

**FINAL REPORT OF THE
CLIMATE MOVEMENT TASK FORCE FOR THE SIERRA CLUB BOARD OF DIRECTORS**

MAY 2014

Executive Summary

In September 2013, the Sierra Club Board of Directors appointed a seven-person task force to explore a more aggressive overall target or set of targets for reducing U.S. greenhouse gas emissions and mitigating climate disruption. The task force set out to define an inspiring solutions-based message and strategy for coordinating our national campaigns and relevant movement-building approaches to increase Sierra Club's effectiveness in mitigating the most catastrophic impacts of climate disruption. We thought about this work in terms of *the why*, *the what*, and *the how*:

- *Why* is our climate work imperative, and what have we learned about the latest thinking from the scientific community that underscores its urgency?
- *What* are the most effective outcomes for the Sierra Club to pursue in order to effect change at the scale dictated by scientific data?
- *How* will we contribute most effectively to an evolving climate movement that must grow in scale and effectiveness to have the power to win?

This document outlines the key strategic recommendations that we believe the Sierra Club must implement to address these challenges, offering guidance for future decision making at all levels of the organization. Our report does not propose a new campaign or new campaign strategy, nor does it specify specific tactics or timelines. We expect that our recommendations and next steps will provide the programmatic foundation for future fundraising campaigns, while also providing direction for campaigns, chapters and groups, and other teams of activists across the organization. We have offered suggested next steps throughout the document to guide implementation of our recommendations.

Furthermore, we believe the value of this exploration has been as much in engaging the full breadth of the Club's stakeholders as it has been in offering recommendations. In the task force's initial report to the board, we drew from a recommendation of the Chapter-National Task Force, which says, "It is essential to build broad-based consensus around mission and goals. This draws all stakeholders into a discussion that reinvigorates the sense of communal purpose." Not since the Sierra Summit has the organization invested so intentionally in soliciting input from every corner of the organization. Through a series of online surveys; a dialogue process that engaged 50 chapters; a two-day, 40 person focus group; and consultations with 35 external experts, including allies, scientists, and donors, we have gathered more than 2,000 inputs to guide this process. We studied the input carefully with a group of academics who volunteered their time to this project and used the data to inform the recommendations that we propose here. We speak with confidence when we say there is broad and deep support across the organization.

[Addendum I: Summary of Internal Consultation](#)

- CMTF Internal Consultation - [Go Knuts Online Survey Alternative Results \(April\)](#)
- CMTF Internal Consultation - [Organization Wide Survey Results Slides \(September\)](#)
- CMTF Internal Consultation - [Leader Survey Questions \(December\)](#)
- CMTF Internal Consultation - [External Experts Report](#)

Finally, our recommendations serve as an update on the three strategies provided to the Board in 2011 and 2013 strategic briefs:

1. Confront the dominance of the fossil fuel industry on the American economy, politics, and our environment;
2. Advocate a fair and equitable transition to 100% clean energy; and
3. Contribute to a winning climate movement by:
 - Communicating a common vision that moves people from fear to hope and indicates how they contribute to tangible solutions.
 - Executing campaign strategies and winning local victories that provide people with a sense of their own power and contributions to nationwide outcomes.
 - Responding to external circumstances, such as storms or oil spills, as well as key decision-making moments, such as a vote of Congress or a shareholder meeting, by broadening and focusing public outrage and concern to put pressure on decision makers to say yes to movement demands.
 - Developing leaders capable and willing both to take action at the Sierra Club's behest and to self-organize within their networks.
 - Building relationships with partners who share our values—especially clean tech businesses and outdoor recreation companies, civil rights groups, organized labor and low income organizations--in order to strengthen our power as we work toward common goals.

Summary of Recommendations

1. Ensure global average temperature remains below 2 degrees Celsiusⁱ.
2. Advocate for U.S. carbon emissions to drop at least 50% below 2005 emissions levels by 2030.ⁱⁱ
3. Adopt ambitious 2030 clean energy outcomes, including 100% carbon free in the power sector and 50% oil savings in the transportation sector.
4. Ensure our work to achieve 2030 clean energy outcomes emphasizes fairness and justice.
5. Create a unifying frame for our climate solutions work.
6. Develop and expand ability to leverage key movement moments, also known as tipping points.
7. Develop and expand the core of committed volunteer leaders.
8. Build chapter, group, and local organizing team ability to deliver on national, state, and local strategies.
9. Strengthen organizational competence to work across differences (including race, age, socio-economic background, etc.)
10. Track and evaluate movement building progress alongside clean energy expansion and carbon reduction progress.

Resources

No report would be complete without analyzing whether organizational resources, including current systems and structures, will enhance or inhibit the recommendations. Implementing these recommendations will no doubt require additional funds. We believe that most of the recommendations can be incorporated into restricted funding proposals. We are confident that most of our current donors

will be comfortable with setting a bold and aspirational vision around clean energy. There is a sense that some of our major institutional funders are already looking forward to a more comprehensive energy sector strategy. There are no signs that funder engagement with respect to climate is waning, although interest changes from strategy to strategy. Our existing BCC donors are excited and engaged in our work and our success and we feel they are well positioned to embrace an evolving scope of work in the electric sector. A new framework and increased focus on clean energy also potentially opens up opportunities to engage donors that we have yet to bring into the Club.

Some areas of investment are important pieces of the vision—just transition, volunteer engagement, etc.—that we have not historically engaged major funders to support. As with all new initiatives, some portions of the campaign will be less attractive to the climate funder community. As this initiative is developed, we will want to do detailed focus group work to collect clear information about areas where we will need to invest unrestricted funding.

To support broad participation of volunteers in stepping up their clean energy and climate movement-building efforts, and in recognition that much of this work may not satisfy the campaigns' funding restrictions, we recommend establishing a dedicated funding pool for chapters, groups, and organizing teams to support the work. The pool could be modeled on, and administered similarly to, current campaigns' shared projects funding, with an RFP process based on defined outcomes and detailed work plans. While additional funding would need to be raised to scale up this opportunity, we recommend consideration of tapping a portion of the Board-designated bequest funds set-aside for chapters, at least initially.

Connection to Lands, Water, Wildlife, and Outdoors Work

Clearly, the work of the Our Wild America campaign overlaps with the Sierra Club's current overall climate efforts and with those recommended for future years in this document. For example, the campaign's recently released *Dirty Fuels, Clean Futures* report calls for "President Obama [to] take pragmatic actions to keep dirty fuels in the ground and put our country on a new path to a clean-energy future. Over the remainder of his time in office, he has an opportunity to: require all federal resource management agencies to fully disclose potential carbon pollution; not allow any oil shale and tar sands extraction; reform coal mining on federal lands; put oil drilling in the Arctic Ocean off limits; not issue any new oil and gas leases that require fracking until impacts on water, air and climate are averted and; stop massive plans to export coal and liquefied gas to other countries."

Additionally, from past experience, we know that the Sierra Club's participation in siting large-scale clean energy projects requires the organization to look at options not only from the energy perspective but also from the perspective of biological values. Both the Beyond Coal and Our Wild America campaigns have been engaged in decision-making and should continue to collaborate to promote distributed generation over large scale clean energy projects and to work with clean energy developers early in the process to find solutions before controversies arise.

