growth is met. Those jobs, she said, would reach all corners of the United States. Currently, the U.S. supports 200,000 to 300,000 hydropower-related jobs." http://files.eesi.org/nha_jobs_summary_092009.pdf	Will consider as we revise the chapter. (This is a good report but grey literature.)
Kristin Seyboth (IPCC WG III TSU)	11	31	27	31	34	-	-	-	Lines beginning "Manufacturing and operation¿." and ending "¿losses elsewhere in the economy (UNEP, 2008)" should be cut to p. 32 line 7/8. All other sections introduce developed country e.g.'s after those for developing countries. This move would be for consistency and would also allow the full argument to be introduced before e.g.'s are given.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	31	3	31	4	-	-	-	Recommend rewording sentence as "Thus REs do not decrease decpendency on energy imports in all cases, but do always contribute to diversification of energy supply."	Accepted
Volkmar Lauber (University of Salzburg)	11	31	-	32	-	-	-	-	Section 11.3.4 misses some interesting reports and points. Thus the study by Ragwitz et al. (2009), The impact of renewable energy policy on economic growth and employment in the European Union. The use of domestic content requirements is a not infrequent way to protect home markets and to encourage domestic RE equipment industry and job creation: Canada, China, in some form Spain, discussed currently in the US Congress...	Accepted
United States (U.S. Department of State)	11	31	12	31	17	-	-	-	The contention that RE policies can reduce trade deficits is commonly made, but it is a problematic assertion. First, trade deficits typically are thought to reflect net national dissavings (a country that consumes more than it produces must, barring the existence of physical hoardings, import the difference). Ceteris paribus, an RE policy (particularly one that is debt-financed by the central government) will not necessarily increase net national savings. Secondly, in practice many RE policies transform the outputs of input-intensive modern agriculture into energy supplies. As agriculture, in the developed world at least, relies heavily on energy and energy-intensive inputs, these RE policies are in effect a shell game, in terms of their impact on energy imports.	this is a good comment - need discussion of this someone in text - so assign a para
Christoph von Stechow (IPCC WGIII TSU)	11	31	34	31	36	-	-	-	This argument is probably based on Michael Porter and Claas van der Linde (1995) (not referenced!) who maintain that strict regulation can lead to innovation and competitive advantage through the growth of new export-led industries - also known as the Porter hypothesis. Please consider elaborating on this argument, since three lines seem to be very little in comparison to the heavy political weight that is attributed to it.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	31	23	31	25	-	-	-	Why are you only citing one report here? What has other literature claimed? Argument seems unbalanced and biased if only one reference is being quoted, especially one so much in favor of RE.	Accepted
Ottmar Edenhofer (Potsdam Institute for Climate Impact Research)	11	31	-	-	-	11.3.4	-	-	The treatment of job creation as a direct benefit of RE is incorrectly framed and should be clarified. Job creation in itself is not necessarily a benefit, as the jobs created may or may not be useful/beneficial to society, nor long-term. This line of argumentation should instead focus on job creation as a side-benefit of RE. I.e. because of the direct benefits of RE, job creation in this area becomes a side-benefit.	need to discuss jobs etc as part of overall costs/benefits setion of RE that is needed and for which we may need a new CA
Emmanuel Branche (Electricité de France)	11	32	26	32	30	-	-	-	Another example would be interesting to add "Hoover Dam attracts over 7 million visitors from around the new world every year feeding vast tourism into the Las Vegas Nevada and Arizona economy" http://www.arizona-leisure.com/hoover-dam.html	Will consider as we rewrite section.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	32	35	33	18	-	-	-	Can this be written in a more balanced way? What about land degradation or the potential disposal problems associated with chemicals used to make PV?	Accepted
Felix Creutzig (TU Berlin)	11	32	41	-	-	-	-	-	Consider to add "For example, avoiding negative environmental impacts is a major driver to promote clean energy technologies in China (Standing Committee of the National People's Congress, 2005; Gan and Yu, 2008) and, in the transport sector, can outweigh climate change mitigation benefits (Creutzig and He, 2009). (F. Creutzig, D. He (2009) Climate change mitigation and co-benefits of feasible transport demand policies in Beijing.Transportation Research D 14: 120-131)	Accepted
United States (U.S. Department of State)	11	32	26	-	-	-	-	-	Insert the word also to change "RE is seen" to "RE is also seen" to more accurately reflect how RE is viewed in the developed and developing world.	Accepted
Canada (Environment Canada)	11	32	26	32	33	-	-	-	Paragraph is repetitive of preceding information. Statement that RE is increasing tourism is not strongly substantiated by the single reference provided.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	32	23	-	-	-	-	-	Reword to read 'The residue fertilizer from biogas systems...' for clarity to the reader.	Accepted
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	32	34	33	18	-	-	-	The discussion of ¿Non-climate change environmental benefits¿ is also biased. Only positive effects of RE (in the LDC¿s!) are mentioned, all negative effects (most of all in the DC¿s) like land use, aesthetic effects and so on, ate omitted.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	32	8	32	12	-	-	-	This paragraph seems to claim that all of the numbers presented above are not comparable with one another. Is this correct? If so, state so specifically.	Accepted
United States (U.S. Department of State)	11	32	8	32	12	-	-	-	This paragraph would be more appropriate at the beginning of the section as an introductory paragraph.	Accepted
United States (U.S. Department of State)	11	32	13	32	25	-	-	-	This rural development phenomenon is also true in developed countries including the US, where farmers have been partnering with energy developers to place windmills in rural areas for shared economic benefit. That angle could enhance this section.	Accepted
United States (U.S. Department of State)	11	32	8	32	12	-	-	-	Well stated!	Accepted
Greece (National Observatory of Athens)	11	32	8	32	12	-	-	-	What do you mean by "an agreed method for ¿"? How does RE industries differ from other industries / sectors for which such an assessment is possible?	Accepted
Karen Pittel (ETH Zurich)	11	32	25	32	25	11.3.4	-	-	Missing fullstop (reading further I noticed that regarding misspellings and missing fullstops etc. there are numerous emissions and mistakes, so I stop referring to them and rather suggest carefull proofreading).	Accepted
Karen Pittel (ETH Zurich)	11	32	18	32	18	11.3.4	-	-	Space between end of sentence and fullstop.	Accepted
Karen Pittel (ETH Zurich)	11	32	39	32	39	11.3.5	-	-	add ""local and regional"" before ""environmenal impacts"" to delineate clearly from negative environmental impacts in the context of climate change.	Accepted
Karen Pittel (ETH Zurich)	11	32	-	33	-	11.3.5	-	-	Differentiate more clearly in this sbsection between 1) non-climate change environmental impacts due to avoided emissions of climate gases (secondary or ancillary benefits of climate policies) and 2) impacts that result directly from the adoption of RE polices.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	32	35	33	18	11.3.5	-	-	Is this only a driver in developing countries? Where are the developed country e.g.s?	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	32	-	33	-	11.3.5	-	-	Missing discussion of water issues; sometimes savings, sometimes not, but seems to deserve mention.	Accepted
Karen Pittel (ETH Zurich)	11	32	34	32	34	11.3.5	-	-	More neutral heading: ""¿.Environmental Impacts"" instead of ""Benefits"" (see also comment 7)	Will consider as we rewrite section.
United States (U.S. Department of State)	11	33	15	33	18	-	-	-	As noted on page 28, it is misleading to allege that RE may have negative climate impacts. (It also does not belong in a section talking about non-climate impacts.) The point is that unsustainable consumption of resources (even potentially renewable resources like solid biomass) leads to environmental harm. It is recommended that this section is revised to read: "However, policy makers have also recognized that unsustainable use of otherwise renewable energy resources, such as solid biomass, is not environmentally sound. For this reason, the German government..." etc.	Accepted

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Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	33	13	-	-	-	-	-	Biomass is - of course - also a RE; but I think you can leave this section as it is, since it is obvious what you mean.	Accepted
Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	33	4	-	-	-	-	-	blank is missing (behind "technologies")	Accepted
United States (U.S. Department of State)	11	33	15	33	18	-	-	-	Could also include the Renewable Fuel Standard 2 in the U.S. and is lifecycle greenhouse gas emissions requirements and indirect land-use change requirements.	Accepted
United States (U.S. Department of State)	11	33	21	33	27	-	-	-	Except for the first sentence, the rest of the paragraph can be removed. This level of review seems unnecessary.	will consider as we revise section.
Kristin Seyboth (IPCC WG III TSU)	11	33	26	33	27	-	-	-	If there is no overview provided here - where is an overview provided? Ch. 1? Please reference appropriate section.	Accepted
United States (U.S. Department of State)	11	33	28	33	31	-	-	-	Move this paragraph to Section 11.1	will consider as we revise section.
Seth Dunn (GE)	11	33	20	-	31	-	-	-	Paragraph not needed.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	33	15	33	16	-	-	-	Refer to sustainability discussion in Ch. 2	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	33	38	34	1	-	-	-	Reference to relevant section in Ch. 10 would be useful here.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	33	30	33	31	-	-	-	Sentence is confusing to reader. Suggest rephrasing as "Section 11.6 is written to reflect key barriers to RE to be overcome (as outlined in Ch. 1 (?)) that relate to the respective dimensions of the enabling environment". Note that it needs to be clarified whether 11.6 is written according to barriers in Ch. 1 or those in 11.4	key isssues to discuss is how best to align drivers, barriers and policies through chapter - good point
United States (U.S. Department of State)	11	33	36	33	38	-	-	-	Suggest renaming this section: "Policy and Technical Uncertainties" Note how what the body text calls "lack of consensus"--i.e., people disagree--gets spun into "lack of information and awareness"--i.e., people are ignorant--in the title, and then carried forward into the executive summary and the front of the report. Ignorance can be fixed by education, but lack of consensus cannot necessarily be solved by more or better information. Wolves and sheep will never reach consensus on the proper diet of wolves.	Accepted
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	33	-	34	-	-	-	-	The authors complain that a lack of information and awareness is a high barrier for RE. They do not mention, that there is also a lack of information concerning the economic consequences of RE. For example, the redundancy of RE in the EU is not known in the public.	Accepted
United States (U.S. Department of State)	11	33	33	-	-	-	-	-	The phrase "are not entirely unambiguous" is an awkward double negative and should be changed.	Accepted
Greece (National Observatory of Athens)	11	33	37	34	2	-	-	-	The text implies that nuclear energy is part of a sustainable future because it is a no-carbon option. I don't think that there is a consensous on this issue.	Accepted
United States (U.S. Department of State)	11	33	20	33	31	-	-	-	This section is repetitious and suffers from poor grammar and syntax. It is not necessary to repeat information on the structure/organization of Chapter 11 or the Report, as the reader has already been oriented by the introductions and Chapter Roadmaps. Instead, the intro to section 11.4 (barriers) should flow naturally from the end of section 11.3 (drivers). All of the text from lines 20-31 should be replaced with: "In spite of the compelling drivers summarized above, barriers to successful policy-making and financing hamper RE development and implementation. These barriers must be addressed to fulfill RE's potential for climate change mitigation."	will consider as we revise section.
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	33	28	-	31	-	-	-	This whole paragraph can be dropped, or included into the roadmap of the chapter.	will consider as we revise section.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	33	18	33	19	11.3	-	-	At the end of §11.3.5 or as a separate sub-section it would be appropriate to pay some attention to would-be drivers, such as reformulation of agricultural subsidies and overzealous stress of domestic energy sources as an energy security measure.	Accepted
Steve Sawyer (Global Wind Energy Council)	11	33	5	33	5	11.3.5	-	-	Suggest adding. 'In addition, many govenrments and policymakers are becoming concerned over fresh water supplies, and many renewable technologies (wind and solar) consume little or no fresh water to generate power.'	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	33	-	37	-	11.4	-	-	Compared to other sections (not the least 11.5) this section got too small. In fact it would be better to either merge it with 11.3 ('drivers and obstacles') or merge it with 11.6. Please note that next to obstacles there are also caveats, i.e. potentially good measures may turn out to be countereffective or even damaging, when interaction with other policies and the operational environment are not adequately assessed. Occasionally caveats are mentioned, but it feels as if most contributors lean to the idea that boosting deployment is so important that it merits to take some risks regarding possible unfortunate effects. Also precise references to chapters 8, 9 and 10 will help. Yet, as Ch.11 is dealing with policy design and decision making it should adequatley allow for inclusion of adverse effects in evaluations.	points are noted. We are required to stick to section 11.4 and cannot merge it with others. But will incorporate further points where relevant. Need references from reviewer.
Karen Pittel (ETH Zurich)	11	33	20	33	32	11.4	-	-	Start subsection rather with a discussion of what in done in 11.4 then discussing of what is not done.	will consider as we revise section.
Lori Bird (National Renewable Energy Laboratory)	11	33	32	34	-	11.4.1	-	-	Are these barriers to policy development or implementation? Or barriers to development? I did not find most of these points very compelling or supported. Particularly the lack of information and awareness. This should be rewritten. Is it lack of awareness of a problem rather than lack of methods of addressing it?	Good point, needs further discussion by the team, see 577
Lori Bird (National Renewable Energy Laboratory)	11	33	-	36	-	11.4.1	-	-	This entire section needs rework. It is not clearly written and the points are not clearly articulated and supported. Also, the introduction is confusing and does not flow well.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	33	-	-	-	11.4.1.1	-	-	Recommend removing bullet list unless some introductory text is inserted. Text is adequate as full paragraphs.	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	34	4	-	-	-	-	-	Include in the text inside parenthesis: ""like energy efficiency"" or other renewable energy alternatives: countries which rely very much in hydropower are more reluctant to study the complementary importance of other renewable energy sources, such wind or biomass, preferring to diversify to fossil fuel alternatives.	will be rewritten
United States (U.S. Department of State)	11	34	15	34	17	-	-	-	Just for the record, previous technological transitions occasionally involved consensus and negotiation. However, more commonly, they involve creative destruction. New technologies are adopted because they are clearly superior, old hardware gets scrapped, and the people working in the dying industry find other jobs. The problem here is that the benefits of renewable energy are diffuse and global, while the costs are specific and local.	Accepted
United States (U.S. Department of State)	11	34	41	35	4	-	-	-	Sentence construction here is awkward - Replace with the following: "Existing economic regulations maintain the character of these fossil fuel based energy systems, which exert a strong momentum for their own continuation (Hughes, 1987) and forestall new technologies and processes. Technical and structural barriers to policy making include:"	Accepted
Volkmar Lauber (University of Salzburg)	11	34	13	-	-	-	-	-	substitute ¿realize¿ for ¿enable¿	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	34	3	34	7	-	-	-	Suggest redrafting to read: "It is challenging for policy-makers to pro-actively integrate RE supplies, because they frequently lack the authority and responsibility to consider other policy goals (such as..." --- The problem is not such that people lack the required knowledge as that if every decision must be considered in the light of the possible effect of everything on everything, no decision will ever be made. There is a reason why responsibilities in institutions are divided. What we need is a mechanism that sends signals to policy-makers that prompt them to balance decisions properly, even if they don't actually know anything about, for instance, agriculture. If the price of corn is terrifically high, then a clever decision-maker will conclude that making ethanol out of corn isn't such a good idea, even if he doesn't know that the price of corn is high because of competitive for arable land and water with other (more valuable) food or feedstock crops.	Accepted
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	34	29	35	26	-	-	-	There are several quotations of economic papers, which are highly arbitrary (for example Williamson 1985, Laffont & Tirol 1998). Probably, the authors of this chapter want to seem that they have also checked the economic literature ¿ what definitely is not the case!	Accepted
United States (U.S. Department of State)	11	34	3	-	-	-	-	-	This is a key point--the interdisciplinary nature of RE requires unprecedented coordination across government agencies with different areas of policy expertise and authority. Successful mechanisms to allow coordination and bridging to occur are crucial.	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	34	-	35	-	11.4.1.3	-	-	Why no mention or little mention of siting and transmission? Those are very common barriers.	probably need a new CA about network side of things? ? Planning? Many go beyond barriers to policy making and implementation. Perhaps we just need to mention these in the intro. to 11.4 (or in 11.1), refer back to earlier chapters, and be clearer about what this section is addressing.?
Frank Krysiak (University of Basel)	11	35	16	35	22	-	-	-	A reference supporting these claims would be helpful.	Accepted
Australia (0)	11	35	37	-	-	-	-	-	Add sentence: As carbon pricing matures, the need for direct Government support for RE uptake will decline.	Accepted
United States (U.S. Department of State)	11	35	27	35	28	-	-	-	Comment: This section kind of vaguely backs up to the central problem with renewable energy--most RE technologies are much more expensive than competing fossil fuel technologies. The report argues that the social costs of fossil fuels and nuclear power are not internalized, so that energy markets "continue to favor fossil fuels and nuclear power more than they should." The report than goes on to say, vaguely, that social costs are difficult to measure, and anyway, energy policies are "only modestly moving in the direction of full social cost pricing." But, even if social costs were incorporated, at some level, some renewable energy technologies at some locations would still be too expensive. More broadly, societies can't make rational decisions about which renewable energy technology, and how much renewable energy versus energy efficiency versus whatever else unless there is some sort of public policy view on how much society is willing to pay for zero emissions energy. If and when societies came to a consensus on this point, then one can use market forces to produce the transition to renewable energy + energy efficiency + whatever else. It is not the role of this report to prescribe how much society "should" be willing to pay for RE, except to describe the costs and potential of RE to contribute to meeting climate goals.	will address according to academic literature.
Greece (National Observatory of Athens)	11	35	33	35	35	-	-	-	I believe that there are more recent publications regarding the difficulties of measuring social costs than the one refered to in the text (1994)	we need to get recommendations unless someone on team is familiar with this lit.
Frank Krysiak (University of Basel)	11	35	33	35	37	-	-	-	If the social costs of energy use cannot be measured, how is it possible to conclude that there is no full social cost pricing (indeed, given that energy use is subject to several taxes in many countries and that many energy markets are imperfectly competitive (leading to price increases), it could even be the case that current energy prices are above full social cost pricing).	will be expanded on.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	35	27	35	28	-	-	-	Recommend new paragraph between lines 27 and 28, to read something to the effect of: "The central barrier to the penetration of renewable energy technologies is their high cost in mainstream applications, compared with fossil fuels. As noted elsewhere in this report, fossil fuels contain within them external social and environmental costs, and renewable fuels, in some applications may have unincorporated environmental benefits. Capturing these external costs and benefits are the primary rationale for public policies to encourage the use of renewable energy. To the extent that societies can reach a policy consensus on the extent to which the use of renewable energy is socially desirable, either in terms of how much extra society is prepared to pay, or in terms of some share of energy to be derived from renewable sources, or both, they can implement public policies that reflect this social consensus."	We need to highlight this more, although is in Ch1 as general barriers - mention this in 11.1 or the intro. to 11.4?
Frank Krysiak (University of Basel)	11	35	26	-	-	-	-	-	Reference is missing in list of references.	Accepted
Sweden (Swedish Environmental Protection Agency)	11	35	28	35	29	-	-	-	Remove sentence.	will consider as we revise text.
Volkmar Lauber (University of Salzburg)	11	35	-	-	-	-	-	-	Section 11.4.1.4 should also mention ""perverse"" fossil fuel subsidies	will consider for economic subsection to be added
United States (U.S. Department of State)	11	35	33	-	-	-	-	-	Suggest replacing "widely" with "growing acceptance" as it is not true in the U.S. that there is "widely accepted that the social costs of energy use should be incorporated into the price of energy."	Accepted
Pekka Pirila (Aalto University)	11	35	28	35	37	-	-	-	The paragraph notes correctly at the end that external risks should be taken into account but are difficult to determine. It starts, however, with a claim that they continue to be insufficiently incorporated implying that the correct level would be known. The formulation does not present this as a claim of a particular paper.	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	35	9	-	-	-	-	-	The phrase should include ""more consolidated renewable, such as hydropower"",	Accepted
Switzerland (Swiss Federal Office for the Environment)	11	35	39	36	2	-	-	-	The presentation of CDM as a 'perverse' regulation is questionnable. Renewable Energy is promoted by the CDM, and the mentionned 'barriers' for corresponding projects are not important in any case.	Accepted
United States (U.S. Department of State)	11	35	5	35	26	-	-	-	This bullet list should identify technical or structural barriers with greater clarity. Here are some suggested edits: (1st bullet): "The incumbents of the existing energy system enjoy greater organizational strength, more influential networks, and increased lobbying power over newer RE technologies (Hughes, 1986; Hall, 2003)." (2nd bullet): "Administrative procedures often make it a lengthy and difficult process to change the scope or applicability of public regulation to accommodate newer RE technologies (Mitchell, 200?)." (3rd bullet): "Existing regulatory frameworks do not address market failures affecting RE, such as the split-incentive problem leading renting tenants to decide against valuable improvements to infrastructure, including on-site RE generation (Beck and Martinot, 2004)." (4th bullet): "Workforce education and training reinforce incumbent technologies and lag behind the emergence of new ones, constraining the rate of RE installation and maintenance." (5th bullet): "Regulatory authorities and policy-makers face an asymmetry of information between established and newer technologies, and they may also be captured by incumbent technology interest groups, leading to decisions on energy policy that do not optimize social welfare (Laffont and Tirole, 1998)."	part of discussion about section 11.4 and how to link ch1, ch 11, barriers and policies together?
Australia (0)	11	35	32	35	33	-	-	-	This sentence uses strong normative language and the wording may need to be reconsidered.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Axel Michaelowa (University of Zurich)	11	35	39	36	2	-	-	-	Using the CDM as example for a "perverse" regulation is incorrect; thus delete text. Renewable energy is strongly promoted by the CDM and there are no specific barriers for renewable energy projects. See Michaelowa, Axel; Krey, Matthias; Butzengeiger, Sonja (2006): Clean Development Mechanism and Joint Implementation: New Instruments for Financing Renewable Energy Technologies, in: Assmann, Dirk; Laumanns, Ulrich; Uh, Dieter (eds.): Renewable energy, Earthscan, London, p. 196-216. Insert new text: "For example, in India accelerated depreciation of wind power plants has led to the construction of many wind plants that are no longer operational, as the depreciation incentive did not provide an incentive to maximise power generation (Purohit and Michaelowa 2007). Similarly, farmer and wind industry lobby groups collaborated to fix feed-in tariff levels for wind power in Germany above levels that were required to achieve cost recovery (Michaelowa 2005)". Full references: Purohit, Pallav; Michaelowa, Axel (2007): Potential of wind power projects under the Clean Development Mechanism in India, in: Carbon Balance and Management, 2:8, http://www.cbmjournal.com/content/2/1/8; Michaelowa, Axel (2005): The German wind energy lobby: How to promote costly technological change successfully, in: European Environment, 15, p. 192-199	Accepted
United States (U.S. Department of State)	11	35	16	35	22	-	-	-	What does "unduly" mean in this context? These seems like an indirect rephrasing of the "chicken and egg" dilemma that alternative fuel producers have traditionally noted. However, its indiscriminate presentation here lead one to wonder if a "fix" isn't being proposed without an adequate understanding of what's broken.	Accepted
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	35	7	35	8	-	-	-	What specifically are the technical barriers? If this is moreso explained in Chapter 8, please reference this.	Accepted
Geoffrey Heal (Columbia University)	11	35	-	-	-	11.4.1.4	-	-	This section on the economics of renewable energy seems very week. The key issues here are the cases of market failure that make it hard for renewable energy sources to compete, and of course the principal one is the external costs associated with the emission of CO2. With such huge external costs we do not expect the market unaided to make the correct choice: the government has to "level the playing field." In addition there are large fixed costs associated with all forms of power stations, and these make for economies of scale in power production. Again we do not expect the market to get choices right from the social perspective when there are increasing returns to scale. At the very least we might expect an infact industry argument in favor of protection for new renewable energy sources. The ratio of fixed to variable costs is much higher for renewables than for fossil fuels, makoing the economies of scale more important. Finally the capital intensity of renewable power makes it very dependent on the operation of capital markets, which are notoriously short-sighted and at present working very poorly in allocating capital to long-term uses.	part of cost / criteria section to be added
Frank Krysiak (University of Basel)	11	36	12	36	16	-	-	-	Are these problems really specific to RE? (a firm trying to build a nuclearor coal-fired power station faces similar obstacles in many countries).	Accepted
Volkmar Lauber (University of Salzburg)	11	36	33	36	35	-	-	-	be more detailed, for example bio-energy is not ¿typical¿ here (but in many countries more than ½ of RE)	Accepted
United States (U.S. Department of State)	11	36	17	-	-	-	-	-	Change section title to ¿Barriers to RE Financing¿ for symmetry with other headings.	will consider as we revise text.
Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	36	-	37	-	-	-	-	Maybe the role of the Global Environmental Facility (GEF) as the financial mechanism of the UNFCCC should be discussed here. The GEF could provide project finance, which is - according to the statements on the bottom of page 36 - a major problem in the development of RE. Additionally it could be referred back to Section 11.3.2 (see my comment No.10) where international RE support can partly be considered as an "adaptation to climate change"-measure. In such cases, the GEF could provide funding for supporting RE not only via its main Trust Fund (RE as mitigation options), but also via its "adaptation funds" called "Special Climate Change Fund" and "Least Developed Countries Fund". Possibly there is also a role for the "Adaptation Fund" under the Kyoto Protocol.	Accepted
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	36	31	36	32	-	-	-	Overstates risk - large projects are now functioning OK. For reference of some large renewable energy projects, see SRREN_Draft2_Review_Fulton_Mark_Material_06.pdf.	Accepted
Sweden (Swedish Environmental Protection Agency)	11	36	20	36	21	-	-	-	Remove sentence.	will consider as we revise text.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Axel Michaelowa (University of Zurich)	11	36	36	36	41	-	-	-	Rephrase "Support ... et al. 2009" as follows "Mechanisms that provide an incentive for carbon emissions reductions like the CDM cannot provide full upfront finance for renewable energy projects. They therefore need to be complemented with incentives that allow up-front financing, such as long-term feed in tariffs".	will consider as we revise.
United States (U.S. Department of State)	11	36	2	36	3	-	-	-	Suggest adding new paragraph to read: "Distributed renewable energy sources also face an additional economic challenge: because each unit of capacity is relatively small, and geographically distinct, adding appreciable energy capacity is very management intensive. Each individual unit can potentially require independent arrangements with landowners, interconnects, permitting, etc. Because the amount of energy generated is small, it is easy for the management costs to devour the income stream. Similarly, small distributed units must be highly reliable and require little or no maintenance in service, because there is relatively little income per unit available for extensive maintenance."	will consider adding something along these lines in new subsection on economics.
Volkmar Lauber (University of Salzburg)	11	36	20	36	23	-	-	-	the characterization of RE here has important aspects that should be mentioned also earlier, e.g. In the Executive Summary	will consider as we revise text.
United States (U.S. Department of State)	11	36	4	36	16	-	-	-	This section is awkwardly constructed. Here are suggested edits: (1st bullet): "Planning frameworks and institutional coordination for RE policy are often rudimentary or may not yet exist (ECLAC, 2009). Best practices for successful RE policy, such as setting clear goals for sustainable technology innovation and dialoguing with stakeholders, may not be well communicated among policy-makers from the local to the international level (RETD 2006, van den Bergh and Bruinsma 2008)." (2nd bullet): "Lack of coordination between overlapping national and local authorities, regarding such aspects as spatial planning for accommodation of RE installations, may lead to a long process for obtaining necessary permits (OPTRES, 2007)."	part of barrier / policy discussion
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	36	25	-	-	-	-	-	We do not believe that ""new forms of capital"" are needed, but rather, just basic project finance.	we will clarify
Lori Bird (National Renewable Energy Laboratory)	11	36	-	36	-	11.4.1.5	-	-	This is not at all clear. The second points needs elaboration. Are these policy barriers or development barriers?	will clarify as we revise.
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	36	-	-	-	11.4.2	-	-	General comment: This overall section is too negative on the size of projects (as there have been large projects completed), and also on the complexity of experience of players.	Accepted
Karen Pittel (ETH Zurich)	11	36	-	-	-	11.4.2	-	-	It might be worth considering to integrate the financing options and experiences that were dealt with in length in 11.2 into this subsection (thereby of course lengthening it considerably). At present 11.2 deals more or less exclusively with financing issues while the chapter at hand has a much broader scope of which financing is only one part. Thus, the prominent position of 11.2 does not reflect its weight in the overall chapter. It would be more straightforward to start the chapter with subsections 11.3 and 11.4.	we will clarify
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	37	-	81	-	-	-	-	A general remark on chapter 11.5: The overall aim of climate policy is to reduce GHG-emissions and not to maximize the use of RE technologies. But in chapter 11.5 all policy options are analyzed only with respect to the effectiveness of introducing RE! Shouldn¿t it be the right question to ask what the best options to mitigate climate change are? The answer to this question would be different than the answers given in chapter 11.5. The best way to fight GHG-emissions depends on the local conditions for the use of RE and given these conditions the use of RE is not always the best option!	part of general discussion about focus and balance
Frank Krysiak (University of Basel)	11	37	12	37	16	-	-	-	A reference or data would be helpful.	Accepted
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	37	12	-	-	-	-	-	Again, we believe this statement regarding developers is too negative. Many developers are large established players with proven track records. For reference of some large renewable energy projects, see SRREN_Draft2_Review_Fulton_Mark_Material_06.pdf.	Accepted
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	37	37	-	-	-	-	-	Although ¿to know the maximum annual cost of it¿ is described as an advantage of a quota system compared to a FIT, a cost of a capped FIT is more predictable. ¿To install RE facilities in order of increasing generation cost¿ is another example of an advantage of a quota system.	will consider as we revise
United States (U.S. Department of State)	11	37	1	37	11	-	-	-	Direct the reader to examples in chapter 10 or other technical chapters. If illustrative cost comparisons are not present in those chapters, a box should be added here to compare costs of a typical RE project versus fossil project.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Steffen Schlömer (IPCC WGIII)	11	37	36	37	38	-	-	-	It does not seem logical that the maximum annual cost are known in a quota system, unless there's a price ceiling for renewable certificates. However, that would in turn imply that the quota might not be fulfilled	will consider as we revise
Volkmar Lauber (University of Salzburg)	11	37	15	-	-	-	-	-	Lenders also wish to see regulations that reduce risk by greater security (such as FIT)	Accepted
United States (U.S. Department of State)	11	37	12	37	14	-	-	-	Non-recourse project finance needs to be defined for the reader here. Suggested revision: "Financiers therefore perceive them as being high-risk and are reluctant to provide non-recourse project finance (where the financier cannot recover the loan beyond the value of that specific project's assets and revenues)."	we will clarify
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	37	12	37	16	-	-	-	Once again a very selective presentation. It is not mentioned that guarantied FIT make investments in RE guilt-edged!	Accepted
Thomas Praessler (Potsdam Institute for Climate Impact Research)	11	37	18	38	6	-	-	-	Pls limit the use of text boxes. Consider using regular flow text here	will consider as we revise.
Sweden (Swedish Environmental Protection Agency)	11	37	25	37	27	-	-	-	Remove sentence.	box will be omitted and most of text moved; will conside deletion as we revise.
Axel Michaelowa (University of Zurich)	11	37	6	37	8	-	-	-	Rephrase "These costs ¿ et al. 2009" as follows "Despite having been criticized for its high transaction cost, the CDM has mobilised a large number of small-scale renewable energy projects. According to the Riso CDM pipeline, over 800 renewable energy projects - i.e. 35% of all registered projects under the CDM - had an installed capacity of less than 20 MW."	Accepted
Volkmar Lauber (University of Salzburg)	11	37	27	37	28	-	-	-	replace text ¿There are many ... up to effectiveness¿ by: ¿The most usual criteria for evaluating the performance of (renewable energy) policy mechanisms are their effectiveness, efficiency and equity results¿ (IPCC-WGIII-Ch.13, 2007; Verbruggen, 2009). The latter reference is: A. Verbruggen, 2009. Performance evaluation of renewable energy support policies, applied on Flanders' tradable certificates system. Energy Policy 37, 1385-1394.	to be part of the cost /effectiveness debate
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	37	1	37	2	-	-	-	Suggest not to imply that all renewable energy projects are ""small"" as many projects are starting to generate significant capacity. FiTs are able to reduce transaction costs for balance sheet utilities. For reference of some large renewable energy projects, see SRREN_Draft2_Review_Fulton_Mark_Material_06.pdf.	Accepted
United States (U.S. Department of State)	11	37	0	-	-	-	-	-	There appears to be overlap (as if the sections were written by different people, which they likely were) between the sections. Specifically, Sections 11.5 and 11.6 are a bit repetitive on the barriers and opportunities for project financing. A technical editor could likely streamline the information.	Accepted
Volkmar Lauber (University of Salzburg)	11	37	32	37	38	-	-	-	This § is not helpful for enhancing the understanding of readers (policy makers), and provides no more information than lines 5-6 on p.38 in the same key messages box; in addition it does not reveal the main lesson from the FIT-Quota policy experiments: the instruments must be fine-tuned enough to address the diversity in RE technologies (this is more specific than ¿diversity of contexts¿ as the text mentions).	box will be omitted and most of text moved; will consider comment as we revise.
United States (U.S. Department of State)	11	37	18	38	6	-	-	-	This box should be struck. It is redundant and its tone is too informal. It is also filled with assertive statements that lack supporting evidence or explanation. For example, why is carbon policy not enough to encourage "sufficient deployment" of RE? Deployment sufficient for what purpose? If that purpose is to mitigate climate change (ostensibly the focus of the IPCC), then how is carbon policy failing to achieve this end vis-a-vis RE development? These important issues should be explored at length in the appropriate parts of the report - at this point in the text, this box and these kind of disconnected assertions should be struck.	text will be revised and moved
Kristin Seyboth (IPCC WG III TSU)	11	37	34	37	38	-	-	-	This information and similar would be very valuable to pull into the key messages of the chapter	will consider as we revise
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	37	18	38	6	-	-	-	This region of the text could be eliminated. It could compose a sub-section of the introduction on most successful policies.	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	37	25	-	-	-	-	-	Unless it is mentioned this handful of countries, the phrase should be dropped.	box will be omitted and most of text moved; will consider deletion as we revise.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Kristin Seyboth (IPCC WG III TSU)	11	37	39	37	40	-	-	-	What specific section in Ch. 8? Reader should be able to find this specifically. Liason with Ch. 8 authors on this point may be beneficial, to be sure this is clearly presented in Ch. 8 text.	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	37	32	37	38	11.5	-	-	In the key message box (it shouldn't be a box but a proper introduction to 11.5) is explained why there cannot be simple guidelines on what instrument is better. Yet, it should be possible to make a table that is summarising typical conducive and obstructrive circumstances for particular instruments, whereas also indications impossibilities of simultaneous use of some instruments would be extremely helpful. This also ties in with Box 11.17 page 99-101. See comment no.36	box will be omitted and most of text moved; will consider comment as we revise.
Lori Bird (National Renewable Energy Laboratory)	11	37	-	41	-	11.5	-	-	The introductory text to this section is very confusing. It refers to a text box that sits before the section is introduced, refers to a table in the very front of the document (which is very awkward), and is quite confusing to the reader. I found most of this intro material to be not very useful. If it is kept it needs significant modification.	Accepted
Karen Pittel (ETH Zurich)	11	37	-	-	-	11.5	-	-	The use of boxes and ""Key Messages"" is quite asymetric throughout the chapter. For - the admittedly long - subsection 11.5 separate summaries at the beginning AND at the end are provided while this is not done for the other subsections. (One suggestion for 11.5 would be to merge the Key Messages on p. 37f and subsection 11.5.7).	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	37	-	43	-	11.5.1	-	-	It is confusing to lay out the policy options here referring to a table in the front of the chapter. Also, the discussion of who enacts policy, who beneifts, and who pays is so superficially treated that it is not helpful. What is the point.	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	37	-	81	-	11.5	-	Boxes	This section is too long. For a start the number of Boxes could be reduced (they take 11 pages!!). There is an oversupply of examples. An alternative is to make a separate section or appendix on case studies (to which the main text can refer as appropriate). Furthermore next to case study boxes typographic similar boxes are used summarising issues. That is confusing.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	38	35	38	37	-	-	-	cut '11.5.1 describes general policies for financing" to p. 38 lines 27/28 to keep entire description of 11.5.1 together. Suggest deleting remainder of sentence on lines 36/37 as it repeats sentences on lines 31-33.	restructuring and discussion
Volkmar Lauber (University of Salzburg)	11	38	9	-	-	-	-	-	delete ¿the large number and¿ for ¿a¿ ; because not in all circumstances the number is large	will consider suggestion as we revise text
United States (U.S. Department of State)	11	38	39	39	20	-	-	-	Delete the first paragraph (pg 38 line 39 through pg 39 line 2). Begin next paragraph with "Section 11.2 included a list in Table 11.1 of RE policies in place around the world. Those policies can also be differentiated..." etc. Also, delete text starting on page 39, line 17 from "This section shows..." through the end of the paragraph.	will consider as we revise text.
United States (U.S. Department of State)	11	38	33	38	37	-	-	-	Delete the text from "All of this occurs..." through the end of the paragraph. It's unnecessary and confusing.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	38	9	-	-	-	-	-	For consistency list barriers according to the taxonomy presented on p. 33 lines 22/23 and in Ch. 1	will consider suggestion as we revise text
Volkmar Lauber (University of Salzburg)	11	38	13	-	-	-	-	-	Is this not a reference to Fouquet, R. (2008) rather than to Fouquet and Johansson	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	38	25	-	37	-	-	-	It is questionable the need to describe the sub-sections of a section. It could eventually be dropped. Still more dispensable is the text from end of line 33	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	38	28	38	29	-	-	-	Please present/list policy types exactly as they are in Table 11.1, i.e. in the same categorization. Here you would need to delete "government RD&D, and" to do so, unless of course, it is made a clear category in Table 11.1.	Accepted
Thomas Praessler (Potsdam Institute for Climate Impact Research)	11	38	7	38	37	-	-	-	Potential to shorten. Nothing new in these 30 lines. Commen-place sentences like "Globe is faced with a different policy challenge with respect to climate change and the need to move to a low carbon energy system." are not needed anymore on page 1113 of this report. Brevity is key and will make everything more readable.	Accepted
Axel Michaelowa (University of Zurich)	11	38	3	38	4	-	-	-	Rephrase "Carbon policy¿" as follows: "Carbon policy instruments can contribute substantially to reduce the gap between fossil and renewable energy costs. However, carbon prices would have to be much higher than currently to close the gap fully."	will consider as we revise

