

Manual for places of worship
by Climate Buddies
and Interfaith Environmental Network
Becoming Carbon Positive

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How to use this book

-overview-

1) Commit to starting an Energy Action Group (EAG)



2) Get a Climate Performance Assessment for your Facility



3) Measure & Celebrate Your Accomplishments

Foreword

Authentic spiritual journeys involve facing the pain of our brokenness, entering bravely into it, taking responsibility for healing and repairing it, and drawing on our spiritual tradition's wisdom and power to forge ahead. We're on a journey together right now, both individually and collectively. In the words of this manual, it's a "journey to heal the damage done to the environment and human-kind the world over." This "journey to heal" is the defining characteristic of our time. It's a multi-faceted one that involves the transformation of every dimension of our humanity—the psychological, social, political, economic, technological, and cultural. But most profoundly, this journey is a spiritual one in which the human soul will further awaken to its proper place and role within the community we call Earth. In this journey, we'll face the pain of our troubled and destructive relationship with Earth, and we'll draw on spiritual wisdom and power to realize our potential for a more intimate and life-sustaining relationship with Earth.

Perhaps the most important words in this manual are "each one of us can make a difference in the world by making choices...." Each and every one of us, if we choose to do so, can commit ourselves to the "journey to heal the damage done." This manual provides us with the practical knowledge we need to change how we live in ways that bring us into deeper harmony with our planetary home. The future of human life on Earth depends upon the choices we make and how we change our lives. There's no avoiding that fact. We cannot look for religious palliatives to ease our discomfort, hope God will intervene and rescue us from ourselves, or resign ourselves to despair and give up. We must face reality, make choices, and change—all the while drawing on our religious and spiritual traditions to guide and sustain us.

We are not separate from our planetary home, Earth. We breathe Earth's air into our lungs, our muscles feed off its oxygen in the blood that flows through our veins, and all that passes through us comes from sunlight, soil, and water. We are of the Earth, and its beauty and complexity reveal deeper truths about us, and mysteries that inspire words like sacred and holy and leave us in awe. May we awaken to the ways we harm that which sustains us, and choose the journey to "heal the damage done." May our grandchildren and their children look back upon us with love and gratitude for the choice we have made. May this manual guide us as we journey together.



Rev. Tom VandeStadt

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FOR QUESTIONS ABOUT THIS MANUAL, please contact: ien.energyteam@gmail.com.

1st Edition



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Environmental Network

We work with congregations and have other projects too, such as our Carbon
Diet Support Group program.

Join us or learn more at: climatebuddies.org

Purpose of Manual

What is your house of worship investing in?

Do those investments reflect your

congregation's values for our planet?

The purpose of this manual is to assist faith based communities in leading the effort to care for our Earth and reverse the effects of climate change. We will do this by addressing and mitigating global warming emissions one congregation or group at a time. This manual provides resources for your journey to heal the damage done to our shared environment and human-kind by the impacts of human-caused climate change. This manual will help you and your congregation:

- ♥ Build awareness about the challenges of global warming and climate - disruption
- ♥ Create a teaming approach to address those challenges
- ♥ Assess your organization's contribution to global warming and climate change
- ♥ Develop plans and commitments
- ♥ Identify best practices and tools your group can adopt to reduce the carbon-footprint of you and your congregation, and
- ♥ Measure and celebrate your congregation's accomplishments.

How We Got Here

The non-profit organization "**Climate Buddies**" began when ONE person heard a talk by a scientist about the destruction and death of wildlife because of the effects climate change is having on natural habitat. He cried all the way home, vowing to do his part and to invite others to do the same. Nine months later, Climate Buddies materialized. Climate Buddies, a grassroots membership based non-profit, works to empower us to consider climate change issues in every decision we make. Climate Buddies interacts with a variety of groups, such as non-profit organizations, faith-based and spiritual communities, city councils and municipalities, and academic institutions. Climate Buddies is results driven,

Introduction

focused on people, and inspired and guided by an inner compass. Faith and factual data urge Climate Buddies to do their part reversing the effects of climate change and preserving life on earth. Anyone who wants to begin a conversation re: integrating climate considerations into their faith's decision making is welcome to contact Climate Buddies by reaching out to info@climatebuddies.org. In 2012, Climate Buddies helped Austin-area congregations eliminate more than 1,000,000 lbs of carbon dioxide, CO₂, emissions!

The **Interfaith Environmental Network (IEN)** is an organization that brings people of different faiths in the Austin, Texas area together to claim the common call of environmental stewardship. IEN strives to strengthen the greater Austin community through shared service, learning, and influence on public policy related to caring for the earth. IEN is a grassroots effort fueled by the involvement of all who care for this good earth and whose concern is framed by their faith.

The Interfaith Environmental Network's **Energy Action Team (EAT)** formed in November of 2011 after a symposium conducted by Climate Buddies, "The Energy Challenge: A Moral Imperative for Climate Change." At the conclusion of this symposium those in attendance were offered the opportunity to join a faith-driven focus group that would work to implement local solutions to today's global energy challenges. That focus group became the "EAT." ClimateBuddies.org provided the leadership, framework and group management needed for the writing of this manual. The Interfaith Environmental Network of Austin's EAT authored this document in order to help Central Texas congregations achieve lasting success in efforts to reverse climate change impacts. Along with eliminating over 1,000,000 lbs of CO₂ in 2012 from Austin-area houses of worship, this document stands as one of the great EAT achievements of its inaugural year.

The Spiritual Basis for Environmental Stewardship

In response to the pressing issue of climate change, many people are turning to the spiritual wisdom and ethical teachings of the world's religions.

The word "religion" comes from the Latin word *ligare*, which means "to bind or connect," and the prefix *re*, which means "again." In Latin, the word *religionem* came to signify "respect for that which is sacred."

Today, the world's religious traditions are teaching people that Earth itself is sacred and worthy of respect, and inspiring people to reconnect with our planetary home in ways that are healing and life-sustaining. Many call this respectful care for the Earth environmental stewardship. This section of the manual touches briefly on the relationship between environmental stewardship and religion, including: Judaism, Christianity, Islam, Hinduism, Jainism, Buddhism, Taoism, Confucianism, Shintoism, and North American indigenous spirituality.

A foundational teaching of Judaism is that God is the Creator of all that exists, and all that exists belongs to God. In the Book of Leviticus, God's declaration, "for the Earth is mine," places human beings in their proper place vis-à-vis creation. Humans do not exercise absolute ownership over the Earth, but instead serve as stewards and protectors, as set forth in the Book of Genesis where God gives humanity "dominion" over the Earth. While some have interpreted "dominion" to mean free reign to dominate and exploit the Earth, many commentators have rejected this interpretation. Jewish rabbi and philosopher Rav Kook wrote, "There can be no doubt to any enlightened or thoughtful person, that the 'dominion' mentioned in the Bible...is not the dominion of a tyrant who deals harshly with his people and servants to achieve his own personal desires and whims."¹



The Garden of Eden with the Fall of Man painting by Jan Brueghel and Rubens.

Judaism teaches people to love God, love one's neighbor, observe the Sabbath, seek justice, and strive for harmony and balance with God's creation. The Jewish Sabbatical practice outlined in Leviticus seeks to restore justice to the economic imbalances between humans, and to restore the

balance between human needs and the Earth's needs. Sabbatical practice mandates that humans practice restraint in their relationship with the Earth because to remain healthy and productive, the land must be given time to rest. Uninterrupted exploitation, especially if motivated by human greed, leads to desolation within God's creation. Today, many Jewish people seek restorative justice through the spiritual practice of *tikkun olam*, which means "to repair the world." Repairing the world includes reconnecting with God's Earth in ways that are healing and life sustaining for people and the environment.

Christianity grows from its roots within Judaism, and affirms the foundational teachings regarding love, justice, and stewardship of God's creation. Many contemporary Christians understand that a high-consumption lifestyle based on fossil fuel exploitation is contributing to human-induced climate change and degrading God's creation. In the words of the Evangelical Climate Initiative Statement, "Christians must care about climate change because we love God the Creator and Jesus our Lord, through whom and for whom the creation was made. This is God's world, and any damage we do to God's world is an offense against God Himself."²

Many contemporary Christians recognize creation as a means through which God communicates God's presence to humanity. The interdependent relationships that make up the planet's web-of-life disclose God's own relational qualities. Christians believe they must find their proper place within God's creation, practice restraint within it, and respond to Christ's call to be ministers of healing and reconciliation wherever it is threatened or damaged. The US Catholic Bishops affirmed these beliefs when writing, "Responses to global climate change should reflect our interdependence and common responsibility for the future of our planet...Our religious tradition has always urged restraint and moderation in the use of material goods, so we must not allow our desire to possess more material things to overtake our concern for the basic needs of people and the environment."³

"At inaugural Mass, Pope Francis calls for defending environment, poor

...In his homily, delivered in Italian, Francis described the church's mission as "respecting each of God's creatures and respecting the environment in which we live."

"It means protecting people, showing loving concern for each and every person, especially children, the elderly, those in need, who are often the last we think about," he added.

Francis took his name from St. Francis of Assisi, the patron saint of the environment who first showed that the church's mission includes "protecting all creation," he said.

The pope's homily was striking for its repeated references to environmental protection, highlighting what is likely to be a central theme of his papacy and setting up the 76-year-old pope as a leading activist against climate change.

When mankind fails to care for creation and for the weak, "the way is opened to destruction and hearts are hardened. Tragically, in every period of history there are 'Herods' who plot death, wreak havoc, and mar the countenance of men and women."

Francis addressed himself to "all those who have positions of responsibility in economic, political and social life," asking them to be "protectors of creation, protectors of God's plan inscribed in nature, protectors of one another and of the environment."

"Let us not allow omens of destruction and death to accompany the advance of this world!" he added.

Source: Washington Post, Tuesday, March 19, 2013

Islam also affirms the belief that all of creation belongs to God. The Holy Qur'an states, "To Him belongs what is in the heavens and on the earth and all between them and all beneath the soil." According to Islamic principles regarding humanity's relationship to the natural order, God has appointed humans to be the guardians or vice-regents (*Khalifa*) of the Earth. Endowed with reason, humans can discern the natural order God has created, and live justly and peaceably within it. Respecting God's natural order

means enjoying what God provides while practicing restraint, avoiding excess and waste, and carefully maintaining the balance of God's well-ordered creation. Again, the Holy Qur'an states, "O children of Adam...eat and drink, but waste not by excess for Allah loveth not the wasters."⁴

Hinduism revolves around the doctrines of *ahimsa* (nonviolence), reincarnation (rebirth of the soul), and *karma* (each act leaves a consequence in its wake).⁵ The Vedas and other Hindu texts describe human beings as both an integral part of the natural world and totally dependent upon it. As such, for humans to exploit nature for selfish gain is sacrilegious. The Bhagavad-Gita teaches that a devotee to Brahman, the Supreme Being, must treat all of creation with respect because the Supreme Being resides in all species.⁶

Jainism also revolves around the practice of *ahimsa*, *karma*, and reincarnation. Believing all elements—including earth, water, plants, animals, and humans—have living beings embedded within them, Jains avoid harming any kind of life in order to minimize their karma. Karma, the weight of a person's deeds, accumulates with each violent act a person commits. Refraining from harmful acts minimizes karma and enables one to avoid future reincarnation. A Jain lifestyle is profoundly sensitive to any harm one may do to the earth.

Buddhist practices include being mindful of one's thoughts and actions, awakening to the illusion of a separate self, enlightening activity as appropriate response, compassion, non-violence, and the recognition that all reality is interconnected. Many contemporary Buddhists recognize a strong relationship between Buddhism and deep ecology. A Buddhist Faith Statement on the environment states, "We do not exist independently, separate from everything else... Buddha taught us to live simply, to cherish tranquility, to appreciate the natural cycle of life. In this universe of energies, everything affects everything else. Nature is an ecosystem in which trees affect climate, the soil, and the animals, just as the climate affects the trees, the soil, the

animals, and so on...Once we learn to treat nature as our friend, to cherish it, then we can see the need to change from the attitude of dominating nature to an attitude of working with nature—we are an intrinsic part of all existence rather than seeing ourselves as in control of it."⁷



Buddhist Thich Nhat Hanh leads a group walking meditation. (photo: The Vancouver Sun)

Chinese philosophies include Buddhism, Taoism, and Confucianism. These worldviews incorporate harmony with nature, the flow of energy (*chi*) between Heaven, Earth, and humans, and reality's constant flux and change (*yin* and *yang*).⁸ Taoism promotes harmony with the nameless Way that is the source of all existence. Recognizing the intrinsic value of nature, Taoism teaches that one should live in harmony with nature rather than to seek control over it. Confucianism, a practical philosophy of life, recognizes the interconnectedness of humans with one another and nature, and focuses on human actions that promote wellbeing and harmony. The Book of History, a Confucian scripture, calls Heaven and Earth the great parents who provide life and sustenance. As parents deserve respect from their children, so do Heaven and Earth deserve respect from humans.⁹

Japanese Shintoism (the way of the *kami*) has been blended with Taoism, Confucianism, and Chinese Buddhism. In this Japanese worldview, humans are part of the flow of the universe and have no particular responsibilities that other beings do not have. However, human beings are indebted to nature for the shelter and nourishment nature provides, and humans must strive for harmonious relationships within society and between humans and nature.

In North America, many different groups of indigenous people inhabited the land for years before Europeans arrived. Though religious practices among these peoples vary, some common threads include a deep reverence for the Creator Spirit and the Earth as the on-going providers of sustenance, the recognition that humans do not own the Earth but share it with other species, and a spiritual kinship with Earth's other species. At a United Nations Conference that brought together indigenous people from North and South America, the following statement was made, "The world does not belong to humans—it is the rightful property of the Great Creator. The gifts and benefits of the world, therefore, belong to all equally. The things that humans need for survival—food, clothing, shelter, protection—are things to which all are entitled because they are the gifts of the Great Creator."¹⁰

Whatever religion you practice or spiritual path you follow, may it lead you to reconnect daily with the Earth in ways that are healing and life sustaining. To learn more about the religious basis for environmental stewardship, see Appendix A: "Other Sources of Information on the Spiritual Basis of Environmental Stewardship," page 30.

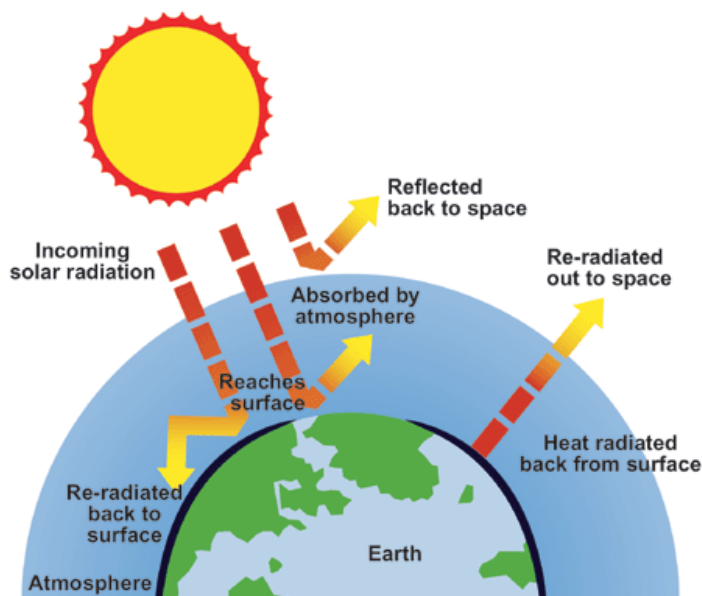
Climate Science in a Nutshell.