Despite the collaboration that must continue between campaigns and also between campaigns and chapters and groups, we recommend that the overall framing of our lands, water, wildlife and outdoors work is not subordinated to the climate frame we are presenting here. Activists, members, and donors

continue to rely on the Sierra Club to lead in the environmental community on these issues and not only in ways that serve our climate goals. We believe that the Sierra Club should prioritize separate fundraising, messaging, and campaigning for the full range of lands, water, wildlife, and outdoors projects as envisioned in the redesign of the Our Wild America campaign. Of course, some of the issues of the Our Wild America campaign will resonate more with donors and others with activists, but this overall suite of climate work deserves its own platform at the Sierra Club with visible support from the Board of Directors and Executive Director.

Successful Adoption of these Recommendations

We would like to flag for the board an item that came out of our deliberations, which we believe to be of significant importance. Since building a diverse movement is required to take strong action on climate and to cultivate a high level of adoption for this initiative throughout the Club, we feel it is important to emphasize how we will need to frame this within the structure of the Club in order to build support.

While it is obvious that this initiative will be significant for the Club, there was a sense from some members of the Task Force that once we flag an initiative as a “priority,” it can raise questions throughout the organization about how resources are allocated, establishing a dynamic whereby other areas are defined as “not being a priority” and un-important. Therefore, we wish to emphasize for the Board that if our goal is to build a strong movement and to build strong support throughout the organization, we will need to define a communications strategy for this initiative and be clear about the associated ramifications.

We believe that it is in the best interest of the movement to frame this initiative in a way that does not translate into “winners” and “losers” within the organization, but to instead strive to bring all of our activists together around a common purpose. We advise that the Board, Executive Team, and Communications take the lead on rolling out this initiative in a way that brings the Club together.

THE WHY: Establishing a 2030 target for US emissions reductions consistent with the latest climate science and currently available technology.

When talking about climate protection, most of the conversation is focused on limiting the overall temperature increase with the ultimate goal of rebalancing the carbon cycle. As we know, the atmospheric temperature increase above pre-industrial levels is causing the major climate impacts we are now experiencing. While the environmental community often focuses on carbon dioxide (CO₂) concentration limits such as 350 or 400 parts per million (ppm), many scientists now recommend focusing on temperature and a corresponding emissions budget for three reasons: 1) stabilizing at a certain concentration such as 350-400ppm still results in a temperature increase; 2) concentration is just another metric in an already complicated storyline for what should be a simple cause (emissions) and effect (temperature) situation; and 3) the most important metric is actual emissions. A focus on temperature allows for establishing the emissions trajectory to be on track to limit warming to below dangerous levels, and then setting an annual emissions budget to achieve climate stabilization. The conversation then becomes about deploying best available technologies to avoid overspending our emissions budget.

Substantial scientific evidence indicates that an increase in the global average temperature of more than 1.5 or 2 degrees Celsius (°C) above pre-industrial levels poses severe risks to natural systems and human health and well-being. Sustained warming of this magnitude could, for example, result in the extinction of many species and extensive melting of the Greenland and West Antarctic ice sheets—causing global sea level to rise. Scientists have very high confidence (greater than 90% chance) that global mean sea level will rise at least 8 inches (0.2 meters) to possibly 6.6 feet (2.0 meters) by 2100.ⁱⁱⁱ In light of this evidence, policy makers in the European Union have committed their countries to a long-term goal of limiting warming to 2°C above pre-industrial levels, and many other nations—especially small island nations—have pushed for limiting warming to 1.5°C. The United States has agreed in principle to work with more than 180 other nations under the United Nations Framework Convention on Climate Change to bring about the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.” For 2°C, the corresponding greenhouse gas concentration is roughly 450 ppm. The current concentration in our atmosphere is 400 ppm.

Heading rapidly to a 4 degree world

In 2012, the World Bank released a report, *Turn Down the Heat: Why a 4 degree World Must be Avoided*, to illustrate the growing severity of climate impacts that we will likely face under our current emissions trajectory. The 4°C scenarios are devastating: the inundation of coastal cities; increasing risks for food production potentially leading to higher malnutrition rates; many dry regions becoming dryer, wet regions wetter; unprecedented heat waves in most regions, especially in the tropics; substantially exacerbated water scarcity in many regions; increased frequency of high-intensity tropical cyclones; and irreversible loss of biodiversity, including coral reef systems.

How much warming can the Earth take?

The observed impacts of climate change suggest that the planet may be more sensitive to warming than previously thought.^{iv} Another way to put this is that dangerous impacts seem to be appearing at lower temperatures than predicted. Also, uncertainty around how much carbon can be emitted to meet a given temperature limit (a measure of climate sensitivity) remains as lower values are becoming less likely and larger values are not being ruled out. Therefore, our carbon budget to meet a given temperature limit may be smaller than previously thought.

Dangerous impacts appearing with lower temperature increases and potentially large climate sensitivities both strongly suggest that we set lower temperature and emission targets under a precautionary principle to minimize the risk of dangerous and unmanageable impacts. The most recent, robust science on the impacts of climate change now indicates that an increase in the global average temperature of more than 1.5°C above pre-industrial levels poses severe risks.^v Therefore, trying to limit the global average temperature to no more than 1.5°C above pre-industrial levels is probably warranted.

Whatever our future target for concentration or temperature stabilization—450, 400, or 350 ppm, or 1.5 or 2 degrees—we ought to be doing much more than we are now to curb emissions. Our current emissions trajectory does not have us on a path to stabilize at any concentration or temperature, let alone a path that avoids a dangerous threshold. Unless we make significant emissions cuts in the next few decades, stabilization at levels thought to prevent increasingly dangerous impacts will not be possible. Delay in action means that emissions reductions needed to stabilize at a given temperature or concentration will be much more drastic and difficult. We must begin to dramatically reduce emissions in the near-term; once this process is well underway, we can determine the target level of atmospheric concentration or temperature limit.

While many scientists and activists have spent a lot of time debating whether we should aim for 1.5°C or 2°C warming, it seems it would be a more productive use of everyone's time to focus on creating the most robust, technologically feasible near-term target possible to preserve our ability to stay below 1.5°C warming. New research on emission reduction trajectories shows a possibility of preserving a 1.5°C target long-term, while shooting for no more than 2°C in warming in the near-term.^{vi} A medium-term overshoot of emissions may still preserve our ability to stay below 1.5 or 2°C in the long-term, as summarized in more detail below.

Can humanity get there from here?

An active debate is underway in the climate science literature about whether it is too late to return to a pathway to limit warming to 1.5°C or 2°C by 2100 and beyond. According to a study by Dr. Thomas Stocker, published in the journal *Science* in November of 2012, the time has passed for an economically feasible plan to cut emissions and prevent a 1.5°C global temperature increase. According to Stocker, the world's carbon emissions would have to decrease by about 3.2 percent per year starting in 2020 in order to avoid an increase of 2°C by the end of the century; if emission reductions started in 2032, they would need to be cut by more than 6 percent annually to reach that target. However, Dr. Bill Hare, scientist and CEO of Climate Analytics, is more optimistic. After a review of much of the science, in 2012 Climate Analytics determined that “limiting global warming to below 2°C maximum, or even reducing to

below 1.5°C by 2100 remains technically and economically feasible, provided there is sufficient political ambition backed up by action to introduce the required measures and policy changes now.”