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Kristin Seyboth (IPCC WG III TSU)	11	38	25	-	-	-	-	-	Replace "Section 11.5" with "This section goes on to provide¿" - quoting section 11.5 within section 11.5 leaves the reader (or at least me) a bit confused.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	38	4	-	-	-	-	-	sufficient deployment' - what exactly is sufficient deployment? Language could be considered prescriptive. Suggest replacing with 'substantial deployment' or similar.	Accepted
Steffen Schlömer (IPCC WGIII)	11	38	3	38	4	-	-	-	sufficient deployment of RE for what? It needs to be clearer that RE deployment is not a goal in itself. I'm under the impression that what is actually meant here is the following: Carbon PRICING alone is not enough to tackle all market failures and, hence, would fail to trigger the socially optimal (or first best or global welfare maximizing) level of RE deployment. An optimal climate policy hence requires a mix of policy instruments.	see above
Kristin Seyboth (IPCC WG III TSU)	11	38	8	-	-	-	-	-	Suggest deleting 'asked of them and'	will consider suggestion as we revise text
Australia (0)	11	38	4	-	-	-	-	-	Suggest wording change: Carbon policy is not enough on its own to encourage widespread deployment of RE.	will consider as we revise
Kristin Seyboth (IPCC WG III TSU)	11	38	16	38	24	-	-	-	The IEA 2008 publication "Deploying Renewables - Principles for Effective Policies" would be a good reference to include in this paragraph. In that publication, the figure on p. 25 (Figure 1 - Combination framework of policy incentives as a function of technology maturity) may be especially useful.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	38	27	43	-	-	-	-	The introduction to sections 11.5.1 and 11.5.2 leaves the reader wondering. Right now it claims that 11.5.1 covers "policy options for DEVELOPING and promoting RE¿" while 11.5.2 covers "policies for RE technology DEVELOPMENT'. So are options for developing RE covered in 11.5.1 or 11.5.2? Please clearly deliniate in the text and also in the section headers, if 11.5.1 covers policies only for deployment and 11.5.2 those for development.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	38	5	38	6	-	-	-	These lines are repeated almost word-for-word from p. 37 lines 32/33. Suggest deleting here and merging with sentence on p. 37.	Accepted
United States (U.S. Department of State)	11	38	7	38	15	-	-	-	This material is an unnecessary restatement of material already covered earlier in Chapter 11. Delete lines 7-15.	part of rewriting
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	38	7	10	-	-	-	-	This paragraph could be eliminated.	will consider suggestion as we revise text
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	38	3	38	4	-	-	-	This sentence is very illuminating: Carbon policy is not the ultimate aim? RE is a mean not an end!	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	38	25	38	37	11.5	-	-	What is missing, except with respect to RD&D funding, is a notion about market evolution and its consequences for the scale and applicability of instruments. Market evolution is also one of the elements to explain (and synthesize) why instrument choices should change over time (but indeed not too fast in order to create sufficient predictability for RE deployment)	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	38	40	38	40	11.5.1	-	-	divide these policy (options??) in a number of ways ..	will consider as we revise text.
Kristin Seyboth (IPCC WG III TSU)	11	38	-	-	-	11.5.1	-	-	To clarify to the reader what exactly this section contains (see comment above on deliniating where development/deployment are discussed), suggest renaming section as "Laying out the Policy Options for RE Deployment'	will consider as we revise text.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Steffen Schlömer (IPCC WGIII)	11	39	5	-	-	-	-	-	"...demand pull policies, which are implemented as the technology becomes nearer competitiveness¿" - This sentence leads to the impression that a technology becomes competitive at a specific cost threeshold, which is not the case. Technologies can be competitive in niche markets already, even if their LCOEs are fairly high compared to mass market energy prices. Hence, I'd rather write "...as the technology's competitiveness increasingly extends beyond (high price) niche markets." or something along those lines. Furthermore, I'm not convinced that demand pull policies are really only implemented at that stage, e.g. FITs for PV in Germany have been implemented years ago with tariffs as high as 57.4 Eurocents/kWh, which is far from competitiveness even compared to household electricity prices of something around 18 Eurocents/kWh, let alone wholesale prices.	Accepted
Steffen Schlömer (IPCC WGIII)	11	39	11	-	12	-	-	-	"which increases deployment which allows technology learning to occur" - language	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	39	3	39	5	-	-	-	Giving examples for what specific policies qualify as 'technology push' and 'demand pull' would be useful to the reader here, to place the discussion in the context of policies presented in Table 11.1.	will consider as we revise text.
Kristin Seyboth (IPCC WG III TSU)	11	39	3	39	20	-	-	-	Reference missing from paragraph	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	39	1	-	-	-	-	-	See comment above on differentiating where R&D policies are discussed in 11.5.1 and 11.5.2. If R&D policies are discussed here, why is a separate section for development needed in 11.5.2?	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	39	5	39	5	-	-	-	This currently reads as if public R&D support for a technology can be reduced as it moves closer to commercialisatin. Continuing R&D support is usually cheap (comapred to deployment support) and offers many opportunities to accelerate cost reductions/performance improvementt. Hence I would suggest to re-formulate to argue that demand pull-policies are added as technology improves (if you need a reference (Large scale deployment of renewables for electricity generation, karsten neuhoff, oxford review of economic policy, 2005, vol 21, no .1., p. 88-110	Accepted
United States (U.S. Department of State)	11	39	25	40	8	-	-	-	This paragraph points out that RE policy can be highly targeted, but it does not connect that discussion to any structure for guiding an appropriate policy target. For example, how would targeting RE policies on these different qualifiers (source, technology, ownership) address particular RE barriers? At least an example should be added here and the reader should be directed to think about more than just the potential to target RE policy, but why it needs to be targeted (e.g., to address specific barriers).	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	39	-	40	-	11.5.1.1	-	-	Drop this - too vague to be useful	will consider as we revise text.
Australia (0)	11	39	-	-	-	-	11,5	-	Nomenclature and models of innovation that are not so heavily R&D/technology oriented (e.g. Figure 11.5) are preferred unless the authors can justify why the focus is only on technological development. For example, why use the terms 'technology push' & 'demand pull' when the terms 'supply push' & 'demand pull' are used to characterise innovation? [See OECD (2010) Eco-innovation in industry, OECD, Paris; Edler & Georghiou (2007) Public procurement and innovation: Resurrecting the demand side, Research Policy Vol 36].	Accepted
Jänicke Martin (Environmental Policy Research Centre)	11	39	8	-	-	-	11.5	-	Add (after the bracket): "This virtuous cycle and its benefits can cause a positive feedback on the policy cycle (from agenda / target setting to policy implementation and evaluation) increasing the acceptance for (more) ambitious policies. In different countries like Germany and China this dynamic mechanism has encouraged policymakers to introduce stricter targets." (Jacobsson/Lauber, 2006, Jänicke 2010)((M. Jänicke: Das Innovationstempo in der Klimapolitik forcieren! Jahrbuch Ökologie 2011, Stuttgart 2010, 138-147 (download www.jahrbuch-oekologie.de)))	part of restructuring and discussion
Volkmar Lauber (University of Salzburg)	11	39	3	39	23	-	11.5	-	The added value of this text is small, except saying that there ¿technology push and demand pull policies should work together¿; for example p.43 (lines 20-21 say the same in direct terms); figure 11.6 also uses the (widely known, familiar) terms of technology push- demand pull	will consider as we revise text.
Volkmar Lauber (University of Salzburg)	11	40	30	-	-	-	-	-	add ¿bill¿ after electricity (2nd)	Accepted
United States (U.S. Department of State)	11	40	9	40	26	-	-	-	Recommend deletion of both of these subsections - they are unnecessary and too general (not specific to RE, not needed in this discussion).	will consider as we revise text.
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	40	21	-	-	-	-	-	Society does not benefit from RE in any case! The German example shows that the massive support for RE causes extremely high costs without any environmental benefit.	both the costs and benefits will be included.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	40	28	40	29	-	-	-	The authors once again make clear that they are not aware of simple economic reasoning: The question ¿who pays¿ has to be subject of a sound incidence analysis of public and/or private investments.	will be addressed
Kristin Seyboth (IPCC WG III TSU)	11	40	11	-	-	-	-	-	The IEA is not a public authority, but rather an intergovernmental organization that provides advice on energy policy. Please be careful with the claims made here.	Accepted
Sweden (Swedish Environmental Protection Agency)	11	40	21	40	26	-	-	-	There is so much of these exhaustive listings and they are rather meaningless.	will consider as we revise.
United States (U.S. Department of State)	11	40	39	41	14	-	-	-	This section needs to be deleted. Table 11.1 is self-explanatory, and it certainly doesn't make sense to provide a textual explanation of its categories about 20+ pages after the table itself appears anyway.	will consider as we revise text.
United States (U.S. Department of State)	11	40	27	40	38	-	-	-	This section should be retitled "Policy costs and benefits" and misses or obscures key points that need to be made in this section. I recommend revising this section borrowing from the following suggested language: "Technology-push policies represent social investments (with upfront and ongoing costs typically funded by taxpayers) that address the market failure of private underinvestment in research and development. These investments should be designed to yield innovative technology advances with broadly shared benefits that would not accrue to society from private investment alone. For example, successful technology-push investments in RE could repay their cost several times over if they substantially lower the cost of achieving climate stability targets. Demand-pull policies represent market adjustments to accommodate the entry of emerging technologies in competitive environments that are typically biased to favor established interests. The costs of demand-pull policies are implicitly borne by consumers of the affected good or service and/or by taxpayers; however, if the demand-pull policy is designed to address specific market failures or institutional barriers, the system becomes more efficient and yields net savings to consumers in the long-run. For example, if a demand-pull policy for RE encourages utilities to assist, rather than block, customers from connecting distributed RE generation to the power grid, then the overall cost of energy may decline."	will consider as we revise text; economic discussion will be added here or elsewhere in chapter
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	40	34	40	38	-	-	-	Why should it be cheaper to transform the energy system quickly?	evidence will be provided from peer-reviewed literature.
Lori Bird (National Renewable Energy Laboratory)	11	40	-	40	-	11.5.1.3	-	-	Drop this - too vague to be useful. What is the point here?	will consider as we revise text.
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	40	20	40	26	11.5.1.3	-	-	sloppy text patch, edit!	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	40	30	40	30	11.5.1.4	-	-	¿¿.is added to the electrcity (bill??), although ¿¿..	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	40	34	40	38	11.5.1.4	-	-	In this section is claimed that there is evidence that a high pace of change towards a high share of RE in the energy supply system pays off as compared to a slow scenario. From an economic point of view this is an extremely important statement, even for the entire report. Considering the cruciality of the statement it is really necessary to come up with more and more convincing (peer reviewed) evidence than the reference to an explorative scenario simulation study, whatever big and important that may have been in Germany. Furthermore, even if there would be some - albeit faint - evidence for Germany, than it would still need further assessment to what extent quick pacses may differ across different countries - indeed depending on economic, social, technical etc. circumstances. By the way why not referring to the actual main study instead of a summary (Kurzfassung)? The full study (and reference details) are available here: http://www.umweltdaten.de/publikationen/fpdf-l/2134.pdf	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Lori Bird (National Renewable Energy Laboratory)	11	40	-	41	-	11.5.1.5	-	-	Why is this section here? It does not flow for the reader. I found this organization very confusing. It is not a helpful guide for the reader. This needs rework.	will revise text
United States (U.S. Department of State)	11	41	15	42	24	-	-	-	Box 11.3 is unnecessary. Its main points can be condensed into a single sentence that should replace the final sentence at line 29 on page 41: "To be fully effective, or "investment grade," RE policy should have clear objectives, remain stable across project time horizons (which can reach 15 years or greater), be as simple as possible, and support necessary project infrastructure." Box 11.3 should then be deleted.	Box will be dropped; this wording will be used with some additional points not included here.
Seth Dunn (GE)	11	41	30	42	24	-	-	-	See comment 2. This resembles but is different from the overview of RE policy criteria in SPM.	Accepted
United States (U.S. Department of State)	11	41	18	-	-	-	-	-	This section could benefit from some discussion of the "chicken-and-egg" nature of policy and technology development. The section seems to assume that technological development always precedes supportive policy, but this is not always the case.	will consider as we revise text.
Volkmar Lauber (University of Salzburg)	11	41	30	-	-	-	-	-	what does ¿grade¿ mean here? What are ¿investment grade policies¿?	will define
Lori Bird (National Renewable Energy Laboratory)	11	41	-	41	-	11.5.1.5	-	-	Text box could be more clearly written. Otherwise, this section is useful.	will consider as we revise.
Volkmar Lauber (University of Salzburg)	11	42	4	42	8	-	-	-	add reference of OPTRES (spend a lot of attention to this aspect)	part of bariers and policy link discussion
United States (U.S. Department of State)	11	42	26	42	37	-	-	-	This paragraph (pg 42, lines 26-37) makes several unsupported and unnecessary arguments. It should be deleted or revised to replace generalizations ("frequently," "often") with facts supported by citations. The subsequent description of fiscal policy tools is sufficient and should be added to the end of the previous subsection (11.5.1.6, the link between policy and finance - there is no need for a separate subsection here). In addition, the text on page 43, lines 7-12 can also be added to the end of 11.5.1.6 rather than having yet another subsection there.	part of general restructuring issues
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	42	10	-	-	Box 11.3	-	-	In page 90 line 6, Texas where a FIT is not adopted is described as a successful example. In this line, there is a sentence ¿the design of mechanisms including feed-in tariffs will be important...¿. This inconsistency should be modified.	will consider as we revise text.
Volkmar Lauber (University of Salzburg)	11	43	15	-	-	-	-	-	¿The costs ... so large¿: what is ¿so large¿? Large costs is relative and not the main argument (efficient policies is) for leveraging funding; also what are ¿costs¿ - if we look at the real costs of climate change, the transition is the cheap way for humankind.	part of cost and criertia section to be added; will consider as we revise.
Kristin Seyboth (IPCC WG III TSU)	11	43	22	43	23	-	-	-	bricolage' and 'breakthrough' would be good to include in SRREN glossary.	Accepted
United States (U.S. Department of State)	11	43	28	43	31	-	-	-	Delete last sentence in paragraph. Figure 11.6 seems to belong earlier in the section and does not clearly show the "virtuous cycle" referred to in the text.	will consider as we revise.
United States (U.S. Department of State)	11	43	22	-	-	-	-	-	Remove the word "or" after the word "bricolage" for clarity.	Accepted
United States (U.S. Department of State)	11	43	13	-	-	-	-	-	replace "Policies for Tech. Development" with "RD&D policies"	Accepted
United States (U.S. Department of State)	11	43	6	-	-	-	-	-	The paragraph on tax credits should clarify which situations its argument applies to. The value of tax credits can vary with the recipient. Government or non-profit organizations often pay no income taxes, so do not benefit from tax credit schemes, unless special provision is made for such recipients to sell their credits. Firms may be taxed at varying rates, and some nominally for-profit organizations may pay little or no tax and practice, and hence receive little value from tax credits. Calculating the value of tax credits can become especially complex for firms operating in more than one country. Tax credits work best in countries where there are numerous profitable, tax-paying private sector firms that are in a position to take advantage of them.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Volkmar Lauber (University of Salzburg)	11	43	22	43	23	-	-	-	where are the definitions of 'bricolage' and 'breakthrough' coming from? Especially 'breakthrough' is not equal to 'focusing on large scale innovation'; the text p.44 (lines 3-18) clarifies a bit, but there are other authors (Grübler, Fri) discussing these issues	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	43	8	43	12	11.5.1.8	-	-	The argument in favour of public procurement cab supplemented with a 2nd probably more important reason, nl. sizing up markets and thereby ensuring a more continuous demand level, which in turn may incite further product development as well as additional producers which enhances competition.	Accepted
Volkmar Lauber (University of Salzburg)	11	43	-	-	-	11.5.1.8	-	-	The info of this section can better be included in table 11.1	Accepted
Australia (0)	11	43	-	-	-	11.5.2	-	-	Although the authors recognise the importance of learning (11.5.2) and that the current educational and skill base favours encumbent technologies (11.4.1.3) there is no discussion of the policies to overcome this barrier to renewable energy innovation and deployment. "Human capital has particular significance for innovation because of the contribution of skilled people to the creation and use of knowledge. People generate the ideas and knowledge that power innovation, and it is they that need to apply this knowledge and the resulting technologies, products and services in the workplace and as consumers. Empowering people to innovate relies not only on broad and relevant education, but also on the development of wide-ranging skills following formal education, and on providing opportunities to use and leverage these skills throughout economy and society." [OECD Innovation Policy Synthesis Report]	will address in 11.6
Osamu Kimura (Central Research Institute of Electric Power Industry)	11	43	14	48	14	-	11.5.2	-	Literature on technology policy failure should be reviewed in this section. Classics in technology policy, such as Nelson (1982), Cohen and Noll (1980) and NRC (2000), clearly illustrates that failures in technology policy are abound. It is very important to recognize the risk of policy failure, so at least the following literature should be reviewed here: Richard Nelson (ed.), 1982. Government and Technical Progress, Pergamon. Linda R. Cohen and Roger G. Noll, 1991, The Technology Pork Barrel, The Brookings Institution:Washington D.C. NRC (National Research Council), 2000, Energy Research at DOE: Was it Worth It?, Energy Efficiency and Fossil Energy Research 1978 to 2000. National Academy Press.	will do, see BT comments but also bear in mind told to take out too theoretical ones in FOD
United States (U.S. Department of State)	11	44	10	-	-	-	-	-	"builds" should be "build"	Accepted
Canada (Environment Canada)	11	44	-	-	-	-	-	-	Figure 11.6 is hard to read and interpret - suggest revising to include further explanation in caption of what the overall purpose of the figure is.	Accepted
United States (U.S. Department of State)	11	44	19	45	3	-	-	-	Move to 11.5.1, along with Figure 11.6	will consider as we revise.
United States (U.S. Department of State)	11	44	11	-	-	-	-	-	remove apostrophe before the word ¿to¿.	Accepted
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	44	11	-	-	-	-	-	The quotation in this line is not closed anywhere.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	44	7	-	18	-	-	-	There is no incompatibility between investment in technological ¿breakthroughs¿ and ¿bricolage¿. Any sound R&D strategy needs to bet on both. The main difference is usually found in the nature of the outcomes, risks and costs. Technological ¿breakthroughs": They target important technological jumps and do not necessarily imply a commercial application. The risks usually are high. There are many failures before a suitable solution is found. They are subject to a long-term perspective. The cost is very high and it is usually sustained by public funding. Technological ¿bricolage¿. It implies adjustments in design or improvements in efficiency but not necessarily on efficacy. Risks are usually low. The improvements are mostly based on production experience and consumer needs. They are based in a rather short-term perspective. The cost is low and usually afforded by the private sector. To be able to solve complex problems, parallel research lines are needed. While a breakthrough technology can take several years before results are obtained, once results are there they can change the way in which business is done. An example of a huge investment in breakthrough technologies is the ITER project on clean energy generation at commercial scale through nuclear fusion. While it is considered by many as a white elephant it could be a long-term solution to a big part of the renewable energy generation problem in the next 20 years. ¿Bricolage¿ technologies allow for incremental innovation that could arrive faster at the market, increase competition and find products that are more suitable to particular contexts. Solar and Wind technologies have benefited from this approach.	interesting, add to debate (ref?)
Kristin Seyboth (IPCC WG III TSU)	11	44	-	-	-	-	11.6	-	Blue and red boxes on the left/bottom seem to claim that the private sector is funding R&D at very early stages of tech development, whereas on p. 24 line 30/31 it states that private capital only begins to play a role near early market deployment stage. Please clarify.	eric please clarify
Kristin Seyboth (IPCC WG III TSU)	11	44	-	-	-	-	11.6	-	Bottom green text 'conditions for a financial continuity/sector to emerge' - does not help the reader to understand what those conditions actually ARE. Would be more useful to list the conditions here.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	44	-	-	-	-	11.6	-	Figure does not clearly show/mark that the middle horzontal bars represent the development of a given RE technology (i.e. a given Re tech proceeding through the stages of development). This deliniation would help the reader understand the figure.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	44	-	-	-	-	11.6	-	More information in the figure caption would be very useful to the reader.	Accepted
United Kingdom (Department of Energy and Climate Change)	11	45	32	-	39	-	-	-	Collaborations do not have the exclusive benefit of research network, but mainly to enable taking bigger risks, move outside the beaten track, build supply chain and ultimately realise a product or process or business model.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	45	14	45	25	-	-	-	How do smart subsidies and grant-support models fit into Table 11.1, or differ from the policies listed there? Please clarify or list in Table 11.1	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	45	14	45	25	-	-	-	perhaps clarify that smart policies aim to shift to commercialisation phase, thus creating clear market interface between government and industry so as to create transparency for improved technology policy decisions	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	45	14	45	20	-	-	-	Reference is missing.	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	45	1	45	1	-	-	-	sounds like only public R&D and cost reductions from economies of scale exist ... Seems to ignore learning by doing etc.	Accepted
United States (U.S. Department of State)	11	45	14	45	19	-	-	-	This paragraph does not relate in any clear way to the earlier section on "investment-grade policies." Needs further explanation/qualification.	Accepted
Karen Pittel (ETH Zurich)	11	46	18	47	2	-	-	-	Discussion of available financing options should go beyond merely stating their respective properties and point to pros and cons of the different instruments.	Accepted
United States (U.S. Department of State)	11	46	35	-	-	-	-	-	Insert "U.S." before "state of Connecticut" for clarity.	Accepted
United Kingdom (Department of Energy and Climate Change)	11	46	3	-	11	-	-	-	Not sure about the success of Saltire Prize to be used as example	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	46	40	47	2	-	-	-	Please be consistent with the use of either 'venture capital' or acronym VC	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	46	3	46	11	-	-	-	Prizes are not included in the list of policy options in Table 11.1 -- recommend adding.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	46	20	46	42	-	-	-	Would be useful to include 'technology incubators, contintent grants, convertible loans and public-backed venture capital' in Table 11.1, possibly also with additional dolumns deliniating to which stage of development each policy can be applied. These terms would then apply to pre-commercial stages wehreas others e.g. grants could be applicable to other maturity stages.	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	46	3	46	11	11.5.2	-	-	This section seems (also) to refer to competitive procurement, a well known term which is however not mentioned. E.g. Sweden has been quite active with this kind of policies.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	47	21	-	-	-	-	-	"have demonstrated that PV could provide an alternative energy supply" should be replaced with concrete numbers/examples here, e.g. how many demonstration plants were in place? How much exactly was the cost reduction? Otherwise you have nothing to support the claim that the policy demonstrated that PV could provide an alternative energy supply.	will provide such examples if possible
Seth Dunn (GE)	11	47	3	48	14	-	-	-	Box should be shortened.	will consider as we revise
Japan (the Japanese Ministry of Foreign Affairs)	11	47	32	-	33	-	-	-	Change "yen/kW" to?"yen/W"	Accepted
Japan (the Japanese Ministry of Foreign Affairs)	11	47	3	-	35	-	-	-	It should be noted that Japan has resumed its subsidy program in April 2010, therefore boosting sales once again.	Accepted
United States (U.S. Department of State)	11	47	7	-	-	-	-	-	Reference to "breakthrough" does not connect to the earlier, less positive references to "breakthrough" in contrast to 'bricolage" policies (see page 44).	Accepted
Volkmar Lauber (University of Salzburg)	11	47	32	-	-	-	-	-	the prices are per Watt not per kiloWatt; also in figure 11.7 ¿ please check & correct	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	47	34	47	35	-	-	-	This sentence is critical to the entire argument of the Box, but is not given adequate attention. The text surrounding the box is making a case for a a balance between R&D and deployment funding. This decrease shows that public investment was still necessary, as when it was removed installations fell dramatically -- i.e. there was no successful balance between R&D and deployment funding.Without focusing more weight on this point, this box does not serve as an adequate case study to demonstrate the surrounding text. Delete 'the momentum of PV as a viable power source had been proven'	will consider as we revise
United States (U.S. Department of State)	11	47	32	-	-	-	-	-	units should be Watt, not kiloWatt. units in Figure 11.7 are incorrect also.	Accepted
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	47	3	48	14	-	-	-	When the Japanese PV-policy is described, only the increase of installed rooftops PV and the decrease of annual costs are reported. The most important information is missing: The costs per kW compared to other technologies (RE and non RE); the cost per ton CO2 saved by PV-power. Without these information a serious assessment of the PV technology is not possible.	Good suggestion. We will include if possible.
ICHIRO MAEDA (The Federation of Electric Power Comapanies of Japan)	11	47	30	47	30	Box 11.4	-	-	Comment: should refer to the volume of installed capcity increase, in addition to system costs.	Accepted
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	47	3	-	-	Box 11.4	-	-	In FY1992, a voluntary buy back system by utilities started. Although this system is not a policy, it also affects growth in solar PV capacity. I recommend adding this matter in the box.	Accepted
ICHIRO MAEDA (The Federation of Electric Power Comapanies of Japan)	11	47	3	48	14	Box 11.4	-	-	Should add that electric utilities also commit the expansion of PV with their buyback programmes.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	48	11	48	14	-	-	-	Be cautious about drawing broad conclusions from a single case study. The conclusions should be more specific to the case study. Better to say that the example "suggests" that a factor is important, rather than "demonstrates."	Accepted
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	48	11	48	17	-	-	-	Instead of emphasizing over and over again that ¿many of the issues related to RE development are the same for developed and developing countries¿, it would be necessary to demonstrate the differences between regions! In regions of the south with high potential for solar power, things are totally different compared countries in the north!	part of improved DC discussion
Kristin Seyboth (IPCC WG III TSU)	11	48	12	-	-	-	-	-	of long-term targets' - specific long-term targets (e.g. X amount of PV installed by 2000) in Sunshine projects were not mentioned above in text - only the drivers for those policies. Without specifically introducing long-term targets above, it is not possible to claim that case study shows the need for long-term targets.	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	48	17	-	18	-	-	-	This phrase could be dropped.	will consider as we revise.
Karen Pittel (ETH Zurich)	11	48	-	49	-	11.5.3	-	-	Move this subsection to the end of 11.5? Logic: Deal first with issues that are general to all countries (developed and developing) and then with those specific to a subset of countries.	will consider as we revise.
Lori Bird (National Renewable Energy Laboratory)	11	48	16	49	9	11.5.3	-	-	The intro text to this section is awkward and confusing.	Accepted
Canada (Environment Canada)	11	48	-	-	-	11.5.3	-	-	This section is hard to understand and could benefit from editing, especially from line 1 to 10 of p. 51 and lines 6-7 of p. 53.	Accepted
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	48	7	-	-	Box 11.4	-	-	¿At the retail rate¿ is not correct. For example, in the case of residential customers, the guaranteed price is about twice as high as the retail rate.	Accepted
Peter Johnston (Environmental & Energy Consultants, Ltd)	11	49	10	-	-	-	-	-	"Off-grid and rural" seems to actually be "Mini-grid, off-grid and rural"	will consider as we revise.
Seth Dunn (GE)	11	49	1	-	9	-	-	-	Can shorten to one sentence indicating that the section is case study-focused.	The final draft of the SRREN will be processed by a professional copy-editor. All editorial comments such as this will be resolved at that time.
United States (U.S. Department of State)	11	49	30	49	34	-	-	-	Either delete these two sentences or separate into new paragraph and explain why they were successful without government policies.	will consider as we revise.
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	49	23	-	-	-	-	-	It could be included the arid and semi-arid regions	will consider as we revise.
Canada (Environment Canada)	11	49	1	49	7	-	-	-	Paragraph lacks an introductory sentence.	The final draft of the SRREN will be processed by a professional copy-editor. All editorial comments such as this will be resolved at that time.
Volkmar Lauber (University of Salzburg)	11	49	18	-	-	-	-	-	the word renewable is not in the right place	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	49	5	-	7	-	-	-	This phrase could be dropped.	The final draft of the SRREN will be processed by a professional copy-editor. All editorial comments such as this will be resolved at that time.
Karen Pittel (ETH Zurich)	11	49	10	49	10	11.5.3.1	-	-	Title of this subsection basically identical to title of 11.5.3. Either change to ""General issues"" (or something similar in contrast to 11.5.3.2 ""Successful examples"") or abolish this subsection.	will consider as we revise.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Karen Pittel (ETH Zurich)	11	49	-	-	-	11.5.3.2	-	-	Integrate this subsection into the following subsections in which also (sometimes the same) successful examples are given.	will consider as we revise.
Peter Johnston (Environmental & Energy Consultants, Ltd)	11	50	17	-	-	-	-	-	As above in comment 30.	This is comment 30 - not sure what this comment is referring to.
United States (U.S. Department of State)	11	50	20	50	22	-	-	-	Delete "Even demand...availability (see Box 11.15)." This statement is unsupported, probably untrue, and offensive -- why would illiterate people be less able to understand the benefits of RE?	Accepted
United States (U.S. Department of State)	11	50	16	-	-	-	-	-	Explain why results were mixed? what were the mixed results and why did they occur that way?	will try to address as we revise.
Youba SOKONA (Sahara and Sahel Observatory)	11	50	20	50	22	-	-	-	I do nit understand why illetrate people can not realize the advantage of RE. Lease explain as this is in contradiction of evidences in the field. There is no box 11.15 but 11.5	Accepted
Gustavo Nadal (Fundacion Bariloche)	11	50	3	50	12	-	-	-	This refers to PERMER program. Actually Permer, for the residential sector, was quite successful in Jujuy province but not so much elsewhere. The main problem was that the dispersed market was not interesting to electricity distribution companies due to low population density, geographical access, and low payment capacity. Thus, in other provinces the funds were mainly devoted to public services installations (schools, sanitary posts, etc.). Maintenace of the systems is still a very weak area, with many systems failing due to lack of battery replacement and misuse.	will consider as we revise section.
Volkmar Lauber (University of Salzburg)	11	50	17	-	-	-	-	-	why is ¿enabling¿ added in the title?	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	50	17	51	9	11.5.3.3	-	-	This section needs work. It is confusing and not well written. It needs clarification.	part of re-editing and discussion
Canada (Environment Canada)	11	50	-	-	-	-	-	11.3	Instead of % of GDP (which is current empty in Table), suggest that it would be easier and more informative to show the number of units installed in the select countries.	will do if possible
United States (U.S. Department of State)	11	51	11	-	-	-	-	-	Box 11.5: This can be shortened without changing meaning or impact.	will address if keep
Youba SOKONA (Sahara and Sahel Observatory)	11	51	11	52	13	-	-	-	Could you please explicit what have been the key drivers of the Kenyan case? What policy options?	will address if keep
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	51	6	-	-	-	-	-	DBCCA's GET FiT Program (Global Energy Transfer Feed-in Tariffs for Developing Countries) lays out how renewable energy access for the developing world can be achieved with the help of enabling policies that could help overcome financing barriers to acheive this goal. For further information on this concept and program, see SRREN_Draft2_Review_Fulton_Mark_Material_04.pdf.	Accepted
United States (U.S. Department of State)	11	51	33	-	-	-	-	-	Shouldn¿t this refer to the ¿set of studies¿ therefore plural?	will address if keep
Volkmar Lauber (University of Salzburg)	11	51	2	-	-	-	-	-	subsidy instead of sunsidy	Accepted
Volkmar Lauber (University of Salzburg)	11	52	8	-	13	-	-	-	again ¿enabling environment¿ is pushed in this example; better is to conclude with what the case study illustrates: the important role of quality surveillance, and how it has been addressed by a particular coalition in Kenia.	will address if keep
United States (U.S. Department of State)	11	52	20	52	24	-	-	-	Delete:" Risk is...private sector (Stern, 2009)."	will check source and address as we revise.
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	52	30	52	30	-	-	-	in addition to provision of finance to cover incremental costs, international support can also provide risk guarantees faciliatate access to (private) finance / reduce financing costs. (see example of ""Concentrated solar power in South Africa"", Kate Grant, CLIMATE POLICY 9 (2009) 544¿552	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	52	20	52	21	-	-	-	risk is a critical obstacle to the flow of future revenue streams"" ... Suppose this should read ""risk to the flow of future revenue streams is an obstacle ... For financing ""	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	52	8	-	-	-	-	-	This phrase needs the provision of evidences. It is not pretty obvious that social, cultural law and institutional dimensions exist in this case.	will address if keep
United States (U.S. Department of State)	11	53	43	-	-	-	-	-	"Junfeng" is the given name. You should replace it with Li, the surname.	Accepted
United States (U.S. Department of State)	11	53	27	-	-	-	-	-	Again, "Jingming" is a given name. You should have Li (the surname) in place of it.	Accepted
Emmanuel Branche (Electricité de France)	11	53	-	-	-	-	-	-	Box 11.6 - Please provide more information on hydro development program in China (by far the largest RE development program in China)	will consider as we revise
United States (U.S. Department of State)	11	53	11	-	-	-	-	-	The reference to "Ruoshui" is a given name, not a family name. The W. in the appendix refers to Ruoshui WANG.	Accepted
United States (U.S. Department of State)	11	54	41	-	-	-	-	-	64.6 "million"?	Sorry the exact figure is 54.6 million Euros so the word million is missing.
Volkmar Lauber (University of Salzburg)	11	54	13	-	-	-	-	-	as in table 11.1 discuss first quota driven instruments (or adapt table 11.1 for the same order)	will work to make consistent
Canada (Environment Canada)	11	54	41	54	41	-	-	-	Box 11.7: Possible error - total subsidies were only $64.60?	Sorry the exact figure is 54.6 million Euros so the word million is missing.
United States (U.S. Department of State)	11	54	32	-	-	-	-	-	Box 11.7: shouldn't cast Spain as an example of best practices. It would be a useful example of a policy experience that wasn't entirely positive -- would add some welcome balance to the case studies.	In fact we don't say is a best practice example but a clear one of learning by doing so learning from right and wrong decisions.
Seth Dunn (GE)	11	54	32	56	16	-	-	-	Box should be shortened.	will attempt to do as we revise
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	54	-	58	-	-	-	-	In this section FIT are described as very effective for the rapid development of RE. Spain and Germany are once again celebrated as good examples. And once again nothing is said about the economic and ecological consequences of the FIT-policy: Distributional consequences/ the redundancy of the RE-subsidies due to the EU emission trading/ the distortion of the investment decisions/ the waste of resources by FIT ensuring high subsidies without CO2 reduction, and so on.	This will be addressed.
United States (U.S. Department of State)	11	54	4	-	-	-	-	-	The latest REN21 report (just published) says at least 83 countries have policies in place.	Accepted
Volkmar Lauber (University of Salzburg)	11	54	41	-	-	-	-	-	the meaning of the 64.6 USD is unclear (some unit missing? e.g. Per Mwh?)	Sorry the exact figure is 54.6 million Euros so the word million is missing.
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	54	13	-	-	-	-	-	This section needs to be updated to reflect the significant recent FiT changes. A list of these changes can be found in DBCCA's ""FiTs Adjust while Delivering Scale in 2010"" Research Note. See SRREN_Draft2_Review_Fulton_Mark_Material_07.pdf.	Accepted
Volkmar Lauber (University of Salzburg)	11	54	6	54	11	-	-	-	use consistent terminology for quota and price driven instruments and bring ¿access issues¿ upfront of this section	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	54	41	-	-	11.5.4	-	-	Is this 64 million? It couldn't be $64.	Sorry the exact figure is 54.6 million Euros so the word million is missing.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	54	32	55	26	Box 11.7	-	-	Update the Spanish case study to include information on the possible retroactive cuts of their solar FiTs, which has been extremely controversial in recent months and could have a tremendously negative effect on the solar market. In essence, Spain is now seen as a problematic area. A description of Spain as a case study and their recent FiT proposal can be found in DBCCA's ""Paying for Renewable Energy - TLC at the Right price"" and ""FiTs Adjust while Delivering Scale in 2010"" reports. See SRREN_Draft2_Review_Fulton_Mark_Material_05.pdf, page 41 and SRREN_Draft2_Review_Fulton_Mark_Material_07.pdf, page 7.	As mentioned Retroactive cuts are "possible" so are not in place in consecuence there is not any empirical experience so not peer review literature.
Seth Dunn (GE)	11	55	13	-	-	-	-	-	The 2,480 MW do not align with the chart (2705).	Both are wrong the real final figure of new installed capacity in 2008 for PV was 2,693 MW
United States (U.S. Department of State)	11	55	14	-	-	-	-	-	What was the unexpected cost to the government from the "mad rush" to qualify for the expiring subsidies?	There is not any peer review on this and, depending on how we approach this circumstance, we can arrive at different conclusions. One possibility is to calculate the difference between the planned/expected capacity and the real stalled capacity (2,693-25.5 = 2,667.5 MW), considered an average of generation hours in a year (1,852 hours) and consider the extra cost will be the generation of this extra capacity multiplied by the difference of the price pay to PV (and this varies depending of the capacity of the project, lets said 32 €/MWh, since most of them are PV farms) less the average electricity price during the day (5.5 €/MWh roughly estimated). The results is 131 M€/yearly.
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	55	13	-	-	-	11.8	-	Annual installed capacity in 2008 of the figure is different from that described in page 55 line 13.	Both are wrong the real final figure of new installed capacity in 2008 for PV was 2,693 MW
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	56	12	-	-	-	-	-	A phrase on recent developments (reach the cap, possible renegotiation on the contracts due to the economic crisis) should be included.	Recent development is the september 2008 regulation clearly explained. There is not any renegotiation of contracts or any special action motivated for the financial crisis.
Seth Dunn (GE)	11	56	18	60	2	-	-	-	Box should be shortened.	will attempt as we revise
United States (U.S. Department of State)	11	56	13	56	16	-	-	-	Overly broad conclusions from a single case study.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Volkmar Lauber (University of Salzburg)	11	56	13	-	16	-	-	-	The lessons do not match the described case information: lesson 1 on the combination of support schemes may be OK but not verifiable from the info provided; the next lessons are also not evident from the 2008-boom and 2009-crash ¿ it seems they are expected to be proven by the new regulations in the future (the stable volumes in the years 2010-2014), but one cannot derive lessons from expectations. The main lessons I would derive from the numbers up to 2009 are: 1) the ROI (rate-of-return) for PV investors is a very powerful factor to create a PV boost; 2) that ROI should be ¿appropriate¿ (and well regulated) to avoid bullish/bearish volatility and compensation rates that are widely considered as iniquitous, thus delegitimating the regulation at stake; 3) ¿enabling environments¿ are less influential than ROIs	Lesson one is in the second paragraph combination of support schemes; the second lessons related with ambitious long term targets we can blame that the boom was because target was short in time and quantity and the promoters run before tha targte is reach. It is a very good idea in the third lesson learned to include the concept of ROI. Find proposal for a text: ; and transitional incentives that decrease over time maintaining the internal rate of return of the project at similar rates can foster technological innovation and control the total costs.
Steve Sawyer (Global Wind Energy Council)	11	56	19	57	41	BOX 11.8	-	-	Can we have a breakdown of the 1300 MW on line and the 4100 MW pipeline by technology?	will do if possible
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	58	7	58	9	-	-	-	It is important to differentiate between countries with vintaged feed-in tarriffs (e.g. Germany) and countries that have one tariffs that covers existing and new plants (Spain). The vintaged approach increases regulatory certainty and reduces financing costs for investors while it creates the flexibility for gov to adjust tariffs over time for new projects. This makes it (in my understanding) preferable to the Spanish approach.	Accepted
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	58	19	-	-	-	-	-	Misses idea of degression and grid parity as a best practice, as laid out in DBCCA's ""Paying for Renewable Energy - TLC at the Right price"" report. See SRREN_Draft2_Review_Fulton_Mark_Material_05.pdf, page 18.	Accepted
Australia (0)	11	58	35	58	36	-	-	-	The reference to 'Mandatory Renewable Energy Target in Australia' should be changed to 'Renewable Energy Target in Australia'.	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	58	3	58	7	-	-	-	The volume of power feed in to the system in future years depends on grid expansion and government policy on power market design - and is therefore outside of the control of the project investor. Exposing the project investor to these risks would increase financing costs but do little to improve project performance. The suggestion in the current paragraph would increase regulatory risk and thus financing costs resulting in higher costs for consumers. (possible reference Johnston, A., Kavali, A. and Neuhoff, K., 2008, Take or Pay Contracts for Renewables Deployment, Energy Policy: 36 (7): 2481-2503.)	Accepted
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	58	3	58	4	-	-	-	This sentence is misleading; please clarify. The notion that FiTs do not support interconnection to the grid is incorrect; for example, the European Directive 2001/77/EC guarantees interconnection within the EU -- which comprises many of the world's FiTs. On the other hand, if this sentence pertains to the idea of power generated versus consumed onsite and not necessarily fed into the grid -- note that there are only a few feed-in tariffs that have provisions for onsite generation but then they typically have provisions for what is fed into the grid as well - so that doesn't qualify as "most FiT systems."	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	58	-	62	-	11.5.4	-	-	This section is much improved from the earlier draft. It is more balanced and much more helpful. The case study on Spain is good.	Accepted
Steve Sawyer (Global Wind Energy Council)	11	58	32	59	-	11.5.4.1	-	-	...As the IPCC report only mentions that these targets can be linked to a tradable system of credits, but that the presence of such trading system is not a requirement for the definition of a "quota", it should list the fact that at least 46 countries have a binding target and at least 85 countries have some kind of a quota target in place.	this will be discussed elsewhere in the chapter where we will cover targets.
Steve Sawyer (Global Wind Energy Council)	11	58	23	58	24	11.5.4.1	-	-	Add "change in availability of resource" at the end.	will consider as we revise text
Steve Sawyer (Global Wind Energy Council)	11	58	23	58	24	11.5.4.1	-	-	It is important to note here that adjustment of tariffs should only be used for new projects (reflecting changes in technology and investment per capacity unit). Changes of tariffs for existing projects would significantly increase risk for the investors or owners of these projects as they will not benefit from new technologies with the eqiupment already installed.	Accepted
Karen Pittel (ETH Zurich)	11	58	33	60	13	11.5.4.1	-	-	Parallel to the presentation of FIT, the presentation of quotas should include a detailed example of a quota obligation in a seperate box.	we will try to find a CA to contribute such a box.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Steve Sawyer (Global Wind Energy Council)	11	58	32	59	-	11.5.4.1	-	-	referencing (REN21, 2009c), the report starts 9 countries have renewable standards. However REN defines a renewable standard as legally enforcable regulation in place for utilities. This is a narrow definition, and several coutnries have mandatory targets for renewable energy applied at the national level, including all countries in the European Union, which should be included. AWEA counts at least 37 countries with mandatory renewable targets at hte national level. If one relaxes the REN definition to include national targets, the REN21 2010 report names 85 countries (p35) with renewable energy targets, most of them include electricity shares.	this will be discussed elsewhere in the chapter where we will cover targets.
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	59	7	-	-	-	-	-	Explanations of FITs with tradable certificate systems are required.	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	59	17	59	21	-	-	-	For consistency purposes - if this is the definition of a TGC, then UK support system does not qualify any more as TGC due to price caps. This should be made explicit in the appropriate sections of the text.	Accepted
United States (U.S. Department of State)	11	59	7	-	-	-	-	-	How can FITs be "linked to tradable systems" - this doesn't seem to make sense, because the point of tradable systems is to allow the market to set the price (hence the advantage of trading between parties with different marginal costs). The FIT is a price-defined instrument - I cannot see how it can be a part of a "tradable system" in the sense that the policy itself would need to be concerned about "allowing" trades (specifically beyond any normal contractual arrangement in the economy). This reference should be explained, or the sentence should be revised to say: "Quotas can be implemented via tradable credit systems: for example,..." etc.	Accepted
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	59	36	-	-	-	-	-	In the U.K., the buy-out system is adopted; thus targets are not achieved per se. In Sweden, although forecasts of new renewable electricity have not been achieved since 2006, quota obligations have almost been met. I recommend referring to the difference between quota systems and clarifying the meaning of ¿target¿ here.	We are working with a new CA to provide case study on Sweden's experience.
Volkmar Lauber (University of Salzburg)	11	59	7	-	-	-	-	-	It is not self-evident that FITs can be linked to tradable systems if these also encompass quota systems. This was the point discussed and rejected by the EU institutions in 2008-2009 (Fouquet and Johannson, 2008)	Accepted
Volkmar Lauber (University of Salzburg)	11	59	19	-	-	-	-	-	must sufficiently exceed the expected market price of TGC"" - to achieve what goal? To become fully effective? If so, is the UK RO deficient in this respect? Please specify/illustrate	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	59	5	59	6	-	-	-	not clear what the last sentence is supposed to add ""elsewhre, for example texas, reneawble electricity may be bought through a bidding process""	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	59	7	59	7	-	-	-	quota's and FITs can be linked to tradable system"" ... Not sure what this is supposed to argue for. Perhaps both are compatible with the idea of electricity trading/liberalised markets. In the case of feed-in the experience under UK NFFO (contracts signed with renewables) illustrates how the energy created under these contracts can be auctioned by the NFFO purchasing agency. THis could equally be pursued with energy acquired through feed-in tariff based systems.	Accepted
Australia (0)	11	59	31	59	33	-	-	-	The Australian Renewable Energy Target scheme could be used as an example of a tradeable certificate scheme with high compliance levels. According to the Office of the Renewable Energy Regulator that administers the scheme, compliance with the RET scheme through surrender of RECs was 99.81 per cent for the 2008 compliance year.	Good suggestion. Will consider and work to find peer-reviewed literature on this issues as we revise section.
Seth Dunn (GE)	11	59	3	-	6	-	-	-	This is misleading. The quotas typically (and in the case of both the UK and Texas, mentioned here) are imposed on electricity suppliers as a proportion of their sales. The suppliers can generally meet these quotas in three ways: generate the electricity, purchase the electricity, or purchase a renewable energy credit or certificate.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	59	19	59	21	-	-	-	This is not accurate. If a policy in the power sector has an actual "penalty" associated with it, regulated utilities are not permitted to pass these costs on to electricity customers. However, many quota policies include "alternative compliance payments" which are not penalties but instead act as a price ceiling on tradable credits (the government will effectively sell an unlimited number of these credits at that price, although they do not reflect real RE generation). Those payments can be passed on to customers, because they do not reflect "violations" of the policy or "penalties" assessed on noncomplying parties. I think this sentence should be revised to say: "Aside from actual penalties for noncompliance, the expenses incurred by obligated parties to fulfill quotas - whether from direct RE generation, credits reflecting others' RE generation, or "buy-outs" of their obligation - are passed on in the standard electricity prices paid by customers (Mitchell, 2008)."	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	59	40	-	41	11.5.4.1	-	-	Not clear if this is still referencing the U.K. experience or not. I think it may be more balanced to also point out that obligations have been met early in a number of cases too and in the U.S. a number of states have increased their targets. Texas met its obligations well in advance as has Colorado.	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	59	1	-	6	11.5.4.1	-	-	This discussion of quotas is not exactly accurate based on the U.S. experience. In the U.S. quota obligations are placed on the electricity supplier (utility or other load serving entity), not the generator. Even in Texas, the obligation is on the load serving entity, no matter how they procure the renewable energy. I think this section needs more clarification on how procurement is done to meet quota obligations. In the U.S., although REC trading is often allowed, most contracts for renewables are done through long term power purchase agreements by the utilities. In some cases, states have required load serving entities to enter into long term contracts for renewables to ensure that projects can be financed and built.	this section of yellow dentes the tension between FITs and quotas and of us leading /esouusing - effectively 2 very different views and i think one can come to concs but are those concs leading/espousing
Seth Dunn (GE)	11	60	39	61	7	-	-	-	As further illustration of point 35, this short paragraph on the positives of quotas ignores the most attractive one: that it provides certainty about the quantity of renewables deployed.	we note your point. Will incorporate it into the discussion, but just because there is a mandate/quota doesn't meet it will be met (e.g, UK).
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	60	23	60	29	-	-	-	Contradicts Page 37, Line 34	Accepted
Canada (Environment Canada)	11	60	23	-	29	-	-	-	First sentence in this paragraph seems self-evident: FITs that are well designed and implemented are efficient and effective. Suggest sentence could be deleted.	will consider as we revise.
Seth Dunn (GE)	11	60	14	62	28	-	-	-	I mentioned this in the FAR review, but this section still strikes me as a Europe-centric literature review arguing that the FIT is the best policy and the RPS is fatally flawed. In light of the relative youth of quotas and the recent growing pains experienced with FITs, this strikes me as both unwise and counter to the "one size fits all" philosophy laid out elsewhere in the chapter. This section could do more to lay out the pros and cons of each in a more objective (and perhaps more concise) fashion.	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	60	1	60	3	-	-	-	I still have not seen an explicit discussion of a successful quota system. I would challange the authors to identify one such system and to quantify that the financial benefit provided by the scheme was (i) material for the success of the deployment scheme [this excludes most US programs, where PTC and high gas prices combined with good wind resources were main drivers] while they were not excessive [this excludes the UK which arguable has found the most expensive way of subsidising renewable energy] ... for the feed-in tarrif scheme the German example was listed as explicit example. If the authors wish to maintain that TGC are equally effective in specific circumstances, then at least one or two should be explicitly described [perhaps a bit more quantification, also in later text box for US wind experience]	will consider as we revise.
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	60	14	-	-	-	-	-	More explanations of RPSs with banding and Capped FITs are required in this subsection. Although RPSs and FITS are different intrinsically, those instruments with some options have similar characteristics.	Accepted
Volkmar Lauber (University of Salzburg)	11	60	1	-	13	-	-	-	The evaluation of the quota/TGC systems are based on (peer reviewed?) literature up to 2005. There has been peer reviewed literature after that date based on detailed data and calculations of some systems that started from 2002 onwards and that could not be analyzed well by 2005 publications (Flanders by Verbruggen, 2009, Energy Policy 37, 1385-1394; Sweden by Bergek and Jacobsson, 2010, Energy Policy 38, 1255-1271). The first bullet (line 4, p.60) is unclear, but when 'large segment of the market' means many different RE technologies the later studies conclude the reverse. The other bullets are less crucial and often internally conflicting, for example ¿establish minimum certificate prices¿ and ¿technology-specific investment subsidies¿ are conflicting with proper market functioning.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Frank Krysiak (University of Basel)	11	60	15	61	41	-	-	-	This discussion of FITs vs quotas misses some potentially important points. First, quota systems have the advantage that they are much more easily integrable in a framework where governments have agreed to quantity targets (as in the Kyoto Protocoll or the EU's 20-20-20 target). If there is uncertainty or asymmetric information, it is difficult to design a price-based instrument (like a FIT) to meet a given quantity target and trial-and-error type adjustments of FITs take time and induce substantial uncertainty. Second, as shown in Weitzman (1974), these instruments can induce different social costs, if there is uncertainty. Finally, they are likely to induce different innovation incentives (see Requate, 2005, Ecological Economics for an overview), different technology diffusion (Requate and Unold, 2003, European Economic Review), and different types of technological progress (Perino, 2008, Environmental & Resource Economics; Krysiak, 2008, Journal of Public Economics).	Accepted
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	60	14	-	-	-	-	-	This is complimentary to ""TLC at the Right Price. See SRREN_Draft2_Review_Fulton_Mark_Material_05.pdf.	Accepted
United States (U.S. Department of State)	11	60	25	60	27	-	-	-	This is the first time in Chapter 11 that "efficient" and "effective" have been defined as parameters for assessing policy success. There are multiple uses of those terms throughout earlier parts of Chapter 11 that leave the reader wondering "how do I know whether a policy is efficient or effective?" These definitions found here need to be put forward immediately at the beginning of Chapter 11, as well as in the chapter's Executive Summary.	will lay out and define criteria in 11.1
Lori Bird (National Renewable Energy Laboratory)	11	60	14	62	28	11.5.4.1	-	-	Missing in this discussion of the comparison between FITs and Quotas is how the renewable energy is procured under each system - this is a large determinant of the cost of each. In the U.S., most utilities use competitive solicitations (RFPs or tenders) to procure renewables to meet quotas. The text seems to imply that they rely exclusively on procuring certificates from the spot market, which is not at all true. Spot market transactions make up a small fraction of transactions in the U.S. Arguably, long term contracting through competitive solicitations RFPs should lead to competitive pricing, which may in fact yield more competitive pricing that FITs. Also, there is no mention of the fact that FITs can result in overpayment or high returns for developers if development prices fall faster than the FIT is adjusted. There may not be academic literature on it yet, but it is common knowledge that Germany paid steady FIT prices during 2009, when PV prices fell 40-50%, therefore they arguably overpaid by that amount and installed record amounts of PV during that period. This is not acknowledged in the text at all, in fact the text only says that FITs are more cost competitive than quotas, but this is a skewed finding, based on the German and Spanish experiences. I think that should be softened, even though I'm aware that there are citable studies on it.	Accepted
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	61	25	-	-	-	-	-	In addition to quota and tendering systems, capped FITs also have a stop-and-go nature depending on cap levels.	Accepted
Canada (Environment Canada)	11	61	5	61	7	-	-	-	Last sentence is unclear.	Accepted
Seth Dunn (GE)	11	61	24	-	25	-	-	-	One can argue that FITs are just as subject to volatility and uncertainty (witness the caps and accelerated reductions in Spain, Germany, and other European countries).	point taken
Volkmar Lauber (University of Salzburg)	11	61	8	-	26	-	-	-	Risk-subheading: better to discuss under the main criteria headings (effectiveness, efficiency, equity); lines 19-26 are not very clear, e.g. What volume risk means when quota are enforced, etc.	Accepted
Volkmar Lauber (University of Salzburg)	11	61	27	-	41	-	-	-	Technological diversity is a crucial factor of ¿dynamic effectiveness and efficiency¿ as discussed by Verbruggen (2009) , Verbruggen and Lauber (2009) and Bergek and Jacobsson (2010); see also papers by Jacobsson since 2000 on this issue. This point also should be much clearer in the evaluation/comparison of quota and FIT, but also under the headings of the main criteria.	add to debate about cost and criteria for effectiveness
Volkmar Lauber (University of Salzburg)	11	61	3	-	-	-	-	-	that ¿quotas enable an annual maximum cost calculation, useful for those policy-makers which wish to know the total annual cost of the mechanism (Mitchell and Connor, 2004)¿ is wrong, except when the quota instrument becomes a caricature of the market (if always the price = the penalty; in this case the instrument has become a conventional TAX instrument; otherwise ¿ i.e. When the instrument functions properly ¿ the price is uncertain -and probably more -than than ¿ quantity is uncertain in price driven (FIT) instruments). The statement also contradicts with text on the same page (line 20) where ¿price risk¿ is discussed. Quotas only give information about maximum capacity that will be added during a given period, not whether this capacity will be added in fact nor what remuneration will amount to.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	61	19	61	26	-	-	-	the arguable most relevant risk category is regulatory risk - the uncertainty about (i) continuity and future design of the TGC (including target level, qualifying technologies and where appropriate, banding factors), future grid expansion (determining network constraints that in term can influence volume and price of sold energy and are largely dependent on regulatory choices on grid investment and planning permits for realisation of grid projects), and power market design (balancing markets, see UK experience with introduction of NETA, congestion management - which will have to change over time, but unclear how and whether FTRs will be allocated). Feed in tarrifs can cover these regulatory risks and thus facilitate access to low cost financen (possible reference Johnston, A., Kavali, A. and Neuhoff, K., 2008, Take or Pay Contracts for Renewables Deployment, Energy Policy: 36 (7): 2481-2503.)	Accepted
United States (U.S. Department of State)	11	61	3	61	7	-	-	-	There is no reason to believe that quotas offer policy-makers an easier way to estimate annual policy cost than FITs. For example, to project the cost of a quota in a given year, a person would need to estimate the shortfall of the business-as-usual system toward that quota and then calculate the cost of the additional RE supply to meet that quota. To estimate the cost of an FIT in any given year, a person would have to estimate how much qualifying generation would occur in that year, especially once I've introduced the incentive payment of the FIT into the system. Both policies (quotas and FITs) perturb the system and require economic modeling to estimate policy cost. There is no inherent advantage to knowing the "maximum cost" of either one, unless the total FIT expenditure is capped or unless the quota has a price ceiling in place - but even then, you'd still have to estimate the shortfall of the system to the quota target. It's actually easier to know the maximum cost of a capped FIT than any kind of quota. This sentence should be deleted. The next sentence should also be deleted - it simply defines quota obligations and then asserts that these features give policy-makers "short-term flexibility," although this concept is not explained or supported.	Accepted
Seth Dunn (GE)	11	61	28	-	41	-	-	-	This paragraph portrays quotas as requiring credit multipliers or set-asides to encourage more technological diversity (e.g. higher-cost RE). But the same is true for FITs, whose levels are higher for biomass and offshore wind than for onshore wind. It is therefore disingenuous to suggest that quotas are inherently less supportive of technological diversity than FITs; isn't the point that both must be tweaked to support higher-cost RE? (These comments come from the perspective of a company that is neither a FIT proponent nor a quota proponent, but instead focuses more on the important design criteria of each--recognizing that both are likely to remain widely used.)	point taken
United States (U.S. Department of State)	11	61	26	-	-	-	-	-	What does "low-bid" mean? Why may they not be implemented?	Accepted
Karen Pittel (ETH Zurich)	11	61	-	62	-	11.5.4.1	-	-	When discussing specific determinants of why FIT and quotas might or might not be successful, one might want to come back to the different aspects discussed in 11.4 about the barriers to RE policies.	Accepted
Volkmar Lauber (University of Salzburg)	11	62	14	-	-	-	-	-	¿Many analysts argue that ...¿ there are also some (Verbruggen, 2009; Bergek and Jacobsson, 2010) that show it on the basis of detailed data analysis.	Accepted
Volkmar Lauber (University of Salzburg)	11	62	1	-	-	-	-	-	¿Participation and social equity¿ is better replaced by the name of the 3rd main criterion ¿Equity¿ (preceded by the other two ¿Effectiveness¿ and ¿Efficiency¿ as suggested in other comments); participation is part of the equity criterion, but also of the effectiveness and efficiency criteria	will consider as we revise.
Seth Dunn (GE)	11	62	1	-	28	-	-	-	A counterargument here would be that FITs exclude utilities from participation and that, by encouraging some level of direct RE ownership by utilities, quotas can encourage large-scale RE deployment.	Point noted. But some FITs exclude utilities but not all (e.g., UK)
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	62	25	62	27	-	-	-	Contradicts Page 37	Accepted
Seth Dunn (GE)	11	62	14	-	15	-	-	-	I don't see how a quota allows incumbents to "introduce RE at their own pace" when they impose mandatory requirements and penalties for non-compliance.	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	62	30	62	40	-	-	-	I would recommend to seperately discuss priority access and net metering. (i) priority dispatch might well be replaced by two-part feed-in tariffs (ensuring revenue stability/limiting regulatory risk) while faciliting large scale grid connection (ii) net-metering has two aspects - remuneration and priority grid access, that might be seperately adjusted in the US schemes	ask reviewer for literature.
United States (U.S. Department of State)	11	62	1	-	-	-	-	-	Participation and Social Equity: could be shortened. The chapter in general would benefit from a list of policy characteristics that governments may want -- including participation and social equity as well as efficiency and efficacy -- laid out at the beginning.	we will do this in 11.1.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Volkmar Lauber (University of Salzburg)	11	62	29	-	-	-	-	-	that subsection should come upfront in this section 11.5.4 and be titled as done in table 11.1 (¿Access issues¿). The remuneration side of net-metered electricity is better discussed under FIT.	will consider as we revise.
United States (U.S. Department of State)	11	62	21	62	28	-	-	-	This section is unclear. "Acquisition of the subsidy for domestic renewable energy technologies is by the wealthier" - what does this mean? What acquisition? Who is "the wealthier?" Also: "The absence of excess profits makes it easier..." - What profits? Absence from where? Finally, TGC systems show higher profits - than what? Than FIT systems?	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	62	16	-	18	11.5.4.1	-	-	Evidence to the contrary exists regarding the transaction and administrative costs of quotas vs. FITs. I think this is overstated to say that FITs have lower costs, based on this one reference from 2006. The latter point about market entrants seems valid, perhaps particularly for smaller scale systems.	get references from reviewer
Lori Bird (National Renewable Energy Laboratory)	11	62	25	-	28	11.5.4.1	-	-	Seems fine to cite this information about the risk leading to higher returns, which may deserve more description. However, I think it is also useful to balance this out with discussion of how FITs could lead to overpayment if they do not keep up with changes in technology costs, as has been the case with the PV market recently.	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	62	29	63	10	11.5.4.1	-	-	This section is entirely about net metering so should be labeled as such. The other important point about net metering is that it enables a consumer to net out his/her electricity usage by applying the solar energy to demand when the solar is not operating, enabling them to be essentially net zero. Perhaps this is a subtle point, but seems important.	Accepted
United States (U.S. Department of State)	11	63	15	-	-	-	-	-	BACKGROUND: The role of private insurance, the worlds largest industry (see suggested text below) is not mentioned at all in this chapter beyond the Figure 11.6 and here. It is unclear whether this suggested edit best fits here or closer to Figure 11.6. SUGGESTION: The insurance industry, the largest in the world, increasingly is playing the role of a direct investor in specific RE projects and RE companies. Mills (2009). End note should read: Evan Mills, From Risk to Opportunity: Insurer Responses to Climate Change, Ceres, Evan Mills, PhD, April 2009 (http://www.ceres.org/Page.aspx?pid=1065). Where insurance is required and is not available at any price, project financing costs will rise, since insurance is not available to offset the project's financial risk. NOTE: There is no readily available cite for the last sentence, though it is widely understood to be true.	will add if we can find relevant literature.
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	63	32	63	38	-	-	-	If the ultimate objective is to facilitate private sector finance for debt and equity of these projects, then two aspects will be important (i) private sector finance to get used to sector, country, technology, e.g. learning (ii) level of risk/return ratio that is attractive. The role of this supply side approach (fund of funds, or dirct investment of government in funds thaus taking risk from finance, rather than reducing risk for projects) can help to get private finance involved. But if you look at the realisation, then private sector contributors are not really involved in the operatino of such funds,but mainly provide capital. Thus the learning experience will be limited and should certainly be complemented (as discussed in subsequent paragraphs) with the idea of providing initial credit lines and technical assistence to local banks to facilitate local access to finance which also reduces regulatory risk. The supply side appraoch does not create any incentives for domestic policy makers to reduce regulatory risk, in fact it can create the false impression that there is an appropriate risk/return ratio, as (subsidies) finance is available. Hence I think the funds of funds idea should only play a very minor role and scarce public resources / ability to bear risk can be more effective if directly linked to national policy frameworks (e.g. providing sovereign risk guarantees for (parts of) feed-in tarrifs.) ...	ask reviewer for literature and copy EPU.
Frank Krysiak (University of Basel)	11	63	2	63	4	-	-	-	Is this really bad? From an efficiency point of view, this is what should happen.	Accepted
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	63	11	-	-	-	-	-	Need to mention the UK Green Bank idea	will consider as we revise.
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	63	24	63	29	-	-	-	Particularly in the context of developing countries (but also of new technologies in developed countries) one of the main objectives should be to overcome the barriers for finance (missing experience of the finance sector and covering regulatory risk) [perhaps UNEP solar program might provide suitable example]	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	63	11	63	23	11.5.4.2	-	-	Some of this has been said earlier.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	65	21	-	-	-	-	-	Although the box is titled "policy experience," there is little discussion of the policymaking process -- it's mostly facts about wind growth. Should emphasize policy mechanisms.	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	65	6	65	19	-	-	-	as far as I understand this scheme is currently criticised by banks that are reluctant to refinance houses covered by the scheme as they do not have the first call on income (which tax, including local property tax has). Net income of households should however be higher (as expenditure on energy is lower), hence I do not think this should be along-term issue, and hope this is only a learning experience for banks, but further development in this scheme needs to be observed to avoid funny surprises prior to publicatino of report.	this issue will be addressed.
United States (U.S. Department of State)	11	65	6	-	-	-	-	-	Box 11.10: Add discussion of recent problems with PACE: PACE financing is the U.S. is now stalled for reasons due to seniority mortgage lenders not wanting to purchase loans with a PACE related loan attached. It is very important to mention this problem -- it would be helpful to readers to include both PACE's goals and its challenges. Boulder's PACE program was just suspended for residential mortgages because Fannie Mae and Freddie Mac don't want attachments to any mortgages they buy. Difficulty in prescriptive requirements for energy efficiency and solar PV, creating fighting between two industries.	this issue will be addressed.
United States (U.S. Department of State)	11	65	21	-	-	-	-	-	Box 11.11: At end of box, include conclusion. what were the policy lessons learned?	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	65	25	65	30	-	-	-	Could you check with KfW (German development bank) whether they really subsidised interest rates??? I thought they provide capital to local banks as part of the RE programs. Also, my sense was that much of the UNEP approach was focusing on creating the learning experience with ultimate objective of creating self sustaining programs (which seems to have succeeded in these specific examples) BUT I AM NOT CERTAIN ON ALL THESE POINTS AND AM SURE OTHER REVIEWERS WILL COMMENT	Accepted
Seth Dunn (GE)	11	65	28	-	-	-	-	-	The expirations occurred at the end of 1999, 2001, and 2003 (not from 2001-2005).	Accepted
United States (U.S. Department of State)	11	65	21	67	2	-	-	-	This text box is out of place compared to the other example boxes, which deal more directly with public financing. Suggest moving to a more appropriate location.	Accepted
Seth Dunn (GE)	11	65	21	67	2	-	-	-	Unclear why this box is in a section on public financing.	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	65	6	-	19	11.5.4.2	-	-	PACE is on hold in the U.S. because mortgage companies won't honor it. Might want to drop this for now or modify it.	this issue will be addressed.
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	66	15	-	-	-	-	-	Not all state RE targets are binding (many are voluntary), and there is no binding federal RE target.	Accepted
Seth Dunn (GE)	11	66	10	-	11	-	-	-	The Texas 2025 goal cited is not an RPS but a non-binding target of 10,000 MW renewables (not wind). Also, Texas is slightly under 10 GW wind as of July 2010. The more salient point is that the state reached its 2015 RPS target more than 5 years ahead of schedule.	Accepted
United States (U.S. Department of State)	11	67	2	-	-	-	-	-	¿record¿ no longer likely	Accepted
Volkmar Lauber (University of Salzburg)	11	67	1	-	-	-	-	-	At this point (August 2010) it seems more likely that 2010 added wind power capacity in the US will substantially decline	Accepted
United States (U.S. Department of State)	11	67	9	67	14	-	-	-	Delete: "Many nations...and Scandinavia." Replace "As a result...or fuels" with "and is less well understood."	will check as we revise.
United States (U.S. Department of State)	11	67	40	-	-	-	-	-	Remove the word "on" at the end of the sentence.	Accepted
Karen Pittel (ETH Zurich)	11	67	40	67	40	11.5.5	-	-	last word ""only"" instead of ""on""?	Accepted
Australia (0)	11	68	20	68	22	-	-	-	Please change 'Mandatory Renewable Energy Target' to 'Renewable Energy Target' where used.	its the name of the Australian mechanisms
Canada (Environment Canada)	11	68	9	68	9	-	-	-	Replace "Digression" with "Discretion"	The original text is what was intended.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	68	40	68	41	-	-	-	the last comment is unrelated to the topic of the paragraph	Accepted
United States (U.S. Department of State)	11	68	9	-	-	-	-	-	The term "digression" does not appear to be defined.	Accepted
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	68	8	68	28	-	-	-	This is a nice example for the total neglect of economic considerations. The economic question that should be asked is if it can be justified that the government forces people to use RES for heating. They do not make use of it without coercion because to use RES is no efficient way of heating. Thus RES cause extra costs. Imagine that these additional resources are invested in some other CO2 reduction activity. Can it be ruled out that the resulting CO2 reduction would be significantly higher? Questions like these suggest themselves, but they are not asked.	Will be addressed by CA for economics (However, we reject the point about RE heating not being economic. Regulations also address problems such as lack of knowledge/skills).
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	68	1	71	21	11.5.5.1	-	-	Here should be a (sub)section added on emission/energy performance standards for buildings (see comment no.12) and about (tradable) quota systems (see comment no.11). It could also be linked to the sub-section on standards and building regulations (page 69)	will include in 11.6 section on standards etc
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	69	8	69	13	-	-	-	It is not clear that costs are passed to the user. I think in the mid term it is more likely that they lead to a reduction of the scarcity value of land (or scarcity value of exsiting buildings prior to retrofitting) to adjust for the higher construction/retrofitting costs. This might have far more attractive distributional benefits (impact on land/house owners) than implied by the claim that costs are passed to user (they include poor households). It also explains why such schemes are observed in cities like London with high scarcity value of land/existing buildings.	There's not really enough evidence of it in play as yet. We did make some other changes to that section to bring in problems with the mechanism.
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	69	29	69	36	-	-	-	with emission reduction targets of 80-95% for OECD countries, it is not clear to me that gradual improving standards is very effective, if this implies that we continue to construct new buildings that will require costly retrofit to meet higher standards in a view years. [perhaps differentiate between technologies that allow for easy ex-post retrofit (solar pv) and technologies with difficult retrofit/expasion (ground heat)	Accepted
United States (U.S. Department of State)	11	70	13	-	-	-	-	-	Box 11.12: Add conclusion at the end of this box.	Accepted
United States (U.S. Department of State)	11	70	21	-	-	-	-	-	Define district heating system. The concept is not completely clear.	definition will be in glossary.
United States (U.S. Department of State)	11	72	22	72	26	-	-	-	Consider expanding the French example into a case study box -- it would be a useful example.	will consider expanding a bit in text.
United States (U.S. Department of State)	11	72	36	72	42	-	-	-	Move this paragraph to section 11.5.5	will consider as we revise.
Canada (Environment Canada)	11	72	5	-	-	-	-	-	Replace "CCA" with "ACCA"	Accepted
United States (U.S. Department of State)	11	72	42	-	-	-	-	-	suggest add paragraph: The attractiveness of soft loans varies with the availability of finance to prospective operators. In countries where interest rates are high, or domestic financial markets are unwilling to lend, soft loans can be very valuable. Soft loans, are most valuable to firms with highly leveraged balance sheets and poor cash flow--i.e., precisely those firms that shouldn't receive them. They are much less useful to well-financed firms. Governments are sometimes unskilled at evaluating credit risks. The Government carries risk until the loan is repaid, though it will usually have the authority to seize the project (along with other creditors) if the owner defaults. From the point-of-view of the operator, the loaned gives the government some incentive to maintain a favorable policy environment for the project at least until the loan is repaid. ---------- there is no discussion in the report of pros & cons.	Good suggestion, but need reference.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	72	26	-	-	-	-	-	Suggest adding new paragraph: "Capital grants have both advantages and disadvantages. From the point-of-view of the recipient, they are very low risk, in the sense that payment is not subject to the vicissitudes of future policy. From the point of view of payer, the cost of the grant also known, and it does not create, at least in principle, any future liabilities. A grant may help get a facility built, but does nothing to ensure that it will actually continue to operate. If the project fails, either under construction or subsequently, the grantor generally has no recourse. Grants are therefore most attractive for facilities that have significant capital costs, but relatively low operating costs. They would be more attractive, for example, for wind or photovoltaic power, and less attractive for biofuels manufacturing plants. Grantors can increase the efficiency of grants through competitive awards." ---------- there is no discussion in the report as to why governments might choose one instrument over another.	Good suggestion, but need reference. Contact reviewer (if possible) for literature.
United States (U.S. Department of State)	11	73	4	73	7	-	-	-	Delete last sentence of this paragraph and move citation to next paragraph where relevant.	will consider as we revise.
Felix Creutzig (TU Berlin)	11	73	16	74	11	-	-	-	The introduction of this section is not consistent. Perhaps it could be done as follows: Explain the difference between direct use of RE (biofuels) and indirect (intermittent storage technologies). Then shortly give the big overview on biofuels and electric car (RE) policies. However, for purposes of brevity, line 3-11 could be skippedaltogether (or transfered to subchapter where appropriate). The reference to Box 11.13 should be part of a subchapter but not of the introduction to 11.5.6. LCFS are mentioned in the first paragraph of the introduction but don't appear later. Recommended to add LCFS subchapter.	will consider as we revise.
Karen Pittel (ETH Zurich)	11	73	17	73	21	11.5.6	-	-	Short summary at the beginning of subsection does not well reflect content of subsection: ""It conludes with...""	Accepted
Felix Creutzig (TU Berlin)	11	74	14	-	15	-	-	-	Are "National Targets" and "Blend mandates" the same. Must be clarified.	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	74	16	-	-	-	-	-	Clarify which report has surveyed 27 countries: the IABD report mentioned later?	Accepted
United States (U.S. Department of State)	11	74	3	74	11	-	-	-	delete this paragraph	will consider as we revise.
United States (U.S. Department of State)	11	74	34	-	-	-	-	-	Remove "}"	Accepted
United States (U.S. Department of State)	11	74	1	-	-	-	-	-	While the focus is on RE - inclusion of transportation demand management policies would make this discussion more comprehensive.	can mention in introduction to this section. (Catherine has literature.)
Felix Creutzig (TU Berlin)	11	74	-	-	-	-	-	11.4	The table would benefit from references and reordering of policies, e.g. from specificity to generality, or from biofuels, to intermittent storage technologies, to general policies.	Accepted
Felix Creutzig (TU Berlin)	11	75	1	-	-	-	-	-	Gray literature. See above.	Accepted
Felix Creutzig (TU Berlin)	11	75	23	-	-	-	-	-	I am not sure whether the World Policy Journal (line 23) counts as peer-reviewed journal.	Sustainability text will be removed and sent to bioenergy chapter for revision or deletion
Felix Creutzig (TU Berlin)	11	75	16	-	17	-	-	-	Is "Sustainability Science Program" a peer-reviewed reference? On this question, there are journal articles published.	references would be appreciated.
Christoph von Stechow (IPCC WGIII TSU)	11	75	18	75	42	-	-	-	Please insert a cross-reference to the relevant sections in chapter 2 (e.g. 2.4.4.2 and 2.5.5.1) and 9.	Sustainability text will be removed and sent to bioenergy chapter for revision or deletion
Felix Creutzig (TU Berlin)	11	75	34	-	-	-	-	-	Remove "}"	Accepted
Felix Creutzig (TU Berlin)	11	75	35	-	38	-	-	-	The US RFS2 must be properly introduced (because of its importance by volume), GHG threshold regulation specified (compare to EU). Non-discriminatory part needs to be discussed. The paragraphs on Mexico, India and Brazil can be put into one paragraph. China should be added. Reference to LCFS (to be added later, see comment 7) should be given.	will consider as we revise.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Felix Creutzig (TU Berlin)	11	75	24	-	27	-	-	-	This paragraph could be deleted or moved to being the introductory paragraph of "Sustainability Standards".	Sustainability text will be removed and sent to bioenergy chapter for revision or deletion
United States (U.S. Department of State)	11	75	18	75	42	-	-	-	This section should focus on a comparison of the technical aspects of standards and should not suggest that EU standards are more stringent than others just because they use the word "sustainability." Needs a better understanding and explanation of RFS2, which is more stringent than the EU system in terms of GHG lifecycle accounting and indirect land-use but not in terms of grandfathering. The authors need to be more descriptive of the similarities and differences between these standards. The subsection title "sustainability standards" suggests that the EU standard is somehow better because of its name.	Sustainability text will be removed and sent to bioenergy chapter for revision or deletion
Felix Creutzig (TU Berlin)	11	75	19	-	32	-	-	-	This sentence is logically not consistent. Also, this paragraph needs an update this there is more specific EU regulation in place since June 10, 2010 (http://ec.europa.eu/energy/renewables/biofuels/sustainability_criteria_en.htm): A) Sustainability certificates B) exclusion of certain land to be used for biofuels to protect nature C) GHG LCA standards .	Sustainability text will be removed and sent to bioenergy chapter for revision or deletion
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	75	14	75	17	11.5.6.1	-	-	Here a specific reference to Ch.9 would be logic. And also in the next section on sustainability standards	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	75	18	76	43	11.5.6.1	-	-	In fact the sustainability standards issue is especially important for biofuels (regardless whether for transport or other purpose), but also for use of wood. So, this issue merits separate treatment, e.g. under 'caveats' (see also comment no.20). Elsewhere can be warned for the caveats, while referring to the section.	Sustainability text will be removed and sent to bioenergy chapter for revision or deletion
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	75	18	76	43	11.5.6.1	-	-	The text seems to suggest that by means of adequate sustainability standards and labels sustainability issue can be managed. These initiatives are positive things, but the complex induced land use effects of large scale use of biofuels and solid biomass is by no means fully understood (there should be more integration of physical land use modelling with economic land use modelling). The bottom line is that as regards (higher order) induced land use effects we should be very cautious in claiming that practices are ecologically, socially and economically sustainable.	Sustainability text will be removed and sent to bioenergy chapter for revision or deletion
Pekka Pirila (Aalto University)	11	76	0	-	-	-	-	-	Box 11.13 is titled ""Brazilian ethanol: Lessons learned"". It is, however, not clear, what are the lessons learned in this story as written in the box. Issues related to Brazilian ethanol production are discussed extensively in Chapter 2. This box contains a little additional information, but its value for this report is far from obvious.	Will keep this in mind as we review which case studies to keep and revise.
United States (U.S. Department of State)	11	76	24	76	27	-	-	-	Move this paragraph to the beginning or end of the box, since it is a good summary paragraph.	will consider as we revise.
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	76	30	-	-	-	-	-	The figure on 50% of replacement should be double-checked. According to the National energy Balance 2010, for 2009, it represented 44.5%. The reference probably forecasts that it could be reached 50% by end of 2010.	Accepted
United States (U.S. Department of State)	11	76	0	-	-	-	-	-	This comment refers to Box 11.13. The claim made in line 30--that Brazil relies on ethanol for 50% of its transport energy needs--is misleading. Brazil, like most countries, relies mostly on diesel fuel for its transportation fuel needs. Brazil does have an unusually large FFV component of its in-use light duty vehicle fleet, but, on an energy-adjusted (rather than volumetrically) basis the most recent figures (for 2006) indicate that even this component of Brazil's transportation system was mostly fossil-fueled. More generally, in revising this section it will be important to clearly indicate (1) whether energy equivalent or unadjusted volumes are presented, (2) whether reference is made to the entirety of Brazil's highway transportation or only light-duty vehicles and (3) provide a context that includes diesel's role in meeting Brazil's fuel demand.	Will keep these comments in mind as we review which case studies to keep and revise.
Felix Creutzig (TU Berlin)	11	76	-	-	-	-	-	11.13	Box 11.13 could be reduced to one paragraph if brevity is required. The crucial success factors of Brazil ethanol policy should be identified in this paragraph.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	77	-	-	-	-	-	-	Another example for the highly selective presentation of facts: it is only reported about the effects of the increasing taxation of biofuels in Germany on the share of biofuels on total consumption. Nothing is said about the reasons for this policy: the extremely high marginal abatement cost for CO2 reduction via the use of biofuels/ the dramatic change of land use and the sharp increase of the prices for cereals.	we take your point about the MAC of CO2 reduction, and this will be addressed. But issues such as land use chance and food v. fuel are not relevant to ch. 11.
Greece (National Observatory of Athens)	11	77	32	77	34	-	-	-	If the issue of competitiveness for biofuels is similar to other traded products, this last sentence can be deleted as it implies a different status for biofuels	Accepted
United States (U.S. Department of State)	11	77	13	-	-	-	-	-	insert reference to paper by Wally Tyner and/or US RFS2 and cellulosic buy-out tied to gasoline prices.	will consider as we revise.
United States (U.S. Department of State)	11	77	25	77	28	-	-	-	Not sure that this can be characterized as a tax policy example. While tax policy may have contributed, the text box suggests that the main reason for high market penetration was the volatility of ethanol prices compared to gasoline.	will consider as we revise.
Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	77	25	-	-	-	-	-	one "full-stop" and one blank too much.	Accepted
United States (U.S. Department of State)	11	77	10	-	-	-	-	-	The discussion of taxes should include mention of the potential pitfalls of commingling taxes and volume mandates--some research (e.g., http://aepp.oxfordjournals.org/content/32/1/4.short) indicates that the combination of preference excise tax treatment of binding volume mandates can effectively become a subsidy for petroleum consumption.	will consider as we revise.
Felix Creutzig (TU Berlin)	11	77	3	-	5	-	-	-	This sentence needs a reference, as it is a very strong statement. It is also debateable (some would probably argue that mandates are in practice more important).	Accepted
Felix Creutzig (TU Berlin)	11	78	30	-	-	-	-	-	a dot is missing	Accepted
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	78	24	-	-	-	-	-	Alternative fuel and electrically-propelled vehicles qualify for a 100 percent London congestion charge discount.	Accepted
United States (U.S. Department of State)	11	78	6	78	9	-	-	-	Delete "This section...fuel standards."	will consider as we revise
United States (U.S. Department of State)	11	78	13	78	20	-	-	-	delete this paragraph	will consider as we revise
Felix Creutzig (TU Berlin)	11	78	3	-	-	-	-	-	FAO/GBEP is used several times as a reference, and seems to be crucial as such. However, is probably is counted as gray literature.	Accepted
Felix Creutzig (TU Berlin)	11	78	32	-	34	-	-	-	Feebates are discussed in California but have not been implemented. That is not clear from this sentence. Also the reference is arbitrary. Better include a peer-reviewed reference, e.g Greene et al, Energy Policy, 2005.	Accepted
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	78	27	78	34	-	-	-	I thought the Euroepajn co2 emisison standard was intended to enhance fuel efficiency and only later the opportunity for car companies to sell inefficient cars by mixing bio-fuel was discovered. Perhaps take other, more clearly defined, examples to open the par.	Accepted
United States (U.S. Department of State)	11	78	35	80	39	-	-	-	shorten significantly	Accepted
Felix Creutzig (TU Berlin)	11	78	30	-	32	-	-	-	The LCFS is a more powerful instrument, in principal, then mandates and quota (wide agreement). It is unclear why there is only one sentence on this. Can be discussed as a follow up on renewable fuel standards.	Accepted
United States (U.S. Department of State)	11	79	37	-	-	-	-	-	Are we also assuming plug-in technology is run on RE sources through a smart grid, and not just plugging into the "dirty" grid to maximize carbon emission reductions? We might want a brief cross reference to chapter 8, above.	Accepted
United States (U.S. Department of State)	11	79	37	-	-	-	-	-	This is an important point but unclear. There are other policies (economic, behavioral) that can influence charging behaviors, no?	Accepted
United States (U.S. Department of State)	11	80	33	-	-	-	-	-	"infrastructures" should be "infrastructure"	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	80	17	-	21	-	-	-	Again, the Brazilian ethanol seems to deny this assumption.	Accepted
United States (U.S. Department of State)	11	80	41	8	42	-	-	-	delete	will consider as wwe revise.
United States (U.S. Department of State)	11	80	9	-	-	-	-	-	It might be inaccurate to say that RFS "are rarely sustainable". It could be more accurate to change to read "are not necessarily sustainable". Also it's unclear if the paragraph recognizes that the Renewable Fuels Standard (RFS/2) includes a sustainability metric in the form of GHG LCA requirements.	Accepted
United States (U.S. Department of State)	11	80	29	-	-	-	-	-	Note that "A way forward..." could mention the EPA's RFS/2 in addition to CA LCFS and European Sustainability Standards.	will consider if this part remains
United States (U.S. Department of State)	11	80	14	-	-	-	-	-	Please spell out PHEV and BEV -- if this is first time appearing in chapter.	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	80	8	-	10	-	-	-	This phrase must be put in a correct context. Brazilian ethanol is one of the cheapest biofuels and with a very low life cycle emissions.	Accepted
Modesto Fernandez Diaz-Silveira (Ministry of Science, Technology and Environment)	11	80	28	-	-	-	-	-	TO include text, after ¿destruction: "and freshwater resources depletion,"	will add if find reference.
Karen Pittel (ETH Zurich)	11	80	-	-	-	11.5.6.5	-	-	As Chapter 11 is too long, I would suggest to delete subsection 11.5.6.5 as most of ist contents were already stated before. Everything that is novel could be integrated in the preceeding subsections.	subsection will probably be folded into other text and section will be shortened.
Lori Bird (National Renewable Energy Laboratory)	11	80	40	81	-	11.5.7	-	-	The intro text here is awkward. This section could use strengthening.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	80	-	-	-	11.5.7	-	-	There is a LOT of potential for this section based on the rest of the text in 11.5, but the conclusions presented here are extremely vague and don't give the reader anything concrete to take-away. A clear, bulleted summary of each of the sections would be very useful, clarifying the different requisites in policy design for electricity/H/C/transport and for different policy types. To provide answers to what policies best suit conditions outlined in Figure 11.1, could be one option. Adding more substance to this section may also be an opportunity for consistency and reduced repetition across subsections: to pull all text from 'conclusions' sections and 'key messages' boxes here.	Accepted
Australia (0)	11	80	40	81	32	11.5.7	-	-	This section could bring all the different policy options together, e.g. on R&D and on deployment, and compare them against a set of criteria like cost, environmentally effective , equitable, and risks etc.This type of summary assessment would increase the value of the chapter.	will consider as we revise.
Volkmar Lauber (University of Salzburg)	11	80	-	-	-	11.5.7	-	-	this section is an important one, and therefore should also say something about equity aspects and about developing countries RE policies (e.g. Learning from the Kenia and Thailand cases that were illustrated in boxes).	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	81	1	-	-	-	-	-	"are critical" - critical to what? Critical to the success of a given policy in deploying RE?	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	81	34	-	-	-	-	-	¿interrelated components' such as? Including? Example would be helpful here.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	81	10	-	-	-	-	-	are investor grade' - what does this mean exactly? i.e. what design features must be included for a policy to be 'investor grade'?	Accepted
United States (U.S. Department of State)	11	81	34	81	38	-	-	-	Delete: "The process...not linear."	will consider as we revise.
Kristin Seyboth (IPCC WG III TSU)	11	81	34	81	38	-	-	-	Reference is missing in paragraph	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	81	30	81	32	-	-	-	Subsidies for fossil fuels are a much bigger problem than portrayed here, especially for developing countries. A suggestion would be to bring this argument out more. See SRREN_Draft2_Review_Fulton_Mark_Material_08.pdf.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	81	2	81	3	-	-	-	This is demonstrated by WIND in CERTAIN COUNTRIES¿but is it applicable to all RE technologies in all countries? If so or not, please specifify.	Accepted
United States (U.S. Department of State)	11	81	12	81	14	-	-	-	This paragraph reads well, but it's unclear what it means. Suggest revision to make more specific.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	81	-	-	-	11.6	-	-	A nice clean, crisp definition of innovation would be useful in this section and also in the SRREN glossary.	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	81	33	102	19	11.6	-	-	Review this section regarding interaction and overlaps with chapter 8 (and 9). Consider integration with sections 11.3 and 11.4. This should lead to more coherence and reduction of (near) replications.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	81	-	-	-	11.6	-	-	The general agrument that appears in this section (p. 81 lines 37/38 and p. 84 lines 31-33) that phases of development are not linear but rather systemic seems to contradict Figure 11.6 on p. 44 that presents the succession of development phases as a linear process. A qualifier may be needed on the Figure to clarify this.	will consider as we revise.
Kristin Seyboth (IPCC WG III TSU)	11	81	-	-	-	11.6	-	-	The introduction to 11.6 clearly introduces the components of an enabling environment, but provides no guidance to the structure of the rest of the section, which the reader sorely misses. Basis of what is presented and how that fits into an enabling enviro would be very useful, particularly explaining why those topics are of focus out of all those presented in Figure 11.11	will be rewritten
Volkmar Lauber (University of Salzburg)	11	82	10	-	14	-	-	-	¿THE Enabling Environment is defined as: ... etc. up to ... in local, national and global energy systems.¿ I doubt if it is possible to define ¿THE Enabling Environment¿ in particular ¿that provide favorable conditions ... in local, national and global energy systems.¿ Environments are 1) diverse; 2) composed of opportunities and threats of very different kinds in very different degrees; and 3) can every environment on its own attributes be made more enabling towards RE. The definition also should be consistent with the elements of figure 11.11.	Accepted
United States (U.S. Department of State)	11	82	6	82	9	-	-	-	delete: "The enabling...11.11)."	but will be rewritten better
United States (U.S. Department of State)	11	82	16	83	5	-	-	-	Delete:" They can be...deployment easier." Insert: The enabling environment can make RE deployment easier.	will consider as we revise
Kristin Seyboth (IPCC WG III TSU)	11	82	16	-	-	-	-	-	on their own' - does this mean policies can be successful without the context of an enabling environment? Please clarify what 'on their own' means.	will clarify
Kristin Seyboth (IPCC WG III TSU)	11	82	15	-	-	-	-	-	Recommend rephrasing the first 2 sentences as follows for accuracy and to avoid policy prescriptive language: "Section 11.5 introduced RE policies and the design features that make them effective and efficient. These policies are necessary to facilitate and increase the rate and scale of RE deployment."	will take note
Kristin Seyboth (IPCC WG III TSU)	11	82	6	82	12	-	-	-	The two text lists (one in lines 6-8, the second lines 11-12) and the figure 11.11 should be consistent, clarifying the components of an enabling environment with the same language and in the same order. Currently some (but not all) terminology overlaps across 2 out of 3 of these, some terms appear in text but not in figure, etc. This is very confusing to the reader.	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	82	16	83	2	-	-	-	These lines/this paragraph is confusing. Is it arguing that a) RE policies can be successful without an enabling environment; or b) RE can develop even without supporting policies? Please clarify this. If it's the latter, other examples can be included and literature quoted, e.g. geothermal heat development in Iceland, solar thermal development in China - both are in the IEA 2007 publication "Renewables for Heating and Cooling - Untapped Potential"	Accepted
Volkmar Lauber (University of Salzburg)	11	82	4	-	9	-	-	-	This paragraph takes some aspects from figure 11.11 in a rather arbitrary way (for example: institutions, regulations are mentioned, but in the figure the second is part of the first item; not all main components of the environment are listed; some have other names, e.g. 'material' infrastructures in text 'infrastructure' in figure; 'international agreements' is in the text, being a part of 'Politics' in the figure, ... It would be helpful to be more consistent.	will be rewritten