Human-Caused Climate Change

The Earth's weather patterns have changed over the course of our planet's history, especially since humans appeared and human civilizations emerged. Today, humankind's mastery of stored energy resources is accelerating weather pattern changes at an increasingly rapid pace, with ominous consequences predicted.

The longest running project to measure atmospheric carbon dioxide concentrations started in 1958 at the Mauna Loa Observatory (Hawaii). Measurements there have shown an unprecedented, rapid increase in carbon dioxide concentrations in our atmosphere. Pre-industrial carbon dioxide levels at Mauna Loa were 280 parts per million (ppm).¹¹ But by February 2013 CO₂ levels exceeded 396ppm. The significance of this is seen by reviewing very long term patterns of atmospheric dynamics. Scientists do this by studying ice core samples taken at both poles of the Earth. Their results show that over the past 650,000 years atmospheric carbon dioxide levels never exceeded 300 parts per million,¹² until now. For this and other reasons carbon dioxide levels below 350 parts per million are generally considered safe for humanity.¹³ But here is the problem: we have surpassed the "350" level. It is estimated that during 2013 carbon dioxide levels will exceed 400 parts per million in our atmosphere.¹⁴ Earthlings are on a path to large-scale disruptions in weather patterns, which will subsequently affect migration patterns, food and water supplies, and much more. Such disruptions are already being observed.

Climate scientists know that as carbon dioxide levels rise, temperatures rise.¹⁵ This phenomenon is predicted by a well-known energy balance equation whose properties were studied well over a century ago. Climate scientists estimate that a doubling of greenhouse gas concentrations in the atmosphere could result in a global temperature increase of up to 8 degrees Fahrenheit during the next 90 years.¹⁶ Earth



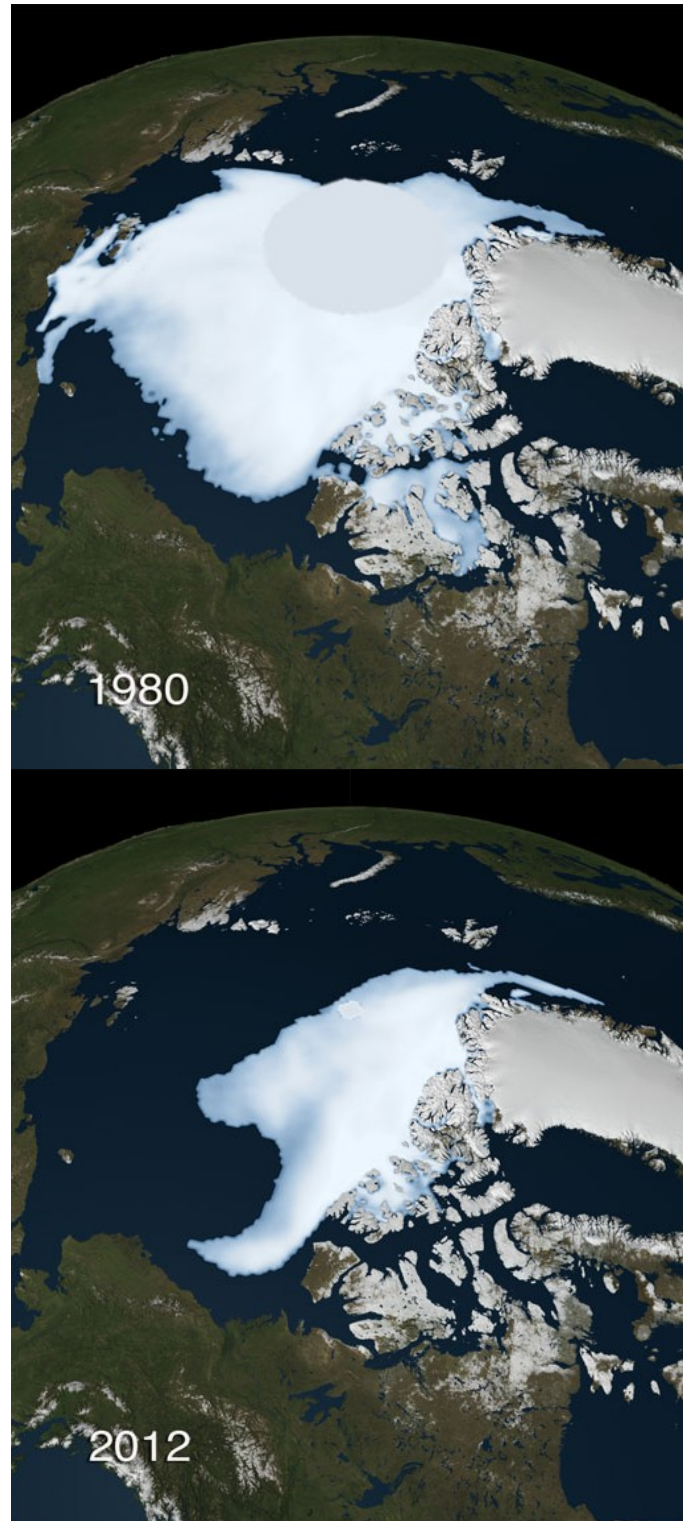
Global warming and the Greenhouse Effect. (image: Environment Canada, <http://www.ec.gc.ca>)

is currently warmer on an annual basis than at any time in the past 1000 years. Increasing carbon dioxide levels, primarily attributable to energy and transportation emissions, indicate our planet will get hotter.

It is also important to know that though the most threatening greenhouse gas today is carbon dioxide, or CO_2 , which is released when we burn fossil fuels such as coal, oil, and natural gas and their mass market products such as gasoline, another greenhouse gas is methane (natural gas or CH_4). Methane is what many of us use to heat our homes and cook our food. A significant amount of methane is also released by livestock and landfills. A third of the top three greenhouse gasses is nitrous oxide, or N_2O . Most emissions of N_2O are related to the production and use of fertilizers. These gasses each have a different “lifespan” in the atmosphere. We are injecting these emissions from human-made energy products into our atmosphere and oceans faster than nature can handle. We’ve been doing this at an accelerating rate since the dawn of the Industrial Age about 150 years ago. On a worldwide basis, we are continuing to increase emissions on a daily basis. Increased combustion of fossil fuel energy products also leads to dirtier air with asthma and other respiratory health ailments as a result. It is important to note that nature does clean itself up, but it takes many generations, and we must be sure our clean up does not create unintentional effects as troubling as the ones we’re trying to mitigate.

Humans Causing Warming?

Human activities – principally combusting stored hydrocarbons (“fossil fuels”, i.e. coal, oil, gasoline, tar sands and natural gas) for energy and transportation purposes have intensified greatly during the past 100 years and are pushing dramatically higher the rate at which greenhouse gases are being emitted into the atmosphere. An overabundance of fossil fuel emissions is believed to be causing today’s observed global warming. The overwhelming majority of national and international scientific bodies have come to complimentary conclusions.¹⁷



Satellite-based images by NASA showing deteriorating Arctic ice. “The area covered by older and thicker sea ice in the Arctic diminished by almost 50 percent between 1980 and 2012.” (image: <http://svs.gsfc.nasa.gov/vis/a010000/a010900/a010919/index.html>)

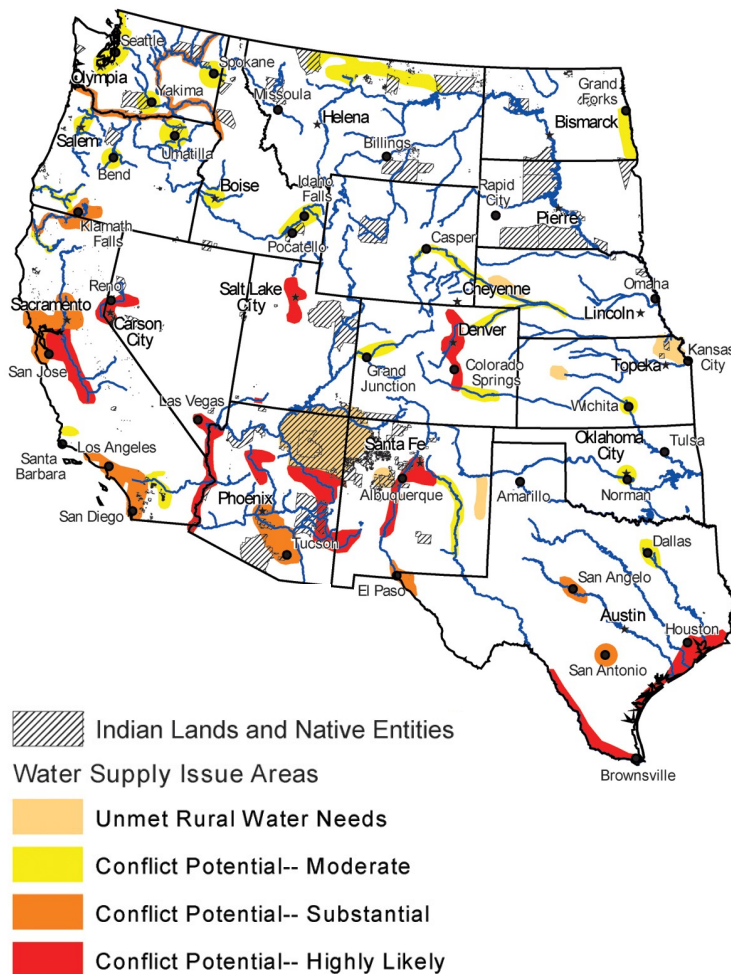
Between 1996 and 2006 928 articles were published in peer-reviewed, scientific journals on climate change. None of these articles concluded that the current period of global warming is naturally occurring.¹⁸ The climate science world is unified in its conclusion that human activities are causing global warming.¹⁹ Scientific evidence confirms that climate change is accelerating as our global reliance on fossil fuels continues to increase.

Unintended Consequences?

We can already see the negative effects of global warming in our world through such terrifying incidents as: the shrinking volume of Arctic ice in the summers, the increase in frequency and intensity of extreme weather events, such as: hurricanes, tornadoes, floods, droughts, wildfires, and blizzards since 2008, and the disappearance of natural habitat -- all over the world.²⁰ Making matters worse, the negative effects of climate change are expected to intensify. For example, the first completely ice-free Arctic summer could occur as early as 2020.²¹

In the Arctic, indigenous wildlife and peoples are already suffering from sea-ice loss.²² Worldwide, millennia-old glaciers and mountain snows are rapidly disappearing, too. Montana's Glacier National Park currently has only 25 glaciers in 2013, compared to 150 in 1910.²³ As our atmosphere warms, so do our oceans. As our oceans warm, storm systems get stronger. Major cyclonic storm systems originating over the Atlantic and the Pacific have increased in intensity and duration 50% since 1970.²⁴ Warming oceans threaten oceanic wildlife, too. Coral reefs suffered their worst bleaching—or death in response to stress—ever recorded in 1998, with some areas seeing bleach rates of 70 percent.²⁵ Climate scientists expect these sorts of events will increase in intensity and frequency as our oceans absorb more excess atmospheric carbon dioxide from fossil fuels.

The impacts of global warming will be felt around the world. Up to 40% of species face extinction from disappearing habitat, changing ecosystems, and acidifying oceans. As



This map shows regions in the West where water supply conflicts are likely to occur by 2025 based on a combination of factors including population trends and potential endangered species' needs for water. The red zones are where the conflicts are most likely to occur. This analysis does not factor in the effects of climate change, which is expected to exacerbate many of these already-identified issues. (Image: United States Global Change Research Program, globalchange.gov)

glaciers melt, sea levels are expected to rise up to 23 inches by the end of this century.²⁶ Sea level rises of just 4 inches could flood many South Pacific islands and large parts of Southeast Asia. Approximately 100 million people live just 3 feet from mean sea level worldwide, much of the world's population is concentrated in vulnerable coastal cities.²⁷ In the United States the Gulf Coast region is especially at risk.²⁸

Popular media calls the coming era of extreme and erratic weather events “the new normal.” But this phrase misleads, as **there is no stability predicted to future weather patterns, just increased erratic, unstable, and at times traumatic weather events.** Extensive periods of drought will impact some regions, while others will be prone to more flooding. The increase in the frequency and intensity of extreme weather is expected to have significant effects on water supplies, human health, and crop, livestock, and fishery yields.²⁹ As potable water becomes scarcer, poor communities will struggle to access clean, drinkable water. Large-scale droughts will likely increase food prices, too. As the climate continues to change, these distortions will be more frequent and more prolonged. While these more drastic impacts may not be felt today by people in wealthy parts of the world, this change in climate is not globally sustainable and will eventually be felt throughout the world by rich and poor.

Can We Make a Difference Now?

We need to reduce our contribution to greenhouse gasses and become **carbon positive**. With this we mean that our contribution to climate change is a healing one. One that starts by doing ‘less bad’ that over time transitions into ‘doing good’. A more technical definition would be that we can be carbon positive if we instead of adding to the problem are part of the solution and that our actions are directed to reversing our impact on climate change. Positive means that we leave the world a better place than we found it, that we captured and sequestered more greenhouse gasses than we released during our stay on

Findings of the U.S. National Climate Assessment draft published January 11, 2013:

1. Global climate is changing, and this is apparent across the U.S. in a wide range of observations. The climate change of the past 50 years is due primarily to human activities, predominantly the burning of fossil fuels.
2. Some extreme weather and climate events have increased in recent decades, and there is new and stronger evidence that many of these increases are related to human activities.
3. Human-induced climate change is projected to continue and accelerate significantly if emissions of heat-trapping gases continue to increase.
4. Impacts related to climate change are already evident in many sectors and are expected to become increasingly challenging across the nation throughout this century and beyond.
5. Climate change threatens human health and well-being in many ways, including impacts from increased extreme weather events, wildfire, decreased air quality, diseases transmitted by insects, food, and water, and threats to mental health.
6. Infrastructure across the U.S. is being adversely affected by phenomena associated with climate change, including sea level rise, storm surge, heavy downpours, and extreme heat.
7. Reliability of water supplies is being reduced by climate change in a variety of ways that affect ecosystems and livelihoods in many regions, particularly the Southwest, the Great Plains, the Southeast, and the islands of the Caribbean and the Pacific, including the state of Hawai'i.
8. Adverse impacts to crops and livestock over the next 100 years are expected. Over the next 25 years or so, the agriculture sector is projected to be relatively resilient, even though there will be increasing disruptions from extreme heat, drought, and heavy downpours. U.S. food security and farm incomes will also depend on how agricultural systems adapt to climate changes in other regions of the world.
9. Natural ecosystems are being directly affected by climate change, including changes in biodiversity and location of species. As a result, the capacity of ecosystems to moderate the consequences of disturbances such as droughts, floods, and severe storms is being diminished.