What is the emissions level that is needed in order to stay below 2°C? The United Nations Environment Programme’s (UNEP) 2010 *The Emission Gap* report revealed that “studies show emission levels of approximately 44 gigatons of carbon dioxide equivalent (GtCO₂e) (range: 39-44 GtCO₂e) in 2020 would be consistent with a “likely” chance of limiting global warming to 2°C (likely is greater than a 50% chance).^{vii} Under business-as-usual projections, global emissions could reach 56 GtCO₂e (range: 54-60 GtCO₂e) in 2020, leaving a gap of 12 GtCO₂e” between our path and one that gives us a reasonable chance of remaining below 2°C. The report further concluded that “if the lowest-ambition pledges were implemented in a “lenient” fashion, emissions could be lowered slightly to 53 GtCO₂e (range: 52-57 GtCO₂e), leaving a still significant gap of 9 GtCO₂e” and that “with or without a gap, current studies indicate that steep emission reductions are needed post-2020 in order to keep our chances of limiting warming to 2°C or 1.5°C”.

UNEP’s 2012 update to *The Emissions Gap* paints a darker picture. More recent analysis shows that, without action, emissions are likely to be at 58 gigatonnes (Gt) in eight years’ time, leaving a larger gap than in earlier assessments due to projected economic growth, particularly in key developing economies. Even if all countries implemented the most ambitious level of pledges and commitments under the strictest set of rules, the analysis shows that there would still be a gap of 8 GtCO₂e by 2020, which is 2 Gt higher than the previous assessment. Can the gap be bridged by 2020? From a technical standpoint the answer remains yes, with an estimated potential to bring down emissions by 17 Gt by the 2020 timeline. The challenge is that current investments in buildings, transportation systems, factories, and other infrastructure are “locking in” high energy use patterns and associated emissions for decades, limiting future options for abating emissions.

Most of the analyses showing a global pathway to achieving no more than 1.5°C of warming will involve a temporary overshoot of the final emissions target. This represents the emissions gap mentioned above, followed by a dramatic reduction in emissions, followed by negative emissions as compared to business-as-usual. These analyses show that temperature trends could overshoot and then drop below temperature limits as a result of natural “sinks” acting to gradually reduce the atmospheric burden of the greenhouse gases over time. However, since this process occurs slowly, we expect that, once temperatures overshoot a target, they will not drop below the target for decades (Lowe et al. 2009). This process could accelerate if negative CO₂ emissions are achieved (Azar et al. 2006, Azar et al. 2010).

U.S. Carbon Budget and Current U.S. Commitments

At the request of Congress, the National Academy of Sciences released a series of reports in 2010 that emphasized the urgency of climate change and reasons why the U.S. should act now to reduce emissions of heat-trapping gases. One central point was: “The longer the nation waits to begin reducing emissions, the harder and more expensive it will likely be to reach any given emissions target.”

The panel of scientists at the National Academies determined that we need to adopt a carbon budget, recommending that the United States restrict its carbon emissions to a total of 170 to 200 billion tons of global warming gases from 2012 to 2050—approximately 4.5 to 5 billion tons a year from 2012 to 2050.

The limit represents an 80 percent reduction in carbon emissions compared to current projections. From 2008 to 2013 alone, the U.S. has been releasing 6 to 7 billion tons of greenhouse gases per year. In recent years, thanks to the efforts of our Beyond Coal Campaign and market forces, we have reduced our current emissions slightly but we still emitted 6.7 billion tons of greenhouse gases in 2012. This level of emissions is woefully inadequate to meet the suggested budget. President Obama's 17% reduction below 2005 levels by 2020 commitment, essentially a little more than 1 percent per year reduction, is also inadequate for meeting this U.S. carbon budget.

Based on studies published during the past several years, the IPCC found that in order to have at least a 66 percent chance of limiting global warming to, or below, 3.6°F above pre-industrial levels, no more than 1 trillion tons of carbon can be released into the atmosphere from the beginning of the industrial era through the end of this century. The IPCC report estimates that we've already used 531 billion tons of that budget as of 2011 by burning fossil fuels for energy as well as by clearing forests for farming and myriad other uses. That means we're on the wrong side of the carbon budget, with 469 billion tons left.

[Addendum III: Summary of Current US 2030 Reduction Targets](#)

RECOMMENDATIONS

- 1. Global average temperature must remain below 2 degrees Celsius.**
- 2. U.S. carbon emissions must drop at least 50% below 2005 emissions levels by 2030.**

Messaging on achieving this target must emphasize that it is only possible if our progress on coal continues to meet ambitious targets, we achieve dramatic increases in the uptake of clean energy, a new path to significantly reduced oil use is identified, and we address natural gas use. Achievability also relies on the emergence of viable dramatic renewable and energy efficiency technological innovations around the mid-2020s.

President Obama called for 17% of 2005 by 2020, which requires reductions of approximately 35% of power sector emissions by 2020 (in line with World Resources Institute and presuming other sectors stay flat). Obama's commitment is an important first rallying point to get us on the path to the ambitious goals above and push for ambitious outcomes on carbon rules. This target can be achieved via a strong result on New Source Performance Standard combined with other emerging EPA rules, clean energy, and stopping the rush to gas. We can address the challenge of aligning a U.S. goal with international developments by committing the U.S. to do its fair share and more, and through the logic that we believe that U.S. leadership and innovation will enable other countries to achieve commensurately ambitious targets. In particular we look forward to the post-2020 international process that will begin in earnest with UN meetings in New York this summer and culminate in Paris at the end of 2015. Next spring the United States will put emissions reduction targets on the table in advance of Paris, just as it pledged to reduce emissions 17% in Copenhagen.

SUGGESTED NEXT STEPS:

Offer as a benchmark for the U.S. target hopeful that the core of the U.S. green groups can support and also advocate for a 1/3 reduction by 2025 in the run up to Paris.

THE WHAT: Making 100% clean energy the overarching focus to strengthen Sierra Club's climate solutions work

Existing Sierra Club policy guides the organization to move the U.S. off all fossil fuels by 2050. We propose that our public call for 100% clean energy be commensurate with existing policy. The Sierra Club is already making significant strides toward 100% clean energy under the banners of Beyond Coal, Beyond Oil, and Beyond Natural Gas. The continuation of these campaigns' groundbreaking work remains vitally important. In addition, we are expanding the scope of our solutions advocacy in areas where coal has become all but obsolete, places where greater emphasis on clean energy can create powerful societal change, and where promoting clean transportation solutions can have a substantial impact on the transportation sector.

We must build confidence in 100% clean energy by changing the perceptual context in which our local fights occur and building a positive clean energy narrative at the national level. The movement towards marriage equality did not happen piecemeal, solely as the result of one state initiative at a time. Rather, success stories in one state were told nationally and the online media amplified the progressive voices of a new generation. As a result, a sea change in popular and cultural views made incremental state and corporate victories possible. We need to develop a similarly integrated approach on clean energy. By combining our great plant-by-plant, barrel-by-barrel ground game with a bold, ambitious vision, we can accelerate the rate of change in attitudes and beliefs about clean energy, enabling more of it to come online faster.

Implicit in the goal of keeping global temperature increase to 2 degrees Celsius and cutting U.S. emissions in half by 2030 is the need to have locked-in the end of fossil fuel usage as quickly as possible. It is the role of the Sierra Club to advocate for the leading edge of what's presently believed possible and then effect political change to ensure that progress keeps pace with the urgency of the climate science. In the absence of technological and economic barriers, it is our role to set an aspirational goal and create the conditions for political progress on a timeline consistent with the science, but predicated on the need for action.