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Kristin Seyboth (IPCC WG III TSU)	11	82	-	-	-	-	11.11	-	Suggest amending figure to 1) delete yellow 'mix of policy instruments' from outer ring - RE policy is included in green inner circle, overlapping with all other EE aspects, so doesn't make sense to have it here again; 2) Combine Finance and Business Community into one EE aspect; 3) include the barriers that relate to each aspect of the EE in the figure to give the reader a bit more context.	Will accept 1 and change to non-RE policies; reject 2 because these are separate communities; reject because this must remain digestable.
Volkmar Lauber (University of Salzburg)	11	82	-	-	-	-	11.11	-	The figure is fine: it shows well the RE deployment supported by RE policy within its environment consisting of various components. But the title would better read as ¿RE policy is functioning in a complex environment¿. To be clear: this environment is not only ¿enabling¿; it is double as the standard SWOT states: opportunities + threats. For example: the business community ¿ there are businesses favoring RE; there are businesses hostile to RE (and this is true for all components, and this is natural and normal, and will be understood like this by most politicians). The insertion of the adverb ¿enabling¿ is confusing.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	83	5	83	6	-	-	-	A clarification of which aspects of the enabling environment relate to which barriers outlined in the taxonomy in Ch. 1 and on p. 33 of Ch. 11 (e.g. technical and structural barriers relate to infrastructure) would be very useful both here and in Figure 11.11.	Accepted
United States (U.S. Department of State)	11	83	12	84	7	-	-	-	Box 11.14 appears random and does not connect the Norwegian experience to the surrounding text. For example, how is this Norwegian story tied to an "enabling environment?" This box should either be firmly tied to the main point(s) of this section or it should be dropped.	Will consider as we review case studies and cut or revise.
United States (U.S. Department of State)	11	83	12	-	-	-	-	-	Box 11.14: add a policy conclusion paragraph at the end of this box	Will consider as we review case studies and cut or revise.
Thomas Praessler (Potsdam Institute for Climate Impact Research)	11	83	12	84	7	-	-	-	Cut Box 11.14 - does not fit here	Will consider as we review case studies and cut or revise.
Kristin Seyboth (IPCC WG III TSU)	11	83	12	84	-	-	-	-	Delete entire case study. It does not support the argument that policies can support RE development even without an enabling environment, nor does it provides a clear focus on the argument that RE can develop even without policy (depending on which point you want to bring across in surrounding text - see above comment). It seems much better suited to 8.2.1 (in Chapter 8), which introduces options for integrating large shares of RE into energy systems.	LINK to text about policies to ensure that RE develops in sustainable manner, or send this to chapter 9.
Switzerland (Swiss Federal Office for the Environment)	11	83	12	84	7	-	-	-	It is not clear how the contents of Text-Box 11.14 is linked to the content of the chapter, namely the enabling environment for RE introduction. It is not about (the creation of) an enabling environment but on the improvement of sustainability in hydropower use. Remove Text-Box (or move to a more appropriate chapter).	Will consider as we review case studies and cut or revise.
Kristin Seyboth (IPCC WG III TSU)	11	83	3	83	11	-	-	-	Reference is missing from these paragraphs	Accepted
United States (U.S. Department of State)	11	83	7	-	-	-	-	-	replace "should" with "can more easily be"	Accepted
Volkmar Lauber (University of Salzburg)	11	83	5	-	7	-	-	-	the barriers are the ¿threat¿ side in the SWOT of the environment.	Accepted
United States (U.S. Department of State)	11	83	29	83	30	-	-	-	TWh or TW?	Accepted
United States (U.S. Department of State)	11	83	20	-	-	-	-	-	Why is reservoir capacity in energy units rather than power units (TW)? in next line, "Europe's total" what? energy per year or capacity per year?	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	84	22	-	-	-	-	-	"Energy systems are not value-free." What does that mean? "Value" in what sense? This paragraph seems like it's talking about norms, or the "values" that people adhere to out of tradition, sunk cost fallacies, and embedded experience. But this sentence doesn't convey any of that - it sounds more like a statement of the obvious - "energy ain't free." I would replace this sentence (and the following sentence) with: "Energy systems have their own set of behavioral norms that lead actors, institutions, and even the very structure of the overarching economy to depend on existing technological pathways." The reference to Nelson and Winter 1982 should be carefully checked -- on the surface, it seems to cut against the arguments in this section. Also, the following sentence alleges that "high fixed costs" support this entrenchment, but wouldn't that actually encourage change? I think the author may mean to say "high sunk costs" here. The concepts of path dependency, the sunk-cost fallacy, and the distribution of costs and benefits should be more clearly discussed here. They are separate concepts and should be differentiated, and each could be supported with references to the established literature. The tone of this section at times risks sounding conspiratorial -- for example, the interest of an established firm in protecting its profits is not intrinsically bad. This discussion should be situated within the established economic and behavioral literature on this subject.	it will be rewritten, taking note of need to consider the literature particularly with respect to the sunk-cost fallacy
Kristin Seyboth (IPCC WG III TSU)	11	84	39	-	-	-	-	-	delete 'and should' to avoid policy prescriptive language	Accepted
Greece (National Observatory of Athens)	11	84	27	84	28	-	-	-	I would add at the end of this sentence "¿ and the society as a whole" since energy systems are correctly considered as socio-technical systems	Accepted
United States (U.S. Department of State)	11	84	34	-	-	-	-	-	It is literally impossible to "expect unexpected consequences." Replace with "Policy-makers should thus expect unforeseen consequences..." etc.	Accepted
Volkmar Lauber (University of Salzburg)	11	84	41	-	-	-	-	-	Policy action is more efficient when state actors include non-state actors, networks and coalitions in building guiding visions...''''. Rotmans and Kemp do not seem to consider the possibility that incumbent firms may use to try to dominate such networks to delay renewable energy, yet this is what happened on several occasions in Germany. It is a question of who is admitted to such networks.	it will be rewritten,
Thomas Praessler (Potsdam Institute for Climate Impact Research)	11	84	13	85	33	-	-	-	repetitive, potential to cut! Has all been mentioned before, reads like an independent report.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	84	9	84	10	-	-	-	Suggest rephrasing sentence for clarity and to avoid policy prescriptive language as follows: "A transition in the energy system that would enable higher shares of RE to an extent that would successfully respond to climate change would be needed within the span of a few decades and thereby differs from past transitions that occured over periods of X and responded to Y drivers", of course completing X and Y as appropriate.	Accepted
United States (U.S. Department of State)	11	85	7	85	14	-	-	-	"The technological capacity of the countries depends to a large extent on the national innovations system." This whole paragraph is just ill-conceived. Why would the author think that most countries have a deep understanding of oil refineries or gas turbine power plants, and all the impedimentia of existing energy technology? Small countries, in particular, don't send their scarce scientific talents to run the refinery or electric power plant. No, they hire consultants and service contractors. The problem with renewable energy for developing countries is that it requires more management per kwh than conventional technology and management is what developing countries (especially governments) are short. Renewable energy's second failing is that that, because its expensive, the economics won't stand the kind of expensive consultants and service contractors that can be invisibly built into the domestic price of petroleum.	We think that this is not contradictory to the text but we will take note of the argument
Kristin Seyboth (IPCC WG III TSU)	11	85	34	86	-	-	-	-	Box 11.15 is good, but has not a single reference, grey or otherwise. Key lessons from the box (e.g. that capacity development is central to successfully scaling up decentralized energy access programmes and attracting private funding) are not clearly reflected in the text above, which would be very useful to the section as a whole. Also, there is no reference to the Box at all in section 11.6.1	reference was dropped unintentionally and will be reinserted if box remains.
United States (U.S. Department of State)	11	85	34	-	-	-	-	-	Box 11.15: this section on Nepal is not helpful. never says what Nepal achieved or what benefits were derived. either make it robust or remove.	will consider as we revise.
United States (U.S. Department of State)	11	85	7	-	-	-	-	-	Capacity is more than just the ability to make informed decisions, no? It is necessary to be able to carry them out as well!	will be rewritten to include the inference
Kristin Seyboth (IPCC WG III TSU)	11	85	18	85	33	-	-	-	Discussions of technology leapfrogging and technology transfer need work - a good heavy edit and additional substance. There is no flow to these paragraphs and key recommendations on these issues are unclear to the reader.	will be rewritten - we will either bring in a new CA or redirect current LA/Cas