10. Life in the oceans is changing as ocean waters become warmer and more acidic.
11. Planning for adaptation (to address and prepare for impacts) and mitigation (to reduce emissions) is increasing, but progress with implementation is limited.

The development of this draft National Climate Assessment (NCA) report was overseen by the 60-member National Climate Assessment and Development Advisory Committee (NCADAC), a Federal Advisory Committee (FAC) appointed by the Secretary of Commerce at the request of the National Science and Technology Council (NSTC). The NSTC is required, under the 1990 Global Change Research Act (GCRA, Title 15 USC Sec 2921 2012), to provide such reports periodically to the President and the Congress. The report, which assesses current scientific findings about the observed and projected impacts of climate change on the United States, relies heavily on the findings of the U.S. Global Change Research Program (USGCRP) (USGCRP 9 2012). USGCRP activities include observations, monitoring, modeling, process research, and data management focused on discerning global change impacts and informing response options such as adaptation and mitigation. After government review, this report is expected to become the third National Climate Assessment (Karl et al. 2009; USGCRP 2000).

The full report can be found at:

<http://ncadac.globalchange.gov/>

earth.

There are many ways to live a low carbon life that is joyful, inspiring, and rich in social relationships. Each one of us can make a difference in the world by making choices that reduce our contribution to climate change. Congregations and individuals can make a positive difference by getting a Climate Performance Assessment from ClimateBuddies.org and through subsequent energy conservation, energy efficiency, creating less waste and the purchase of more sustainable sources of energy, food and other products. As a society, we can make energy from non-carbon based fuels such as renewable energy sources: wind and solar.

As you embark upon a journey towards **becoming carbon positive** you will find this manual will help promote the engagement of your family, friends, and fellow congregants, further multiplying your good efforts.

Where Can You Make the Greatest Difference

This section outlines the basic premises as to why *Becoming Carbon Positive* focuses on energy actions.

The Problem

- * Climate Change poses an unprecedented threat to the continuation of human civilization
- * Climate Change refers to the disruption of the Earth's atmosphere by human actions
- * This is fortunate: Because this threat is human-caused, it can be human-cured, if time allows
- * Urgency: We have at most a generation to avoid a "tipping point," the point of no recovery
- * Scientists are increasingly certain we cannot afford to exceed a 2 degree Celsius surface temperature increase

- * Beyond 2 degrees, it is not plausible that the Earth could nourish – or allow – human civilization
- * The earth's temperature has already increased 0.8 degrees since 1880, and is expected to increase another 0.6 degrees even if no more carbon is emitted
- * Global carbon emission rates continue to increase, annually (excepting 1-2 years in an economic downturn, circa 2009)
- * Burning even a small fraction of fossil fuel proven reserves will drive us far beyond the 2 degree limit
- * Most investors in new fossil fuel recovery and combustion projects will be losing most of their investment
- * Scientists in the disciplines that address climate change are in near total consensus on the above assertions
- * Yet, even now, few people understand or accept the magnitude or timing of this threat to their Earth-Home

The Crucial Role of Science

- * Homo sapiens lack the intuitive apparatus to directly perceive and act on slowly varying phenomena
- * Scientists using the scientific process can provide our early warning system
- * We must incorporate the findings of science; rather than “drive without headlights”

What Is Required?

What is required of us: Homo sapiens, civilization, the parents and grandparents of future generations? The dominant driver of this disruptive global warming is our excessive combustion of “fossil fuels.” **We can restore**

balance by transforming our energy systems to non-carbon solutions. The solutions to today's energy challenges are energy that is carbon-free, always renewing, global, adequate, accessible to all, and affordable. We have at most a generation to achieve this solution, at energy levels twice those of today.

The possibility of achieving this requires a rapid and dramatic increase in energy-use efficiencies of all types. For this monumental undertaking, local actions by dedicated people are required.

Climate and energy concerns are the key to meeting the climate challenge, on which human civilization depends. But this is not an argument for replacement of your passionate commitment, long pursued; it is a request that the climate/energy challenge take its place in the first magnitude echelon of your priorities.

What Will Sustain Us?

What will sustain our work for those of us who understand, accept, and act to meet the climate/carbon/energy challenge? Local action by teams of people who accept the climate challenge is required: It is too exhausting to “go it alone.” Local action outcomes must be measured. Metrics must be linked to global carbon/energy results. PLUS A Fundamental Asset: The ever-restoring Sense that we are One; one ligament in the Universal Web-of-Life. We are not alone, we do not work just for ourselves but for all who gave us our legacy, giving our generation the chance to re-energize and pass on the torch to those who follow us. We will use the tools of science and engineering, and our own intellect, but in the end, it is our love for, and commitment to, all Life, in all Creation, in all Times, that is our real power source for sustained effort.

Surprise: The Victory Scenario.

The greatest motivator possible is inherent in accepting the Climate/Energy Challenge. The Chinese character for “crisis”

means “dangerous opportunity.” This is what each and all of us are facing today. If we meet this unprecedented, awesome Global Climate/Energy Challenge, humankind will have achieved a milestone in the evolution of human civilization that few if any people now alive even dare consider. Imagine a world, our Earth, which provides protection and nourishment, with enough energy to ALLOW each human being the opportunity to live a meaningful, joyful, HUMAN LIFE. A sense of brother/sisterhood might pervade our lives, our family would be the Earth family, and all creatures would be neighbors. This is not wishful thinking, it is the prerequisite for our very existence as a species; our enabling process is our very reward.

For more information and background on these premises, see Chapter 7: “Energy Action Toolkit,” page 24.

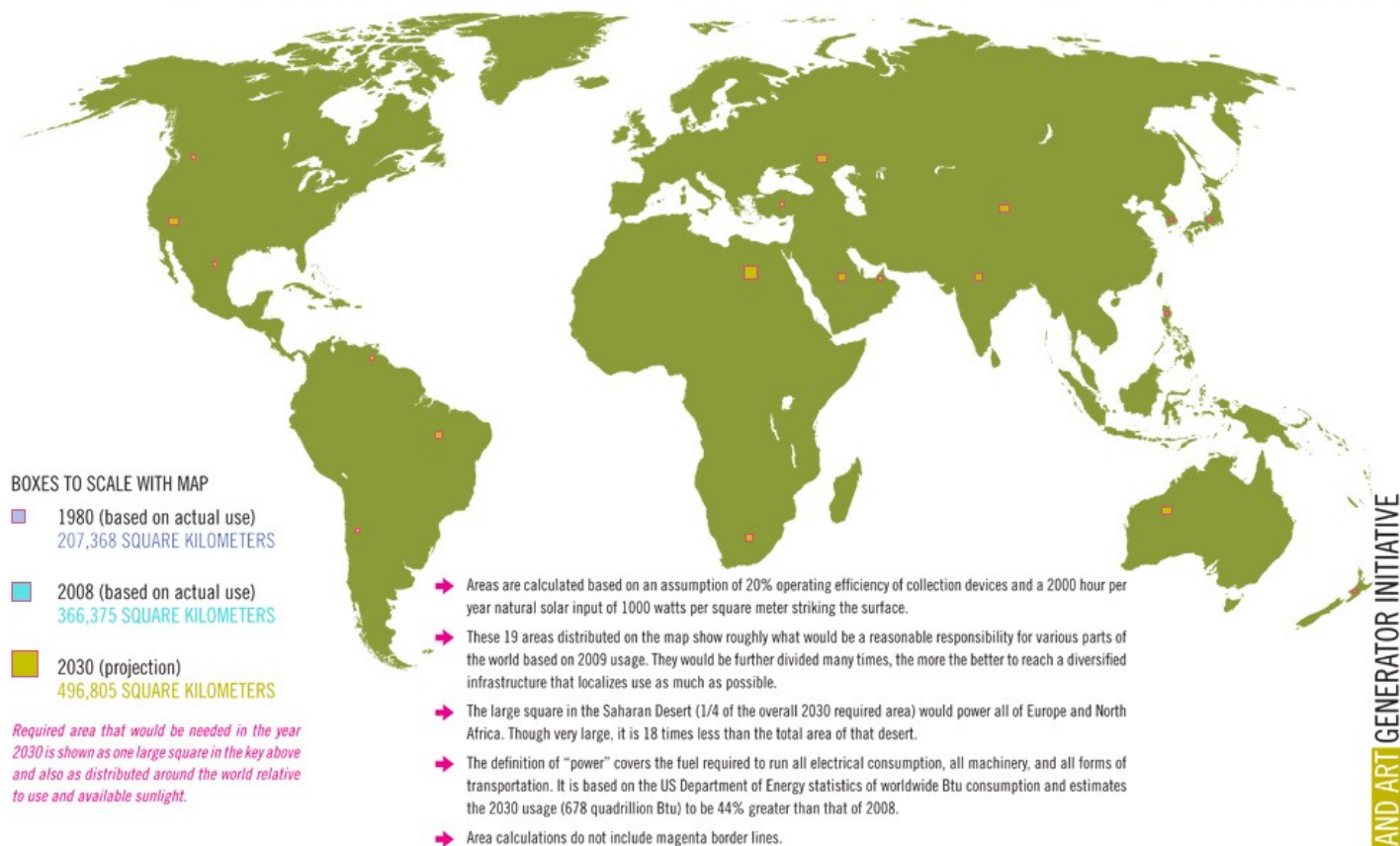
Given the right choices and investments in the many cost-effective but underutilized energy efficiency technologies, the U.S. could cost effectively reduce energy consumption by 25–30% or more over the course of the next 25–30 years.

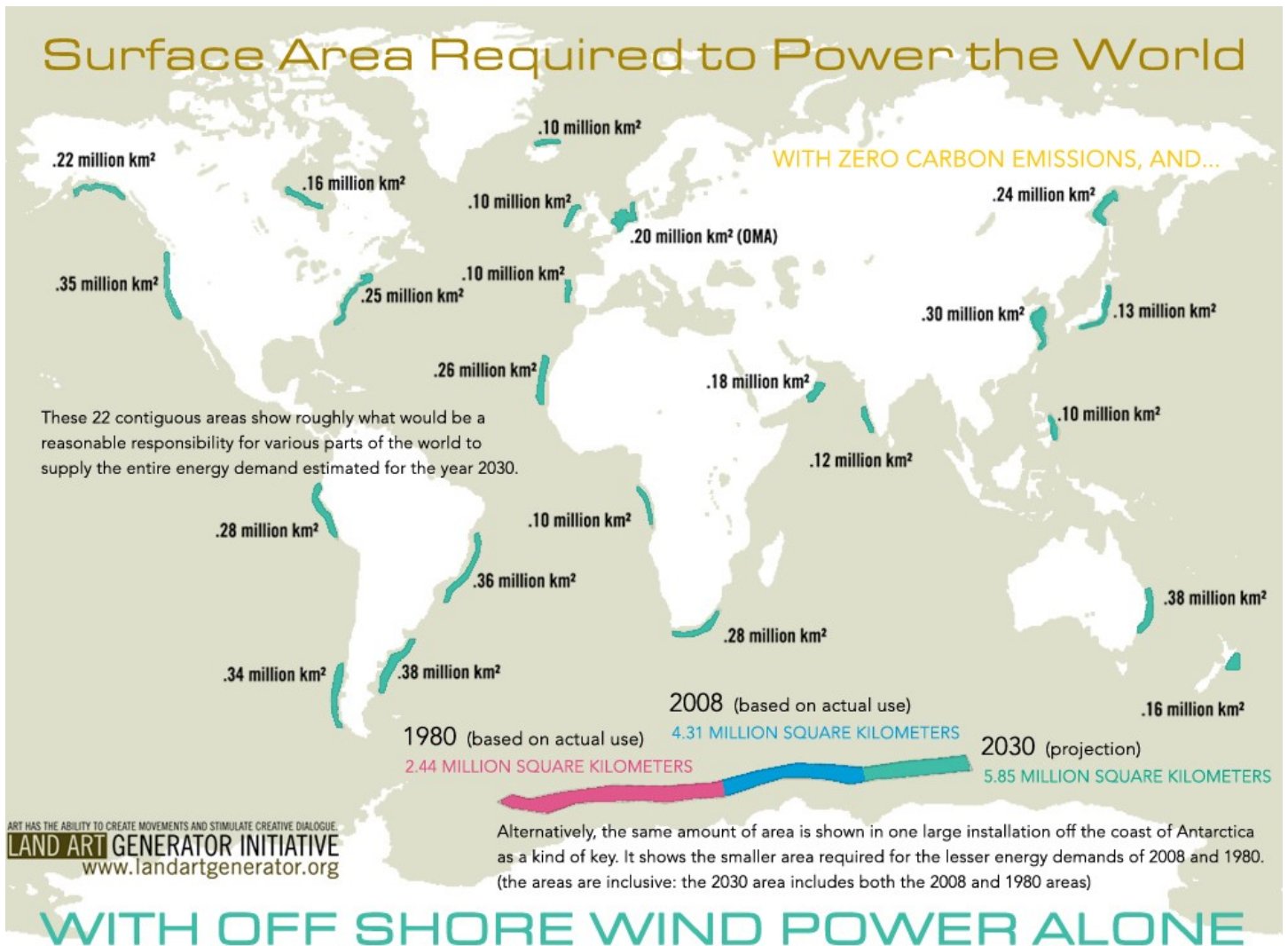
It’s good for the economy. In 2004, some \$43 billion was spent on efficient equipment and services that support 1.6 million jobs. The energy efficiency services sector will see a 2- to 4-fold increase in jobs between now and 2020.

Energy efficiency is the cheapest, fastest and cleanest energy resource. Saving one unit of electric energy saves three at the point of power generation. At an average cost of about 3 cents per kWh to utilities, energy efficiency measures are a more cost-effective option than new generation, which costs 6–20 cents per kWh.

Source: Fact Sheet “America’s Abundant, Untapped Energy Efficiency Resource”, American Council for an Energy Efficient Economy

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Why Form an Energy Action Group (EAG)?

Forming an Energy Action Group

The science is clear: global warming is happening faster than ever and humans are responsible. Many of the activities we do every day like turning the lights on, cooking food, heating and cooling our homes, and traveling rely on the combustion of fossil fuels, which emit carbon dioxide and other heat-trapping, greenhouse gases. Global warming is destabilizing the weather patterns that make life on this planet possible. Just a few degrees in temperature can completely change the world as we know it and threaten the lives of millions of people. But, we CAN make a difference, as individuals and as congregations.