Credibility and Leadership

As the economic paradigm of renewable energy shifts and clean energy becomes cost competitive with fossil fuel-based electricity in an increasing number of U.S. locations, many scientists are envisioning a grid powered by 80 to 100% renewable energy resources. A set of recent groundbreaking studies has shown that this vision is a technical reality in the 2030 to 2050 timeframe. While these studies acknowledge the technical challenge of "integrating" large amounts of renewable energy into the U.S. electricity grid, they show how up to 100% renewable energy can be safely incorporated using advanced technology and optimized operational methods that are available today. Credibility, therefore, should center on the economic and political feasibility of the goal rather than on technological feasibility.

Based on the vision laid out by the world's leading experts in the studies below, a movement is growing worldwide for the transition to a 100% renewable energy system. According to the [Renewables 100 Policy Institute](#), there are "8 Countries, 45 Cities, 51 Regions, 8 Utilities, 21 NonProfit/Educational/Public

Institutions, totaling more than 45 million people (and counting...) who have shifted or are committed to shifting within the next few decades to 100% renewable energy in at least one sector (e.g. electricity, transportation, heating/cooling).” However, no studies show exactly how the U.S. could get to 100% carbon free power in the electric sector by 2030 at the same or lower cost than business-as-usual.

There are significant political and regulatory challenges to developing a carbon-free grid in the timescales needed for a stable climate. While some academics, economists, and grid operators have begun to think about these issues, the resulting solutions have been less clear than the detailed technical visions laid out below. One major exception is Energy Innovation’s [America’s Power Plan](#), which lays out the most pressing policy issues and the frameworks—rather than detailed prescriptions—for solving these challenges.

[Addendum IV: Abbreviated Literature Review of 100 % Clean Energy Studies](#)

Our summary of the most notable 80-100% renewable energy technical studies include:

- Mark Jacobson & Mark Delucchi: 100% Wind, Water, Sun Studies.
- Budischak et al. “Cost-minimized combinations of wind power, solar power and electrochemical storage, powering the grid up to 99.9% of the time.” *Journal of Power Sources* 225 (2013).
- National Renewable Energy Laboratory. (2012). Renewable Electricity Futures Study.
- Lovins, A. & Rocky Mountain Institute (2011). Reinventing Fire.
- The Global Map of Renewable Energy Leaders.

While we have not conducted an exhaustive literature review of oil reduction feasibility studies, a couple of key papers have guided our work to date. Much as we conclude from studies about the power sector, we believe it is technically possible but not yet politically feasible to meet our goal to reduce oil consumption in the United States by 50% by 2030. “To stay within the carbon budget and keep long-term global temperature increases below 1 degree Celsius, 75 percent of the known, economically recoverable reserves of conventional fossil fuels can never be used as fuels. They must remain in the ground.”

- Union of Concerned Scientists: “Half the Oil, A realistic plan to cut the United States’ projected oil use in half over 20 years.” http://www.ucsusa.org/assets/documents/clean_vehicles/half-the-oil-savings-plan.pdf
- Oil Change International: “Off Oil - A Briefing for the Environmental Community.” February 2012.

Advocating a complete elimination of the use of fossil fuels in the electric generation sector is an aspirational goal meant to unify and inspire the Club and provide guidance to Club entities. We do not believe that it is advisable to provide a technical road map describing specifically how this will be achieved. Rather, a carbon-free grid should be presented as an inspirational goal that will provide a basis to articulate the benefits of a carbon free grid, to highlight our successes to date in moving away from carbon, to emphasize the feasibility of using renewable energy and energy efficiency to meet our power needs, and to inform Club volunteers and staff in their climate work.

RECOMMENDATIONS

3. Adopt ambitious 2030 clean energy outcomes for the power and transportation sectors.

Power: 100% Carbon free by 2030

The electric sector was the largest source of greenhouse gases in the United States in 2012, emitting 32 percent of the total U.S. economy-wide emissions. Coal represented 75 percent of the electric sector's GHG emissions, even though it provides only 39 percent of the total electricity. But coal's contribution (and consequently U.S. GHG emissions) has plummeted over the past decade from more than 50 percent to 39 percent, in large part due to advocacy by the Sierra Club and a vast network of NGO allies from coast to coast, along with plummeting prices of natural gas and clean energy. Our success to date provides the foundation and a growing movement for securing a carbon-free grid by 2030.

In 2002, the Sierra Club began work to slow the growth of U.S. greenhouse gas emissions by opposing a rush to build new coal plants. Initial advocacy grew into the Sierra Club's Beyond Coal Campaign that, in partnership with more than 100 allied organizations, stopped the construction of more than 200 proposed new coal plants that would have locked the U.S. into higher emissions for decades, and eliminated any market for clean energy. The organization was at the forefront of the movement that defeated 90 percent of the proposed coal plants, coal plants that would have emitted more than 600 million tons of carbon annually. Since November 2008, only a single coal plant has broken ground in the U.S.—the demonstration Kemper coal gasification with carbon capture and storage proposal in Mississippi. With our advocacy pushing EPA to require that all new coal plants use carbon capture and storage, and the soaring cost of coal plants, it is highly unlikely that new coal plants will be built in the U.S. ever again.

In 2010, with the coal rush essentially over, the campaign turned the majority of its attention to retiring the existing 522 coal plants and replacing them with efficiency, wind, solar, and geothermal rather than natural gas, biomass, and large scale hydro. Drawing on the huge base of knowledge about the electric sector that we and our allies have obtained by engaging in hundreds of public utility commission and other regulatory and legislative processes, we have learned how to design and advocate for programs that deploy large amounts of wind, solar, geothermal, and energy efficiency. Between 2011 and 2014, the campaign is locking in the retirement of one third of the U.S. coal fleet (105,000MW) and replacing it with clean energy by 2020. Our most recent analysis indicates we are on track to secure the retirement of this coal and replace it with approximately 65 percent clean energy.

Beginning in 2013, the Beyond Coal Campaign secured an end to coal in California and we turned our attention to the last remaining huge chunk of carbon emissions in the electric sector: natural gas. Our work to stop new gas plants and replace existing gas plants with clean energy is currently focused in California, but we expected to expand to additional states within the next year or two.

The Sierra Club has hundreds of staff and thousands of volunteers working in all 50 states and Washington D.C. to replace coal with clean energy, and is now expanding the scope of their work to include replacing natural gas in the electric sector. With sustained attention and significant resources, we are well-positioned to decarbonize the electric sector by 2030 by continuing to push out coal and by ramping up opposition to natural gas. The importance of decarbonizing our electric sector is further

underscored by an emerging consensus that opportunities to decarbonize other sectors—notably transportation—are rooted in their electrification.

SUGGESTED NEXT STEPS:

- Develop a 2020 clean energy KPI for the power sector by the end of 2014.
- Continue modeling for replacing coal and gas with clean energy by 2030, starting in regions that have phased out coal such as California and the Northwest.
- Secure funding for next phase of work in states where coal work is over, starting with California and Northwest.

Transportation: 50% off oil by 2030

The goal of the Sierra Club's Beyond Oil Campaign is to protect our communities and our climate by cutting overall consumption of oil in the United States in half over the next 20 years by accelerating the critical transition to cleaner modes of transportation and by dramatically slowing the production of tar sands, tight, deep water, and Arctic oil. To meet our long-term climate goals, we must reduce oil consumption through clean transportation and clean energy. The environmental community won a huge victory in 2012 with the passage of the 2017-2025 light duty vehicle standards. To build upon and to ensure this win, the Sierra Club is assuming a leadership role in accelerating the adoption of electric vehicles (EVs) and plug-in hybrid electric vehicles (PHEVs).