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Kristin Seyboth (IPCC WG III TSU)	11	85	17	-	18	-	-	-	Lessons from Box 11.15 on the importance of funding capacity development would be good to insert here.	Accepted
Volkmar Lauber (University of Salzburg)	11	85	16	-	-	-	-	-	substitute ¿implementation pathways¿ for ¿learning curves¿	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	85	18	85	25	-	-	-	Terms 'technology leapfrogging','technology transfer' and 'Carbon Lock-in' would be good to include in SRREN Glossary	Accepted
Volkmar Lauber (University of Salzburg)	11	85	39	-	-	-	-	-	the word ¿capacity¿ is used in the chapter once for physical RE generation capacity, here for human/organizational/managerial/functional/administrative ... capacity/capability ; it would be good to convene on a given adverb or other term to point to the second meaning of capacity	we accept - see comment below
United States (U.S. Department of State)	11	85	4	85	6	-	-	-	This sentence is a hypothetical, and hence not subject to proof or disproof. First, if the technologies were available free, it wouldn't actually be necessary to use them very efficiently. One could just overbuild. Then, they would hire consultants and service contractors to install and operate the freebies, just like they operate conventional energy technologies.	will be rewritten
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	85	29	85	33	11.6.1.2	-	-	This line of reasoning also closely links up with energy efficiency policy and changes in the investment portfolio allocation from (centralised) supply ise to demand side and localised solutionsn (including integrated RE/EE). See e.g. Lechtenböhmer et al, 2007 (¿.). Yet, it should be realised that even though several studies illustrate that such changes in focus could pay off, there is as yet no abundant scientific evidence available and therefore caution (e.g. regarding variation in national/local social and economic circumstances) is important.	we will take note
Kristin Seyboth (IPCC WG III TSU)	11	85	-	-	-	11.6.1.2	-	-	Use of the term 'capacity' should be clearly defined here and consistently used throughout the section. Throughout the SRREN 'capacity' is used to refer to installed capacity, which may cause confusion. In addition, there is no distinction made between the uses of the terms 'capacity' and 'technological capacity' in the section text. Please clarify the difference and use terminology in a consistent way. Definitions may also be submitted to the SRREN Glossary.	We accept this and will add to glossary
United States (U.S. Department of State)	11	86	29	86	37	-	-	-	delete	will consider as we revise.
Volkmar Lauber (University of Salzburg)	11	86	35	-	-	-	-	-	delete ¿as part of an enabling environment¿	Accepted
Volkmar Lauber (University of Salzburg)	11	86	29	-	-	-	-	-	delete ¿for the enabling environment¿	Accepted
Thomas Praessler (Potsdam Institute for Climate Impact Research)	11	86	38	87	17	-	-	-	off topic and too long for this report. Reference to institutional learning is ok, but an entire paragraph is not needed in this report on RE	has been rewritten
Kristin Seyboth (IPCC WG III TSU)	11	86	29	-	-	-	-	-	social innovation' would be good to include in SRREN glossary	Accepted
Australia (0)	11	86	-	-	-	11.6.2	-	-	Use of the term 'Social innovation' (11.6.2) is confusing as 'social innovation' is used in much broader contexts than innovation targeting environmental effects. We would therefore prefer the term 'non-technological innovation' or social change be used (refer OECD's Oslo Manual on Innovation) or extend the definition of an innovation system. The primary focus of current eco-innovation in the manufacturing industries tends to rest on technological developments and advancements, typically with products or processes as eco-innovation targets, and with modification or re-design as principal mechanisms. Nevertheless, even with a strong focus on such technological advancements, a number of complementary changes have been required that have functioned as key drivers for these developments. In many of the examples, these changes have been of either organisational or institutional character, including the establishment of separate environmental divisions for improving environmental performance and directing R&D, or the foundation of inter-sectoral or multi-stakeholder collaborative research networks. Some industry players also started exploring more systemic eco-innovation through new business models and alternative modes of provision. [OECD Eco-innovation in Industry report]	will be addressed. If used the term will be defined in glossary.