This section will give you an overview of how to maximize the power of people, and transform your intentions into practice. From planting a small “Seed Group” to growing a powerful and effective Energy Action Group (EAG), it is important to remember that the process of implementation is organic and fluid; it can change based on a number of factors inside and outside of your influence. Cultivating leadership skills, learning to negotiate sensitive issues, as well as consistently seeking common ground among those you partner with are all-important ingredients to the success of your efforts. The following is a brief overview of things to keep in mind when forming your EAG. Step-by-step information is available in Appendix B: “Nine Step Process to Form an Energy Action Group.”

I am a part of all you see
In Nature: part of all you feel:
I am the impact of the bee
Upon the blossom; in the tree
I am the sap—that shall reveal
The leaf, the bloom—that flows and flutes
Up from the darkness through its roots.

-Madison Cawein, *Penetralia*

Nine Step Plan to Form a Successful EAG

- 1) Homework - Assess where your congregation stands in its understanding of and participation in environmental climate change issues and how it is positioned to move forward. Determine how to get your group's responsibilities authorized. Discover who or which groups make relevant policy and budget decisions and the process: business manager, building and grounds, clergy, deacons, education, etc.
- 2) Recruiting a Seed Group – Seek out those people in your congregation who have demonstrated the passion and energy for making a positive change for climate change. Your seed group only requires four to six participants willing to share in your enthusiasm and commitment to hit the ground running. Start small and work out the kinks before expanding. You can expand your seed group or choose to make it a subgroup of another congregational team.
- 3) Creating Awareness of the Urgency and Opportunity to Act Now – One of the biggest mistakes people make when trying to make change through organizations is to charge ahead without establishing a specific goal, instilling a sense of urgency, and simultaneously finding common ground. This error can be fatal and is often the result of complacency, or a lack of experience, education, skills, or organization. To increase your knowledge and authority of the issues, educate your organization's members, generate urgency and enthusiasm.
- 4) Recruiting and Guiding Your EAG - While it is understandable that human nature leads us all to seek the company of those who are most like us, it is important that your EAG build a broad base of support, ideas, and energy that can only come from having a diversity of personalities, politics, opinions, and expertise.
- 5) Articulating the Intention and Strategy – Harnessing a common, powerful purpose such as the survival of our planet, can generate a tremendous sense of energy. It is essential to give others a vision towards which you are all working. The intention is to do your part to mitigate the devastation of climate change. To be effective, intentions are our desires without expectations. A success formula is: show up, stay awake, stay on intention, let go of the consequences, observe and measure what works and what does not work, redesign your plan, act.
- 6) Communicating – Use the many methods available in today's digital world to get your messages across, but don't forget that one-to-one verbal communication remains the most effective way to move forward. Always be sure your audience is "getting" your message, then reinforce it. Updates of energy saving tools can be inserted in bulletins, newsletters, bulletin boards, websites, etc.
- 7) Empowering Action and Removing Barriers - Growth and change occur when we push ourselves outside of our comfort zone, yet pushing too hard can increase the likelihood team members will get discouraged due to being tied to expectations rather than intentions, and give up. Two critical elements in empowering action are to create goals and outcomes and to identify barriers that might prevent your EAG from achieving them. It is important that goals and outcomes are aligned with your EAG's vision and that they are clear, concise and meaningful.

- 8) Generating Short-Term Victories – Denial of climate change can immobilize congregations. It is important for your motivation and the motivation of your team to take an approach of doing what you can “one day at a time,” making steady progress. Planning a few short-term victories or “quick wins” provides powerful motivation and reinforcement. Examples: workshops, films, speakers, bulletins, etc. pertaining to climate and energy education. See the next section, Section 4: “Leading an Energy Action Group” to learn more about how to address underlying fears or barriers to needed changes.
- 9) Follow a Proven Approach – This manual includes resources developed by the Energy Action Team of the Interfaith Environmental Network of Austin and ClimateBuddies.org, which define how to successfully conduct, lead and manage an EAG, its meetings and team building, and how to inform and inspire your EAT members to perform great deeds. Check out Sections 4, 6, and 7, and the Appendices for more.

Leading an Energy Action Group

Strengthening Effective Leadership

Leadership is an art as much as a science. Therefore, we have provided a great deal of information in this section on how to become more skillful in negotiating the sometimes bewildering organizational, emotional and behavioral aspects of groups so that you might be even more successful in minimizing the pain of “trial-and-error” leadership. For some, this may seem like a foreign subject or not pertinent to an EAG, but if you spend some time digesting this material you may avoid many of the pitfalls new group leaders frequently encounter.

As an EAG, your main “job” is to inspire others to join together with common intention to overcome our vulnerability to the climate’s demise. As we are all self-centered, “what’s in it for me” must be clear and that there is no exit strategy possible. Each one of us is a living, human example of connecting to and protecting our gift of life and the creation that supports it. You, and those that join your future EAG, are helping to insure that our next generation(s) enjoy the creation we all inherited at birth. As a leader, you are facilitating and connecting the dots in life between faith, intention, action, and accountability. Ultimately these dots lead to true happiness as you know you have done your part, the best you can, to sustain us, a life-giving legacy for today and the future.

stew·ard·ship

[stoo-erd-ship, styoo-]

noun

1. the position and duties of a steward, a person who acts as the surrogate of another or others, especially by managing property, financial affairs, an estate, etc.
2. the responsible overseeing and protection of something considered worth caring for and preserving: New regulatory changes will result in better stewardship of lands that are crucial for open space and wildlife habitat.

Leadership: Who Can Do It and How to Get From Me to Us?

You do not have to have previous leadership experience to run or initiate an EAG. One of the primary requirements is a willingness to learn as you go and have the endurance and focus to stay the course over time. Be clear about your objectives and work towards obtaining commitment from all who participate, whether the tasks at hand are large or small. Break large goals into small, short-term, achievable tasks. Recognize that anytime you work with people toward a common purpose, it can be frustrating as you iron out and integrate differences to overcome obstacles. Several of us have worked with our congregations on these issues for several years and are just now getting the commitments we need to do the work we envision. Your role is to hold the light of faith to support life, as we know it. Stay positive, hope is infectious!

Leadership: Changing Roles as Team Develops

Research suggests the most effective way of leading a new group changes over time. As leaders your role in the group will shift as the group develops and takes on more of its responsibility and mission for mitigating climate change. Initially it may require a highly active, directive role. Other times it may involve doing tasks that no one else can or is willing to do. At first most groups (and you) will be anxious, so it is critical to provide the structure for a healthy work-group: setting the intention, boundaries (time, place, agenda, topic, focus) and ensuring that all group functions are managed. In the beginning groups need a more authoritative or decisive leadership style to quell their anxiety and often will want to be your advisors, rather than taking direction. This is why the first phase is referred to as the **“Flight Stage.”** As you do not have money to pay people to work, your currency is attention, recognition and appreciation.

In the second phase, called the **“Fight Stage,”** everyone seems to enjoy disagreeing. It’s a healthy phase. Here the

role of the leader is keeping the group focused on its goals and putting people with similar passions together. It’s important that all make a commitment to carrying out the agreements of the group majority, even though there may be some individual disagreements. Also important is “constructive confrontation” which basically allows joining of different perspectives so that voices are heard and where possible integrated. As your group grows there will be challenges to your authority. You may feel like you are interacting with a teenager! Don’t take anything personally; rather where the challenges are appropriate, acknowledge them and work towards consensus and shared responsibility.

The final phase is called the **“Working Stage.”** In the Working Stage leadership roles can be rotated among the members and the old group can integrate new members. Sub-teams may be needed from time to time. Delegate sub responsibilities as appropriate. Different leaders may be needed in different stages. Avoid taking things personally, defer to the best leader for the task at hand.

See Appendix C: “Sample EAG Roles & Responsibilities,” [pg. 35](#), for an expanded list of group member roles in a successful working group.

What do I do with all the Emotions that come up?

Emotions are the fuel that either drives or impedes acting on climate demise. Only after better understanding your own emotional territory can you understand others and lead.

Discussions on climate change can trigger passionate emotions, such as: anger, resentment, denial, skepticism, and fear. These emotions are perfectly normal when confronting climate change. Learning about climate change, the loss of life it represents, and the many struggles associated with implementing solutions, can be overwhelming.

Leadership Challenges and Behavior

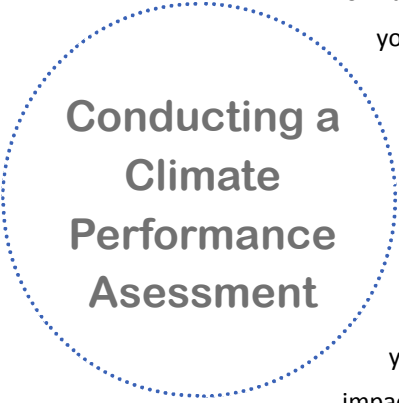
Leaders of any organization or group will more than likely encounter numerous challenges, which at times may seem daunting. Here are some guidelines to help you stay the course and maintain focus as you begin this exciting journey:

- ♥ *Remember the reasons why you are participating in an EAG.* Love for and connection with the Creator's creation of life. You are a steward, healing a damaged Earth so that it can sustain life for future generations.
- ♥ *Focus on your intention (without judgmental expectations).* For example, our heart's desire is living on a sustainable, thriving earth for all life.
- ♥ *Maintain an open mind and an open heart as you begin your journey, while protecting yourself with strong skills and clear boundaries.* Separate facts from speculation. Determine whom you can trust with various responsibilities and who will follow-through on tasks to completion.
- ♥ *Respect that we all see the world differently, yet it is not just relative. Conflict occurs when we don't have the same information.* In Section 2: "Human Caused Climate Change," we provided an overview of today's scientifically verifiable facts and trends. You will find this information important to understand and share as you invite people to discover the connection between faith, lifestyle, and what is happening to our environment. Seek to engage others in considering something they may or may not find comfortable at first.
- ♥ *First, find common ground.* Identify values that connect us to nature and to common concerns for nature, the very thing that

sustains us. These values must be grounded in a strong heart component, whether that is a desire to protect animals, grandkids, or the less fortunate. Establishing common ground and establishment of commitment is essential if you want to move forward with setting goals, strategies and action steps.

- ♥ *Explore differences with open conversation and curiosity.* Often, we find similarities underneath differences. Starting the conversation with a common agreement on the desired outcome keeps the focus and preempts the conversation from deteriorating. As you each take turns, with compassionate listening and expression, listen for common agreement and come up with a proposal to act together now.

There is more detailed info on how to manage individual and team emotions in Appendix E: "Managing Individual & Team Emotions" page 41.



Conducting a Climate Performance Assessment

A Climate Performance Assessment (CPA) will enable your congregation to obtain a snapshot of how your house of worship and congregants are currently contributing to climate change. CPAs evaluate a congregation's budget (how money "gets spent") and facility-use to show where the greatest climate impacts are occurring. With this information in hand you can begin doing your part to reduce climate impacts and witness first-hand the fruits of your efforts. ClimateBuddies.org, creators of the Climate Performance Assessment, can perform the CPA at no cost. Once you and your team are educated about your CPA and how to use it, you can easily take effective action according to your priorities. Contact info@climatebuddies.org to get started.

Why it is important to do an assessment?

It is important to know you are making a difference. The assessment will help you decide how to get where you need to go. A Climate Performance Assessment provides you with confidential information (only for your internal purposes) to illuminate the way forward and measure your improvements. You can repeat the assessment on an annual basis to track your progress.

How does it work?

Climate Buddies will visit with you. Contact info@climatebuddies.org to set up a free visit. After Climate Buddies has conducted your CPA, your Energy Action Team (EAG) will receive identification of your congregation's largest contributors to its carbon footprint. With help from Climate Buddies, your EAG will quickly see where the biggest savings your congregation can make lie. These assets give your group the opportunity to organize priorities and focus on action in those areas that matter most. You and your EAG will be able to decide which actions are doable and most meaningful for your congregation. You can talk about this in terms of actions that have a good return on investment, those that are not too difficult to execute, etc.

Estimate your carbon footprint

Our CPA toolkit includes a simple tool, the Carbon Footprint Estimator. It provides an estimate of your congregation's carbon footprint based on two starting points:

- 1) Your budget. The best input for the Estimator is an annual budget of the last complete year. You will also be asked a few questions about the breakdown of your utilities in electricity, water, gas and waste, and whether or not your congregation is using renewables for electricity.
- 2) A national database.³⁰ The CPA uses a national database to help your congregation get an estimate of the impact associated with money spent on electricity, building repair, food service, transportation, and etc.

For every dollar that is spent, there is a footprint. The CPA provides an insight into your biggest contributors. Use the tool yourself or ask for help by sending an email to info@climatebuddies.org.

Limitations. The results from an assessment with the Carbon Footprint Estimator are insight in the areas where your organization's contributions to greenhouse gas emissions lie. One of the most difficult aspects here is that this is done without a relation to the 'output' of your house of worship. The assessment does not address the quality or efficiency of delivery of the final product or service. For instance, your house of worship could be doing near miracle-level work in your Missions, or providing shelter to the homeless or other services provided. Every house of worship is different. The Carbon Footprint Estimator only shows where the biggest contributions are made.

What we have learned from assessments in Central Texas

We have learned that each congregation is unique in its actual building structure and the operations of its buildings.

High hitters for effective climate mitigation usually include:

- * Utilities, mostly electricity, followed by natural gas, water and waste
- * Building construction, renovation, repairs and insurance

The impact of the utilities will be different in different climates. In Central Texas most electricity is used to cool congregations. More northern parts of the US will see a lower impact for cooling and a higher impact for heating. The actual operations of the congregation in terms of getting organized, organizing activities, consuming printed materials and food items, show varying results and should be looked at on a congregation by congregation basis.

An overview of the top 10 of some congregations that have submitted their assessment is shown in the table below.

Top 10 Climate Impacts from Congregation Climate Audits based on budget expenditures:

(Source: Climate Buddies)

- ◇ Repairs & Maintenance
- ◇ Office Supplies
- ◇ Insurance
- ◇ Drainage
- ◇ Gas
- ◇ Electricity
- ◇ Waste and water
- ◇ Missions

After conducting a series of pilot CPAs we learned that the actual size of carbon footprints are quite different, ranging from 63 metric tons to 388 metric tons of carbon dioxide equivalents, or CO₂eq. To give you an idea of the order of magnitude; the average footprint in the Austin area is about 25 metric tons per household. We also learned that the impact per congregation member varies even more: from 0.11

to 1.76 metric tons of carbon dioxide equivalents per person. Being a member of a religious congregation can add up to 5% to your individual carbon footprint. That is relevant! An important and intended secondary effect of performing a CPA at your House of Worship is that it raises awareness with members of things they can do in their individual lives. Many of the tools from our Energy Action Toolkit are relevant to individuals and households as well and can be a good resource for actions to be taken at home. See Section 7: “Energy Action Toolkit” for a description of those resources.