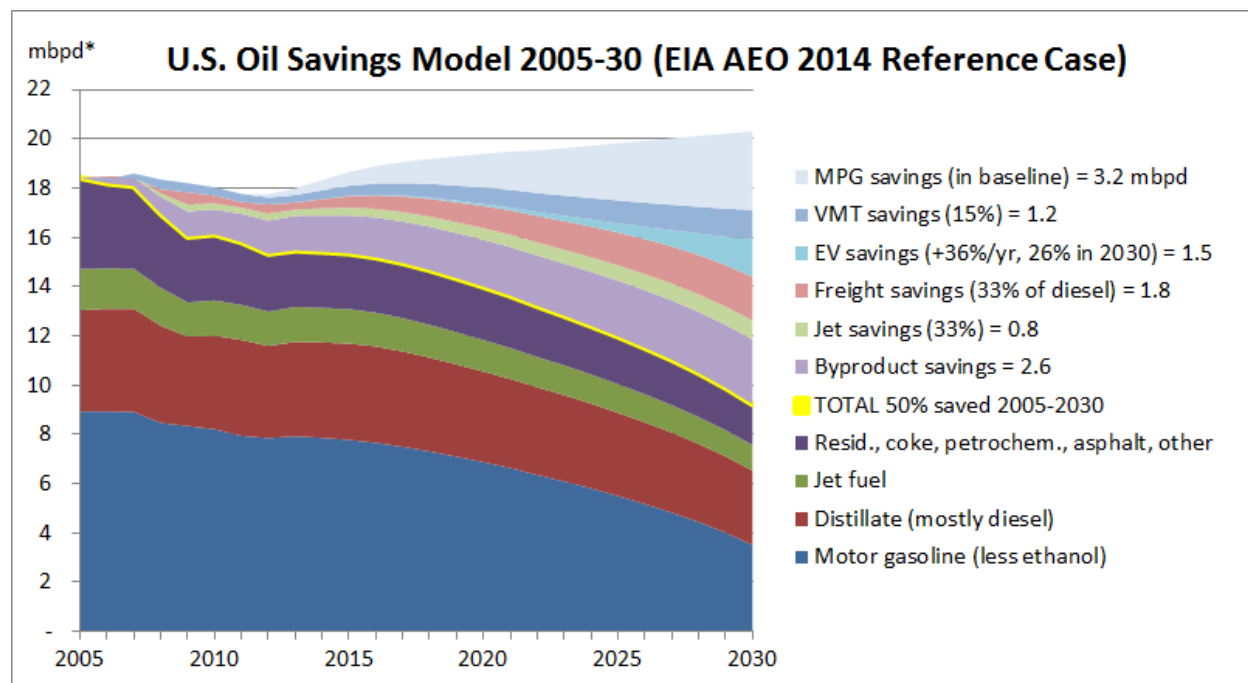


Figure 1

Through demand-side initiatives, and based on the Annual Energy Outlook's (AEO) real and predicted oil savings since 2005 presented in Figure 1, the Beyond Oil Campaign is designed to reduce demand for gasoline, which accounts for about half of oil use, and diesel, which accounts for about a quarter. Specifically, we can achieve a 50% overall reduction in oil consumption from 2005 to 2030 if:

- New federal light vehicle miles per gallon (MPG) standards are included in the AEO baseline;
- Personal vehicle miles traveled (VMT) are reduced 15% below the 2030 baseline via new compact livable communities and improved transit, bicycling, and pedestrian infrastructure;
- Market share for personal EVs grows at 36% per year;
- Diesel for truck freight is reduced to 33% below the 2030 baseline due to new federal medium and heavy truck standards, freight to rail, and electric local trucks;
- Efficiency results in reducing jet fuel consumption by 33%; and
- Demand for refining byproducts—including residual fuel oil, refinery gas, pet coke, asphalt, and petrochemicals—is reduced in proportion to current actual reductions and future main fuels reductions by 43%.

SUGGESTED NEXT STEPS:

- Conduct modeling and/or scientific literature of the increased electrical load of the target growth in electric vehicles and the associated carbon emissions implications.
- Assess the Sierra Club’s ability to run multiple large-scale campaigns.
- Identify additional funding for 50% oil savings efforts and determine how to expand the Beyond Oil campaign and/or integrate this work with other solutions-focused efforts.

4. Ensure our work to achieve 2030 clean energy outcomes emphasizes fairness and justice.

The challenge of transforming the fossil fuel-based energy economy to 100% clean energy presents the opportunity to fundamentally break with the market-driven and exploitive relationships and dynamics of the past and embrace policy solutions and institutional relationships predicated on environmental, economic and racial justice. To build a climate movement with the power to achieve a clean energy vision ambitious enough to stop irreversible climate disruption, people must believe that a clean energy economy is one in which they will be economically secure. The investments in energy efficiency, clean energy and other measures needed to mitigate climate disruption will produce major additional benefits throughout the U.S. economy, making the clean energy economy a major new engine of U.S. job creation.

However, the market alone will not create a fair and just clean energy economy. For that to happen, we must reverse the destructive policies of at least the past 35 years, during which we've seen workers' rights eroded; manufacturing moved offshore; U.S. union density at historic lows; an endangered middle class; a widening chasm between the wealthiest one percent and everybody else; and people of color, undocumented immigrants and women continuing to suffer unfairly and disproportionately from these unhealthy trends. The people who are most economically vulnerable tend to be the same people who are already suffering the most from climate disruption.

As the Sierra Club seeks to lead in expediting the clean energy transformation, we are called on to advance solutions that help ensure clean energy jobs are good jobs, and to address the needs of workers and communities affected by the transition, of low-income communities hit hardest by climate disruption and fossil fuel pollution, and of consumers disproportionately burdened by energy costs.

We not only need to identify the right policy prescriptions and model solutions, but mount broad and strong grassroots pressure demanding them. At the policy level, issues of economic justice and fairness must guide our policy decision-making and prioritization on clean energy related issues. Our communications should give these issues greater attention. And our grassroots leaders need much more support, in tools and training, to be able to engage with affected workers, consumers and justice advocates, and to articulate and advocate for justice and fairness, in local and state policy settings and at the community-level.

The Sierra Club must stand for, and insist on:

- Clean energy jobs are good jobs
- Fair treatment of workers and communities affected by fossil fuel transitions
- Equitable access to clean energy-related economic opportunities for disadvantaged communities
- Affordability of clean energy

[Addendum VI: Examples of Economic Transition Success](#)

Clean Energy Jobs Should be Good Jobs

The Sierra Club has been a leader in the environmental community in helping to ensure that clean energy jobs are good jobs; that is, that they are safe and healthy, and that they pay enough for working people to support themselves and their families. As we build the movement for 100% clean energy, we need to ramp up this work. Our country needs more domestic solar and wind manufacturing. We need to help our clean tech and union allies partner with each other. We need to answer questions about the nature and quality of jobs created in the transition from centralized to distributive generation. We need honest internal conversations about how to balance clean energy job creation with species and habitat protection. We need to help develop trade and industry policies that move us towards positive solutions to these problems.

Ensure a fair and just transition for workers, families, and communities that depend on fossil fuels

If coal, oil and natural gas consumption decline significantly, there will be significant job losses for workers in those sectors. How the transition is managed for workers and communities that depend on fossil fuels will be of critical importance to the success of our clean energy vision. If it is mishandled, it could lead to a backlash that undermines support for the transition. While we know that investments in renewable energy, energy efficiency and climate-resilient infrastructure will create jobs, there is no guarantee that these job opportunities will accrue to the regions and communities that are losing fossil fuel industries.