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Kristin Seyboth (IPCC WG III TSU)	11	86	-	86	-	11.6.2.1	-	-	It is difficult to pull any concrete message out of this section. It seems the only claim is that social interaction facilitates learning which facilitates institutional change. This doesn't need a complete section and almost a full page - condense to a maximum of one paragraph and remove sub-section title.	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	86	38	81	17	11.6.2.1	-	-	This section could use strengthening.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	87	38	-	-	-	-	-	Box 11.16 is the strongest part of 11.6.2, but is not referenced at all in the surrounding text, nor are the key messages which clearly link policy to 1) encouraging cooperative ownership or 2) allocating responsibilities to local municipalities and the effect that has on public support. Pull this information into the text, and provide a reference.	Accepted
United States (U.S. Department of State)	11	87	38	-	-	-	-	-	Box 11.16: Towards the end of the box add a discussion of relationship and importance of enabling environment explicitly since this box is in section 11.6.	Accepted
United States (U.S. Department of State)	11	87	32	87	37	-	-	-	delete	we are rewriting in 11.6 - we will take note of this
United States (U.S. Department of State)	11	87	19	87	25	-	-	-	delete	will reword
Kristin Seyboth (IPCC WG III TSU)	11	87	37	-	-	-	-	-	has more chances to follow" -more chances to follow what?	will be deleted
Kristin Seyboth (IPCC WG III TSU)	11	87	26	87	29	-	-	-	Here the term 'technology cooperation' is being used also to discuss the disemination of information. Please stick with consistent, clear terminology.	Accepted
Volkmar Lauber (University of Salzburg)	11	87	9	-	-	-	-	-	implementation capacity may be the answer to the question raised below, page 85 line 39	will check
Kristin Seyboth (IPCC WG III TSU)	11	87	19	-	-	-	-	-	It seems that this sentence is focusing less on social structure than on the successful communication of information across a social structure. Please clarify and reword accordingly.	will reword
United States (U.S. Department of State)	11	87	26	87	26	-	-	-	move to a new box on Mexico City and importance of communication.	we are not totally clear what this comment means
Kristin Seyboth (IPCC WG III TSU)	11	87	4	87	9	-	-	-	Sentence 'Private actors¿and get RE projects developed' - is this trying to say that there is an exisitng social structure by which decisions influencing deployment of RE are made? (It is terribly ambiguous as written) If so, this is stating the obvious - delete.	has been rewritten
Kristin Seyboth (IPCC WG III TSU)	11	87	33	87	36	-	-	-	This is the meat of the entire section. Suggest deleting subheadings 11.6.2.X and restructuring entire subsection according to these points: increased awareness/public support; clarifying property rights; capacity building; and technology standards and certification. They clearly explain what social conditions are necessary for enabling successful policy.	Accepted
United States (U.S. Department of State)	11	87	38	89	14	-	-	-	This section is very long. Recommend condensing it to focus specifically on the topic of integration of policies and social aspects.	Accepted
Volkmar Lauber (University of Salzburg)	11	87	19	-	-	-	-	-	what is ¿the social structure of RE projects¿?	Accepted
Volkmar Lauber (University of Salzburg)	11	88	5	-	-	-	-	-	add ¿energy efficiency and¿ before RE (in DK during that period both were linked)	will consider as we revise.
Kristin Seyboth (IPCC WG III TSU)	11	89	19	-	-	-	-	-	appropriate level of investment' - what is the appropriate level? Be specific.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	89	22	89	23	-	-	-	Bullet list is unnecessary here - simply include in normally formatted sentence.	Accepted
United States (U.S. Department of State)	11	89	17	89	23	-	-	-	delete "As risk...depends on" insert which remove bullets, and connect two bullets with "and" and insert two bullets into text.	is being re-written

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Volkmar Lauber (University of Salzburg)	11	89	16	-	-	-	-	-	delete first sentence	will be reworded: we take note but we will include something on how enabling environment reduces risk for invvestors
Kristin Seyboth (IPCC WG III TSU)	11	89	21	-	-	-	-	-	Include a clear definition of risk-reward ratio here as well as in SRREN glossary.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	89	23	-	-	-	-	-	Replace 'institutional setting' with what appears in supporting text: public-private partnerships and community ownership.	will be rewritten
Volkmar Lauber (University of Salzburg)	11	89	15	-	-	-	-	-	the contents of this section is mostly named ¿Regulatory risks¿	section is being restructured and will take note.
Kristin Seyboth (IPCC WG III TSU)	11	90	33	90	34	-	-	-	cost of capital' would be good to include in SRREN glossary	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	90	22	90	24	-	-	-	Delete sentence "Recent cases show¿energy access (IIED, 2009)". It is misplaced here and belongs instead to Ch. 9	link in with ch 9
Volkmar Lauber (University of Salzburg)	11	90	31	-	33	-	-	-	delete the word ¿easing¿ in the title; delete ¿A broader enabling environment includes a financial sector ...projects¿. The rest of that section 11.6.4 describes the mechanics of the financial sector, not how it is ¿eased for RE¿	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	90	1	90	12	-	-	-	It's clear that this paragraph is trying to explain the importance of political support to RE development, but it completely misses the link to risk - i.e. how risk is mitigated by strong political support. Without this context in risk, the paragraph is better placed in the conclusions of 11.5	rewrite, there is a difference between uncertainty and risk and we will define and clarify this in the text
Sweden (Swedish Environmental Protection Agency)	11	90	1	90	5	-	-	-	Meaningless statement - remove	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	90	16	-	-	-	-	-	Replace 'implication' with 'implementation'	Accepted
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	90	16	90	17	-	-	-	Same Span-related issue as above. See comment #18 above.	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	90	19	-	30	-	-	-	This text fits more to support the concept of social innovation that ""managing uncertainty"".	section has been rewritten
United States (U.S. Department of State)	11	91	1	-	-	-	-	-	Is "Drivers" the right word here? Maybe prerequisites, preconditions, or enablers is better? Or maybe a more neutral title would be: factors impacting investment in RE	will be rewritten
Thomas Praessler (Potsdam Institute for Climate Impact Research)	11	91	1	91	36	-	-	-	Potential to cut 11.6.4.1 - Mentioned drivers are mainly not specific to RE. Little value added here, retelling of Asian development bank report	will be rewritten
Sweden (Swedish Environmental Protection Agency)	11	91	33	91	36	-	-	-	This is clearly not the "fundamental principle of global capital markets". A good example of the overall sloppy language in the Chapter, in particular in Sections 11.6 and 11.7.	will be rewritten
Volkmar Lauber (University of Salzburg)	11	92	22	-	23	-	-	-	reformulate this - content is not very clear	will be rewritten
United States (U.S. Department of State)	11	92	14	-	-	-	-	-	take out "dysfunctional." reference should be to Section 1603, Cash in Lieu of Tax Credits. on line 14, should say government "intervention" instead of "interference."	will be rewritten
United States (U.S. Department of State)	11	92	16	-	-	-	-	-	The phrase "to replace the (at least temporarily) dysfunctional Production Tax Credit" is awkward. The assertion that the credit is dysfunctional is not completed explained.	will be rewritten

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	92	15	92	18	-	-	-	This is not accurate. The US did not introduce the investment tax credit because of a lack of appetite for production tax credit - both credits require appetite from tax-liable entities. Also, the production tax credit was not technically "dysfunctional" - it still operated, it just became less attractive as the economy soured. This example is misguided and should be deleted.	Accepted
United States (U.S. Department of State)	11	92	16	-	-	-	-	-	To be more specific, it was the "grant in lieu of tax credit" that was so valuable.	will be rewritten
United States (U.S. Department of State)	11	93	0	-	-	-	-	-	add "wildlife concerns" on section on electricity grids	will be rewritten
United States (U.S. Department of State)	11	93	3	93	11	-	-	-	reduce and combine previous paragraph--only include cited example without judgment statements before and after	will be rewritten
Volkmar Lauber (University of Salzburg)	11	93	-	-	-	-	-	11.5	Biomass: what about plain ¿land area use/coverage¿? What about solid waste residuals?	will be rewritten
Emmanuel Branche (Electricité de France)	11	93	-	-	-	-	-	11.5	Refer to environmental and social issues presented in SPM with cross-cutting technologies, as this table is too restrictive	will be rewritten
Thomas Praessler (Potsdam Institute for Climate Impact Research)	11	94	1	96	35	-	-	-	sub titles could be reworded to make them more crisp	will be rewritten
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	94	1	94	34	-	-	-	The discussion here rules out that ¿the other interests¿ may have their own right and that it sometimes is the better choice to forgo the future development of a particular RE technology in a particular region.	will be rewritten
United States (U.S. Department of State)	11	94	27	94	35	-	-	-	This paragraph loses the point through poor construction. I think the point is that social buy-in is necessary at both the local and national levels - for example, there needs to be a national commitment to RE (on the basis of environmental, economic, social goals, etc.) but there also has to be a local process that achieves buy-in by local communities for siting specific projects. But the current expression of this idea is too long and confusing here. I'd suggest revising to something like this: "Social acceptance at both the national and local levels may be necessary to achieve sustainable deployment of RE technologies. Universal procedural fixes such as "streamlining" permitting applications cannot fully respect place- and scale-specific project conditions that can provoke stakeholder conflicts. Successful deployment of RE technologies to date have depended on a combination of favorable procedures at both national and local levels of governance."	will be rewritten
United States (U.S. Department of State)	11	94	4	-	-	-	-	-	Why does RE technology involve "radical changes in the relationship between energy technology and society?" This should not be simply asserted without context - are the authors talking about distributed generation and net-zero buildings here? These are the kind of cultural and sociological changes that are also lacking discussion in the barriers section of Chapter 11, leaving the reader to wonder whether RE really does present such a significant shift in behavior and the nature of our energy use. As it stands, this sentence has shock value but seems unplugged from any explanatory context - the authors need to elaborate on what they mean by shifting the system to this new technological configuration that seems to be about more than just swapping out fossil for RE.	will rectify in rewriting
United States (U.S. Department of State)	11	95	35	-	-	-	-	-	change to: coordination between national and local governments	will consider as we revise text
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	95	11	95	34	-	-	-	The description how to ¿convince¿ people by benefit sharing is highly problematic. It is close to an introduction how to bribe people.	will be rewritten
Volkmar Lauber (University of Salzburg)	11	97	32	-	-	-	-	-	¿new paradigm¿ is a strong term for the technical transformation of power grids	will be rewritten
Volkmar Lauber (University of Salzburg)	11	97	21	-	24	-	-	-	delete ¿This section ... for electricity¿; change title of 11.6.6 in Renewable Electricity Access to Networks and Markets	will be rewritten

