Section II

Linking Energy Policy and Land Conservation in the U.S.

SUMMARY OF MAJOR THEMES

Over the course of the three days, a massive amount of learning occurred and a remarkable set of connections were made. The purpose of this section is to summarize some of the major themes of the discussion, along with the next steps participants identified as ones that they will or others should pursue.

Themes from the discussion

The conservation and clean energy communities need each other

Probably the most important theme to emerge was how much the land conservation and clean energy communities in the U.S. need each other. Land trusts need help ensuring that the effort to build new energy infrastructure does not target already conserved land. This requires that they have a seat at the clean energy/climate change table, as that is where the policy momentum currently resides. Helping to reduce emissions of greenhouse gasses will also allow land trusts to benefit from mitigation funding opportunities as they arise and, hopefully, reduce the scale of the adaptation efforts that will be required in the future.

At the same time, the clean energy community needs help siting “good” projects quickly. This requires not only connections at the federal level, but also effective grassroots/tops, bi-partisan, community-based networks – one of the key strengths of the land trust movement. Local conservation networks need to see the value of specific projects to help speed their siting and deployment. In addition, the conservation community can help implement cost-effective mitigation techniques, from storing carbon in forests/grasslands/geologic formations to substituting current carbon (in the form of woody biomass) for fossil carbon.

These mutual needs also underscore how much the clean energy and conservation communities have to learn from each other – especially as they increasingly come together as part of the broader climate change community. This could be seen in the
different tone of the discussions this year as compared to previous years. This year there were fewer arguments that any particular position should be adopted and many more questions about new areas as the participants tried to get their arms around the technologies, policies, business realities and ethics of the topics being considered. This was particularly true of climate change – and all of the attendees owe Jim Dooley a debt of gratitude for his agreement to offer a superb update on climate science and potential responses on extremely short notice.

Land trusts need to pursue a more dynamic model of “permanent conservation”

The focus on climate change also poignantly poses the question of what “permanent” land conservation means in practice. A view that the land trust community should be trying to stop all change clearly cannot hold. The only constant is change, whether through natural processes, shifts in human values, human-induced changes to the climate or technological changes that pose new threats to open spaces; such technological changes themselves span from low-speed wind turbines in areas with less wind to new techniques for extracting natural gas from oil shale deposits. Some of the implications of this line of inquiry include the need for the land trust community to:

- Continue to think about how legal instruments can be drafted/used to anticipate and adapt to such changes, such as through the inclusion of specific provisions (floating conservation zones, amendment procedures) and the articulation of criteria (balancing scientific and community values) on which such changes may be made;
- Find ways to incorporate the most recent data on projected changes in temperature, moisture and other climate factors into conservation planning efforts;
- Consider how aesthetics fit into such questions in a changing world, particularly since a powerful part of the land trust business model has been helping donors prevent changes to the lands they love; and
- Challenge itself to lead on the change it would like to see, rather than waiting for condemnation proceedings to sort out the debate site-by-site.

While some participants were of the view that the urgent need to respond to climate change should trump virtually all other public goals, others did not share that perspective. At a minimum, this means that the efforts to find win/win opportunities must intensify. Ways must be found to add “saving land” to the list of popular co-benefits from actions to reduce greenhouse gas emissions – such as saving money (through energy efficiency), creating jobs (through the manufacture and deployment of new, cleaner technologies) and increasing energy security (through reductions in energy demand, as well as the use of more domestic energy sources). The opportunities to reduce emissions from land development and store more carbon in natural areas make this an opportunity well worth exploring further. For example,
saving land can save money (as carbon storage in forests/grasslands costs less than many other options), create jobs (in community forestry using woody biomass as a fuel), and increase energy security (through the use of locally grown plants as fuel) while also helping to reduce the flooding expected from extreme storms. It can also allow for the storage of water in areas hit by drought and create opportunities to purify water at a lower cost than more carbon-intensive concrete and steel treatment plants.

*The comparative advantage of land trusts is their ability to say yes across divides*

Land trusts clearly have the potential to help move the aforementioned efforts forward. Their focus on permanent land conservation in the communities within which they work, along with their local, bipartisan appeal, makes them uniquely credible messengers between relevant stakeholders. This is true both in local communities as well as with representatives in state capitals and Washington, DC.