The Sierra Club is a recognized leader in building collaboration among labor and environmental organizations and advocating for good, green jobs, in the new energy economy. What we recognize, however, is that for many workers immediately threatened by the energy transition, the green jobs and just transition we advocate are perceived as abstract promises. We must address the needs of the miners, power plant workers and others who are already being affected by the transition, as well as the communities that depend on those industries. To win public support as well as to be credible in the

communities most impacted by the loss of fossil fuels based jobs, we must continue to drive transition assistance at the policy level as well as on the ground.

Public investment in transition assistance for workers is not new. The federal government committed significant resources to easing the transitions of timber industry workers in the Pacific Northwest and tobacco farmers in the south. Major workforce transition support also figured in the cap-and-trade legislative debate. Now, together with our Blue-Green Alliance partners, the Sierra Club is again putting forward a multi-billion dollar "transition fund" to help coal industry workers transition to jobs in the clean energy economy.

Ensuring a just transition for those communities dependent on fossil fuel-based industries is an immense challenge. There is enormous economic development and job growth potential in clean energy-related industries. We recognize that fostering these new industries in the affected communities cannot be simply left to the market. Nor should it be if those communities are to break with the exploitive patterns of the past. Major investment in economic revitalization will be needed. And even more important will be the need for those communities to take the lead in shaping the transition and revitalization of the local economy.

Equitable access to economic opportunities in clean energy and energy efficiency

For disadvantaged, low income and people of color communities, typically disproportionately burdened by pollution and facing a multitude of challenges, there is great potential for the transition to clean energy to spur community revitalization, poverty and joblessness reduction, improved health and citizen empowerment. In a major 2013 state-by-state energy policy analysis, the NAACP details the major economic potential offered by energy efficiency and renewable energy across the country, and calls for "revolutionizing" the relationship of communities of color to the power sector to take advantage of that potential. [[Just Energy Policies: Reducing Pollution and Creating Jobs](#)]

From the work of NAACP and other partner organizations, we can draw guiding principles for our efforts to help foster this work. First and foremost, these communities must take the lead in designing the local energy economy. Community driven processes can ensure equitable access to opportunities for local ownership of energy and local employment.

Additionally, at the policy level it is critical to support policies and initiatives targeting opportunities and investment to disadvantaged communities, low income and people of color communities (e.g., hiring, minority businesses, etc.) Local hire and minority business enterprise provisions are identified by the NAACP as especially important policy tools to incorporate into state energy policy "to better support economic opportunities for African American entrepreneurs, businesses, and communities in the energy sector." ^{viii}

In addition to energy savings, energy efficiency and weatherization offer non-energy benefits, including improved health associated with better air quality, improved safety, and overall improved quality of life. As NAACP and other advocates stress, it is to ensure that the value of these non-energy benefits is recognized and included in assessing efficiency program costs and benefits.

With regard to advancing our vision for oil savings, the Club's transportation policy objectives, in general, align naturally with the economic development goals and needs of low-income communities and communities of color. Low-income families spend as much as 55% of their income on transportation. Expanding access to clean, safe and affordable transportation alternatives, including transit, biking and walking, can reduce the transportation cost burden, increase access to jobs, and improve air quality, while also reducing oil consumption. At the policy level, advocacy for rebalancing funding in favor of transportation alternatives and for reducing tailpipe pollution has well-established and broad support, including among advocates for disadvantaged communities.

There is immense opportunity to pursue local collaboration with community advocates around transportation-related projects, such as funding, build and expanding transit, and pedestrian/cyclist master plans, that offer multiple benefits in health, safety, quality of life and increased economic opportunity.

Making energy affordable: Reduce economic burden for low-income energy consumers

In advancing our Clean Energy Vision, the Sierra Club must confront head-on the challenge of ensuring that clean energy is affordable for all. The energy burden, or proportion of household income spent on energy bills, is much higher for lower income households. NAACP reports that lower-income families ranging from \$10,000 to \$30,000 spend as much as 24% of their income, compared to 9% of income for the average household making over \$50,000.^{ix} The transition from fossil fuel-derived energy sources to clean renewables must be accompanied by strategies that ensure the energy burden for low-income consumers is reduced, not increased. Those strategies follow two principal tracks: containing energy costs for low-income consumers, and increasing energy savings through efficiency.

Much as the Blue-Green Alliance was brought together to find common ground between labor and environmental advocates, the Finding Common Ground initiative is a new effort convened to try to tackle these affordability issues.

The Finding Common Ground (FCG) project was an initiative put together by the Sierra Club, the National Consumer Law Center, and the Regulatory Assistance Project to foster greater understanding and cooperation between the respective communities that seek to protect consumers and the environment. Too often in the past, opponents have been able to divide and weaken the consumer and environmental communities despite their having largely similar and reinforcing interests. FCG has facilitated two 3-day conversations over the past 18 months to expose representatives of national and regional organizations to the chief concerns and top priority issues of their counterpart in the other community.

SUGGESTED NEXT STEPS:

Develop economic fairness metric for 2030 (incorporating job creation and impacts on workers, front line communities, rate payers and consumers) consistent w our DEI goals for approval of Board by end of 2014.

THE HOW: Operating at the scale and intensity required to grow and sustain a base of supporters and collaborate with others as part of a larger movement

The gap between fossil fuel energy generation and clean energy generation is widely variable across the country. To achieve 100% clean energy, we will need more people to demand the end of fossil fuels, even in the toughest places to win, and demand clean energy solutions. We must demonstrate that clean energy is a viable solution now to break out of “All of the Above” energy policy that many policymakers have adopted. Greater confidence in clean energy will enable corporate and public policymakers, investors, and other leaders to increase their ambition on climate and accelerate the pace at which we displace fossil fuels. Meanwhile, the *Citizens United* decision is having a major impact as donors like the Koch brothers’ ramp up efforts to roll-back or delay progress that has been made toward transitioning to 100% clean energy. In addition, as population demographics change fundamentally over the next few decades (in 2042 the population is expected to reflect a majority minority), membership organizations like the Sierra Club will need to be responsive to the changes in order to remain relevant and meet the needs of communities experiencing greater impacts from climate disruption. All of these external factors require the Sierra Club to commit to operating at the scale and intensity required to grow and sustain a base of supporters while collaborating with others as part of a larger movement.

The definition of movement and the qualities of movement building are subject to debate. There are many operative definitions in the world of organizing. For the purposes of underpinning our recommendations, we offer the following definitions and thinking:

Social Movement:

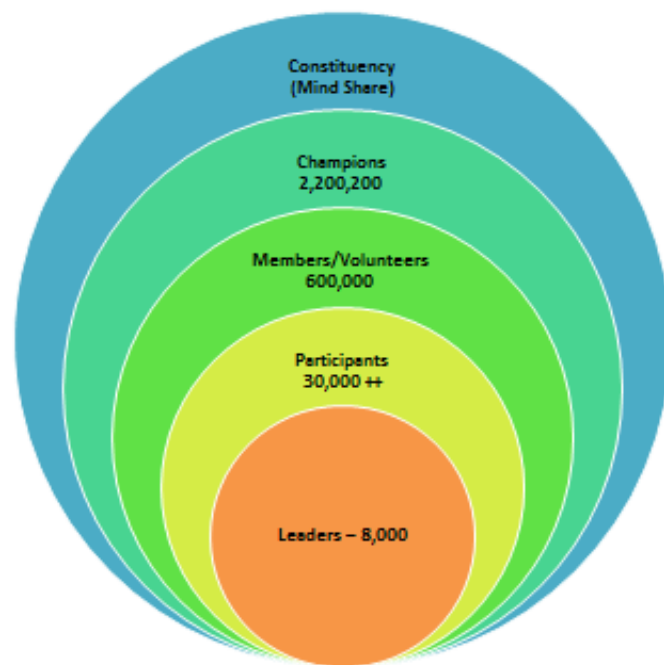
Exists to implement or prevent fundamental changes in society’s structure or values to promote equity and justice. The movement is organized by people and organizations that have a shared commitment to a value or an outlook. A social movement is defined in part by a lack of shared rules or procedures. More broadly put, a movement is defined by its diversity.