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Thomas Praessler (Potsdam Institute for Climate Impact Research)	11	97	15	102	19	-	-	-	General remarks: - good section - replacing term "networks" with "grids" would make it more intuitive - would like to see more on market integration (not technical aspects, but market dynamics), incl. Things like --> negative energy pricing, --> incentives for storage vs simply wasting energy, --> distortion of markets by integration of RE, --> day ahead dynamics, spinning reserve pricing, --> an answer to the critique, that high RE shares would render conv. base load power plants unprofitable etc. All these topics are missing but are quite relevant! And will gain more and more importance in the future!	will be rewritten
United States (U.S. Department of State)	11	97	30	-	-	-	-	-	insert between "generation," and "giving rise": "if energy storage is unavailable,"	Accepted
Volkmar Lauber (University of Salzburg)	11	97	39	-	-	-	-	-	replace ¿cost¿ by ¿remuneration¿ (the statement refers to FIT)	will be rewritten
United States (U.S. Department of State)	11	97	26	-	-	-	-	-	This first sentence makes it seem as though RE requires a weak grid. What the report should state is that: "Renewable energy resources are often highly concentrated in areas where existing electricity grids are weak."	will be rewritten
United States (U.S. Department of State)	11	97	28	97	31	-	-	-	Variable-output RE currently requires backup "conventional" generation because storage technology is not sufficiently advanced. In other words, this aspect should not be presented like it's a physical fact of RE - it's just a problem with current generation RE technology. I suggest this revision: "In addition, given today's shortage of cost-effective energy storage technology, variable-output RE such as wind currently requires back-up in the form of..." etc.	will be rewritten
Lori Bird (National Renewable Energy Laboratory)	11	97	15	98	14	11.6.6	-	-	There could be more discussion of various transmission and interconnection related barriers (unless this is covered in other chapters). Who pays for transmission is a key issue, as are interconnection queues and other issues.	will be rewritten
United States (U.S. Department of State)	11	98	35	-	-	-	-	-	This is an overstatement. It is recommended that this is revised to "As variable output RE such as wind cannot forecast generation as far in advance as other energy resources, such RE must be accommodated by evolving the forwards market model."	will be rewritten
United States (U.S. Department of State)	11	98	30	98	34	-	-	-	unclear	will be rewritten
Volkmar Lauber (University of Salzburg)	11	98	35	-	36	-	-	-	unclear statement about forecast of wind forecast: check with ch.8; it also contradicts the one hour-ahead markets practices	will be rewritten
United States (U.S. Department of State)	11	99	31	99	40	-	-	-	Anyone can hypothesize the existence of a market failure, especially over a short time frame. In order to justify government action to correct the market failure, one would have to have confidence that the Government's "ideal" pigouvian tax or subsidy is a better estimate of marginal social product than the market's estimate, and that the gap between market price and marginal social product is stable over time, and that the costs of administering the tax are small enough not to matter, and a bunch of other issues, some of them actually addressed by Pigou. It is suggested that prodigality in reference to hypothesized market failures will tend to discredit the use of the concept.	have sent to CA for consideration.
Kristin Seyboth (IPCC WG III TSU)	11	99	8	-	-	-	-	-	Box 11.17 is very strong. Would suggest pulling the text to 11.1.1 (removing the box) to provide a context for the entire chapter, explaining up front why RE policies are necessary in the context of broader climate policy, then moving on to get into the details of RE policy.	have sent to CA for consideration.
Volkmar Lauber (University of Salzburg)	11	99	4	-	7	-	-	-	delete	this section will be increased rather than deleted
Volkmar Lauber (University of Salzburg)	11	99	8	-	9	-	-	-	delete box ¿ delete box title (see new section title)	have sent to CA for consideration.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	99	24	99	30	-	-	-	If governments do not elect to impose serious or "ideal" climate-stabilizing GHG targets, then the value of RE drops accordingly. Obviously the policy judgment of such governments is that GHG abatement is not worth that cost, and so the GHG abatement benefits of RE are equally not worth it - which undermines the economic case for investing in RE through so-called "second-best" policy arrangements. The IPCC, of all authorities, must not suggest that governments can solve the problem of climate change by refusing to set "ideal" GHG pricing or clean technology support. This paragraph should be deleted. The other two justifications for additional RE policy support presented afterward (complementarily with "ideal" climate policy and correcting other negative environmental externalities) are perfectly valid and should be the only two presented here.	have sent to CA for consideration.
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	99	11	99	23	-	-	-	If there are two market failures the two instruments (carbon pricing and subsidies for research) fixing these failures are the right instruments. Thus, to justify additional effort for the implementation of RE additional arguments are needed. Unfortunately, all arguments, presented in this box are not convincing (see the next remarks).	have sent to CA for consideration.
United States (U.S. Department of State)	11	99	27	-	-	-	-	-	Remove the ¿(¿ before the Tol reference.	have sent to CA for consideration.
United States (U.S. Department of State)	11	99	13	88	14	-	-	-	The argument about the undervaluation of renewable energy is entirely general, and applies equally well to any and all uninvented future technologies. The appropriate policy instrument, therefore, is not a renewable energy policy but an R&D policy. To the extent that there is a special value to low-carbon technologies, that is derived from the initial market failure in carbon dioxide.	have sent to CA for consideration.
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	99	31	99	40	-	-	-	The argument used here is really very problematic. If ideal carbon prices and ideal research subsidies exist, than the market failures are fixed ¿ otherwise the prices and subsidies would not be ideal! But even if we assume that some market failure exists, carbon pricing is still possible! For example, if taxes do not work because of rent extraction, a cap and trade system will still work.	have sent to CA for consideration.
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	99	41	100	4	-	-	-	The authors try to justify their unconditional support of RE development with the argument that RE produces positive external effects. But this cannot justify a general recommendation to develop RE! The existence and importance of positive external effects varies a lot with the location RE is implemented and the positive external effects have to be traded off against the negative external effects and the enormous opportunity costs of RE development (the 100 billion spent for the redundant subsidization of solar energy in Germany cannot be spent for any other reasonable GHG mitigation project).	have sent to CA for consideration.
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	99	8	101	24	-	-	-	The discussion in this box is overdue! It is a great mistake to discuss RE development as an solitaire instrument. If the introduction of RE is not an end but a mean, then the interrelationship with other instruments of climate policy is of great importance. Thus, the discussion in box 11.17 is really overdue. Unfortunately the discussion is very short and the argumentation is very poor.	have sent to CA for consideration.
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	99	24	99	34	-	-	-	The first argument is that RE development is needed because carbon prices are too low or do not exist. Counterargument: First, if carbon prices do not exist, the best policy is to introduce carbon pricing. Second, if carbon priced are too low, a RE policy like FIT would cause further price reductions. Therefore, RE development is not the right answer to low carbon prices.	have sent to CA for consideration.
United States (U.S. Department of State)	11	99	12	99	13	-	-	-	The reference to Pigou is overblown. Pigou certainly didn't write about greenhouse gas emissions in his 1920 opus, "The Economics of Welfare." He did write, in very general terms, about the potential for taxes to equate private and social marginal product. He certainly didn't write anything like "government intervention is required..." as implied by the source note. Jan Tinbergen (1952) [in line 19] didn't write about carbon policy either, though he did advance a general theoretical argument (in a very different context) about matching the number of policy instruments to policy objectives.	have sent to CA for consideration.
United States (U.S. Department of State)	11	99	24	99	30	-	-	-	What is the principle reason that governments are failing to enact "ideal" climate and clean technology policies? Cost. Governments, by and large, are unwilling to recognize the true costs of the status quo and enact policies to correct those costs by pricing GHG pollution and supporting clean technology development to correct for market failures. If this is true, it does NOT follow that there is a "role" for trying to hotwire a climate solution by spending money on specific technological interventions. First of all, if governments are still trying to reach the same climate goal, the cost of so-called "second-best" technology-specific policies would be astronomical compared to the costs of market-based, technology-neutral policies like pricing carbon correctly. If governments are unwilling to impose the relatively lower costs of well-designed, scientifically-valid carbon targets using market-based policy, then why should we believe that they will commit even greater amounts of funding toward technology-specific policy goals that offer far less predictable environmental outcomes?	have sent to CA for consideration.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Volkmar Lauber (University of Salzburg)	11	99	-	-	-	11.6.7	-	-	Change title to: ¿Integration of RE support and Climate Change mitigation Policies¿	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	99	3	101	24	11.6.7	-	-	In terms of comprehensive policy assessment of RE policies (and of the effectiveness of adding or amending 1 instrument) this is an important text box. Regrettably the Box stand pretty alone in Chapter 11, neither is its implication - namely the need and options for comprehensive evaluation - discussed.	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	99	-	-	-	11.6.7	-	-	This section could use much, much more substance. Specific gaps include 1) placing RE in the context of Kyoto mechanisms like CDM; 2) interaction of e.g. agriculture policies with policies supporting bioenergy.	have sent to CA for consideration.
Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	100	40	-	-	-	-	-	"a time profile" instead of "an time profile"	have sent to CA for consideration.
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	100	38	-	-	-	-	-	Edenhofer et al. 2010 is missing in the references	have sent to CA for consideration.
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	100	28	-	-	-	-	-	Helm et al. 2003 is missing in the references	have sent to CA for consideration.
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	100	5	100	12	-	-	-	It is not clear that RE development should be part of every optimal policy mix. The discussion of the effects of a combination of RE and emission trading is very poor. Nothing is really said about how to solve the problem of redundancy.	have sent to CA for consideration.
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	100	29	101	7	-	-	-	Perhaps a good opportunity to save space - not sure an argument that has shown to be wrong, and deals with carbon pricing rather than renewable policy, needs to be reflected in an IPCC report on renewables.	have sent to CA for consideration.
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	100	13	101	7	-	-	-	The discussion of the Sinn-argument is hard to follow. All argument against the Sinn position assume that it is possible to have a worldwide carbon tax or carbon cap. But in this case, RE development would not be needed at all and leakage cannot occur by definition!	have sent to CA for consideration.
Geoffrey Heal (Columbia University)	11	100	43	-	-	-	-	-	The reference Pindyck 1999 is missing from the references.	have sent to CA for consideration.
Karsten Neuhoff (German Institute for Economic Research (DIW Berlin))	11	100	18	100	21	-	-	-	The risk of leakage from renewable policies.Most reneawble technologies replace power produced with coal power stations. The global coal resources are large, and characterised by a very flat LTMC curve. Hence changing demand will (in the mid and long term) not impact prices. In the very short-term, a demand reduction of coal can reduce the short-term price of coal. But equally uncertainty about future demand due to changes in climate change policy reduce investment, increasing the coal proce. Hence I would dispute the blant statement that RE policies create risks of leakage.	have sent to CA for consideration.
United States (U.S. Department of State)	11	100	29	101	7	-	-	-	This material confuses the message here and is far more academic in tone than the rest of the chapter. For example, this is the first suggestion that RE, or climate, policy should be concerned with the extraction and consumption of fossil resources specifically. This is a distraction - the true focus of climate policy is on cumulative emissions on a timescale that dwarfs short-term patterns of resource consumption. A scientifically-based GHG emissions cap would by extension take care of fossil fuel consumption issues - if actors deem it rational to burn more fossil resources in the early phase of the program, that does not undermine the environmental goal of respecting a cumulative emissions cap. Policy-makers may decide separately whether the pace of resource extraction poses a problem relevant to governments, but this is way beyond the scope of this report. Delete the material from pg 100, line 29 through pg 101, line 7 as being beyond the scope of the report and having too much of an academic tone.	have sent to CA for consideration.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Joachim Weimann (Otto-von-Guericke-University Magdeburg)	11	101	8	101	24	-	-	-	At long last something is said about the interaction of emission trading and RE. But the discussion misses the point. The idea that the CO2 reductions reached by RE should be incorporated in the cap is really strange. That turns the idea of carbon trading systems upside down. The most important advantage of cap and trade is that this system allows to control CO2 emissions and to manage the reduction in a very controlled way without dictating the technology which enables the reduction. This decision is left to the decentralized agents, to the consumers and the firms. And these agents have the information and the incentive to find the most efficient solution for the reduction problem. To dictate RE means to dispossess the emission trading it¿s most important feature, namely the ability to find cost efficient solutions for every reduction aim possible.	will ensure that comments will be integrated in new text, also in case study
United States (U.S. Department of State)	11	101	34	-	-	-	-	-	Correction: "Policy-makers should expect unforeseen consequences..." etc.	will consider as we revise
United States (U.S. Department of State)	11	101	10	-	-	-	-	-	If it is not published more recently than IPCC's cutoff date for references, another good reference to add here is the following NREL report: Bird, L.; Chapman, C.; Logan, J.; Sumner, J.; Short, W. (2010). Evaluating Renewable Portfolio Standards and Carbon Cap Scenarios in the U.S. Electric Sector. 43 pp.; NREL Report No. TP-6A2-48258. Available here: http://www.nrel.gov/docs/fy10osti/48258.pdf	have sent to CA for consideration.
United States (U.S. Department of State)	11	101	37	-	-	-	-	-	Need to insert the period that is missing between "innovation" and "Social" here.	will consider as we revise
United States (U.S. Department of State)	11	101	32	-	-	-	-	-	The reference to energy systems not being "value-free" should be consistent with the discussion earlier in the chapter, with our recommended changes. (See comments on section 11.6.1.1.)	will consider as we revise
Volkmar Lauber (University of Salzburg)	11	101	-	-	-	11.6.8	-	-	delete the 5 superfluous references to ¿enabling environment¿ in this section: line 26, 27, 37, 40-41, and p.102, line 1	will edit
Kristin Seyboth (IPCC WG III TSU)	11	102	26	-	-	-	-	-	best practice policies' - in 11.5 and 11.6 it was never clearly defined what policies qualify as 'best practice' and which don't.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	102	30	102	31	-	-	-	Delete 'RE is still viewed as a 'new' source of energy from a few 'new' technologies' unless there is literature to support this claim.	will be rewritten
Thomas Praessler (Potsdam Institute for Climate Impact Research)	11	102	1	114	23	-	-	-	entire section 11.7. is - well written, readability above standard of rest of report - well structured, like the use of bullet point lists - maybe too long in total. Relevance of some areas is questionable, at least for this report	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	102	32	-	-	-	-	-	percentage of the energy used (see Chapter 1)" - supply specific numbers here that are consistent with those presented in Ch. 1	Accepted
Sweden (Swedish Environmental Protection Agency)	11	102	24	102	36	-	-	-	Repetitious, can be removed.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	102	36	102	38	-	-	-	rephrase lines to read " This section focuses on how RE can make the transition to accounting for a majority of primary energy, replacing fossil fuels as the standard, or the norm. This section explores¿"	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	102	33	-	-	-	-	-	replace 'expectations' with 'possibilities'	The final draft of the SRREN will be processed by a professional copy-editor. All editorial comments such as this will be resolved at that time.
Kristin Seyboth (IPCC WG III TSU)	11	102	27	102	29	-	-	-	Sentence "Any country¿renewable energy deployment' is so sweepingly general that it becomes wrong. Recommend rewording to read "A country that implements a best practice policy with key design features, that has taken regional issues into account and has additional support of an enabling environment is more likely to successfully increase levels of RE deployment"	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	102	39	103	17	-	-	-	The reader gets completely lost between the text on p. 102, the bullet list, and the explanation of the different sections, all which seem to say that different things are covered and in different orders. Please condense these three into one clear explanation of what is contained in the section.	will be rewritten
Volkmar Lauber (University of Salzburg)	11	102	20	104	1	11.7	-	-	delete all and start at 11.7.2	will consider as we revise.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Karen Pittel (ETH Zurich)	11	102	-	-	-	11.7	-	-	In this section there are numerous cases in which sentences are incomplete (words missing etc.). It should be very carefully reviewed.	will be rewritten
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	102	20	112	15	11.7	-	-	Review links with Ch.8, 9 and 10. The section is rather explorative and lacks examples of how large transition processes could be organised (see the works of Kemp, Rotmans, etc.)	Accepted
Karen Pittel (ETH Zurich)	11	102	27	102	29	11.7	-	-	The sentence ""Any country¿"" seems overly optimistic and simplistic. Some qualification in the form of ""...would improve its chances to succeed in delivering¿ considerably"" would render this statement more credible.	will be rewritten
Lori Bird (National Renewable Energy Laboratory)	11	103	8	-	17	11.7	-	-	This text is not helpful, it is easier to read section headings coming up. I would suggest dropping this throughout as it is not helpful to the reader, a more general discussion of topics would be better.	will consider as we revise
Kristin Seyboth (IPCC WG III TSU)	11	103	-	-	-	11.7.1	-	-	There is not a single reference in this section. The main message (envisioning what a RE world would look like without barriers) is important to allow for backcasting, but could be effectively accomplished with one concise paragraph WITH REFERENCES. Delete section on its own right, it is unnecessary.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	104	37	-	-	-	-	-	"what is needed' is unnecessarily vague and does not link to 'RE potential' presented in the subsequent, supporting text. If more information/data is needed, state so.	will be rewritten
ICHIRO MAEDA (The Federation of Electric Power Comapanies of Japan)	11	104	14	104	17	-	-	-	<comment> Amend the sentence as follows; [original] "Further RE is trying to integrate into a system (including policies, regulations and infrastructure) that was built to suit fossil fuels (which have a number of continuing useful qualities such as energy density and portability) and nuclear power." [propos?? amendment] "Further RE is trying to integrate into a system (including policies, regulations and infrastructure) that was built to suit stable and controllable power sources." <reason> It is misunderstanding that the system was built only to suit "fossil fuels and nuclear power." REs, as Hydropower or geothermal, were also included in the existing system.	will be rewritten
ICHIRO MAEDA (The Federation of Electric Power Comapanies of Japan)	11	104	17	-	-	-	-	-	<comment> Delete the sentence below; "While RE provides different benefits, services are similar." <reason> Unnecessary sentence, considered from a logical connection.	will be rewritten
Volkmar Lauber (University of Salzburg)	11	104	33	-	34	-	-	-	delete	will be rewritten
Volkmar Lauber (University of Salzburg)	11	104	25	105	12	-	-	-	has to be redone with clear references to the literature; also figure 11.13 is not very helpful for readers	will be removed
Kristin Seyboth (IPCC WG III TSU)	11	104	12	104	14	-	-	-	Sentence "A transition¿of previous transitions" is not true without a qualifier such as "in order to make substantial contribution to the goal of climate change mitigation." Otherwise we have all the time in the world to make this change.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	104	37	105	8	-	-	-	Source for this information?	Accepted
Volkmar Lauber (University of Salzburg)	11	104	16	-	17	-	-	-	the differences between fossil fuels, nuclear and RE are multiple. Find sources that discuss this issue.	will be rewritten

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Kristin Seyboth (IPCC WG III TSU)	11	104	8	104	18	-	-	-	The presentation of how the current energy transition differs from previous transitions misses crucial information: to what % does RE need to reach and by when in order to achieve climate change mitigation goals? Without this information, a critical step in the logic of the argument is missing. Recommend linking this argument with the information presented in 11.7.3 to create this link.	will be rewritten
Volkmar Lauber (University of Salzburg)	11	104	27	-	32	-	-	-	the quote of the landscape-regimes-niches should be reference	will be rewritten
Volkmar Lauber (University of Salzburg)	11	104	18	-	-	-	-	-	Unclear sentence. Does it mean that transition has to be slow?	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	104	27	-	-	-	-	-	What exactly is a 'landscape' and how does it differ from an enabling environment?	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	104	10	104	12	-	-	-	What WERE these transitions? When and where did they take place? A presentation of the specific elements of past transitions would be useful to reader here.	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	104	-	-	-	11.7.2	-	-	The main point to this section would be to explain what needs to happen on a macro-level to move toward a structural shift. However, the answer is not clear from the text. The entire section could use a heavy rewrite to answer the question - once policies and the different components of an enabling environment are aligned, what else needs to be done/considered?	will be rewritten
Volkmar Lauber (University of Salzburg)	11	105	16	-	17	-	-	-	change to ¿be explored, and so that understanding of what is required for a transition is enhanced.¿ Delete all text up to p.106, line 4 (as reader this text has no info)	will be rewritten
Volkmar Lauber (University of Salzburg)	11	105	1	-	2	-	-	-	delete	will be rewritten
Thomas Praessler (Potsdam Institute for Climate Impact Research)	11	105	11	105	12	-	-	-	Graphic is hard to follow - what is the message?	will be deleted
Kristin Seyboth (IPCC WG III TSU)	11	105	23	106	4	-	-	-	This paragraph adds no factual information, nor does it clearly link to context. (e.g. to what tensions does p. 105 line 23 refer?) Recommend deleting.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	105	-	-	-	11.7.3	-	-	This section could be of crucial importance as the link between Ch. 10 and Ch. 11, but does not yet live up to its potential. It needs rewritten to clearly explain to reader the different policy choices that are available based on climate change mitigation scenarios - i.e.the implications for choosing a high RE pathway vs. a low RE pathway - what kind of policy package is necessary/recommended in each case? This section should answer this question.	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	105	-	-	-	-	11.13	-	This figure doesn't add valuable information nor clarity - a reader cannot understand it. Recommend deleting.	will be deleted
Volkmar Lauber (University of Salzburg)	11	106	34	-	38	-	-	-	Delete: inside mulling and unclear (e.g. WHAT are the 'real differences' of line 37?)	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	106	37	106	38	-	-	-	Expand on this! Explain which features of scenarios are technology optimistic and behavioural optimistic and what actions policy makers would need to take in order to facilitate the different features.	will be rewritten
Volkmar Lauber (University of Salzburg)	11	106	11	-	14	-	-	-	Replace ¿The requirement ... themselves¿ by ¿As much as possible is done for individuals to make the transition as easy as possible, and lifestyle and behavior changes are pushed by the technologies themselves.¿ This change is proposed to avoid overemphasizing lifestyle and behavior changes.	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	106	5	106	17	-	-	-	This paragraph does not currently provide evidence for the imporance of policy choice, but rather the link between technology and behavior, which would be better suited in 11.7.5. All related arguments in section should also be shifted.	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	107	23	-	-	-	-	-	"The conclusion to be drawn" - but there are no clear arguments presented tor each this conclusion! Text above introduces concepts of bricolage vs. breakthrough and states that the energy transition cannot be achieved by single actors. This in no way leads to a lesson that small steps should build on those changes before them.	will be rewritten

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Kristin Seyboth (IPCC WG III TSU)	11	107	8	107	10	-	-	-	Good information! How, though, does it relate to technology vs. behavioral optimistic routes presented on p. 106 lines 30-38?	will be rewritten
Thomas Praessler (Potsdam Institute for Climate Impact Research)	11	107	1	107	1	-	-	-	Sorry to say it bluntly: this figure is unnecessary. The text describes the issue very well already and from a chart design point of view the figure does not meet professional standards.	figure will be deleted or changed
Australia (0)	11	107	-	-	-	11.7.4	-	-	An innovation system is an open network of organisations both interacting with each other and operating within an environment that regulates their activities and interactions. These three components (actors, institutional environment and linkages) of the innovation system collectively function to produce and diffuse innovations that have, in aggregate, economic, social and/or environmental value. The idea of an innovation system is simple: Any organisation does not innovate alone. Using this definition more broadly complements the concept of an 'energy system' and encompasses the concepts of an 'enabling environment,' 'social innovation' and 'bricolage vs. breakthrough' used in chapter 11 and could be used as a common thread linking sections. The argument in 11.7.4 on 'bricolage vs. breakthrough' is a useful summary of the concepts underlying a systems approach to policy and innovation and might be more useful in section 11.6. Section 11.7.4 fails to acknowledge that a portfolio approach to policy can be used where breakthrough policies are needed or where timing is important e.g. economic stimulus in response to the global financial crisis. Breakthrough policies can be piloted at the same time as incremental policy innovation is taking place. This experimental trial approach allows breakthrough policies to undergo a learning process to avoid major policy failure.	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	107	-	-	-	11.7.4	-	-	Section currently misses an explanation of the consequences of the two approaches and the different policy packages that would allow either a bricolage or a breakthrough. Should be expanded to include this as well as the positive and negative consequences of either choice.	will be rewritten
Canada (Environment Canada)	11	107	-	-	-	11.7.4	-	-	This section is difficult to understand and requires in-depth editing.	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	107	-	-	-	-	11.14	-	Delete figure. It tells the reader almost nothing.	will be deleted
Volkmar Lauber (University of Salzburg)	11	108	32	-	-	-	-	-	¿mititate¿ - militate?	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	108	12	108	22	-	-	-	A reader has no idea what this paragraph is trying to say and how the terms values, beliefs, personal normsl, social norms, decision points, behavior etc. relate to eachother. A clear definition of these terms and a flow diagram explaining their relationship would be useful. Also terms could/should be submitted to SRREN Glossary once clearly defined.	will be rewritten
Dirk Rübbelke (Basque Centre for Climate Change and IKERBASQUE)	11	108	18	-	-	-	-	-	blank is missing (in front of "In")	will be rewritten
Volkmar Lauber (University of Salzburg)	11	108	41	-	-	-	-	-	replace ¿micro CHP¿ by ¿energy efficiency¿ (micro CHP is mostly fossil fuel driven)	will be rewritten
Volkmar Lauber (University of Salzburg)	11	108	6	-	11	-	-	-	replace by ¿This section discusses how a social mindset could alter, thereby complementing and helping a structural shift to a low carbon economy occur.¿	will consider as we revise.
Kristin Seyboth (IPCC WG III TSU)	11	108	35	-	-	-	-	-	Social visibility should be included in SRREN glossary.	will consider as we revise
United States (U.S. Department of State)	11	108	4	-	-	-	-	-	Suggest adding an additional paragraph to section 11.5.2 on page 44: Bricolage works best, when an existing technological approach is approaching maturity. Then incremental improvements can reduce costs, improve reliability, and promote development of the institutional framework needed to operate the technology successfully. On the other hand, communities engaging in bricolage run the risk of being leapfrogged by a superior technology, and being locked into an obsolescent approach. Both types of activity have their place: breakthroughs are high risk/high return, bricolage produces lower but far more certain returns. Ideally, both would be pursued in parallel.	will take note but section being rewritten

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	108	35	109	11	-	-	-	These two paragraphs need to be made clearer. They are a little bit obscure. The understanding of the text is very difficult, and final message not evident. Too much references and very few content.	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	108	-	-	-	11.7.5	-	-	Recommend cutting entire section to 11.6 under discussions of civil society.	we are accepting this in that the section is being rewritten and transferred somewhere else
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	109	4	-	-	-	-	-	Brennan, 2007 is not listed in the reference list.	Accepted
Felix Creutzig (TU Berlin)	11	109	14	-	-	-	-	-	Droege not Droeghe (see also line 21).	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	109	36	-	-	-	-	-	If the text in the box is fundamental to section (which it seems to be), it does not belong in a box.	WILL MOVE
Volkmar Lauber (University of Salzburg)	11	109	5	-	8	-	-	-	remove the two texts in brackets ¿ they do not add information	will be rewritten
Volkmar Lauber (University of Salzburg)	11	109	9	-	11	-	-	-	repeats what is on p.108, lines 26-28 (once is enough).	will be rewritten
Volkmar Lauber (University of Salzburg)	11	109	24	-	35	-	-	-	The question comes up in reading all this: how much of isolated success stories depends on ¿the enabling (subsidizing) environment¿ (see the industrial metabolism (Ayres) as analytical framework)? See e.g. ¿grants from the EU etc.¿ (p.110, line 13); inflow from tourism (p.110, line 17); what about transport, in particular air flights?	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	109	24	109	35	-	-	-	These bullets can be deleted, except for the 2nd bullet, which belongs in 11.7.6.1. Positive aspects of RE (Bullets 1 and 3) have already been thoroughly covered above and the 4th bullet sounds uninformed as scenarios generally focus on regional/national/global cases and these examples are isolated incedents and therefore would logically not be covered.	will be rewritten
Volkmar Lauber (University of Salzburg)	11	109	20	-	22	-	-	-	this is a puzzling text: first, is ¿market¿ an actor? A market is a social institution/structure where agents exchange goods and services ¿ maybe what is meant here is ¿business¿?; second, ¿state¿ is mostly understood as the central (national) state, while here most deals with local authorities; third, at the end of the text (line 22) it is changed into ¿the State; the social mindset (?) and institutions (?). please make clear	will be rewritten
Fritz Vahrenholt (Prof. Dr.) (RWE Innogy GmbH)	11	109	12	110	35	-	-	-	This must be relativised. 100% supply is only feasible in a few niche areas in the near future. The report should be able to distinguish between necessary large-scale solutions and case-specific small-scale solutions, which are not transferable on a on a 1:1 basis.	will be rewritten
Kristin Seyboth (IPCC WG III TSU)	11	109	16	-	-	-	-	-	Why is being on the forefront of the energy system a limitation for potential learning?	will consider as we revise
Kristin Seyboth (IPCC WG III TSU)	11	109	-	-	-	11.7.6	-	-	Would recommend deleting entire section. 11.7 has the potential to be a critical section, and this sub-section does not provide the reader enough additional substantial information to be valuable.	section is being rewritten
Kristin Seyboth (IPCC WG III TSU)	11	110	16	110	35	-	-	-	China case study fails to mention what percent of final energy RE accounts for. Do they also ready 100%?	will include if possible.
Kristin Seyboth (IPCC WG III TSU)	11	110	17	110	18	-	-	-	Delete. Unnecessary and hints at advocacy as no reference is presented.	will revise text
Volkmar Lauber (University of Salzburg)	11	111	32	-	34	-	-	-	FIT are here connected with 'changing values' and uncertainty, while in section 11.5 FIT is the reference for continuity and certainty. Is the idea that FIT are endangered by regulatory change?	will take note
Volkmar Lauber (University of Salzburg)	11	111	18	112	15	-	-	-	the various points are not totally convincing; there is quite some repetition in the text, there is a feeling a lot is missing or doubt about 'are this really the major' ones; it is a bit a disappointing end of this section and chapter	will be rewritten