Land trusts can also help the broader environmental community combine fear with hope – linking the ability to say no (to certain proposals) with the ability to say yes. Many environmental organizations are more comfortable just saying no – you cannot build/dump that here. One of the core strengths of the land trust movement, however, is saying yes – doing deals to acquire rights to land, often in unusual and difficult circumstances.

Marrying the ability to try to stop “bad” clean energy projects with the ability to help move “good” projects along more quickly will be a key component of any effort to bring together the U.S. clean energy and land conservation communities. Obviously, this means that land trusts will need to know what they want to see in “good” projects and be able to say no to “bad” ones – both internally and externally. Nathanael Greene offered three principles on which to build these efforts: (1) minimize the trade-offs that have to be made; (2) make any trade-offs carefully; and (3) make sure to receive what was bargained for when the tradeoff was made.

*New skill sets will be required for land trusts*

Doing so will require new skill sets for the land trust community at the local, regional, and national levels. While some land trusts have strong public education programs, others do not – such programs will need to be scaled up dramatically. Political action by land trusts often involves targeted contact with decision makers who are supporters of land conservation efforts – will there be a need to go beyond those known supporters to help cultivate new ones? Finding the time and resources to collect, analyze, and disseminate data on the benefits of combining more efficient or cleaner energy efforts with the protection of critical lands will also be a challenge. Since so many energy infrastructure issues arise at a regional level, it may make sense to expand the role of land trust service bureaus to providing support for work on these topics as well.

*And traditional connections will have to be applied in new ways*

A large number of conservationists have joined the Obama administration, offering an unusual opportunity to push for a balance between protecting critical landscapes
and deploying cleaner energy technologies. The Land Trust Alliance should consider keeping an inventory directory of conservationists in the administration, as well as assessing how connections with land trusts can help bring value to their work. One specific initiative is to push for or provide data on inter-agency efforts to create guidelines for assessing and siting new energy facilities that take account of conservation values and community input.

Prior work on tax incentives for conservation has demonstrated the value of the land trust community’s grassroots networks in Congress. That network should be brought to bear on clean energy and climate change as well. Efforts should be made to identify senators whose votes are key on climate change or clean energy legislation, then to see which ones are also close to the conservation community and ultimately strive to meet with them. Among the topics that could be covered are: (a) ensuring that public and private protected areas are considered in any federal preemption of the process for siting transmission lines; and (b) providing other incentives for land conservation as part of a climate or clean energy bill.

Responding to climate change requires the urgent use of many different technologies

Moving from these broad themes to more detailed reflections on the discussions regarding specific technologies, one major conclusion was clear – the scale of the change needed to respond to climate change means that no one technology or approach will be enough. Rather, a suite of efforts across a range of technologies and locations will be required. This appears to include an expanded and more connected electricity network as we move from primary reliance on constant/baseload power (coal, nuclear) to more intermittent sources (wind, solar) and decentralized energy production/storage. A related conclusion is that as we move from more dense fuels (fossil fuel, nuclear) to less dense fuels (wind, solar, biomass), more land will be required. This means that the competition for land for food, fiber, fuel, shelter and services will only intensify.

Another specific reflection detailed how wide the range of issues discussed spanned different covered technologies. For wind farms and transmission lines, the focus was on criteria and processes for finding and permitting the “best” sites. For oil and gas exploration it was on the implications of technological change in terms of threats to open space, as well as the reputational issues around engagement with energy projects. Issues of severed estates – either subsurface rights or fee ownership – arose in the discussions about fossil fuels and carbon dioxide capture and storage. The human impacts of energy development were starkly illustrated by the discussion of mountaintop removal coal mining in Appalachia. Additionally, the need for new models of locally sourced and delivered heat energy was a central part of the woody biomass discussion.

The next few paragraphs dig a little more deeply into some of these issues. At the same time, the variety of topics covered underscores the need for the land conservation and clean energy communities to continue to learn from each other. Only by doing so can they hope to navigate the tension between conserving critical lands and rapidly deploying cleaner energy technologies.¹
Energy efficiency is priority number one

All land trusts should push energy efficiency first and as fervently as they can. If demand for energy is reduced, so, too, is the need for new generation and transmission facilities. Land trusts should collaborate with energy efficiency advocates and local programs to promote specific actions in their own operations, by their members, and in their broader communities. Tighter links should also be forged with the smart growth community, given their focus on energy efficiency in buildings and transportation systems.