Movement Building:

An organizing effort by those with a common interest to collectively build and use power to advance a common goal.

The Sierra Club operates in two ways to contribute to movement building:

1. Focus internally to build our own base of power by:
 - Training and organizing leaders locally, especially in areas that make the most strategic difference, by



- deploying staff and volunteers and/or through the use of technology, and
- Engaging our broader network of members and champions through communications, online and offline activities, national program activities, chapter and groups and other local entities, and outings.

The Sierra Club engages teams of volunteers and staff to create a campaign plan and develop a base of support that shares values and commitment to change to build power. Our constituency model focuses on changing public opinion or mind share, engaging people as champions through our online work, bringing people into the organization as members or volunteers, engaging people as participants in actions or activities, and developing leaders to build teams and engage others. The Club engages people in campaigns situated in places that are the most strategic while providing opportunities for people throughout the organization to see how their efforts and interests connect to the broader movement effort. Overall, there is a focus on linking local actions to nation-wide objectives.

2. Focus externally to build and use power when collaborating with other organizations and individuals to implement specific campaign strategies and/or broader movement goals.

The Sierra Club works with a number of partners at national, state, and local levels to bring together a broad coalition to demonstrate support for clean energy solutions. When the Club joins in these collaborative movement-building efforts, the organization contributes the following resources:

- *Vision and Urgency*: Communicating a common vision that moves people from fear to hope and indicates how they contribute to tangible solutions.
- *Local Victories*: Executing campaign strategies and winning local victories that provide people with a sense of their own power and contributions to nationwide outcomes.
- *Movement Moments*: Responding to external circumstances, such as storms or oil spills, as well as key decision-making moments, such as a vote of Congress or a shareholder meeting, by broadening and focusing public outrage and concern to put pressure on decision makers to say yes to movement demands.
- *Leadership*: Developing leaders capable and willing both to take action at the Sierra Club's behest and to self-organize within their networks.
- *Relationships*: Building relationships with partners who share some of our core values—especially clean tech businesses and outdoor recreation companies, civil rights groups, organized labor, and low income organizations—in order to strengthen our power as we work toward common goals.

RECOMMENDATIONS

5. Create a Unifying Frame for all of Sierra Club's Climate Solutions Work.

Respondents to the Task Force's second Leadership Survey supported "an overarching Sierra Club solutions frame or broad vision for a fossil fuel free future" as the most effective element in a climate message that would be effective in engaging and mobilizing people to achieve Sierra Club outcomes. But

this message element has to be easy to understand *and* easy to teach/utilize. For example, many in the survey asked for something similar to an Al Gore “Inconvenient Truth” slideshow to be able to present to the public.

Polls have shown for a long time that a majority of Americans *already* love clean energy in the abstract.^x When you ask them if they support more windmills and more solar panels, they say yes. But clean energy remains a “nice-to-have” not a “must-have” goal. Most Americans know almost nothing about energy issues.^{xi} The idea of an energy transition being an urgent national priority *has not even occurred to them*. It is important not to assume that people are already on board with the transition to clean energy just because they say in polls that they like clean energy. It’s not enough to look at parts of the solution and conclude: “Since 80% of people like windmills, 83% like economic justice, and 90% like green jobs, we need to talk about economic justice and green jobs!” We need to go to people with a comprehensive vision, showing what the ultimate goal is, why it’s important, and the concrete steps to get there.

People don’t want all doom and gloom stats. Success stories highlighting the benefits of climate and clean energy work (jobs created, money saved, pollution reduced, etc.) are the key to generating action. We prove a clean energy transition is possible by elevating local success stories of examples of what is possible as we transition off of fossil fuels to clean energy.

Finally, our vision and increased focus on solutions should be designed to resonate with a broad audience, reaching beyond the believers. For example, we need to be mindful of the “middle” and develop inclusive solutions messaging to bring in the middle of the country and middle of the political spectrum. In part this can be done by highlighting the diversity of benefits and beneficiaries of climate solutions and by amplifying successes. The Sierra Club’s national and local communications can provide a stage for stories and people at the heart of the clean energy vision. We should use 100% Clean Energy as our North Star, while continuing to connect local stories to our larger purpose.

SUGGESTED NEXT STEPS:

- Conduct additional message testing, polling, and research to develop a strong, effective solutions narrative. We need to dedicate resources to *learning* about what motivates people about clean energy solutions, as conclusive answers do not yet exist. In addition to testing messaging to different audiences, we should learn from what we’ve done in the past, what worked and didn’t about our former Clean Energy Solutions campaign, and assess what is different about today’s conditions for solutions work to thrive and resonate.
- Develop metrics to track our external progress in shifting public opinion with a solutions-based communications strategy.
- Develop tools and templates that can be used regionally or nationally for understanding and applying the unifying framework to local and national initiatives.

6. Develop and expand ability to leverage key movement moments, aka Tipping Points.

We need to be prepared to provide leadership when opportunities or movement moments for action arise as a result of either coordinated efforts or circumstances that draw broad public attention. The

serious nature of the threat we face and the urgency with which we must move to mitigate and adapt to climate change requires us to escalate our efforts to keep pressure on decision makers to win victories. There is a real risk of moving too little, too late.

We must be ready to take action to catalyze or take advantage of movement moments or tipping points—moments when decision makers are forced to confront uncomfortable scrutiny, high levels of public demand, and in some cases non-violent civil disobedience are pressuring them to make tough political decisions. We also want to create opportunities for ripple events or activities that can be self-organized in other parts of the country to demonstrate solidarity with movement moments, educate people about solutions, and suggest local actions.

SUGGESTED NEXT STEPS:

- Develop a set of criteria and protocols to evaluate external opportunities and develop a strategy for rapid deployment of available resources.
- Develop tools and templates that can be used regionally or nationally to engage new people and build leadership around movement moments. Follow up with local leaders to make sure they translate responses to movement moments into local actions.

7. Develop and Expand the Core of Committed Volunteer Leaders

We need to attract, develop, and retain leaders with the skills and experience needed to pressure decision-makers as a primary vehicle for change. There are a number of organizations that provide attractive opportunities for leadership and activism on climate work. It is important that there is a clear distinction to a new and existing base of supporters that makes it clear why they should join and stay with the Sierra Club. We need to tell them how their work will make a real difference in the world. Sierra Club will succeed by:

- *Creating more opportunities for leader development:* Build depth through providing opportunities for committed volunteers to deepen their leadership skills and achieve transformational goals.
- *Connecting local work to nationwide campaigns:* Empower volunteer leaders by helping them define how their work contributes to achieving nationwide goals. Ensure national goals spotlight local work regularly.
- *Connecting campaign leaders to local volunteer leaders:* Build a better connection between and among local Sierra Club “leaders.”
- *Giving leaders the tools to reach out and engage people broadly, and to capitalize on tipping points:* Expand the delivery of leader training with a focus on climate solutions. Leverage new Sierra Club online tools. Consider deployment of a cadre of Climate Solutions Engagers to help shift public opinion and create public demand for solutions. This builds leadership and competency in speaking to the more technical and policy-related issues, while remaining consistent with VLAC’s recommendations.
- *Broadening access to leadership roles:* The ramp up of the Club’s climate solutions work provides an opportunity to pilot new leader development approaches.
- *Increasing the visibility of volunteer leaders.*

- *Providing the necessary support to maximize the effective utilization of social media and AddUp.org for climate and clean energy work.*

SUGGESTED NEXT STEPS:

- Identify funding and implement new opportunities for training, staff support for volunteer leadership development, and new tools.