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Kristin Seyboth (IPCC WG III TSU)	11	111	16	-	-	11.7.6.2	-	-	Ideally this section would come before 11.7.6.1, first explaining the challenges and THEN explaining what was done to overcome those challenges.	These are two ilustrative cases like others in the chapter, hence a box seems adequate.
Kristin Seyboth (IPCC WG III TSU)	11	112	20	-	-	-	-	-	"Governments are required" sound policy prescriptive and should be deleted. Recommend rephrasing as "In order to reach goals of climate change mitigation within a timeframe that will allow for success, governments should¿"	will be rewritten
Volkmar Lauber (University of Salzburg)	11	112	34	-	-	-	-	-	¿the degree to which the State, the market and civil society are brought together¿ is oracle talk: the chapter has shown that all public authorities at all levels have a role (not just ¿the State¿), that markets and market participants are indeed crucial (but that is more than ¿the market¿); how are they ¿brought together¿?	will take note
Volkmar Lauber (University of Salzburg)	11	112	30	-	31	-	-	-	Not a ¿key choice¿, as the text also ends with 'combined both'	Accepted
Volkmar Lauber (University of Salzburg)	11	112	26	-	-	-	-	-	replace ¿the¿ by ¿an¿	Accepted
Sweden (Swedish Environmental Protection Agency)	11	112	28	112	31	-	-	-	These are not choices of either or. It should be clarified that it is a question of finding the balance point.	delete / rephrase
Volkmar Lauber (University of Salzburg)	11	112	29	-	-	-	-	-	this is NOT a key choice, at least not globally ¿ because we need both, perhaps yes circumstantial	Accepted
Volkmar Lauber (University of Salzburg)	11	112	38	-	39	-	-	-	What does this sentence mean?	will be rewritten
Jänicke Martin (Environmental Policy Research Centre)	11	113	30	-	-	-	-	-	This dynamic mechanism has encouraged several governments to introduce stricter targets.	similar to previous
Steve Sawyer (Global Wind Energy Council)	11	113	11	113	18	11.7.8	-	-	Again we would urge you to include water consumption from the energy sector and low water consuming RE technologies as an important benefit.	Possibly can be addressed by more careful language?
Karen Pittel (ETH Zurich)	11	113	-	-	-	11.7.8	-	-	Rather than labelling this subsection 11.7.8, this section should be labelled 11.8 as it provides a summary of the entire chapter. Also subsection 11.7.8 and Box 11.1 are identical. In my view, Box 11.1 should deleted and the reference to Box 11.1 on page 7 line 22 could be replaced by a reference to ""11.8 Conclusions/Summary"".	Good idea about portfolio approach / co-evolution, etc. - Not sure how to link to innovation systems. However not allowed a new section - but will take note
China (China Meteorological Administration)	11	114	28	-	-	11.7.8	-	-	Add the conclusion "The future global exploitation and utilization of the renewable energies in massive scales still face many huge challenges, and only after a certain period that is necessary for their development, can they be in a better position to compete with traditional fossil fuels in terms of their exploitation and utilization costs. This not only requires supportive policies from all governments, but it also needs the even more global joint efforts, especially the strong supports and assistances from the developed countries to the developing countries." as Conclusion 12.	will take note
Kristin Seyboth (IPCC WG III TSU)	11	126	17	-	21	-	-	-	IEA 2007a and IEA 2007b are the same reference - duplicated.	great comment cf. 1160
Kristin Seyboth (IPCC WG III TSU)	11	129	21	-	25	-	-	-	Langniss O and R. Wiser appears twice in reference list - duplicated.	cf. 1160, 1164
Volkmar Lauber (University of Salzburg)	11	-	-	-	-	11.2.1	-	11.1	Table 11.1 improvements are: 1) titles of subheadings are better defined as ¿Access Issues; Quota driven Instruments; Price driven Instruments; Quality Aspects and Incentives; Fiscal Instruments; Public Finance¿; the last entry ¿other¿ is better taken up with as title 'Public Procurement ' under the ¿Quality Aspects and Incentives¿ entry next to 'Green energy purchasing' where it is related to. Then a lot of text follows trying to convince the readers how widely RE policies are spread, etc.. This could be said much shorter. But the text ends with telling that only 5 countries do 85% wind; 3 countries 82% PV and a handful bioenergy (p.21: lines 42 etc.). Two points: first, this shows that a number of countries doing something does not convey a lot of information; second, the section is internally a bit contradictory because at the moment that readers start to believe RE policies are wide-spread the message comes: but this is irrelevant, see the few that do almost all; or it may make sense when both messages are combined, but this should be done explicitly	will consider as we revise both the table and text.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	-	-	-	-	-	-	11.1	Some other instruments that could be added include: Under "Regulatory": IP flexibilities: The use of IP flexibilities could allow a wider use and dissemination of clean/green technologies. Exceptions to title holders rights (e.g. a wider research and development exception in patent law for climate change technologies that could allow reengineering), stricter application of patentability criteria (i.e. higher standard on industrial application), or making proprietary technology available to competitors in order to reduce prices or to promote wider access (e.g. through issuing compulsory licensing) are some of the potential IP flexibilities that could be at hand. These flexibilities have a horizontal effect and therefore are applicable to all three sectors. According to preliminary findings by the EPO/UNEP/ICTSD while in the field of clean energy most of the technology is off patent (about 70%). An increasing growth in patent filing on clean energy technologies (from 2% to 7% depending on the field of the technology) and high concentration of patenting levels in only five countries, might call for use of TRIPS flexibilities. Another option to further explore is the use of patent pools (there is a precedent under the WHO called UNITAID) that would create incentives for cooperation among IP holders and facilitate licensing for external users. For preliminary findings and further information and data see a presentation by Benjamin Simons UNEP/EPO/ICTSD at: http://ictsd.org/downloads/2010/07/presentation_simmons.pdf Under "Other": Advanced market/purchase commitments: This type of instrument focuses on the final outcome generated by the production process plus delivery to the end user. In this case a higher level of clean energy supply to the grid can be purchased in advance, assisting the supplier in assuming the investment cost of expanding existing capacity. The advantages of this mechanism are that the price is agreed in advance and that it ensures the full delivery of the good and related services. This type of mechanism is commonly used in the production and delivery of vaccines so the procuring entity guarantees that the product arrives to the end consumer without further intervention. They have a horizontal effect and therefore are applicable to all three sectors. This instrument can have similar effect to FITs but with a longer-term perspective for the potential suppliers. Under "Other": Prize systems: One mechanism that has proven to be useful in R&D projects is the so-called prize system. In this case a fix prize will be given to those enterprises or individuals that find a technological solution to a particular problem in light of pre established ToRs. The enterprise or individual that provides the solution first will get the prize. This system incentivizes competition among research centres that might already have lines of research in the particular area by giving them particular incentives to move for the basic science to prototype and product development. This type of mechanism has been widely used by the X Prize Foundation.	will take note of this.
Taishi Sugiyama (Central Research Institute of Electric Power Industry (CRIEPI))	11	-	-	-	-	11.3	-	-	There are criticisms to the benefits estimate of RE, and they must be reviewed. For exapmle, Lesser, J.A. Renewable Energy and the Fallacy of 'Green Jobs', Electr, J. (2010), doi:10.1016/j.rej.2010.06.019.	Accepted
Lori Bird (National Renewable Energy Laboratory)	11	-	-	-	-	11.5	-	-	Overall, this chapter is much improved from the last version. The detailed discussions of policy in section 11.5 are good as are the discussions of financing issues. Sections 11.3 and 11.4 need work. The chapter does not flow in parts and much of it needs editing. I would suggest revisiting the structure of the beginning of 11.5 and reference to the policy table in the front of the chapter, that is awkward for the reader.	will consider as we revise
Frank Krysiak (University of Basel)	11	-	-	-	-	11.5	-	-	Some parts (11.5.4-11.5.6) are slightly repetitive as similar points are discussed for electricity, heat, and transportation. Perhaps, the later parts could focus even more strongly on what is different to what has been said before and a few of the examples in the boxes could be dropped, saving 1-2 pages.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Michael Hübler (Potsdam Institute for Climate Impact Research)	11	-	-	-	-	11.6	-	-	Referring to chapters 9 and/or 11 concerning international technology transfer/diffusion (here short ITT). ITT is implicitly covered by chapters 9 and 11. I suggest to add a text box or a section that treats ITT explicitly and systematically. What are potential source and recipient countries/regions for which technologies (hardware) or technological skills (software)? Through which channels and policy measures can ITT be achieved regarding the international dimension; are there differences between countries/regions and technologies? What are the necessary local conditions in recipient countries/regions to install transferred technologies? In how far is the adjustment of technologies, which have been developed in industrialized countries, to the local conditions in developing countries in terms of costs, management and practical realization challenging? In how far is maintenance in terms of skilled technicians, technical equipment and spear parts possible and guarantied in certain developing countries/regions? What are possible solutions for these aspects? Can transferred technologies be imitated and modified in recipient countries in the longer term? What role do Intellectual Property Rights (IPR) play, should they be strengthened or relaxed; and if so in which cases? For which developing countries/regions and technologies is innovation (in form of substantial changes based on existing technologies) an option besides ITT? What are the local preconditions for successfully adopting technologies - such as education and technical skills summarized as absorptive capacity; what are the local preconditions for imitating and possibly innovating? How can industrialized countries improve these preconditions in developing countries?	we still haven't sorted TT - needs to be discussed; send this text to CA for tech transfer
Sweden (Swedish Environmental Protection Agency)	11	-	-	-	-	11.6	-	-	The entire Section 11.6 is suffering from unpredictable and recurring shifts between the prescriptive and descriptive (governments SHOULD vs what actually is happening). It needs to be clarified when these shifts are made and obviously the reader needs to be convinced that the prescriptive is based on something. Many times, this is not articulated.	Accepted
Patrick Matschoss (TSU)	11	-	-	-	-	-	-	-	check definitions in glossary (quite a number of finance-relevant ones spread across AnnexI); liaise with chapter 1 if not consistent	Accepted
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	-	-	-	-	-	-	-	Comments no.1 and 2 are particularly relevant for Ch.11. Synthesis at section level is rather scant. Use more and more precise cross-references to other chapters, notably - but not exclusively - chapters 1, 8, 9, 10. This will also help to find text that can be condensed or skipped.	agree with this, but we will need to assign chapters again for this task unless the TSU will address this issue.
Adriaan Perrels (Finnish Meteorological Insitute (FMI) & Government Institute for Economic Research (VATT))	11	-	-	-	-	-	-	-	Even though Ch.1 and Ch.8 (and some other chapters) go at length to discuss the very important synergy between (end-use) energy efficiency and Ch.11 does not take up the issue to the extent it deserves. See also comments no.11 and 12	YES agree - important> Will consider how best to do this while also incorporating changes recommended by other reviewers.
Steffen Schlömer (IPCC WGIII)	11	-	-	-	-	-	-	-	I strongly recommend that the authors of the policy chapter have a close look at section 4.4.4 "Impact of Policies" in the chapter on geothermal energy, since that section does not cite any references, but rather presents the sole view of the authors of that chapter on policy issues.	Accepted
Emmanuel Branche (Electricité de France)	11	-	-	-	-	-	-	-	In this chapter (pages 8, 21, 22 & 26 for instance) value/trend, etc. refer several times to non-hydro renewable (or to small hydro). I assume it is interesting to provide those value for this RE technology (maybe, refer chapter 5)	Accepted
Sweden (Swedish Environmental Protection Agency)	11	-	-	-	-	-	-	-	Overall this is a seriously fragmented and disorganised chapter.	Accepted
Felix Creutzig (TU Berlin)	11	-	16	-	20	-	-	-	References seem to be gray literature. However: probably hard to find peer-reviewed literature in this field. Needs proper attention.	needs to be aligned with SPM etc.
Seth Dunn (GE)	11	-	-	-	-	-	-	-	See comment 2. I did not see a similar overview of RE policy criteria.	Cannot find comment 2. Will expand discussion re policy criteria.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Nico Bauer (Potsdam Institute for Climate Impact Research)	11	-	-	-	-	-	-	-	The chapter should point out the significance of carbon pricing (via taxes on emissions or international cap-and-trade systems). This is also important to be consistent with Chapter 10, where all the scenarios are fundamentally (!!!) driven by carbon pricing. Since most of these models do not capture all externalities, existing taxes and subsidies, and other imperfections additional policies might be justified to achieve the mitigation target at lowest possible costs. The Chapter is biased towards these additional policies and does not appreciate carbon pricing sufficiently; see list of major findings on page 7. It is essential for a IPCC report to start the discussion from the issue of climate change mitigation and from the issue of RE deployment. In this Chapter RE deployment turns out to be the objective and not the mean, but from the climate change perspective the issue is the other way around. Moreover, the deployment of RE does not necessarily lead to reduction of fossil fuel use and therefore CO2 emissions. If the emphasis of policy is on RE deployment the world is supposed to end up with high energy supply and CO2 emissions that are not consistent with stabilization targets.	part of discussion of boundaries and position within sections; will be addressed by putting carbon pricing up front and including discussion on economics.
Taishi Sugiyama (Central Research Institute of Electric Power Industry (CRIEPI))	11	-	-	-	-	-	-	-	There are criticisms to the cost effectiveness of RE promotion policies, and they must be reviewed. For example, Frondel, Manuel et al., Economic Impacts from the promotion of renewable energy technologies: The German Experience, Energy Policy 38(2010) 4048-4056 doi:10.1016/j.enpol.2010.03.029. ; Aonther example is Simon Less, editor, "Greener, Cheaper", Policy Exchange, www.policyexchange.org.uk, ISBN 978-1-906097-82-0.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11,1	-	-	The introduction is far too long and includes verbatim repetition of material found shortly thereafter in the chapter (such as the bulleted list of what appears in Box 11.1) as well as conclusions just covered in the preceding Executive Summary. It is recommended that the authors delete everything in the introduction after line 21 on page 7.	Introduction will be rewritten
United States (U.S. Department of State)	11	-	-	-	-	11,2	-	-	This section could benefit from a more concise, but more targeted review of financing in the RE sector. -11.2.1: Identification of relevant actors (such as the World Bank and other Int¿l Financial Institutions) and an outline of how funding typically flows to energy projects would be a helpful introduction here and would provide context for understanding recent trends. This could be achieved through a brief discussion or graphic representations, but is not achieved effectively by Table 11.2 -11.2.2: Information from 11.6.4 ("The recent evolution of the RE financial sector") could be moved forward to this section, as it is relevant to recent trends in public finance. Information regarding the impact of the global recession on RE finance should also be included. -11.2.2.4- 11.2.2.6, 11.2.2.8: It is unclear why there are four distinct sections for this information. It could be incorporated into one, broad discussion along with 11.6.4 ("The recent evolution of the RE financial sector") with the goal of establishing the underlying general trends and context of current RE finance activities. Any further elaboration or specificity seems only to add length.	will add to 11.2.2
Australia (0)	11	-	-	-	-	11,3	-	-	Suggest that for each policy objective or driver the main barriers (from section 11.4) stopping RE from helping to meet the objective need to be identifed. This will then set up the discussion in 11.5 of analysing policy options to address the barriers.	will consider as we revise
United States (U.S. Department of State)	11	-	-	-	-	11,3	-	-	The existing second paragraph of 11.3 (page 28, line 14) makes the excellent point that these important benefits dovetail with RE deployment to meet climate stability goals. The report can continue to highlight the primary focus of developing nations on energy access to illustrate that international support for RE should include prioritizing these RE benefits, but the report must not relegate RE climate mitigation potential to be simply listed among these other benefits mentioned here.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11,3	-	-	This section's organization is disconcerting because it presents climate change mitigation as only one of a laundry list of reasons why renewable energy is interesting or valuable which is not the right approach for IPCC to take. The stability of the planet's climate must be presented as THE reason that renewable energy is the non-negotiable backbone of future energy systems. The first paragraph of section 11.3 (which is confusing and vague) should be replaced with a stronger introduction that crystallizes the role of RE in the GHG mitigation required to attain climate stability goals (limiting global temperature increase to 2 degrees Celsius by 2100, for example). That can include the rather limited information presented currently in 11.3.1, but it should reference projections of RE GHG abatement potential offered in greater detail elsewhere in the report (such as Chapter 10). This section's lead-in is a key opportunity to demonstrate (ideally, re-demonstrate) to the reader that climate change is a direct consequence of nonrenewable resource use (the combustion of fossilized carbon gives us the lopsided transfer of energy from the lithosphere to the atmosphere that destabilizes the natural carbon cycle and planetary energy balance), and that the most significant driver to deploying RE is to transition to a system that respects these global ecological cycles to preserve a habitable and recognizable human environment. The remainder of 11.3 may be devoted to detailing what should be described as "ancillary benefits" to RE (access to energy, energy security, economic development, etc.).	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	-	-	-	-	11,4	-	-	Section 11.4: It doesn¿t make sense to have a section in the chapter on ¿barriers to policies¿. Rather, policies, including public financing, may be needed to address barriers to private investment in RE. See above suggestion regarding structure of the chapter. The recommendation is to delete this section and replace it with the proposed section II on barriers.	part of discussion of how we navigate barriers and policies throughouut chapter
United States (U.S. Department of State)	11	-	-	-	-	11,4	-	-	It would be very helpful to arrange a table of these barriers at the front of this section to give a sense of direction and scope of the barriers. It is possible that this was done for some of the IPEEC work.	Will consider as we revise the chapter.
United States (U.S. Department of State)	11	-	-	-	-	11,5; Boxes	-	-	This section is good and should be considered the backbone of the chapter. Some of these topics could be expanded on if you save space in other areas. The country case studies, both in separate boxes and in text, are the strongest and most compelling parts of this chapter. The most effective sections are those that structure themselves around analyzing and comparing successful case studies. -11.5.1.1- 11.5.1.1.5: These sections are very general and could probably be summarized more concisely within one, introductory section. - What is the difference between section 11.5.1 and 11.5.2? - These two sections could be reorganized according to the organization of Table 11.1. - Sections 11.5.1.2 and 11.5.1.3 were a little long-winded considering how basic the material is. -11.5.1.6-11.5.1.7: This is a good place to elaborate on how risk and uncertainty affect private investment and then connect that to the role of public support. Effective risk management is one of the most important strategies that this chapter highlights for improving the state of RE finance, so it should be introduced in the beginning of the policy discussion.	Good suggestions. Will consider as we revise.
United States (U.S. Department of State)	11	-	-	-	-	11,7	-	-	Section 11.7 offers the most obvious material that should be largely deleted to help Chapter 11 respect its goal length. The vast majority of section 11.7 is redundant with material already covered earlier in the Chapter.	Section will be rewritten
Mark Fulton (Deutsche Asset Management, Deutsche Bank)	11	-	-	-	-	11.1	-	-	General comment: Concept of industry policies and job creation could be brought out more, especially in the Executive Summary and Introduction of Chapter 11. This is briefly discussed on Page 11, Line 20.	we take note of this. Job creation potential is in 11.3, but there is no need to emphasize this more in the ES and introduction.
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	-	-	-	-	11.1	-	-	The introduction should create a sub-section on the most successful policies, such as FIT, RPS and biofuels mandates, similarly as the sub-section to enabling environment.	The introduction is not the place for such conclusions.
Frank Krysiak (University of Basel)	11	-	-	-	-	11.1, 11.5	-	-	In most parts of this section, a policy is presumed to be successful if it increases the share of RE. This is not a reasonable measure of success, as it does not include the costs. It is questionable whether an increased use of PV in Germany (for instance) is really a success, as this type of RE is much more expensive there than, e.g., wind power. Furthermore, it is not reasonable to measure the effect of a policy without taking direct costs (as expenditures for subsidies, etc.) into account; a policy that increases the share of RE by 1% at the costs of several hundred billion US $ would hardly be a succes. "Effective" or "efficacious" might be better terms than "successful".	This will be addressed as we revise the chapter.
United States (U.S. Department of State)	11	-	-	-	-	11.1.1	-	-	Delete this section since it will be covered in sections 11.5 and 11.6. Or, elaborate on each section of chapter 11, giving each section one paragraph of description in the introduction (Section 1.1).	Will rewrite introduction.
United States (U.S. Department of State)	11	-	-	-	-	11.1.1	-	-	This section is largely extraneous and operates as a commercial for material better dealt with in section 11.6. Striking 11.1.1 would be a great way to move Chapter 11 closer to its length target and it would improve the flow of the Chapter, as the Introduction should be immediately followed by the Chapter Roadmap anyway.	Will rewrite introduction.
Seth Dunn (GE)	11	-	-	-	-	11.1.1	-	-	Why do you have this section prior to the chapter roadmap, or at all? Seems repetitive.	Will rewrite introduction.
United States (U.S. Department of State)	11	-	-	-	-	11.2.2.2	-	-	Instead of the lengthy discussion of the location of data, this section should distill that data, in terms of how R&D funding compares in different years, different countries, different technologies. Included in this section now are only scattered pieces of country R&D amounts, rather than a comprehensive review that is informative and gives broader understanding.	will address to the extent possible. Authors are not aware of a source of reliable and comprehensive global R&D data.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	-	-	-	-	11.2.2.2	-	-	It would be very instructive to tie this discussion back to a point made just before this section more concretely to the regional comparisons made here between the EU and the US, among others. The point is on lines 19-21 of page 22, and reads: "Trends in R&D funding and technology investment are indicators of the long to mid-term expectations for the sector..." It would be useful here to link climate policy to R&D, such as the potential for well-defined climate targets to drive public and private R&D investment.	will address if possible.
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	-	-	-	-	11.2.2.2	-	-	The section highlights some trends, but does not show whether R&D in RE technologies is largely a public endeavor or left to the private sector. It also does not show where R&D is concentrated geographically due to established financing mechanisms.	Need to ask original CA
United States (U.S. Department of State)	11	-	-	-	-	11.2.2.3	-	-	Government role in financing commercialization could be included here also. E.g., loan guarantees in the U.S.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.2.2.3	-	-	Is the VC model appropriate for RE? RE is much more capital intensive than software companies and may require longer periods of investments which delay the exit. Does this pose any problems?	Accepted
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	-	-	-	-	11.2.2.4	-	-	It is worth highlighting the role of transnational corporations and foreign direct investment in the spread of renewable equipment manufacturing throughout the world. In its research for the World Investment Report 2010 UNCTAD noted that a number of important TNCs have made investments in this arena in countries around the world, especially in the developing world. Thus, in terms of policies relevant to attracting/nurturing renewable equipment manufacturing investments policymakers should consider revising their international investment promotion efforts and tailoring their investment framework to be conducive to these kinds of cross-border investments. See: World Investment Report 2010 (available at www.unctad.org/wir).	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.2.2.4	-	-	The supply bottlenecks mentioned were at least partly due to unstable policy support, especially in the US where key short-lived production and investment tax credits caused huge spikes in rushed RE installations to beat the deadlines to qualify for the tax credits. It would be worthwhile to point out that manufacturing facility finance has gone through poor policy-induced boom and bust cycles that have likely made manufacturers think twice about extending supply capacity in a more robust, long-term fashion.	Accepted
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	-	-	-	-	11.2.2.5	-	-	RE investments in developing countries are often made by transnational corporations, or in conjunction with them, through both equity and non-equity modes of foreign investment. For policymakers in these countries it is important to take note of this trend and develop policy frameworks that address issues related to foreign direct investment. See: World Investment Report 2010 (available at www.unctad.org/wir).	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.2.2.6; PACE Box	-	-	Box 11.10, on PACE (currently in section 11.5.4.2) should be moved to this section, and the text should reference this box in appropriate places. An important point on PACE that's not currently included in the box: This microfinancing arrangement is critical for allowing homeowners to make RE purchase decisions without requiring an extremely short payback period (before they foresee selling the property). Any references to PACE in the box should acknowledge the challenges the program currently faces.	Accepted
Inmaculada Martínez-Zarzoso (Georg-August Universitaet Goettingen and Universitat Jaume I)	11	-	-	-	-	11.2.2.7	-	-	A more careful attention of the role played by CDM and JI should be payed, adding more recent evidence.	Accepted
Sweden (Swedish Environmental Protection Agency)	11	-	-	-	-	11.3	-	-	The key drivers listed in bullet form are not the same as the ones subsequently used as subsection heading, which is confusing	Accepted
Volkmar Lauber (University of Salzburg)	11	-	-	-	-	11.3	-	-	This section reads pleasantly; it highlights a number of indeed Key drivers and Opportunities favorable for RE. In the beginning of this section, a brief reference to the SWOT framework and ¿enabling environment¿ (11.6) is worthwhile because this is what enables RE. The factual examples and information are well described by sub-section, laced by more generic considerations; as place saver, I would suggest to keep the factual info here and shrink it / delete it on pages 19-21.	Good suggestion. This will be covered in another section of the chapter.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	-	-	-	-	11.3.2	-	-	The section should include a reference to the role of official development assistance (ODA) with respect to renewable energy technology deployment in developing countries. ODA often plays a crucial role in creating the necessary incentives. Even though there is a relevant section later in the chapter, it should already be mentioned here.	Accepted
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	-	-	-	-	11.3.3	-	-	It is mentioned in the section that "RE represents a portfolio in itself with different sources tapped." It is left out though that due to climate change this portfolio is in the process of being diversified in some developing countries, e.g. Peru, Venezuela and Ethiopia (away from hydro).	will address
Greece (National Observatory of Athens)	11	-	-	-	-	11.3.3	-	-	The section on energy security and diversification refers almost exclusively to developing countries. However, these issues as well as decentralisation of energy systems are also relevant and valid for developed countries	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.3.3	-	-	This section's organization could be improved by leading with the material most readers will expect to see under the title "energy security" - which is currently in the second and third paragraphs on diversified energy portfolios and reducing reliance on foreign fuel supplies. The existing first paragraph should be presented after this other material, with a transition that explains to the reader that "energy security" also has these other meanings of grid reliability and reduced vulnerability from decentralized infrastructure, etc.	Accepted
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	-	-	-	-	11.3.4	-	-	The issue of intellectual property rights is under-represented. The mention on page 45, line 40, is insufficient and the issue is missing from the discussion in 11.3.4. This can be a major issue for developing countries and LDCs as a relevant share of RE technology is under patent and, as some technologies are far from being mature (i.e. wind, geothermal fuel cells), will continue to be under strong IPR protection for some time to come. There are trends for increasing patenting in clean technologies. Problems of access to technology might become more relevant with time. The solution may be to have governments and firms jointly commit to re-file patents with some compulsory licensing conditions, whereby anyone wishing to pay a pre-determined royalty may use the technology in the manufacture of equipment/hardware/materials/energy at local cost. In addition, royalties should be prescribed with adjustments for income disparities, provided the equipment/hardware/materials/energy is used locally or exported to countries with comparable economic development and income. Also trade incentives such as no tariffs for capital goods to be used in climate friendly project such as CDMs could be of assistance. Given the urgency of the climate change issue, the international community should also seriously consider subjugating all RE related patents to a "use it or lose" provisions or local working patent requirements. More to the point, this section highlights that none of the examples are commercially sustainable.	Good comment. Will be address in technology transfer section
Pekka Pirila (Aalto University)	11	-	-	-	-	11.3.5	-	-	The title should be more neutral as there are also many environmental problems related to RE. The last paragraph of this chapter mentions this fact but this is not sufficient to give the right balance. When the scale of RE grows, its environmental problems become a more and more essential consideration.	Accepted
Christoph von Stechow (IPCC WGIII TSU)	11	-	-	-	-	11.4	-	-	The barrier classification would need to be adjusted in case that the classification in ch. 1 (that ch. 11 is based on) has to be changed due to expert comments.	will check to be sure chapters are consistent.
United States (U.S. Department of State)	11	-	-	-	-	11.4.1.1	-	-	This section is very confusing. It reads like a highly compact literature review with references to several undefined concepts (such as "RE technological development is uncertain, dynamic, systemic, and cumulative" - what does any of that mean?). This section needs to be refocused on the key points, which appear to be: (1) challenge to envision a sustainable energy future and assess the role of RE therein; (2) challenge of linking energy policy design to other social policy goals with valid connections to RE; (3) challenge for policy-makers to keep pace with the frontier of RE technological development; (4) challenge for governments to secure enough social consensus to transition to an RE-fueled sustainable energy future. The bullets in this section should be headlined with a clear expression of these main points, with the currently drafted material offered as additional explanatory information where necessary.	part of barriers and policies discussion; will consider as section is revised.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	-	-	-	-	11.4.1.2	-	-	RE offers a tool that will only be used if a powerful realignment of cultural norms occurs to shift toward a respect for economic-environmental sustainability and intergenerational equity (a major touchstone of climate stability). This section must explore the barriers posed by lack of current cultural attention to these issues. This section also lacks any recognition of NIMBY ("not in my backyard"), a significant socio-cultural barrier to RE development, at least in the United States. Many communities which passively accept visibility-impairing smog from fossil fuel-fired power stations react disproportionately to the impact of wind turbines on viewsheds, because people behaviorally overreact to fully visible stimuli (like a solid windmill) while ignoring more harmful stimuli that are not easily perceived (like semi-visible, widely dispersed clouds of smog from distant power stations outside of the immediate viewshed). A discussion of the socio-cultural aspects of NIMBY and the specific consequences for a transition to RE should be a part of this section.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.4.1.2	-	-	This section leads with an excellent point - that "straightforward" policy signals such as prices do not account for complex behavioral responses. But the section quickly descends into a confusing series of references to "active" and "passive" behavior typologies without making a clear connection to RE-specific barriers. The section reads like a psychology literature review instead of a clear discussion of socio-cultural challenges to RE applications. For example, the reader wants to know why and how RE would require a change in behavior - and why these changes might be difficult to grapple with. Does the reader have specific values or norms that need to evolve to accommodate certain aspects of RE? If the reader stated my passive support of RE in an opinion poll, what is that next "active" step that the reader might falter to take, and why? One of these "active" steps is already addressed in a following subsection, and that is agreeing to pay for the proper cost of energy. In this socio-cultural section, it bears calling out that citizens are largely ignorant of where energy (especially electricity) comes from. Social expectations of cheap energy are built on cultural ignorance of how energy is produced, which means ignorance of the full spectrum of costs of our way of life (because fossil fuels are not currently priced to include the environmental costs of their extraction and combustion). There is also a critical cultural disconnect between our standard of living and the unsustainable consumption of nonrenewable resources that currently support such a standard of living.	part of barriers and policies discussion; will consider as section is revised.
Sweden (Swedish Environmental Protection Agency)	11	-	-	-	-	11.4.1.3	-	-	Poor conceptualization - these factors cannot be defined as "technical and structural". Think through these three categories and consider what they really mean and whether they sufficiently cover all the bases.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.4.1.4	-	-	The first bullet is in need of a complete rewriting. Regarding "energy markets" alleged favoring of nuclear power--where in the world does nuclear compete economically with fossil fuels (i.e., absent heavy government intervention). For instance, in the US, it is widely recognized that utilities cannot build new nuclear power unless the state guarantees the loans required to finance the construction. In other words, the market's verdict on nuclear power is that it cannot compete with the alternatives.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.4.2	-	-	Several points: -- way too much emphasis on CDM in this section. not that important for RE generally. -- line 12 on page 37: "Developers of RE projects are often under-financed and have limited track records." I think a bigger problem is uncertain revenue streams that adds to the perceived risk.	Accepted
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	-	-	-	-	11.5	-	-	I recommend referring to the Merton Rule policy developed by Merton Council in the U.K. in this section, which requires the use of renewable energy onsite to reduce CO2 emissions by a certain percentage for new developments. The policy was adopted by many councils. Although 100% RE societies in Section 11.7.6 are important, policies easier to be adopted by more local governments should be described.	will consider as we revise
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	-	-	-	-	11.5; Box	-	-	Box 11.5 (on p.51) on Kenya: Where are these photovoltaic cells installed? It is not clear from the box if any of this has affected off-grid rural poor.	may move to new section or delete from chapter.
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	-	-	-	-	11.5.1	-	-	This section could be substantially abbreviated. It provides very little concrete information.	Accepted
Volkmar Lauber (University of Salzburg)	11	-	-	-	-	11.5.1.5	-	-	a brief overview of table 11.1 is here:¿ it becomes clear here that FIT and Quota as main groups of price and quantity instruments are of a different nature than access issues and quality aspects, that are interwoven with the instruments as such.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.5.1.7	-	-	could include discussion of U.S. loan guarantees.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United Kingdom (Department of Energy and Climate Change)	11	-	-	-	-	11.5.1.8	-	-	For less advanced RE technologies it would be more appropriate to think of the forward procurement model - which would procure R&D (see SBRI here in the UK), and in general, to mix the technology push and market pull in focussed porgrammes where the market pull is provided by government forward R&D porcurement, for example the Innovation Platforms.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.5.2	-	-	consider putting this section before section 11.5.1	Accepted
Rainer Walz (Fraunhofer Systems and Innovation Research)	11	-	-	-	-	11.5.2	-	-	section 11.5.2 is highly related to section 11.6. The impact of policies for tech. development can only be understood in the context of an enabling environment. Thus, section 11.5.2 and section 11.6. should be made consistent and should form an integrated part.	Accepted
Australia (0)	11	-	-	-	-	11.5.3	-	-	This section is overly focused on off-grid electricity generation in developing countries, so does not give due attention to policy issues related to the off-grid sector in developed countries. There should at least be some aknowledgement that off-grid electricity generation exists in developed countries and the policy issues are likely to be different to those faced in developing countries.	Accepted
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	-	-	-	-	11.5.3	-	-	When it comes to RE deployment for rural electrification, two important stakeholders have been largely omitted in the chapter: transnational corporations (TNCs) and donors providing development assistance. Overall, TNCs play an important role, as they hold much of the relevant technology. Creating favourable conditions under which they can operate and contribute to RE deployment is thus an aspect neglected in the chapter. More information on this is available in the World Investment Report 2010 available at www.unctad.org/wir. With respect to official development assistance (ODA), its role in RE deployment should be analysed further. One example in which both TNCs and ODA come together in an RE deployment effort can be found in Morocco: Morocco has set up the Global Rural Electrification Program (PERG) to supply electricity to homes that would be too remote to be connected to the national grid. The country¿s Office National de l¿Electricité (ONE) hence gives subsidy funding to solar power operators, in order to provide electricity services at a rate that is affordable for rural Moroccan residents. It has issued international tenders for rural electrification in 2002 for the supply of solar home systems under which PPP arrangements are set up with the private sector running the provision of services (services include implementing the solar programme, managing the technical and financial aspects of it, performing maintenance on the installed systems and replacing equipment) and collecting the respective user fees. Several TNCs are actively involved in these programmes. One such company, Temasol, a joint-venture between the French companies EDF, Total and Tenesol, was selected to install 16,000 solar home systems in 2002, and 37,000 further ones in 2004 (Spanish TNC Isofoton won a later tender and installs another 34,500 photovoltaic systems. The financing of the solar home systems is divided between the government, the private operator and consumers. An equipment grant from ONE, largely financed by the German Bank KfW, the French Development Agency (AFD) and the French Fund for the World Environment (FFEM), covers 66% of the costs. The private operator contributes 24% of the project¿s cost. Monthly fees collected by the private company enable it to cover the amortization of its initial investment, replace equipment and cover running costs. Customers provide 10% of the initial financing through connection fees, but receive a 40% subsidy on these fees which attempts to make the cost close to what city dwellers pay for the electricity.	this will be rectified
United States (U.S. Department of State)	11	-	-	-	-	11.5.3.1	-	-	whole section needs to be more tightly focused and shortened. 11.5.3.1 provides background information that is presumably contained in an earlier chapter. What is needed is an intro to RE policies for developing countries, not an intro to RE in developing countries. In 11.5.3.2 "Successful examples" -- really needs a good transition sentence. Also, not all examples in this section are successful; some are "mixed." Table 11.3 adds no value -- not clear why it's there, unless it can support specific arguments in the text. p. 50, lines 3-5: not clear what technology they are talking about in Argentina's example. p. 51, lines 1-10 could be consolidated into a single statement about policy priorities in developing countries.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.5.4	-	-	11.5.4: Discussion and analysis of feed-in tariffs is strong. Section on quota obligations would benefit from a single, strong case study, if one exists. Comparison of feed-in and quota systems according to different parameters is an informative analysis and may merit a section of its own. Other regulatory RE policies could include information moved from Table 11.1 ("Existing RE Policy Mechanisms, Definitions and Use by Sector")	we will attempt to include a strong quota case study