One metric ton of carbon dioxide, or CO₂, emissions is equivalent to:

2,200 lbs of CO₂

Burning of 112 gallons of gasoline

Use of 1,450 kWh of electricity in the US

(Source: <http://www.epa.gov/cleanenergy/energy-resources/refs.html>)

Carbon footprint per Congregation and use of Renewable Electricity						
Congregations ranked from least GHG/member to most	Congregation 1	Congregation 2	Congregation 3	Congregation 4*	Congregation 5	Congregation 6
GHG/member (metric ton CO ₂ eq/member)	0.11	0.25	0.38	0.95	0.96	1.76
Total GHG (metric ton)	33	74	63	285	145	388
use of SOLAR	Yes, partial	Yes, partially	No	No	No	No
use of WIND POWER	SOME (remainder, 10%)	SOME (remainder, 100%)	100%	SOME (10% grid mix)	SOME (35%, remainder 10% grid mix)	SOME (10% grid mix)
SOLAR + WIND	100%	100%	100%	10%	35%+10%	10%

*This table shows that renewable energy is an important component of reducing carbon footprint per member (GHG/member). *Note that Congregation 4 beat out Congregation 5 in terms of GHG/member, even though Congregation 5 has a lower overall GHG. This is because Congregation 4 has more congregants and thus is stretching its resources and associated GHG impacts.. (Table source: Climate Buddies.)*

Creating an Energy Action Plan

Once Climate Buddies has conducted your Climate Performance Assessment (CPA), you will know what matters most for reducing the carbon footprint of your congregation. It is time to make an Energy Action Plan using our Climate Performance Checklist and Energy Action Cards. This chapter outlines a framework for writing an Energy Action Plan and links to resources that will help you execute each action.

How does an Energy Action Plan work?

Once you have the CPA and know where your congregation stands, you'll need to make a plan re: where you're going and how to get there. Make your plan measurable, results-driven, and easy to implement. Define which actions you plan on implementing in the next week, month, and year.

Download the template of our Energy Action Card—Audit Checklist via <http://climatebuddies.org/ieneat>. This checklist will provide an overview of actions your congregation can take in the following categories:

Action Categories:

- ♥ Building Envelope
- ♥ Equipment
- ♥ Grounds
- ♥ Congregant behavior
- ♥ Policies
- ♥ Educational programs

Within these categories, actions are defined according to:

- ♦ Carbon Impact (on a scale of 1-5, 1 being highest)
- ♦ Anticipated Return on Investment (most actions actually make money, although it may take some time for this to happen)



(C) JoemohrToons.com

- ♦ **Description (a short description field providing more detail)**
- ♦ **Implemented: yes / no (a column where you mark whether you have already done this or not)**
- ♦ **To be implemented (a column where you can indicate which actions you are considering)**

To Be Implemented (a column where you can indicate which actions you are considering)

To fill out your checklist, walk around your building and grounds with your team, discuss changes that need to be made according to the CPA and make notes onto your checklist.

Before getting started.

Talk to relevant parties in your congregation (clergy, building maintenance, accounting, EAG members, etc.) who need to approve the plan and the actions selected. If you need some support, ask a Climate Buddy to assist you by emailing info@climatebuddies.org. Congratulations! You have started your journey towards lowering bills for your congregation and Becoming Carbon Positive!

Energy Action Cards.

Our Energy Action Cards are designed to assist you in implementing your selected actions. Energy Action Cards include practical info regarding the cost involved in each project, plus: a list of rebates available per project, lessons learned from other congregations' experience, and more. Once you have your checklist and have reviewed our template Energy Action Cards, convert your checklist to customized Energy Action Cards for you and your congregation. A library of Energy Action Cards is also available to you via download from <http://climatebuddies.org/ieneat/>.

We recommend you download the checklist and all the relevant action cards from the Climate Buddies website. These documents are part of Climate Buddies' "living library." Feel free to share your feedback with Climate Buddies; they will incorporate your contributions into the next generation of Energy Action Cards!

The action that I want to implement is not in the checklist...

What do you do when you want to implement an action that is not part of the checklist or in the Energy Action Cards? Send Climate Buddies your proposed action, via info@climatebuddies.org. Climate Buddies will review your suggestion and help you estimate impact and feasibility. With your input, Climate Buddies can grow the library of recommended actions available to all of us. Thank you for your contribution.

This section introduces the Energy Action Toolkit. It is the portal between this manual and its flexible toolkit. These are different, but complementary team resources. The Toolkit is a dynamic, constantly managed repository of detailed action techniques and facts, combining the latest experiences from all Energy Action Groups, with the latest advances in technology and policies.

What's in the Toolkit ? All the tools are introduced below and available online. We have developed some of these tools; some are in the general domain available on websites. All of the tools can be found at www.climatebuddies.org/ieneat.

How to use it? You can study the manual for a deep understanding of the spiritual and scientific foundations for effective, sustainable team action, and for a thorough guide to the human processes critical to a successful action team. The toolkit provides you with an array of tools that can help you on the journey of your team. As an example, you can access and use the Energy Actions by clicking the ACTION Tab at www.climatebuddies.org. You can expect this repository to grow over time. We intend to add more scientific, engineering, and policy background information on this website, all publicly available.

Your feedback is important. We hope your action teams will find in the Toolkit the information that will guide and inspire relevant, technically sound team actions that can take us directly to becoming carbon positive, soon enough to be practical", and we hope you will become "co-authors" by feeding in the learning from your experiences putting the Toolkit to work for your team".

Energy Action Toolkit

1. Carbon Footprint Estimator. Climate Buddies uses this tool to provide you a carbon footprint of your organization based on your budget, and a national database that correlates climate change impacts with sectors of the economy and how money gets spent. The total view provides great insight into your biggest cost contributors.

2. Energy Action Card - Audit Checklist. An overview of actions you can take in several areas to reduce your carbon footprint. The checklist helps you choose which actions work best for your congregation.

3. Energy Action Cards. Each of these cards addresses an action congregations or individuals can take to reduce their carbon footprint in a specific area. For example, there are cards that address recycling, insulation, weatherization, diet, etc. Each card lists specific steps for the action to be taken, how hard or easy it is, and the relative return on investment. These actions have been developed by EAT personnel who have had successful experiences implementing them.

4. Why Concentrate on Climate Change, Carbon, and Energy? This includes an outline with placeholders to use in organizing the growing knowledge base to be offered for ongoing confirmation and support of the rationale for concentrating on energy, eventually for deeper research and stimulation for continuous learning about the universe and our purpose in it.

5. Terms and Definitions. There are many scientific and other terms associated with global warming. We have made an effort to define many key and/or often misunderstood terms so that we are all talking from the same page.

6. Recommended Readings. A list of relevant books dealing with the many details associated with global warming issues.

7. Links to Key Information Sources. This is a list of website links that deal with the many issues associated with global warming.

8. Global Warming Presentation. This PowerPoint presentation highlights the dangers of global warming and presents actions that we can take to become carbon positive. Climate Buddies has used this presentation effectively at many congregations to inspire formation of Energy Action Groups (EAGs).

9. Carbon Positive Covenant. This is a contract made between a congregation and Climate Buddies that the congregation will move toward carbon positive status. The EAG that works in a specific congregation, as supported by Climate Buddies, will work with the leadership of the congregation to develop a plan that eventually leads to a carbon positive status.

10. List of Carbon Positive Allies. There are many potential allies available to support our EAG efforts to become carbon positive. Among them are non-profits, for profits, governmental organizations, and individuals. The list has been developed and vetted by Climate Buddies.

11. Links to Other Global Warming Presentations. This is a list of web links containing various global warming related presentations, use as appropriate.

12. Frequently Asked Questions (FAQs). Over time we see many of the same questions being raised by various people. This list of FAQs documents those questions as well as answers.

"We, the people, still believe that our obligations as Americans are not just to ourselves, but to all posterity. We will respond to the threat of climate change, knowing that the failure to do so would betray our children and future generations. Some may still deny the overwhelming judgment of science, but none can avoid the devastating impact of raging fires, and crippling drought, and more powerful storms.

The path towards sustainable energy sources will be long and sometimes difficult. But America cannot resist this transition, we must lead it. We cannot cede to other nations the technology that will power new jobs and new industries, we must claim its promise. That's how we will maintain our economic vitality and our national treasure -- our forests and waterways, our crop lands and snow-capped peaks. That is how we will preserve our planet, commanded to our care by God. That's what will lend meaning to the creed our fathers once declared."

-President Barack Obama, 44th President of the USA: 2nd Inaugural Address, January 21, 2013



Endnotes

1. The Rav Kook quote comes from the “Statement by World Jewish Congress,” which can be found at <http://www.arcworld.org/faiths.asp?pageID=80>. “For the Earth is mine” is from Leviticus 25: 23 and God giving humans “dominion” is from Genesis 1: 28.
2. “Evangelical Climate Initiative Statement,” at <http://christiansandclimate.org/statement/>
3. “Global Climate Change: A Plea For Dialogue Prudence And The Common Good,” A Statement of the United States Conference of Catholic Bishops, at <http://www.usccb.org/sdwp/international/globalclimate.shtml#change>
4. See “Islamic Faith Statement” for a further description of Khalifa, humanity’s role in the natural order, and the avoidance of excess and waste, at <http://www.arcworld.org/faiths.asp?pageID=75>. The quote, “to Him belongs...” is from the Holy Qur’an 020.006 and the quote, “O children of Adam...” is from the Holy Qur’an 007.031
5. Carl Friedrich Gethmann & Eckart Ehlers, *Environment Across Cultures* (2003).
6. Richard Foltz, *Worldviews, Religion, and the Environment: A Global Anthology* (2003).
7. “Buddhist Faith Statement” at <http://www.arcworld.org/faiths.asp?pageID=66>
8. Richard Foltz, *Worldviews, Religion, and the Environment: A Global Anthology* (2003).
9. Confucian Book of History 5.1.1: The Great Declaration.
10. “Basic Call to Consciousness, Native Voices, a Division of Book Publishing Co., Summertown, TN, 2005, pg. 33.
11. “The value of 280 ppm is chosen as representative of pre-industrial air because it is close to the average of CO₂ measured and dated with high time resolution between the years 1000 and 1800 in an ice core from Law Dome, Antarctica.” Trends in Atmospheric Carbon Dioxide, National Oceanic and Atmospheric Administration (<http://www.esrl.noaa.gov/gmd/ccgg/trends/weekly.html>).
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Primary Texts

Judeo-Christian

God Created the Earth

He set the earth on its foundations; it can never be moved. Psalm 104:1, NIV

There is the sea, vast and spacious, teeming with creatures beyond number— living things both large and small. There the ships go to and fro, and the leviathan, which you formed to frolic there. These all look to you to give them their food at the proper time. When you give it to them, they gather it up; when you open your hand, they are satisfied with good things. When you hide your face, they are terrified; when you take away their breath, they die and return to the dust. When you send your Spirit, they are created, and you renew the face of the earth. Psalms 104: 25-30, NIV

For by him all things were created: things in heaven and on earth, visible and invisible, whether thrones or powers or rulers or authorities; all things were created by him and for him. He is before all things, and in him all things hold together. Colossians 1:16-17, NIV

You alone are the LORD. You made the heavens, even the highest heavens, and all their starry host, the earth and all that is on it, the seas and all that is in them. You give life to everything, and the multitudes of heaven worship you. Nehemiah 9:6, NIV

Everything is Part of God's Creation

Say among the nations, "The LORD reigns." The world is firmly established, it cannot be moved; he will judge the peoples with equity. Let the heavens rejoice, let the earth be glad; let the sea resound, and all that is in it; let the fields be jubilant, and everything in them. Then all the trees of the forest will sing for joy; they will sing before the LORD, for he

comes, he comes to judge the earth. He will judge the world in righteousness and the peoples in his truth.(NIV) Psalm 96:10-13, NIV

Listen to this, Job; stop and consider God's wonders. Do you know how God controls the clouds and makes his lightning flash? Do you know how the clouds hang poised, those wonders of him who is perfect in knowledge?

You who swelter in your clothes when the land lies hushed under the south wind, can you join him in spreading out the skies, hard as a mirror of cast bronze? Job 37:14-18, NIV

How God Uses the Earth to Teach Us

But ask the animals, and they will teach you, or the birds of the air, and they will tell you; or speak to the earth, and it will teach you, or let the fish of the sea inform you. Which of all these does not know that the hand of the Lord has done this? In his hand is the life of every creature and the breath of all mankind." Job 12:7-10, NIV

Since what may be known about God is plain to them, because God has made it plain to them. For since the creation of the world God's invisible qualities—his eternal power and divine nature—have been clearly seen, being understood from what has been made, so that men are without excuse. Romans 1:19-20, NIV

They will neither harm nor destroy on all my holy mountain, for the earth will be full of the knowledge of the LORD as the waters cover the sea. Isaiah 11:9, NIV

God Asks Us to Take Care of His Creation

The earth dries up and withers, the world languishes and withers, the exalted of the earth languish. The earth is defiled by its people; they have disobeyed the laws, violated the statutes and broken the everlasting covenant. Therefore a curse consumes the earth; its people must bear their guilt. Therefore earth's inhabitants are burned up, and very few

Religious Resources

are left. Isaiah 24:4-6, NIV

The nations were angry; and your wrath has come. The time has come for judging the dead, and for rewarding your servants the prophets and your saints and those who reverence your name, both small and great — and for destroying those who destroy the earth. Revelation 11:18, NIV

When a man has had a great deal given him, a great deal will be demanded of him; when a man has had a great deal given him on trust, even more will be expected of him. Luke: 12:48.

God Loves his Creation

For God so loved the world that he gave his one and only Son, that whoever believes in him shall not perish but have eternal life. For God did not send his Son into the world to condemn the world, but to save the world through him. John 3:16-17, NIV.

Islam

Lo! the squanderers were ever brothers of the devils, and the devil was ever an ingrate to his Lord. Quran 17:27.

Do they not look at the earth,-how many noble things of all kinds We have produced in it? Quran 26:7.

We did indeed offer the trust to the heavens and the earth and the mountains; but they refused to undertake it, being afraid thereof. But man undertook it (the trust)... Qur'an 33:72.

Hinduism

O king, although a particular person may not be seen suffering the results of his evil actions, yet his children and grandchildren as well as great grandchildren will have to suffer them. -Bhisma to King Yudhisthira in the Mahabharata

Jainism

All beings desire to live. -The Acaranga Sutra.

Buddhism

Water flows from high in the mountains.

Water runs deep in the Earth.

Miraculously, water comes to us,
and sustains all life.