8. Build Chapter, group and local organizing team ability to deliver on nation-wide, and state and local strategies.

The Sierra Club plays a vital role in developing grassroots strategies to pressure decision-makers at the national level to make good decisions for the environment. These nationally developed strategies must then be tailored to local issues and campaigns. To succeed, Sierra Club will need to:

- *Provide ongoing coaching and mentoring* on chapter or team capacity.
- *Strategically connect local actions to national purpose and nationwide work.* Provide clear state- and local-level strategy and shared metrics for shifting policy at the state and local level, and a well-supplied toolbox with tools that are readily adaptable and universally available.
- *Set clear expectations* for how local volunteers—through chapters, groups, and other local organizing teams—can coordinate their work with the Club’s national climate solutions work, and how the Club will support local efforts.
- *Provide group/local level support:* As the CNRTF recognized, groups and other local units are where local relationships are built. Increase volunteer training opportunities and related tools.

SUGGESTED NEXT STEPS:

- Identify funding and implement new opportunities for training, coaching, and mentoring—as well as new tools and systems to support local organizing.
- Identify and fund staff resources to support self-organized activities. In many cases, volunteers could take on self-organized efforts around nation-wide, state, or local decisions if there were some support in terms of tools, phone calls, and training.

9. Strengthen Organizational Competence to Work Across Differences (including race, age, socio-economic background, etc.)

Expanding the scope of our solutions work will require the Club recognize its institutional and individual member privilege in attempts to build relationships with allies and constituencies. The Sierra Club needs to operate according to a clear set of values and best practices to be a good institutional ally. We can succeed by:

- *Focusing on volunteer training:* The Organizational Culture report from InPartnership Consulting identified a “gap” between staff and volunteer opportunities and capacities to advance the Club’s diversity, equity, and inclusion initiatives. This was echoed by the Volunteer Leadership Advisory Committee and widely expressed in feedback to the Task Force. Chapters and Groups need training, tools, and ongoing support to be competent in Diversity, Equity & Inclusion (DEI) efforts within the Club. There is a need to focus on training opportunities for volunteers in the short-term.

- *Encouraging volunteers to engage with affected workers and communities, as well as consumer and justice advocates:* Provide support to local volunteers so they are able to articulate and advocate for justice and fairness in local and state policy settings and at the community level, as well as adapt local strategies that recognize the concerns and needs of local partners. Articulation of economic justice and fairness in our goals and solutions will further enhance these efforts.

10. Track and Evaluate Movement Building Progress Alongside Clean Energy and Emission Reduction Progress

In a highly results-oriented culture like the Sierra Club's, what we measure demonstrates what we value. What we decide to measure also provides participants direction on how to focus time, attention, and resources. We have seen how the use of key performance indicators has led to amazing results in our campaigns, and even in collaboration across multiple organizations and funders. We believe we should put equal emphasis on tracking indicators of our successful efforts to build our base and contribute to a broader movement. In [*Transactions Transformations Translations: Metrics that Matter for Building, Scaling, and Funding Social Movements*](#), Manuel Pastor and others contrast two key kinds of indicators (below). The Sierra Club needs to improve its ability to track transformational indicators.

Transactions involve the quantifiable markers both internal (e.g., how much funding, how many members, etc.) and external to the organization (e.g., voter turnout, policies passed, etc). While the data is not always easy to collect (especially with transient or mobile groups), such measures tend to be easier to track because they are more tangible. But transactions only tell part of the story and tend to skip over the richness of experience and momentum that can be precursors to big change.

Transformations on the other hand, are the vital but sometimes “invisible” work. They show how people, organizations, and movements have been altered through the collective efforts. Taking the transformation further, they can show how societal and political views have shifted or been impacted by movement building. Transformational metrics are more qualitative in nature, which makes them more difficult to define, let alone capture and track.”

SUGGESTED NEXT STEPS:

- Create shared organizational metrics & transparent accountability for movement building that unify and connect everyone's movement building efforts.
- Enhance monitoring and evaluation systems to track movement building metrics alongside the clean energy and carbon reduction metrics.
 - Track achievement of transformational as well as transactional goals.
 - Measure core volunteer leaders engaged.
 - Measure progress in building and sustaining new partnerships.
 - Build in success celebrations for movement building milestone achievements.

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Endnotes

ⁱ A target of 1.5 degrees Celsius was originally set in order to reflect more recent conservative science and set a target that would set the world on a path to avoid the very worst impacts and reflects where the most ambitious credible stakeholders are. Most of the analyses that show a global pathway to achieving no more than 1.5 degrees of warming will involve a temporary overshoot of the final emissions target. This overshoot is then followed by a dramatic reduction in emissions, followed by negative emissions compared to business as usual. This overshoot could be necessary to ensure developing countries are on the needed emissions reduction trajectory. The US should stay on a trajectory of constant emission reductions in order to lead internationally. Both targets of 1.5 degrees Celsius and 2 degrees Celsius will require emissions reduction of at least 50% below 2005 levels by 2030.

ⁱⁱ Feedback from CMT: Does emissions target include emissions from production (such as mining) and export of fossil fuels? Does this include full life cycle emissions calculations?

ⁱⁱⁱ Paris et al, "Global SLR Scenarios supporting the US National Climate Assessment", NOAA, NOAA Technical Report OAR CPO-1, Published December 2012

^{iv} O E. M. Wolkovich, "Warming experiments underpredict plant phenological responses to climate change", Nature 2012 <https://www.usanpn.org/files/shared/files/nature11014.pdf>

^v Singh, Bharat Raj, and Onkar Singh. "A Study About Realities of Climate Change: Glacier Melting and Growing Crises." (2013).

^{vi} Ranger et al, "Mitigating climate change through reductions in greenhouse gas emissions: is it possible to limit global warming to no more than 1.5 degrees C?", Policy Brief by the Grantham Research Institute on Climate Change and the Environment, Centre for Climate Change Economics and Policy, August 2010

^{vii} Range here refers to the "majority of results", i.e. their 20th and 80th percentile.

^{viii} [Just Energy Policies: Reducing Pollution and Creating Jobs](#) pg 48

^{ix} [Just Energy Policies: Reducing Pollution and Creating Jobs](#) pg 36

^x Vasi, I. B. (2012). Public Support for Sustainable Development: A Mile Wide, but How Deep? *Consilience: The Journal of Sustainable Development*, 8, 153-170.

^{xi} Boudet, H., Clarke, C., Bugden, D., Maibach, E., Roser-Renouf, C., & Leiserowitz, A. (2014). "Fracking" controversy and communication: Using national survey data to understand public perceptions of hydraulic fracturing. *Energy Policy*, 65, 57-67.