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Sweden (Swedish Environmental Protection Agency)	11	-	-	-	-	11.5.4	-	-	Discussion biased in favour of FIT. The authors should study eg the quota price vs the tariff, and use more references than Jacobsson and Bergek who are strong opponents of the quota system in Sweden (being innovation scholars).	Accepted
Sweden (Swedish Environmental Protection Agency)	11	-	-	-	-	11.5.4	-	-	Please include estimates of costs in the comparison between FIT and Quota system. This is the key issue and it is fully missing in the analysis.	Accepted
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	-	-	-	-	11.5.4	-	-	Policies for heating and cooling, and transportation have subsections for fiscal instruments (11.5.5.2 and 11.5.6.2). However, there is no subsection of fiscal policies in the electricity sector. Although the PTC in the U.S. or tax holidays in Thailand are described in boxes, summarized comments of fiscal instruments including other examples are required. For example, an evaluation of the regulatory energy tax and its exemption of renewable energy implemented in the Netherlands is also worth referring.	will consider as we revise, and will work to make subsections parallel in structure.
Volkmar Lauber (University of Salzburg)	11	-	-	-	-	11.5.4	-	-	The section better follows the order of discussion as the structure of table 11.1 shows: this is done for the main division regulatory (policies) and public finance, but not within the regulatory policies: here the ¿Access Issues¿ should come upfront because they lay a basis of the quota driven & price driven instruments (see also consistency in terminology and order of the latter). Also the evaluation of the main instruments is not based on the usual criteria of effectiveness, efficiency, and equity (IPCC, 2007) but makes a mix followed by three new subheadings: risk, technological and geographic diversity, participation and social equity.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.5.4.1	-	-	Is there some place in this section where you might mention the potential impact of risk-removal from FITs on long-term R&D progress?	good point and will ensure that relevant literature is covered.
United States (U.S. Department of State)	11	-	-	-	-	11.5.4.1	-	-	never actually say why FITs are good -- because they provide a consistent revenue stream. this section should be tightened and focused better.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.5.4.2	-	-	11.5.4.2: Text is general rather than examining benefits and drawbacks of specific finance mechanisms. A stronger section would rely more heavily on weighing selected case studies or strategies and identifying areas where certain approaches may succeed. 11.5.3.4 ("Financing for Off-Grid and Rural RE") should be included in this section so that finance mechanisms can be discussed in one place. Preferential lowering of interest rates for ¿green¿ projects, Green Bonds, and two-tier public-private funds models are options for specific discussion.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.5.4.2	-	-	Move this section to 11.5.1.7 (except don't move boxes 11.10 and 11.11) unless it is specific to electricity, which it doesn't seem to be. Delete first two paragraphs of this section.	will consider as we revise
United States (U.S. Department of State)	11	-	-	-	-	11.5.5.4	-	-	11.5.5.4: There is not enough important information on RE cooling to merit its inclusion. Box 11.13: Well written case study on Brazilian ethanol.	will omit cooling
Felix Creutzig (TU Berlin)	11	-	-	-	-	11.5.6	-	-	General & powerful policies, such as LCFS, carbon tax and emission trading don't appear here. Though none of them is specifically designed for RE, all have a relevant effect. A restructuring of this chapter could be as follows: 11.5.6.1 includes also LCFS, and regulatory policies addressing ZEVs. 11.5.6.2. Box 11.13 is contracted. 11.5.6.2 includes carbon taxes and emission trading (one paragraph). and urban transport policies with price signals (include paragraph line 21-26 on page 78). Delete 11.5.6.3. Keep 11.5.6.4 and 11.5.6.5.	will be mentioned briefly in 11.5.6 introduction, and possibly in 11.6
United States (U.S. Department of State)	11	-	-	-	-	11.5.6	-	-	There is no discussion of "price collars" to support the competitiveness of RE liquid fuels with petroleum. This comment relates to the fact that this concept is getting attention in the aviation jet fuel arena.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.5.6.4	-	-	11.5.6.4: This section under-appreciates the complexity of infrastructure challenges countries face trying to integrate alternative fuels into the transportation system, which include transport, storage, and fueling issues. Further insight into successful (or unsuccessful) infrastructure policies to this regard would be informative, especially in reference to electricity and hydrogen infrastructures. Policies related to these technologies are also barely discussed. Should add references to the chapter on grid integration where appropriate.	will try to address with new CA.
United States (U.S. Department of State)	11	-	-	-	-	11.5.6.5	-	-	needs a different title of this section. "conclusions" could be put anywhere in this report.	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	-	-	-	-	11.5.7	-	-	This section looks like a list of references with very few information. It should be rewritten providing more content instead just references.	accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Sweden (Swedish Environmental Protection Agency)	11	-	-	-	-	11.6	-	-	"Regional issues" is advertised in the heading. Not sure what it means but I cannot find it anywhere in the text	Accepted
Sweden (Swedish Environmental Protection Agency)	11	-	-	-	-	11.6	-	-	Analytical concepts are stapled on top of each other with no explicit relation to the (or what appears to be the) overarching one; "enabling environment"; such as national innovation systems, socio-technical systems, learning, social networks etc. It feels like a last minute compilation of loose ideas by many different writers and needs very serious editing to be brought to a publishable quality. Please show how concepts relate to each other and why they are introdcued. Or better, stick to enabling environment, and use the various components within it as a way to organize the section.	Accepted
Seth Dunn (GE)	11	-	-	-	-	11.6	-	-	I think this section can provide much of your page reduction (e.g. be drastically shorter) by focusing on two enabling policies, permitting and financing. The rest is rather academic and lacking the pragmatism of the earlier sections.	Section will be rewritten
Sweden (Swedish Environmental Protection Agency)	11	-	-	-	-	11.6	-	-	The concept of enabling environment is not referenced.	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	-	-	-	-	11.6	-	-	The whole section needs a good solid rewrite and restructuring to bring across clear key messages. There is currently no storyline and the reader gets lost bouncing from one abstract topic buried in unexplained terminology to the next. Suggested restructure: 11.6 Enabling Environment and Regional Issues [Introduction of an enabling environment and the different aspects according to e.g. figure 11.11] 11.6.1 Infrastructure (text currently in 11.6.6) 11.6.2 Civil Society and Institutions 11.6.2.1 Increased awareness, public support [including 1) encouraging cooperative ownership (reference section on managing risk); 2) allocating responsibilities to local municipalities; 3) Danish case study] 11.6.2.2 Clarifying property rights 11.6.2.3 Capacity Building [including 1) technology transfer; 2) leapfrogging; 3) Nepal case study] 11.6.2.4 Technology Standards and Certification 11.6.3 Business & Finance Communities 11.6.3.1 Managing Uncertainty [including 1) political stability/committment; 2) public/private partnerships; 3) community ownership] 11.6.3.2 Easing access to finance 11.6.4 Other Political Structures 11.6.4.1 Integration with other sectors 11.6.4.1 Planning & Permitting (from 11.6.5 - could also be placed under suggested 11.6.2 civil society and institutions)	Section will be rewritten
United States (U.S. Department of State)	11	-	-	-	-	11.6.1	-	-	Section 11.6.1.1 could be moved to the introduction of section 11.6. Section 11.6.1.2 could be deleted. The messages in this section can be better explained through more case studies; otherwise, they are not organized or coherent as written in the text.	will consider as we revise
Rainer Walz (Fraunhofer Systems and Innovation Research)	11	-	-	-	-	11.6.1	-	-	This section is very important, but unfortunately does not include the development of the literature, which started with Jacobsson 2000 (see comment No. 15 to chapter 9). State of the art of innovation research in explaining the systemic nature of technology development is the systems of innovation approach. The section names the national system odf innovation concept, which has been developed by scholars such as Freeman, Nelson and Lundvall, but does not address the concepts of sectorial and technological systems of innovation, which has been used in the last 10 years to analyse the development of renewable energy technologies. Furthermore, the concept of ""functions of an innovation system"" is used to explain how virtuous or vicious cycles are emerging. In order to give an overview of this development, an additional file with text and the most important literature in this field is attached.	NB: one serious point about tensions is that we did have far more in FOD and were told to take out as too theoretical. What is order of heirarchy - presumably SOD comments over FOD? = see 128 below as tensions of what some say, and then someone else says the oppposite..
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	-	-	-	-	11.6.2.1	-	-	The text of this section is much chopped with broken information without providing a concrete content.	Accepted
Switzerland (Swiss Federal Office for the Environment)	11	-	-	-	-	11.6.3.	-	-	The title could be improved. The chapter is only about one specific uncertainty, namely investment risks. Thus a title 'Managing Investment Risks' might be more appropriate.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	-	-	-	-	11.6.4	-	-	This section should not be redundant with Section 11.4. Shorten significantly or delete. Most of the information is redundant with material already presented earlier in Chapter 11. Moreover, the section does not actually include any policy recommendations to ease access to financing.	Accepted
Volkmar Lauber (University of Salzburg)	11	-	-	-	-	11.6.4.1	-	-	this section provides standard wisdom about investment conditions (overlaps with info from section 11.5?): added value here??	Accepted
Volkmar Lauber (University of Salzburg)	11	-	-	-	-	11.6.4.2	-	-	this section also describes standard events (ups, downs, policy interventions) in investment markets: added value here, except in proving that environments imply opportunities + threats??	Accepted
Greece (National Observatory of Athens)	11	-	-	-	-	11.6.4.2	-	-	This section could be incorporated in the previous one regarding the drivers for RE investments. At the same time the signal you are refering to in p. 92, line 3 is not that clear as it lasted for 3 years only due to the 2008/9 economic crisis. More evidence is needed to characterise the situation described in lines 4 to 11 of page 92.	Accepted
Volkmar Lauber (University of Salzburg)	11	-	-	-	-	11.6.5	-	-	Overall an interesting and well documented section, with a balanced approach of the important issues ¿Planning, Permitting and Participation¿; this shows how the ¿RE environment¿ is best analyzed: the 2 sides are considered, not just the ¿enabling¿ syndrome. Table 11.5 provides some overview, but may be improved (checked with the technical chapters?)	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.6.5	-	-	The ¿enabling environment¿ is an important concept, but this chapter could focus less on the theory behind enabling environments and more on examples (such as those of Norway, Nepal and Denmark) of how a country can foster enabling factors to create an optimal environment for RE. Generalities and excess length can be avoided by sticking closely to the case studies. -11.6.5: The goal of this subsection is to establish the importance of planning RE strategy in coordination with multiple stakeholders as well as interests in government. Table 11.5 ("Environmental and social issues that planning and permitting face") does a good job of summarizing the value of this section, which is to identify specific concerns that may overlap when implementing specific RE initiatives. What is less valuable is this subsection¿s discussion on the general importance of considering context, collaborating, and reaching out to multiple stakeholders during policymaking¿this is advice that applies widely to policymaking rather than to RE policy specifically. Discussion of planning should stick more closely to the RE issues outlined in the table and reduce general discussion, and possibly combine with 11.6.7 ("Integration of RE policies with other sector policies").	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.6.5.2	-	-	shorten to one paragraph	Will consider as we rewrite section.
United States (U.S. Department of State)	11	-	-	-	-	11.6.5.4	-	-	Delete. This seems like a summary and isn't necessary. In addition the use of the words pro-active and positive are meaningless in this context	Will consider as we rewrite section.
United States (U.S. Department of State)	11	-	-	-	-	11.6.6	-	-	11.6.6: This discussion is shorter and more direct than the discussion about planning, so it should move forward in the section.	Will consider as we rewrite section.
United States (U.S. Department of State)	11	-	-	-	-	11.6.7	-	-	11.6.7: The ¿integration with other sectors¿ subsections should follow the ¿planning¿ subsection, if it is not combined with it. The discussion of unintended consequences of RE policy is an idea that has not been discussed elsewhere in the chapter and is highly informative. It would also be interesting to include possible interactions between RE policy and energy efficiency policy.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.6.7	-	-	Retitle: "Integration of RE policies with climate change policies" delete first paragraph (line 4-7, page 99) take text out of box 11.17 and insert directly into this section. line 36 on page 99: is "consumer" meant instead of "producer"? lines 8-24 on page 101 are good.	Accepted
Sweden (Swedish Environmental Protection Agency)	11	-	-	-	-	11.6.7	-	-	The whole section is a box ??! Interesting, but why is it in 11.6 at all?	will move to 11.1 text
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	-	-	-	-	11.6.7	-	-	This section focuses only on integration between climate change and renewable energy. It would be an opportunity to demonstrate the linkage to land, agriculture and transportation policies, and its title suggests.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	-	-	-	-	11.6.8	-	-	It should be noted that social, ecological, cultural dimensions are not clearly explored.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.6.8	-	-	The conclusions presented here are too general and do not capture the important messages from the preceding text. This could be strengthened by focusing more on the question of what lessons can be drawn about how policy makers can help strengthen enabling environments to ensure that they will allow for success in achieving policy goals. Instead of attempting to repeat material already covered in 11.6, this section should connect the enabling environment to policy design and implementation.	Accepted
Seth Dunn (GE)	11	-	-	-	-	11.7	-	-	I also found this section to be too theoretical and out of place coming on the heels of practical policy discussion. Recommend limiting mostly to the main conclusions (which are very good).	Accepted
Kristin Seyboth (IPCC WG III TSU)	11	-	-	-	-	11.7	-	-	This section is a fantastic opportunity to pull the rest of the chapter together, to look at the bigger picture of policies, together with an enabling environment and within a broader context, I.e. Helping the policy-maker through big decisions down to smaller decisions. As it is, the reader has a general feeling of the aim of the section, but has a very difficult time pulling key messages out of it. Suggest a thorough rewrite as follows: 11.7 (Introduction) would introduce the concept of a broader perspective, and explain the goal of the section to investigate tying policy together with an enabling environment to create a package of incentives that will enable a structural shift. 11.7.1 Policy choices from climate change mitigation scenarios - would discuss what questions policy-makers face when presented with information in CC mitigation scenarios, and the implications for choosing a high RE pathway vs. a low RE pathway. It would explain what package of policy instruments are necessary in each case. 11.7.2 Approaches to policy packages - would discuss the choices policy makers have to face ONCE they have chosen either a high or low RE pathway. For each of the four options below, a specific package of policy options should be included with clear detailed recommendations. 11.7.2.1 Bricolage vs. Breakthrough 11.7.2.2 Technology optimistic vs. behavioral optimistic 11.7.3 Policy design as relates to Policy Packages - would pull the recommendations of policy design from 11.5 to tie together all recommendations from the chapter. As a part of this structure, most of the content in the existing 11.7.1, 11.7.2 and 11.7.6 would be cut, and the exisitng 11.7.5 would be moved to 11.6 enabling environment.	will consider as we revise
United States (U.S. Department of State)	11	-	-	-	-	11.7.1	-	-	11.7.1 - Redundant, should be deleted. The previous sections on barriers and policies to resolve those barriers should have made the resolutions clear; if not, then the authors should improve those sections rather than add on this extra material. Also, as currently drafted this section makes it seem as though the economy and society have to change to accommodate renewable energy rather than the other way around (which strays into policy advocacy beyond the scope of the report).	Accepted
Switzerland (Swiss Federal Office for the Environment)	11	-	-	-	-	11.7.1.	-	-	The intention behind this chapter should be explained at the beginning. It is not clear, why it makes sense to discuss an ideal world which is highly unlikely to be a real option.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.7.2	-	-	11.7.2 - Redundant with sections 11.4 and 11.5 (literally excerpted from almost identically in those places). This section is also very tautological - it basically states that a structural shift to RE is necessary to achieve a structural shift to RE. Figure 11.13 is obviously incomplete and does not clarify anything value-added for the reader. All of this section, including Figure 11.13, should be deleted.	Will consider as section is revised.
Sweden (Swedish Environmental Protection Agency)	11	-	-	-	-	11.7.2	-	-	Here the dutch multilevel framework to sociotechnical transitions is introduced. This is useful, but the text does not explain that this is one particular lens, a perspective on change which is highly debated and which gives certain policy implications that differ from, for instance the innovation systems approach discussed earlier. (Again, relationships between theoretical concepts are not articulated)	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	-	-	-	-	11.7.3	-	-	11.7.3 - There is a small amount of material here that is useful (mainly lines 30-38 on page 106 excepting the IEA reference), but it should have appeared at the outset of Chapter 11 in order to maintain the report's flow and orient the reader of Chapter 11 to the overarching "policy space" in which RE considerations occur. The introduction to Chapter 11 should also include something like the brief summary of Chapter 10's findings that is currently in lines 17-22 on page 105. The rest of this section should be deleted, including Figure 11.14 which actually looks hand-drawn and is an unnecessary visualization of straightforward text. In particular, the text on lines 18-29 should be deleted on the grounds of internal contradiction (as it suggests shifting policy control toward international but also toward local levels), irrelevance to concerns of policymakers, generalized incoherence, and repetitiveness, as well as the unsupported assertion that economic and population growth based on low carbon technologies might not be feasible.	part of overall re-write of 11.7
Sweden (Swedish Environmental Protection Agency)	11	-	-	-	-	11.7.3	-	-	A section on scenarios does not seem to fit here, mostly replicating things from Ch 10.	Accepted
Volkmar Lauber (University of Salzburg)	11	-	-	-	-	11.7.3	-	-	this section has interesting parts, but also a lot of text that only ¿insiders¿ may understand. I would suggest to limit the text to what provides info to readers.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	11.7.4	-	-	11.7.4 - "Breakthrough" versus "bricolage" is already covered on page 44 in section 11.5.2. Much of 11.7.4 is thus redundant and unnecessary to restate, while also being out of context. There is likely no more than a single sentence in all of 11.7.4 that offers new material - that material (likely lines 10-15 on page 107) should be moved to join section 11.5.2 and the rest of this material should be deleted.	Accepted
Volkmar Lauber (University of Salzburg)	11	-	-	-	-	11.7.4	-	-	section as such provides info; what are the links with other bipoles (dialectics), e.g. Central ¿ decentral deployment of RE; rich nations ¿ developing world RE transitions; high-tech ¿ low-tech components, technologies???	good point - to be added in final re-write
United States (U.S. Department of State)	11	-	-	-	-	11.7.5	-	-	11.7.5 - Far too much of this section is cerebral and detached from specific RE applications. The paragraphs from line 35 on page 108 through line 11 on page 109 are useful but should be placed in section 11.4.1.2 (socio-cultural barriers), which failed to identify any of these useful examples of these types of RE-specific behavioral issues. This section can be deleted after that material is relocated accordingly. This section also suffers from ungrounded policy advocacy; the logical conclusion of this section is some sort of social reprogramming policy. If any of the references in 11.7.5 specifically support the statements in section 11.4.1.2 on social/behavioral barriers to RE, they should be moved to that section.	part of rewrite
United States (U.S. Department of State)	11	-	-	-	-	11.7.6	-	-	11.7.6 - Here we have the newest material that 11.7 has to offer. With a few adjustments, 11.7.6 should become the entirety of section 11.7, with the focus being on these concrete examples of structural shifts that were achieved when the barriers identified in 11.4 were met with policies summarized in 11.5 occurring in the enabling environment described in 11.6. (The case studies need to illustrate that progression very clearly, to match the structure of Chapter 11.) An introductory sentence describing the purpose of this section could read: "This section explores the political and institutional change that have accompanied vanguard examples of RE deployment approaching 100% penetration." The current draft of 11.7.6 needs to eliminate the "fairy-tale narrative" tone in a few places (such as line 25 on page 109 - "this transition was almost unimaginable even a few years ago" - and at line 38 on page 109 - "[Some cities] have started down the path to 100 percent RE. This is the story of two of them." - and at lines 10-12 on page 112 - "fears still prevail... that [RE] will cause their demise, while communities around fear that they would have to do without."). Instead of a narrative/storybook tone, this section needs to lay out very concrete, fact-based accounts of how these vanguard examples of 100% RE communities successfully met the barriers (11.4) with RE policies (11.5) in an enabling environment (11.6). This text should also analyze the implications of transitioning from an energy system based on stocks (such as fossil fuels) to one based on flows (such as wind and solar), with impacts not just on individual behavior but also on the physical infrastructure on which economies are now based. The policy costs of the case studies in Box 11.18, for example, must be identified and discussed.	part of rewrite
United States (U.S. Department of State)	11	-	-	-	-	11.7.6.1	-	-	Move text from section 11.7.6.1 inside of Box 11.18. Remaining text in 11.7.6 does not need to be divided into sub-subsections.	will revise box and may split into two and use to emphasize local action.

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	-	-	-	-	11.7.7	-	-	11.7.7 - the only truly new point in this recap (of a section that was already largely recapping) is at lines 34-36 on page 112 (the policy crossroads of State, market, and civil society - it really is an excellent point). Why is this point not raised earlier in section 11.6 about the enabling environment? This material should be presented in 11.6 (wherever the authors judge it best fits), and 11.7.7 can thus be deleted as well. All of section 11.7 could be reduced in this way to contain the most factually relevant portions of 11.7.6, while the rest of section 11.7 should be deleted from Chapter 11 to improve the reader's experience.	part of rewrite
United States (U.S. Department of State)	11	-	-	-	-	11.7.8	-	-	11.7.8 - This should be a separate section (11.8) and may have been intended as such. It should be built on the revised Box 11.1, the statement of key messages that we recommend placing in the executive summary. These key messages should be connected to the examples and arguments that appear throughout this chapter. The conclusions section should remain as brief as possible (2 pages or less).	will consider as we revise, but we cannot add a section 11.8 as section numbers and headings were predetermined by Plenary.
United States (U.S. Department of State)	11	-	-	-	-	11.7.8	-	-	Changes to the rest of Chapter 11 should flow through to the Conclusion section as well, which borrows from text elsewhere in the Chapter that will be edited. (This is just a general reminder comment that 11.8 will need to change to "keep pace" with line edits and structural changes to the rest of the chapter based on what the reviewers and authors decide to implement from this process.)	Accepted
Sweden (Swedish Environmental Protection Agency)	11	-	-	-	-	11.7.8	-	-	Is it correct that this section should summarise conclusions for the entire report (as stated) or should it be rather for Ch 11 only?	confirmed that this is final section for Chapter 11.
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	-	-	-	-	11.7.8	-	-	The conclusions 6 and 8 repeat the same list of dimensions of the enabling environment. This should be avoided. This message could be limited to conclusion 8.	Will consider as we rewrite section.
Felix Creutzig (TU Berlin)	11	-	-	-	-	5	-	-	Market push (carbon prices) are not discussed.	this issue will be addressed in new introductory section
Felix Creutzig (TU Berlin)	11	-	-	-	-	7	-	-	no consistent capitalization of bullet points across this chapter	Accepted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	-	-	-	-	Box 11.1	-	-	It should be eliminated. It is exactly to the 11.7.8: Conclusions. The Introduction does not need to provide the whole conclusions of the text.	box has been omitted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	-	-	-	-	Box 11.2	-	-	Provided that is one of the most successful examples, included in the Introduction, some evidences of the coordination with other sectors or sub-components of the enabling environment should be clearly emphasized, particularly in those social, cultural and institutional dimensions.	Accepted
Michael Hübler (Potsdam Institute for Climate Impact Research)	11	-	-	-	-	Box11.1	-	-	Point 1 may provide examples for markets failures and signals, point 2 for success stories. In total, the contents are formulated in a general way and could be more concrete.	Accepted
Sweden (Swedish Environmental Protection Agency)	11	-	-	-	-	Boxes	-	-	Overall excessive use of boxes, often with no reference in the text and with no or very little direct relevance for the particular subsection they are in. Boxes are also much too long. Here is the best opportunity to reduce the volume of the document. One example is Box 11.14 which has no obvious relation to the section it is in.	will address as we revise.
Frank Krysiak (University of Basel)	11	-	-	-	-	Boxes	-	-	The examples given in the boxes are helpful, but there are too many of them.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	Executive Summary	-	-	Executive summary is wordy and could be made more concise. (see comments above)	Accepted
Michael Hübler (Potsdam Institute for Climate Impact Research)	11	-	-	-	-	Executive Summary	-	-	The Executive Summary is a good introduction. It could provide more specific, new and solution oriented information.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Steffen Schlömer (IPCC WGIII)	11	-	-	-	-	KM, 11.1, 11.5	-	-	The metaphor of the "virtuous cycle [which] will lead to effective and efficient technology development and deployment" (p. 39, l. 16. ff.) should go into the SPM, if in the rest of the chapter and the whole report, there's solid evidence to support that it is really efficient. I think that this is still much debated, particularly the efficiency part of the statement. Support policies may be effective in deploying REs, but efficiency - at least in economic terms - means that they lead to the socially optimal level of REs. This in turn would require to know exactly the extent and type of the technology market failures that should be addressed by push and pull policies respectively. Box 11.17 in this chapter offers a more differentiated picture. Cross-check for consistency of assessment and derived conclusions!	part of debate of cost /effectiveness - see Langniss and neij>
Frank Krysiak (University of Basel)	11	-	-	-	-	-	1	-	This figure is a bit trivial for the amount of space that it occupies.	figure is being deleted
United States (U.S. Department of State)	11	-	-	-	-	-	11,1	-	This figure is more confusing than helpful. For example, some variables are truly on a spectrum as visually indicated, while others are binary. It's also unclear who is supposed to be taking these factors into account and for what purpose. Recommend deleting the figure.	figure is being deleted
United States (U.S. Department of State)	11	-	-	-	-	-	11,11	-	The center of the figure should read "deployment." The last letters are missing.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	-	11,2	-	Use commas instead of periods to group digits in large numbers	Accepted
United States (U.S. Department of State)	11	-	-	-	-	-	11,3	-	Graph should have y-axis label.	figure will likely be omitted
United States (U.S. Department of State)	11	-	-	-	-	-	11,3	-	Replace this figure with a global map of RE targets or electricity policies. See U.S. maps made by DSIRE on RPS in states.	will attempt to do this
United States (U.S. Department of State)	11	-	-	-	-	-	11,4	-	If New Energy Finance has newer data through 2009 it should be included	Figure has been updated.
United States (U.S. Department of State)	11	-	-	-	-	-	11,6	-	Move to beginning of Section 11.5	will consider as we revise
United States (U.S. Department of State)	11	-	-	-	-	-	11,6	-	This chart is fairly complex and is not explained in the text to great detail. Why are some boxes blue and others red? A legend would be nice or a bit more detailed explanation in the text. In general, the figure fails to convey a clear message to the reader -- there is a lot of information, and it's not presented in a logical way. The authors should determine a clear message and design the visual to illustrate that message in the most logical way. There's too much going on visually -- 3D, arrows, boxes, multiple axes, etc. What is "enlarged governance"? Should the "Carbon" box instead be labeled 'Carbon pricing" or something similar?	will revise and try to clarify/simplify
United States (U.S. Department of State)	11	-	-	-	-	-	11,7	-	Are the bars supposed to be USD/W or do you really mean kW? Something seems wrong otherwise? The text in box 11.4 also uses kW at the bottom.	Accepted
Fritz Vahrenholt (Prof. Dr.) (RWE Innogy GmbH)	11	-	-	-	-	-	11.11	-	In one of the bubbles a "mix of policy instruments is mentioned". This is misleading because it is very rare that there is a mix of instruments in one country. It should only be stated that a policy intrument is needed. So delete "Mix of".	Will consider as we revise text.
Michael Hübler (Potsdam Institute for Climate Impact Research)	11	-	-	-	-	-	11.12	-	Different colors of bars are not visible in a grey printout so that the graph is not understandable.	Accepted
Volkmar Lauber (University of Salzburg)	11	-	-	-	-	-	11.14	-	delete: information density of the figure is too low (same is said on p.106)	to be revised or deleted
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	-	-	-	-	-	11.3	-	This figure should better explained or dropped. Its message is not very evident.	Accepted
Seth Dunn (GE)	11	-	-	-	-	-	11.3	-	This is a great chart.	Accepted

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
Seth Dunn (GE)	11	-	-	-	-	-	11.3.2	-	Does this section need to be as long since access to energy is covered in Ch. 9 (Box 9.1)?	will consider as we revise
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	-	-	-	-	-	11.4	-	This figure is not mentioned in the text. It should be better explored.	Accepted
Michael Hübler (Potsdam Institute for Climate Impact Research)	11	-	-	-	-	-	11.6	-	Details are small and not easily visible.	Accepted
Volkmar Lauber (University of Salzburg)	11	-	-	-	-	-	11.6	-	the addition of the ¿enabling environment¿ is not helpful; for example how should ¿social norms¿ be changed to increase financing for RE? What is the relation with ¿social innovation¿ in the right border of the figure? Technical point: use lighter colors in the figure because when printed black&white it is no longer readable	Accepted
Naoto Tagashira (Central Research Institute of Electric Power Industry)	11	-	-	-	-	-	11.6.6.1	-	A discussion on sharing of economic burdens on the grid reinforcement and construction is required in this subsection, such as ¿Deep¿, ¿Shallow"¿, and ¿Super-shallow¿.	section to be rewritten, but we don't know if we'll get to this level of detail.
Frank Krysiak (University of Basel)	11	-	-	-	-	-	-	1	It would be great, if examples of countries that use these policies would be given.	examples are informative, but difficult to realize because examples would require a lot of text to explain circumstantial aspects of the examples, and also of the criteria applied by the chapter authors in the selection of the examples)
United States (U.S. Department of State)	11	-	-	-	-	-	-	11,1	Table could be condensed significantly. The definitions could be shortened to a single sentence each. Since the majority apply to all three sectors, there may be a better way to present that info without all of the X's. Section 11.5, Experience and Assessment of Policy Options, should refer back more directly to this table. The definitions should be worded to avoid advocacy.	Will attempt to address all of these suggestions.
United States (U.S. Department of State)	11	-	-	-	-	-	-	11,1	Tradable certificates should not be listed as a separate policy unto themselves, as they are a component of the obligations/mandates policy already listed above them in the table. In addition, the current separate listing for tradable certificates does not include transport, which ignores the successful Renewable Fuels Standard program in the United States which does allow fuel refiners to trade certificates to meet the compliance obligation. Also in the table, the listing for energy production payments should also apply to the transport sector, as the American example would be the 51 cents/gallon subsidy given to corn ethanol producers. To help eliminate the majority of the text on pages 19-21 could replace the simple "X"s in this table with "20 countries" or similar listings of how many jurisdictions implement the listed policy (in each row of the table) for each sector (in each column).	this is a valid comment in principle, but overlooks the context in other countries where TGC are used as the term to cover RPS; because the table also functions as an overview of instruments TGC cannot be deleted here. Accept point about production payments and transportation.
United States (U.S. Department of State)	11	-	-	-	-	-	-	11,1	Under "Price Driven"/"Feed in tariff" -- suggest adding "that varies by technology" after "sets a fixed price." Under "Quality Driven/ Green energy purchasing" -- suggest replacing "regulates" with "offers." In the U.S., this is an option, not a regulatory action.	Accept re FIT - this goes to the core of the issue. On point 2: accept as follows "regulates the supply of"; because we cover policy in the table, the direct term "offer" is misleading because it is not the policy that offers the voluntary RE.
United States (U.S. Department of State)	11	-	-	-	-	-	-	11,2	Table should be closer to reference in the text.	Accepted
United States (U.S. Department of State)	11	-	-	-	-	-	-	11,2	third row: insert "Demonstration" between "Technology" and "Commercialization" include a row for Public Financing	Accepted
United States (U.S. Department of State)	11	-	-	-	-	-	-	11,2	This table is repetitious with the discussion already contained in the accompanying sections' text. Also, its current placement is strange - it appears randomly in the midst of those sections, rather than ahead of or at the end of the finance sections. The recommendation is to delete the table to save space.	will consider as we revise

Name (Institute)	Chapter	From page	From line	To page	To line	Section	Figure	Table Info	Comments	Consideration by writing team
United States (U.S. Department of State)	11	-	-	-	-	-	-	11,4	second row, third column: RFS2 fourth row, third column: how much in $/year fifth row, second column: what is meant by intermittent technologies? sixth row, second column: what is meant by second degree? last row, last column: there are many other examples that should be included here.	Accepted. Will clarify.
United States (U.S. Department of State)	11	-	-	-	-	-	-	11,4	This table is not referenced in the text. Because of the limited detail on examples, it doesn't add a great deal of value to the section.	will be revised or omitted. Policies to be in 11.5, and enabling environment policies here will be in 11.6.
Axel Michaelowa (University of Zurich)	11	-	-	-	-	-	-	11.1	The Table should include a section "Carbon Driven", with entries "Project-based carbon offsets", "Carbon emissions trading schemes" Definitions should read (for offsets): "Carbon offset credits per kWh produced issued ex post" (for trading schemes) "Renewable energy production is exempt from having to submit emissions allowances to the regulator".	these are not direct RE policies and will not be included in table.
Osvaldo Soliano Pereira (Universidade Salvador - UNIFACS)	11	-	-	-	-	-	-	11.2	Include JI and other possible examples in the line starting with ""carbon"".	Accepted
Supachai Panitchpakdi (United Nations Conference on Trade and Development)	11	-	-	-	-	-	-	11.2	The alignment of forms of financing with the phases of technology deployment is not 100% clear. Of course different forms of financing are used in a given phase, even if - in the table - a form only appears in one place. It should thus be noted how the various forms have been allocated to the various phases, e.g. "by phase where they most typically appear". In any event, please put a source for the table.	Accepted
Volkmar Lauber (University of Salzburg)	11	-	-	-	-	-	-	11.5	Biogas plants: also 'emissions' and 'waste' may be relevant?	will consider as we revise table.
Volkmar Lauber (University of Salzburg)	11	-	-	-	-	-	-	11.5	Hydro large-scale: again plain land area use (square miles of the reservoirs)	will consider as we revise table.
Volkmar Lauber (University of Salzburg)	11	-	-	-	-	-	-	11.5	Infrastructure: ¿often in remote areas¿; this seems just dependent on the siting (remote or not remote) of the RE facilities	will consider as we revise table.
Greece (National Observatory of Athens)	11	-	-	-	-	-	-	11.5	It would be more appropriate to distinguish between the environmental and social impact or at least indicate (e.g. through footnotes) the objective impacts associated with RE deployment (e.g. emissions from biomass combustion vs aesthetics which is far from being considered as an objective issue)	Accepted
Volkmar Lauber (University of Salzburg)	11	-	-	-	-	-	-	11.5	Marine energies: ¿conflict of usage¿: why mentioned here? This seems a core factor for all RE types and their impacts	will consider as we revise table.