-Thich Nhat Hanh

Taoism

Manifest plainness, embrace sympathy, reduce selfishness, have few desires. -Lao Tzu

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Step 1: Homework

As you begin this journey, you will need to complete some “homework” to understand where your congregation falls in the spectrum of contributing to or stopping our path toward climate change. What level of knowledge and participation in climate change issues does your congregation possess? While opportunities to take action are needed now, we need to consider the motivation and capacity each of us has to make a difference. To determine that, consider using the following checklist:

- ⇒ Is my organization governed by a larger organization? Are there established policies or doctrines in my organization that provide the moral authority to stop or slow the destruction of the Earth that was given to sustain us?
- ⇒ What steps does my faith *already take* to recognize climate change? Are these actions noted and celebrated? Are there local committees or networks that need engagement?
- ⇒ What resources (in terms of volunteer hours, budgetary, etc.) can be called upon for this crisis?
- ⇒ Have past efforts to update our awareness of climate change issues and promote action worked or not? What behaviors impeded or accelerated positive or negative outcomes?
- ⇒ Who are the formal and informal leaders in my organization whose voices must be enrolled to obtain “buy-in”? What will it take to do so? Who and where in the process is congregational buy-in absolutely necessary? For example, at the outset, in the middle, or, at the end?

Once you’ve completed your homework, you can have a

better understanding on how to target and maximize your energy into productive, positive change.

Step 2: Recruiting a Seed Group

Who do you know that is interested in or passionate about Life? Nature? Animals? Children? You may have some friends, work associates, neighbors, students, congregation members, or relatives in mind who can join your efforts. If not, don’t despair; there are always enthusiastic, environmental champions somewhere in a community. Your seed group only requires four to six participants willing to share in your enthusiasm and commitment to hit the ground running.

It is important to have a shared understanding of what “commitment” means for everyone.

The founders of Climate Buddies.org made the following **pledge** to each other:

We will do our part, individually and collectively, to protect our family, community and environment by mitigating climate change.

We are stronger together than alone: We will partner and support each other, understanding (and appreciating) each others’ gifts and skills, as well as, limitations.

If we need help, we will ask for it.

Quitting is “not an option” unless we find someone “better” than ourselves to replace us.

We will have fun and enjoy the journey!

Step 3: Create Awareness of the Urgency and Opportunity to Act Now

One of the biggest mistakes people make when trying to



Nine-Step Process to Form an EAG

implement organizational change is to charge ahead without establishing a specific goal. It is also critical to instill a sense of urgency for change while simultaneously finding common ground among changemakers. You can do this in the context of a separate Energy Action Group or as a team with in a larger group like Building and Grounds, Social Justice, Green Group/ Omitting any of these aspects can be fatal. You can use the resources list below to increase your authority over the issues, educate your organization's members and generate common ground and enthusiasm for change:

- ♥ See Appendix A for a list of national faith-based groups who can help deepen your religious connection to climate action.
- ♥ Contact ClimateBuddies.org for a free, confidential carbon footprint assessment for your congregation. See Part 5: "Conducting a Climate Assessment," pgs. 17-19 or contact: <http://climatebuddies.org/> for more info.
- ♥ Sponsor an educational event for your congregants on climate change with help from the Interfaith Environmental Network (IEN). IEN will connect you to climate and energy professionals who can credibly inform your congregation about climate change, what they can do as individuals, as members of this congregation, and as members of a global effort. Having key church leaders or committees sponsor this event can help increase shared ownership of this endeavor.
- ♥ Have your EAG make a Pledge to become Carbon Positive. This pledge would outline specific, easy steps your congregation would take in coming months.
- ♥ Pass the plate for contributions to fund your EAG's initiative(s).
- ♥ Regularly educate your congregations through sermons, adult education events, handouts, and announcements in bulletins, at meetings, and etc..

Step 4: Recruiting and Guiding Your EAG

Educational forums are great opportunities to generate awareness and excitement. Creating a forum enables you to recruit members and/or engage with others who may be interested in participating as sponsors of your EAG. Change does not occur through the work of one "larger than life" person, but from shared ownership of the problem among every-day folks. Then, your organization will evolve organically, with people fueling an *inner fire, becoming willing to learn, own, and commit to the work necessary to make change.*

While it is understandable that human nature leads us all to seek the company of those who are most like us, it is important that your EAG have a broad base of support, ideas, and energy that can only come from having a diversity of personalities, politics, opinions, and expertise. While your EAG will have unique characteristics (reflective of the culture of your organization), below are a few guidelines for the composition of your EAG:

Size: The size of your team can be large or small. What is important is that the participants are willing to take ownership and responsibility to carry out the mission, manage tasks, and be accountable. Larger organizations may need larger EAG's, with a core group of around twelve people.

Integration: As mentioned previously, you can have a separate EAG, be a sub team of other groups like Education, Building and Grounds, Environmental Stewardship, or have representatives of the EAG on each of the related Committees.

Credibility: This is critical. If your EAG has credibility, people will want to participate. Become grounded in facts and avoid personal, unfounded opinions. Members can be from a variety of sources and professions: from teachers and secretaries to engineers and scientists. Members can be from other committees, those in your community's leadership, or those who work in other aspects of religious

life within your community or faith. You will want to balance your group by including those who are willing to innovate without feeling tied to “the status quo”.

Expertise: Your EAG should have a diversity of experience and background. As your work and EAG evolves, you may find that it’s important to recruit people with specific expertise, organizational and technical skills. If you don’t have this diversity internally, within your organization, contact us and we will schedule a free consultant, if available.

Step 5: Articulating the Vision and Strategy

Human survival is instinctual. No one has to teach this, we all know it innately. Just think about how you would focus if you were face-to-face with a life-threatening situation, such as a hungry momma bear, or your foot slipping off a cliff. Harnessing a common, powerful purpose such as the survival of our planet, can generate that same energy and provide a compass for finding a solution. It is essential to give others a vision towards which you are working. The vision must be articulated in your own language for three reasons:

- 1) The vision will clarify your mission, help to define your goals for change, and simplify the decision-making process;
- 2) The vision will motivate and harness the group’s energy to take action now so that they experience success in accomplishing the most important tasks first;
- 3) The vision will provide a common purpose and foundation to coordinate the actions of different, diverse people.

Characteristics of Effective Visions:

Imaginable: Can you imagine the result? Does the vision convey a picture and inspire action? Does it communicate what carbon positive will look like for your house of worship

and its congregants, and what your action will mean if it is carried out globally?

Feasible: Is your vision feasible based on your membership and resources? Are people willing to test the vision to see if they can make a difference that can be modeled locally and globally?

Focused: Is the vision clear enough to provide guidance and practical steps?

Flexible: Does the vision allow for individual initiative and talents to be incorporated?

Communicable: Is the vision easy to communicate and understand for the layperson and challenging enough for the scientist?

Step 6: Communicating

Multiple Methods: Use multiple forums to get your message out. First utilize the existing methods that your congregation has in place: bulletins, newsletters, and web sites. Believe it or not, some people don’t have computers, so consider a quarterly snail mail for those that want to stay informed, in addition to email.

Simplicity: The science behind climate change can be incredibly complex, so go with scientific authorities, like U.S. Geological Survey scientists. However, keep your messages as simple as possible. Here is one website out of many you can look at: <http://environment.nationalgeographic.com/environment/global-warming/gw-overview/>

Repetition: Most ideas “sink-in” only after they have been heard multiple times. Marketers say a message needs to be heard eight times for each “yes”. Also, everyone learns differently. Some prefer visual or auditory learning, and/or both (multi-media), so be creative in how you communicate to your audience.

Lead by Example: Make your own life consistent with the

vision you believe in, caring about and having enthusiasm for the environment. It will be infectious!

Two-Way: Make sure your communication goes both ways, establishing a clear mutual outcome. If you are a leader, adjust to what time, attention, “tone” and vocabulary communicates most effectively. Check to see if messages sent were received as intended. Clarify and verify.

Step 7: Empowering Action / Removing Barriers

Growth and change occur when we push ourselves outside of our comfort zone; yet pushing too hard can increase the likelihood that we get discouraged and give up. Two critical elements in empowering action, in addition to creating goals and outcomes, are identifying barriers that might prevent your EAG from achieving them. It is important that goals and outcomes are aligned with your EAG’s vision; and that they are clear, concise and meaningful. Consider using the guideline below to create **SMART** goals for your EAG.

Specific: Succinct, to the point, not vague or ambiguous. State your goal in positive terms.

Measurable: Tangible tasks or goals that are measurable so you know you’ve achieved them. (See the tool kit)

Achievable: Realistic; remember Rome wasn’t built in a day, yet they had a plan and built it stone by stone, day by day.

Results oriented: Implementation of this outcome should have a quantifiable end result. For example, the implementation of “a carbon positive house of worship for the majority of congregants”.

Time sensitive: All goals should have a due date for completion. It’s OK to adjust dates as priorities shift or unanticipated delays or obstacles occur (see work sheet attached).

Barriers can prevent or limit success. They can also make

you feel pretty good when you overcome them! Your EAG is a place where you need to be real and honest in order to truly identify things that may hinder your progress. Always communicate without judgment and blaming. Remember, this is a volunteer organization! By honestly identifying barriers and their root causes we can overcome them, especially by working together. Sometimes, you discover that barriers are serving a purpose for you, your team or the congregation, even though they were unanticipated or unintentional. Sometimes, it’s just because “that’s the way things were always done!” As you identify them early on, either within the core group, and/or the larger EAG, you can make a plan to solve and overcome them. Barriers can be divided into two main categories: Internal and External.

Internal Barriers: Internal barriers are those that come from *within* yourself and over which you have the most responsibility and influence. They include things like, “I don’t know enough about the science of climate change to make a difference”, or, “It’s not my job or responsibility”, or, “I’m too busy”, etc.

External Barriers: External barriers are those forces outside your immediate and direct control. Some of them you may be able to influence; others you may not, such as organizational barriers within your congregation. Real life examples include:

The Pastor or Congregational Leadership agrees to implement EAG recommendations but does not have a strong enough working relationship with the owners of the facility to put in place practices to reduce their carbon footprint.

A new Minister or Leader is unwilling to take on the risk and/or controversy of establishing an EAG within their congregation. Let’s “just keep things status quo and not rock the boat.”

After identifying internal and external barriers within our Faith Community or Organization that hinder us from planting seeds and establishing an EAG, we can take

significant, practical, positive steps toward their removal. At a minimum, we can lower the barriers and climb over them ~ getting some exercise at the same time!

Step 8: Generating Short-Term Victories

Mitigating the impacts of climate change within your faith organization can be a daunting task. It is important, for your motivation and the motivation of your team to take an approach of doing what you can “one day at a time”, making steady progress. Planning a few short-term victories or “quick wins” provides powerful motivation and reinforcement. Quick wins also provide an opportunity to relax for a few minutes, have fun, and celebrate!

The Role of a Quick Win for an EAG:

- ♥ Provides motivation and evidence that our efforts and sacrifices are worth it.
- ♥ Rewards our members with a few accolades.
- ♥ Helps fine-tune our vision and our strategies.
- ♥ Builds momentum, tunes out cynics, generates enthusiasm and energy.

Planning Versus Praying For Results:

Short-term victories don't result from divine intervention alone. This work is about co-creating. You must target quick wins during your goal and outcome setting sessions.

Example Planning for a Quick Win:

- 1) Produce an educational event for your congregation. One example might be having your clergy participate in the annual “Preach In on Climate Change,” <http://www.preachin.org/>. Another possibility would be to contact Interfaith Environmental Network via ien.outreach@gmail.com for help producing an educational event tailored to your green team.

- 2) Time this event with important eco activities on the calendar <http://www.globalstewards.org/calendar.htm> or advocacy events at <http://www.350.org/>.
- 3) Relate this event to important activities on your religious and congregational calendars.
- 4) Promote your special event via inventive, fun, grassroots means.

Step 9: Follow a Proven Approach

How can you ensure that change is lasting? How do we leave a legacy?

Renew and establish rituals and habits. As humans, we often find satisfaction in religious rituals, such as making an offering to a divine presence, praying over a meal, or blessing an endeavor. We can also find satisfaction in tying our rituals to the natural world. Aligning our spiritual lives with our lives in practice, we can adjust our habits to acknowledge the importance of the natural world. Adjusting our energy habits makes it easy for us to stay focused on our intentions and outcomes while conserving energy. Rituals and habits can be daily, weekly, monthly, or yearly. For example, we often create weekly gatherings for our Seed Team and congregate around a potluck. Everyone loves food and eating together is a fun way to share.

Once your Energy Action Group is established, we highly recommend you create an agenda prior to the meeting and forward it to all the attendees (including those that want to be on your distribution list). That way everyone can prepare and plan for the topics in advance. Some people will want to participate in only those meetings where their topic of interest or expertise is discussed and not during others. During the meeting, stick to the agenda and time allocated, even if you have to leave some topics unaddressed until the next meeting. We have also found it extremely useful to have someone other than the leader take “minutes”. The minutes will *very briefly* summarize the EAG meeting, the tasks or action items agreed to, expected dates for

accomplishing them and who, or what sub-group, they are assigned to. Keep the minutes brief, concise and specific to the tasks, action items and goals of the group. This kind of meeting organization is essential to be efficient, make as much progress as possible with limited resources and respect everyone's time. You will be rewarded for this organizational effort in the progress you make as well as an increase in participation by those that are extremely busy, yet want to make a contribution.

We begin our meeting with a prayer and discussion of our intention for our time together. Then we review our agenda, ask if there are any new items to add, and discuss the progress and status of action items from the previous meeting. Be sensitive and don't overwhelm your EAG, even though there may be a lot on the agenda to accomplish. Stick to the priorities and be sure to gain "agreement" with the group before moving forward, or before the meeting is concluded. Always summarize what was agreed to at the end of the meeting.

People want to be heard, yet time is limited, so the skill of an excellent leader is to listen, take input, and make a "real-time" decision on which topics in that particular meeting might need more time. Remember, the group is run by consensus, even though there is a leader, leadership is not dictatorship. At the end, we express thankfulness and appreciation to everyone participating, acknowledging what we have accomplished and finish in prayer.

Making a difference can be as simple as changing your light bulbs to more energy efficient ones and encouraging your family and friends to do the same (even buy them a set!). Of course establishing more significant, long lasting changes in your faith community's carbon footprint will take time. Be patient, but persistent. It will evolve organically, but not without determination, commitment, and a plan. It is important not to get discouraged. The simple fact is that breaking away from old habits takes time, desire, and discipline, but most importantly ~ a *choice* by you and everyone committed to making a difference.

Have fun, laugh and enjoy those you are working with!
Although environmental work is a serious topic that requires us to manage our energy wisely, we need to enjoy the process, not just the end result.

We are proud to leave as an inheritance to our children and great-great-great-grandchildren a world as beautiful and livable as the one we inherited!

Facilitator: Ensures the EAG meeting purposes and agenda are accomplished within the time allocated. Ideally this person should be experienced in conducting meetings and guiding a group through discussions and decisions. Lacking an experienced facilitator, people with leadership potential can take advantage of this opportunity to learn to run meetings. Prepare for meetings by reading all meeting materials prepared in advance by presenters; developing an agenda for the upcoming meeting and include action minutes from the previous meeting. The facilitator should be prepared to discuss status of completed actions, open actions from previous meetings and goals for the upcoming meeting.