New information technologies need to be used to inform siting processes in novel ways

Much of our discussion focused on capturing the opportunities that exist to influence the new energy facility siting process. New information technologies offer a means for mapping areas of special interest and engaging a wide range of stakeholders to help define both areas for development and those for protection. Specific efforts in this area might include the following:

- Articulating guidelines for assessing potential energy development sites and building from those that have been developed to date;
- Pushing for a broader, more integrated approach to energy resource planning, particularly in the identification and assessment of options for ways forward;
- Including data on conserved lands, energy resource potential, patterns of existing development and a range of other community values in the assessment of potential sites for energy projects;
- Expanding efforts to hear from more parties earlier in the siting process as part of energy planning efforts at the national, state, regional, and local levels;
- Seeking to engage land trusts more directly in the assessment/planning processes already underway, such as the administration’s look at siting on federal lands or that in which NRDC is involved in the U.S. West;
- Advocating for combined “infrastructure corridors,” including power lines, major roads, rail systems, pipelines, etc. as a way to minimize the footprint of the different networks;
- Engaging around the topic of cost allocation – not just direct, but externalized costs as well – as a vehicle for justifying mitigation/compensation areas and payments as part of new energy development projects; and
- Using whatever leverage the conservation community has to insert the results of these proactive, regional assessment efforts into the more formal energy siting processes led by governments, regional transmission organizations, and electric utilities.
Sub-surface rights are a growing area of concern for the conservation community

A couple of specific areas of work were identified around sub-surface energy activities, as these appear to be posing new questions for an increasing number of land trusts. Included were the needs to:

- Offer guidance on options for responding to oil and gas leasing on or near conserved lands;
- Consider how that guidance might apply to sub-surface technologies that seem likely to receive more attention in the future, particularly carbon dioxide capture and storage (from the burning of fossil or other biofuels) and deep geothermal projects; and
- Respond to the Secretary of the Interior’s request that the land trust community take a position on off-shore drilling, particularly given the historical use of royalties to help fund land conservation.

Engaging communities and related ethical issues will continue as critical areas for work

Underlying many of our discussions were deeper questions about the roles of local communities and the ethical dimensions of land use decisions. On the community side, a variety of concerns were raised about their capacity and right to be heard on, influence, and benefit from the siting of energy projects. Much of the discussion focused on links with local communities, including the historic concentration of land ownership in corporate hands in much of Appalachian coal country, methods for obtaining community input on aesthetics/viewshed issues, and the possibility of recognizing public ownership rights in wind and solar resources. As land trusts become more engaged on these issues, their traditional strengths in enabling decentralized, community-scale action are likely to become an even more valuable part of their efforts.

On the ethics side, a wide range of issues were raised. One of the clean energy representatives raised the question of who should decide how to use what land, expressing some surprise that land trusts, as unelected private actors, felt comfortable making such decisions on their own. More generally: Who should decide what tradeoffs are appropriate using what process with input from whom? Should land trusts profit from fossil fuels? What leadership roles should land trusts and their individual members be taking on climate change/energy options? While a range of views were offered by individual participants on these and related questions, no effort was made to forge a consensus. Rather, these issues remain to be discussed in specific projects, as well as in broader strategy sessions in the future.

**Next steps**

In addition to these broad themes, participants also identified a number of next steps for their organizations, the new administration, and researchers. A sample of these suggestions is provided below.
Actions by their organizations