Scribe: The scribe's main function is to record those in attendance, the main subject items covered during the meeting, and a list of action items with persons accountable. These minutes can be shared with meeting participants according to an agreed upon EAG process, i.e., email, dropbox, etc. The minutes should be given to the facilitator within three days after the meeting. The scribe will maintain an archive of all minutes and will also maintain a master list of EAG members along with their contact information.

Hospitality Coordinator: The hospitality coordinator helps create an inviting environment for learning and work, scheduling the location of EAG meetings as well as meeting venues for other EAG functions. S(he) will also coordinate any refreshments, audio-visual equipment and other special needs to support the EAG meetings to include a greeter, signage, and sign in table for each meeting.

Publicist: The publicist is responsible for distribution of EAG information to appropriate public sources, such as the press, other non-profits, social networks, etc. Responsibilities also include coordinating any request for information about the EAG's activities from those sources. Much of the information the EAG will want distributed will be positive

environmental progress measured by the Cheerleader.

Weavers: The weavers are direct support persons to the facilitator, handling miscellaneous chores that need action and for which there is no other assigned person. Weavers assure a balance in attendance, and that members are able to bring their talents to improve the effectiveness of the group.

Cheerleader: The cheerleader monitors accomplishments of members and documents the accomplishments of the EAG in a manner that can serve as a model for other endeavors in communities across the US. This includes accomplishments for each congregation and for individuals in the congregation. Most statistics will be gathered according to green card pledges in order to show specific measurable environmental progress.

Trainer: The trainer is responsible for assisting your EAG with questions on the energy conservation processes developed recommended by this manual and its publishers: InterfaithEnvironmentalNetwork.org and ClimateBuddies.org. The trainer is able to gather information for your specific questions, develop relevant training plans and materials, and schedule and conduct appropriate training sessions.

Congregational EAT Coordinator(s): Person(s) who assumes the role of coordinating the IEN EAT energy program within specific congregations. These people are probably members of the IEN EAT, being knowledgeable in all IEN EAT actions and energy approaches.

Sample EAG Roles & Responsibilities

Before Each Meeting

Prepare an agenda. Think through what you know needs to be covered; however, don't be a slave to the agenda – be ready to include items which committee members bring.

Be at the meeting place at least ten minutes before the meeting is scheduled to begin. Arrange the chairs, etc. Remember that your own smile and greeting to each member helps set a welcoming atmosphere. And the fact that you are there early, so the meeting can begin on time, will encourage members to be equally prompt.

During Each Meeting

Begin the meeting with a prayer or a brief devotional, led by you or one of the committee members. Read the minutes (in action/ responsibility format) from the last meeting

Share your agenda, then ask if there are other items which need to be included. If so, add those items, gauging best as you can the amount of time to allocate for each item.

Encourage the verbal communication of all members, but be aware that some folks aren't as comfortable with verbalizing as others are – you may have to do some inviting and gentle persuading.

Best as you can, facilitate full discussion of each item, while at the same time honoring time constraints. If need be, interrupt "conversation-hoggers" respectfully, gently but firmly. In like manner, re-focus a discussion if it veers off track.

Decide when a decision is a decision. If a decision represents a very narrow majority, sometimes that decision will have to stand, but often a narrow margin signals unresolved issues and potential problems. When possible it might be best to ask the members to think about the issues and discuss again

at the next meeting.

EAG Group Leader Duties

If a member seems disengaged over the course of several meetings, consider giving that member a call. There may be something going on in his or her personal life, such that permission to take a brief break from committee meetings would be helpful. Or the person may simply be serving in a place that isn't best for her or his gifts and interests

– you might consider redirecting him or her to a more suitable committee. Whatever the reason for disengagement, remember that your group's work is important and needs every member's enthusiastic participation.

Limit the meeting time (an hour and a half usually). Occasionally the members may agree to lengthen a meeting, so that discussion can be completed. If the meetings are going longer every time, ask some questions: Is discussion veering off track and usurping time inappropriately? Are there too many tasks to be discussed, such that a sub-group or ad hoc task force ought to be formed?

At the end of the meeting, summarize the work that's been done and, if some have agreed to undertake a particular project, make sure that the project is understood. Ask member for feedback-satisfaction, dissatisfactions, proposals for next meeting. Thank the members for their work.

Close the meeting with a prayer led by you or a group member.

After A Group Meeting

1. Email the minutes to the EAT leader and to your group.
2. Note any items needing consultation with the whole EAT.

The following section looks at emotions and energy in motion. This fuel can move you and your group forward or halt action, whether it is recognized, spoken, or not. To lead, understanding emotions will be essential because it is part of the “givens” in our life. Notice that we have two types of emotions: those that are thought based; and those that are experiential. It is important that you understand the basis or root of these emotions so that you can help them be voiced safely and productively. It is important that no one have to work alone, so always find a place where you can sincerely join and add value as well as listen compassionately. I may feel climate change is too big for me to make a difference, so I may feel helpless. While it may be true that one person working alone is insufficient, it is not true that we are unnecessary. Rather, it is true that we will need to join with whomever will join us to embrace the challenge.

Leadership and Emotions

We may progress from being mired in denial to anxiety and fear, propelling us to demand black and white answers. This can lead to “fortune telling”, predicting “doom and gloom” or, “pie –in-the-sky” scenarios. **The Positive:** Anxiety and fear can be transformed into curiosity as you create specific measurable action steps for yourself and your group. So, what else can we do? Acknowledge that we may be scared because we don’t know all the answers. Yes, there are some serious doom and gloom scenarios, but **what can we do about it?** What we *do know* is if we take **no** action to make a difference now to protect our environment and move us toward survival for generations to come, our demise will become a self-fulfilling prophesy. What we do have that others don’t is **our faith** to face reality as we are not alone. We understand that we are not all knowing and manage without knowing anything other than our stewardship responsibility.

For Thought-Based Emotions: goal is to accept a difficult reality

Denial:

Emotions of denial are usually fear based: We tell ourselves “it’s not happening or it’s not that bad”. If we are still in denial after learning the facts about what really is happening to our climate and thus ourselves, it just may mean we are afraid. “*What if it is true?*” “What if my kids or grandkids will live shorter, less healthy lives than I?” “*What if the problem is too big to turn around?*” “*What if there is not enough time to make changes?*” “*What if I can’t make a difference and nothing I, or even my congregation or organization does matters?*” This can spin into *should ‘eh, could ‘eh, would’eh thinking, rather than problem solving*. **The Positive:** Denial can help us to name our specific fear and thus enable us to learn what can be done to overcome it.

Anxiety and Fear:

For Directly Experienced Emotions: goal is to express and explore together

Grief:

When considering these difficult issues in a safe place, denial and anxiety can peel away. Only then can we become aware of the large amount of loss and damage we have incurred in our environment. We slowly begin to acknowledge what is really happening to our planet; and the cycle of grieving begins. This feeling is similar to what we face when we learn of a loved one’s illness and death is imminent.

Anger:

Another emotional phase can be anger or blaming. For example, blaming “the liberals” or those that talk about turning our thermostats down and conserving energy. Why can’t we live like “everyone else” and leave it to the “experts” to solve these problems? While it is important consider anger important energy, it works best if you step

back, pause, until you and the other are calm. Immediate words and action when angry have a retaliatory, get back impulse and don't solve problems or increase understanding. **The Positive:** Anger contained until one can think compassionately can be focused into achievable outcomes and thus be turned into determination.

Bargaining:

Our problems would be solved "if only", we hadn't overused oil, "if only" we get rid of the coal and get off fossil fuels, "if only" we get a cap & trade policies...then all our climate change problems would be solved! **The Positive:** Bargaining about past villains and could 'eh, would'eh, should'ehs can be refocused to directing our time and energy into action now for the future we want. So, what is your house of worship investing in now, and does it reflect your values for our planet?

Helplessness, Depression and Despair:

This includes those that believe, "It's too late to make a difference ~ the environment is already ruined", "I am too insignificant", "I am not a scientist", "It's too hard to learn about these issues". **The Positive:** As we take small steps forward, helplessness can show us that we can make a difference, giving way to more energy for action. Sadness for our limitations and the losses we experience, can beget empathy for our congregants, community, our future generations, and us.

Acceptance, Empathy and Compassion:

The first affected will be those that live directly upon the earth, the farmers, the fishermen, the poor; next will be the rest of us. It is when we truly feel sadness for the earth and its people, without intervention, that our hearts can break open and deep compassion can be found. In that place, we empower ourselves to do what it takes to change the course toward death we are on.

Emotions: Summarizing The Positive

As you understand what you and others experience emotionally, you give permission to discuss and explore together the sensitive terrain of Denial, Anxiety, Anger, Bargaining, Helplessness and Sadness as part of the overall cycle of confronting climate change. As we learn to recognize and acknowledge our emotions, we become more skilled in connecting to and actually feeling them in our heart and soul. When we can talk about them and experience them collectively, we can harness our passions into collective, focused actions. It is this energy that can make a difference in our world, bringing about a more sustainable course for our earth and all of creation.

As the leader of a group focused on building awareness and addressing challenges, remember that people typically perceive change as "scary," even when there is excitement. Converting emotional energy into positive action will be key to your success in implementing your EAG. Remember, the only forces greater than fear are **love and commitment to something larger than you**. You may fear inadequacy or change, but even while you are reading this now, your love and commitment are stronger than that, and together, we are an unstoppable force!

How to Interpret and Use an Energy Action Card

Each Card utilizes the same structure for displaying a large amount of relevant data intended to guide teams in effective application to reduce carbon footprint of the “client organization” or household. This common structure, when applied by diligent use of – and feedback to improve – the constantly updated Toolkit, will produce a strong “learning curve”. We all need this rapid learning, because this is the vehicle through which practitioners gain skill and confidence as they gain experience.

Grouping of Actions. Currently, the Energy Action Card – Audit Checklist contains the following:

- Carbon Footprint Estimator (1 special tool for estimating the baseline for carbon impact metrics),
- Building Envelope (11 energy actions),
- Equipment (11 energy actions),
- Grounds (5 energy actions),
- Behavior (6 energy actions, aka “Energy Conservation practices”), and
- Policies (8 energy actions)”.

All Energy Action Cards can currently be accessed from our website where they are kept up-to-date. Please visit the webpage <http://climatebuddies.org/actions/> for an overview of all the Energy Action Cards.

Energy Action Cards

A dynamic repository. Caution: This is a dynamic repository, so by the time you read it, these numbers will likely have increased and new categories may emerge.

Card structure. Note that the first section each Energy Action Card contains the detailed Instructions for filling out the form, with contact information if unclear. The last section includes the Definitions used to express the probable skills and impact for that all energy actions. In between, the main body includes the substantive material for that specific action.

Team Process. Review each Card carefully with your Energy Action Team until you understand them all well enough to choose the initial set of actions you will apply. The information in this middle section is detailed and unique to a single action. It is exactly this substantive information – technically sound, constantly updated, but also designed to be read and applied by motivated groups of congregants and citizens (with help when requested) – that makes this Toolkit unique: it captures the experiences and success of other people that implemented the energy action cards. It will help you to implement yours.

Your input. And the beauty of it is that you, your energy action teams, and your organizations can be a part of a much higher calling in a very down-to-earth way: By continuously using these materials and feeding back information that can keep it current, and make it ever more usable and thus effective, thus increasing your contribution to restoring to vital health, the only planet of which we’re stewards. This work isn’t perfect and never will be, but there is no limit to how much better and more effective it can become: Come and stand with us and work with us, so we can all fulfill our Purpose.

Title	Weatherize Buildings	Achieved reduction	5-10% of the carbon footprint of the utility bill
Author	Greg Choban	Time to implement	Less than 1 month
Aim	Congregations	Estimated cost	\$50-200 per building
Estimated Impact	5-10% of the utility bill	Estimated savings	Cost recovered within months, 5-10% lower utility bills
Strategy type	Conservation and Efficiency		

Weatherization is the practice of protecting a building and its interior from the elements, particularly from sunlight, precipitation, and wind, and of modifying a building to reduce energy consumption and optimize energy efficiency. Weatherization is distinct from building insulation, although building insulation requires weatherization for proper functioning. Many types of insulation can be thought of as weatherization, because they block drafts or protect from cold winds. Whereas insulation primarily reduces *conductive* heat flow, weatherization primarily reduces *convective* heat flow. When you receive an Energy Audit, weatherization recommendations will be among the outputs provided to your congregation.

Specific examples of potential building weatherization recommendations:

- Sealing bypasses (cracks, gaps, holes), especially around doors, windows, pipes and wiring that penetrate the ceiling and floor, and other areas with high potential for heat loss, using caulk, foam sealant, weather-stripping, window film, door sweeps, electrical receptacle gaskets, and so on to reduce air infiltration.
- Sealing recessed lighting fixtures ('can lights' or 'high-hats'), which leak large amounts of air into unconditioned attic space.
- Sealing air ducts, which can account for 20% of heat loss, using fiber-reinforced mastic(not duck/duct tape, which is not suitable for this purpose)
- Installing/replacing dampers in exhaust ducts, to prevent outside air from entering the house when the exhaust fan or clothes dryer is not in use.
- Protecting pipes from corrosion and freezing.
- Installing footing drains, foundation waterproofing membranes, interior perimeter drains, sump pumps, gutters, downspout extensions, downward-sloping grading, French drains, swales, and other techniques to protect a building from both surface water and ground water.
- Providing proper ventilation to unconditioned spaces to protect a building from the effects of condensation.
- Installing roofing, building wrap, siding, flashing, skylights or solar tubes and making sure they are in good condition on an existing building.
- Installing insulation in walls, floors, and ceilings, around ducts and pipes, water heaters, and near the foundation and sill.
- Installing storm doors and storm windows.
- Replacing old drafty doors with tightly sealing, foam-core doors.
- Replacing older windows with low-energy, double-glazed windows.

Title	Weatherize Buildings	Achieved reduction	5-10% of the carbon footprint of the utility bill
Author	Greg Choban	Time to implement	Less than 1 month
Aim	Congregations	Estimated cost	\$50-200 per building
Estimated Impact	5-10% of the utility bill	Estimated savings	Cost recovered within months, 5-10% lower utility bills
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- Sealing recessed lighting fixtures ('can lights' or 'high-hats'), which leak large amounts of air into unconditioned attic space.
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- Installing/replacing dampers in exhaust ducts, to prevent outside air from entering the house when the exhaust fan or clothes dryer is not in use.
- Protecting pipes from corrosion and freezing.
- Installing footing drains, foundation waterproofing membranes, interior perimeter drains, sump pumps, gutters, downspout extensions, downward-sloping grading, French drains, swales, and other techniques to protect a building from both surface water and ground water.
- Providing proper ventilation to unconditioned spaces to protect a building from the effects of condensation.
- Installing roofing, building wrap, siding, flashing, skylights or solar tubes and making sure they are in good condition on an existing building.
- Installing insulation in walls, floors, and ceilings, around ducts and pipes, water heaters, and near the foundation and sill.
- Installing storm doors and storm windows.
- Replacing old drafty doors with tightly sealing, foam-core doors.
- Replacing older windows with low-energy, double-glazed windows.