Land conservation/management organizations

- Be more vocal and engaged on the need to respond to climate change, even ahead of more traditional reasons to conserve land.
- Partner with energy, energy efficiency, climate, and other environmental groups to help capture current policy opportunities.
- Articulate the value of open space/natural areas as part of the solution to climate change (mitigation/adaptation).
- Add energy production to their definition of “working landscapes,” including “community/conservation energy” from woody biomass.
- Help promote the development of community scale renewable energy projects (wood, methane, wind, solar, etc.).
- Inventory and disseminate information on new mapping/decision-making tools being developed to enable spatially explicit and participatory planning efforts.
- Better understand and help promote incentives for deploying more renewable energy technologies.
- Engage more closely with the smart growth/transportation-oriented development communities to understand how best to collaborate on specific projects.
- Think more deeply about the impact of traditional approaches to land conservation on standards of living, climate change, and related issues, as well as the implications for future work.
- Help develop site-appropriate rules/guidance for managing conserved forests and range lands to reflect climate considerations.
- Expand the attention paid to energy issues as part of the due diligence for land acquisitions.
- Review model easement language in light of both climate change and energy project developments.
- Think about better ways to communicate the connection between land protection and responses to climate change.
- More actively undertake and promote actions to save energy, including energy audits of offices/homes, along with expanded communications with members and the land trust community as a whole.
- Seek to modify state eminent domain laws to ensure that they reflect conservation organizations’ ownership rights and ecosystem values.
• Support wind projects on their lands.
• Build a national database of sites under conservation easements to add to those covering fee-owned conservation land.

**Clean energy organizations**
• Link energy and land use efforts more widely.
• Bring local land trusts into efforts to say yes to “good” clean energy projects.
• Bring people from the land conservation community into the climate/clean energy policy discussions/advocacy at the state and national levels.
• Connect land conservation organizations with the providers of clean energy technologies to explore ways forward

**Research/academic organizations**
• Continue to educate the environmental community on how climate change (as a stock problem) poses fundamentally different issues than traditional pollution (flow problem) and that it needs to be addressed using all available tools as quickly as possible, while still working to raise the general standard of living on the planet (particularly in developing countries).
• Encourage land trusts to engage publicly at the micro (local news, with members) and macro (in DC) levels on the need for action on climate, including siting issues.
• Work with the land trust community to build databases on why certain areas are important so that the scientific community can harvest micro level details on land use from them.
• Develop maps of historical and projected land use change over centuries for use with policymakers, landowners and others.
• Analyze big data sets on energy infrastructure, other infrastructure, and natural systems/infrastructure to see where they overlap or do not and disseminate the results.
• Develop new tools to enable faster modeling of land use choices and broader participation as part of visioning/planning processes.
• Bring land trusts into the work of more academic ecologists on predicting ecological change.
• Understand the land use impacts of the carbon offsets being purchased by the organizations for which they work.
Ideas for action by the Obama administration

- Recognize the climate value from “saving land.”
- Ensure that mitigation for new energy projects is adequate to compensate for the full range of their externalized costs.
- Ensure full accounting for carbon from different forms of biomass energy.
- Include consideration of both publicly and privately protected lands in any federal preemption policy for energy facilities.
- Pursue an inter-agency task force on guidelines and processes for assessing possible sites for energy projects.
- Recognize that different energy technologies raise different issues and face different problems and thereby require different policy responses.
- Review the wording of the federal tax code, as well as the model easement under the Forest Legacy and other federal funding programs, to ensure that they adequately reflect climate and clean energy related goals on conserved lands.
- Truly dedicate the funds from energy projects on federal lands to conservation programs.
- Coordinate the spending of federal stimulus dollars with the results of recent climate modeling.

Topics for further research and development

- How might the ambiguities in old conservation easements be addressed through presumptions expressed in state law?
- How do cases on rights of way reflect/address protected lands?
- Whether renewable energy resources are or should be covered by the public trust doctrine – i.e., is the government under an obligation to ensure that they are used to promote the public interest in a responsible fashion?
- How do decentralized energy technologies/systems fit into current, more centralized systems, models and decision-making processes for responding to climate change?
- What are the best ways to bring diverse communities to a common level of understanding on clean energy projects? How might new information technologies help support such efforts?
- What does a full, lifecycle accounting show as the carbon budget for different types of biofuels and carbon storage technologies?
- Continue work to understand and articulate the environmental effects of wind farms.
• What are the implications of various carbon storage techniques for land management choices?
• What would it take to develop a mapping tool that helps landowners see the carbon impacts of different land management choices? Does one already exist?
• Explore ways to bring the values held by affected individuals into the data analysis for siting decisions.