Title	Weatherize Buildings
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Weatherization produces many potential benefits to the occupants of the buildings:

- **Improved Comfort** With air leaks eliminated and heat loss under control, the occupants of your building will enjoy improved temperature control, reduced noise, and less transfer of odors — saving you from their complaints.
 - **Air Quality Control** Having your building sealed and properly filtered/ventilated reduces dust, dirt and excess humidity. Occupants will enjoy a more comfortable and pleasant work or living environment with better control over indoor air quality. Sensitive electronics and other moving parts in office and manufacturing equipment can be damaged by excessive dirt, dust, and humidity. Improving IAQ will increase functionality and extend equipment lifespan.
 - **Improved Safety** Along with lowering your risk of litigation from a sick building system or smoke transfer illness, weatherization also slows smoke spread in the event of a fire.
 - **Efficient Operation & Lower Utilities** Sealing and insulating your facility keeps the elements out, and conditioned air in, so your HVAC systems don't have to work as hard. And, the energy saved reduces your building's carbon footprint.
- Additional Savings** The reduced run time of your HVAC systems helps extend equipment life to cut replacement costs. Sometimes, entire systems can be turned off completely.

Lessons learned	Weatherization is one of the more simple items to address when trying to address energy savings. The types of improvements are often done in-house while those requiring trained personnel are usually not that expensive.
Biggest hurdles	Just scheduling the Energy Audit. For the more expensive improvements such as attic insulation, HVAC duct sealing, replacing windows and doors, the biggest challenge can be determining an exact return on investment
Tools	Energy audits will list the various potential improvements to look for
Tips for motivation	Weatherization improvements can often produce measurable positive results with relatively low investment in time and money. Often, congregation members can do a lot of the work involved.
Websites	This is a good web site on specific actions that you can take: http://www.resnet.us/energy-saving-tips . This site describes weatherization assistance for low income families in Austin: http://www.austinenergy.com/Energy%20Efficiency/Programs/weatherizationAssistance/weatherizationProgram.pdf

Photo's and calculations -

Title	Grid-connected Solar Panels	Achieved reduction	Up to 100% of the carbon footprint of the utility bill
Author	Joep Meijer, Bob Murray	Time to implement	3 months
Aim	Congregations	Estimated cost	\$3,500 -\$8,000 per homes \$10,000 -\$30,000 per house of worship
Estimated Impact	Up to 100% of the utility bill	Estimated savings	The return on investment is typically less than 5 years for home owners. Research in California shows that the cost of your PV installation adds just about as much value to your property. That is a great added bonus when you decide to sell your house. For commercial installations it can be from 5 to 12 years.
Strategy type	Renewables		

Renewable energy breaks down to two techniques here in Austin. Typical local winds are insufficient for cost-effective wind-electric generation. However, local solar-electric generation (PV) is quite feasible, if other conditions are favorable. Solar water heating (domestic water or pools) even more likely to be cost-effective, and is covered as a separate Energy Action. The cost of a typical solar panel array in Austin is dropping as the technology improves and as local installers become more proficient. It is now possible to pay a total package price as low as \$4/installed watt. Austin Energy's Performance Based Incentive (PBI). More knowledgeable financing, together with other incentives can make this affordable, depending on specific local factors, such as roof orientation and slope, lease or financing options, credit worthiness, etc.).

Austin Energy currently provides a Performance Based Incentive, (PBI) for **commercial customer (including houses of worship) that pays \$0.140 for each kWh produced. Residential customers get a rebate that pays up to 60% of the cost and currently get paid \$0.128 for each kWh produced.** Two meters are installed, and you're PBI incentive is not limited in those months when you produce more electricity than you consume. It is required that you use a solar installer from AE's qualifying contractor ([list](#)), and get an energy audit which may reveal additional improvements that you have to pursue to be able to qualify (e.g. Upgrade options may be required, including weatherization, attic insulation and solar screens. More information about Austin Energy's program (and other financial incentive programs) are found [here](#).

Once you select an AE-approved solar contractor, they help you through the process and do most of the paperwork.

The net out-of-pocket cost for a residential installation in Austin is (after the City's rebate and the federal tax credit of 30%) anywhere from \$3,500 for low electricity users to \$8,000 for high electricity users. It is typically less than replacing your HVAC and it is the single most effective strategy to actually make money with your house.

Title	Grid-connected Solar Panels
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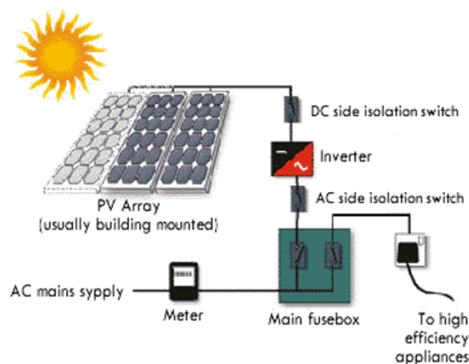
Congregations Make sure you have enough non-shaded roof space on the South side • Get the necessary funding in place • Contact 3 contractors • Select the one you like the best • Enjoy the ride, it will take about 2 months to go through all the hoops but you will love the result.

Homes Make sure you have enough non-shaded roof space on the South side • Decide on solar water or solar PV • Decide on a loan or whether you can pay out of pocket (remember, the 30% from the IRS kicks in when you get your 1040 return, which is not now, but later) • Contact 3 contractors • Select the one you like the best • Enjoy the ride, it will take about 2 months to go through all the hoops but you will love the result.

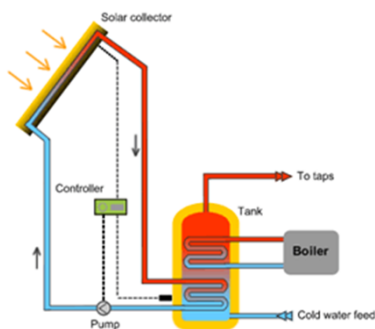
Lessons learned	It will take longer than you expect. The city has about 5 people that will have to take a look and sign off on different steps. Consider hiring a small business local contractor that way your \$ will stay in the local economy. The more energy need you prevent from your efficiency and conservation efforts, the smaller investment you need for your solar PV system. That is a double return on investment.
Biggest hurdles	For congregation: getting the funding in place. This is a big investment.
Tools	Calculate how much roof space you need: needed watt peak / watt peak per panel = number of panels sqft per panel * number of panels = sqft needed
Tips for motivation	You will see the benefits on your meter from day and one your utility bill upon your next billing period! Wow, seeing your meter run backwards is a joy to the mind and the environment.
Websites	More information about Austin Energy's program (and other financial incentive programs) are found here .

Photos and calculations

Basic diagram for a grid-tied solar PV system



Basic diagram for a solar water heater



Both installed on a home



Title	Reuse and Recycling	Achieved reduction	5- 10% of the carbon footprint of a congregations
Author	David Hogan	Time to implement	Within 1 month. This activity is a “Green Team” activity. It is an ongoing activity where individuals focus on specific reuse/recycling tasks so a lot of time is not required by any one individual .
Aim	Congregations	Estimated cost	Little to none, materials for collection bins and depot at the house of worship.
Estimated Impact	Depends on the materials collected and degree of congregation participation. Reuse and durable goods are preferred. Reuse helps less fortunate citizens when those material are donated for reuse.	Estimated savings	None, unless reuse is done as a garage sales event.
Strategy type	Resource efficiency		

The idea behind this activity is to provide a convenient path for reuse and recycling of particular common materials that are not possible via the city curbside service or does not feed into its highest and best use ([Ref 8](#), pg. 47). The intent is to provide a complimentary service to the city’s service. It also may be a convenient service for apartment dwellers.

The notion is that somewhere on the grounds of the house of worship a recycling collection center is provided and supported. Parishioners can conveniently drop their items off on their day of worship. Members of the Green Team have assigned [rotated] duty of emptying the containers for particular recyclates and taking them to a destination where they can be reused or recycled (see photos section for example collection centers).

The particular items accepted can be adapted to the needs and desires of the parish. It is suggested that a list of these items be posted on the house of worship’s web site and also a copy be physically posted on a bulletin board. Physical copies should also be available for pick up (perhaps a pocket folder on bulletin board or a table top display in a lobby area).

An example listing of materials to consider collecting is available on the Climate Buddies web site for adaptation ([Ref 6](#), Sample Reuse and Recycling chart). This listing is a convenient place to also list: Locations for recycling other materials and Locations that will take materials for reuse. A set of such reuse resources in Austin is also identified in the referenced example list. It is envisioned that each house of worship edit and adapt this example for their own use. A generic non-denominational version of this list is also provided. This may be useful for distribution by affiliated but non-religious groups or groups that do not want to customize the handout.

Houses of Worship should also be aware that Phase I of the City of Austin Universal Recycling Ordinance (URO) is coming October 1, 2012 ([Ref 9](#)). This will require religious institution operations larger than 100,000 square feet to recycle at a minimum: Office paper, Plastics #1 and #2, Corrugated cardboard, Aluminum, and Glass. Smaller religious institutions will phase in at later dates. (Final details are still pending at this time of writing.)

The complete ordinance will be phased in over the next four years, requiring all properties within the Austin city limits to offer recycling by October 2015.

When a congregation is planning a major event they should consider planning it as a Zero Waste event ([Ref 10](#)).

Title	Reuse and Recycling
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Lessons learned	<p>Parishioner habits change slowly. They will be slow to start. The old training maximum about telling trainees 7 different times 7 different ways applies. If you change your guidelines on what is accepted and or depot locations they will be slow to follow.</p> <p>It is important that you periodically report back to the congregation on the success of the collection effort (such as part of your Earth Day celebration). Provide a convenient mechanism for tracking the collected material, such as a spiral notebook at the recycling depot so each time recyclables are collected the quantity can be logged.</p>
Biggest hurdles	<p>Finding an acceptable place for the recycling depot.</p> <p>Developing a schedule of committed individuals to collect and transfer recyclables.</p>
Tools	<p>WARM – Waste Reduction Model from US EPA Data Source Definitions: http://www.epa.gov/climatechange/waste/calculators/materials.html?width=750 See “Emission / Energy Factors” at: http://www.epa.gov/climatechange/waste/calculators/Warm_Form.html (get emissions for recycling) 1 metric ton = 1000 Kg = 2200 US Pounds ; 1 short ton = 2000 US pounds (or 1 US ton)</p>
Tips for motivation	Share the results in terms of the amount of residual waste. It will go down in time.
Websites	<p>For General Information on Zero Waste: Zero Waste International Alliance: http://www.zwia.org/index.html Grass Roots Recycling Network: http://www.grrn.org/ References: 1) Stop Trashing the Climate by Institute for Local Self-Reliance: http://www.stoptrashingthecclimate.org/fullreport_stoptrashingthecclimate.pdf 2) The Threat from Coal, Texas Public Citizen: http://texasvox.files.wordpress.com/2009/02/the-threat-from-coal-is-far-from-over-02-12-09.pdf 3) Austin Mayor Considers going Coal-Free: http://stateimpact.npr.org/texas/2011/11/17/if-austin-goes-coal-free-could-the-rest-of-texas-follow/ 4) Power Scorecard: http://www.powerscorecard.org/tech_detail.cfm?resource_id=2 5) MTCO2 Equivalency Computations: http://www.epa.gov/cleanenergy/energy-resources/calculator.html 6) Sample Reuse and Recycling Chart for House of Worship link 7) What is Zero Waste – What Why How to go Zero Waste link 8) City of Austin Zero Waste Strategic Plan: http://www.austintexas.gov/sites/default/files/files/Trash_and_Recycling/Zero_Waste_Plan_-_full_version_-_Council_Adopted_w-resolution.pdf 9) City of Austin Universal Recycling Ordinance (for businesses, houses of worship, and multi-family residences). Summary: http://www.austintexas.gov/sites/default/files/files/Trash_and_Recycling/Summary_of_URO.pdf Phase I: October 1, 2012 http://www.austintexas.gov/departments/universal-recycling-ordinance-uro Phase II: October 1, 2013 http://www.austintexas.gov/departments/universal-recycling-ordinance-phase-ii 10) Zero Waste Events and Planning Guide: http://olympiawa.gov/city-utilities/garbage-and-recycling/zero-waste/zero-waste-events-planning-guide Checklist: http://www.doitgreen.org/article/goods/event-checklist</p>

Photos and calculations

Recycling Center at St. Matthew's Episcopal Church



Tithing with Trash program at St. Gregory the Great Episcopal Church in Athens, Georgia has earned nearly \$4,800 collecting hard-to-recycle items such as empty toothpaste tubes and Solo Cups and sending them to TerraCycle in Trenton, New Jersey, to earn 2 cents per item. TerraCycle, in turn, recycles or “upcycles” the trash – turning it into “green” products such as backpacks fashioned from Lay’s potato chip bags.



Notes

"The miracle of the work of preserving Creation --- beyond its inherent importance and rootedness in our various traditions, is that it is work that has the power to unite the human family across lines of ethnicity, nationality, and faith commitment. It is work that unites us as human beings. This Manual can help point the way."

Rabbi Steven Folberg Senior Rabbi, Congregation Beth Israel, Co-founder, Interfaith Environmental Network (IEN), Co-chair, Interfaith Environmental Network (IEN)

"In response to the call to "love thy neighbor" the most lasting way is by becoming carbon neutral. The value of this manual is that it shows how this is not an "impossible dream" but a doable exercise.... and an act of worship."

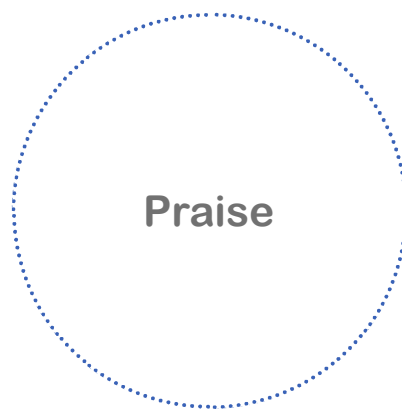
Sarah Macias Member, Highland Park Baptist Church, MDiv student, Austin Presbyterian Theological Seminary, Secretary, IEN Steering Committee

"This manual along with the Energy Action Cards on the climatebuddies.org website provides a simple clear method for building congregational teams empowered to take significant steps towards regeneration."

Lee Doar, Member, St. David's Episcopal Church, Member, IEN Steering Committee

"This is excellent, practical guidance on embracing environmental stewardship and energy conservation at your congregation."

Allen Cooper, Member, Friends Meeting of Austin (Quaker), Co-founder, Interfaith Environmental Network (IEN), Member, IEN Steering Committee



"The greatest crisis Humankind has ever faced, Human-Caused Climate Disruption, will be decided within a generation: The Earth will endure, but may no longer nourish truly human civilization. Yet if teams of "ordinary" people learn, love, and act decisively enough, this Climate Crisis will have been the wakeup call that ultimately leads us all to a brighter future for all humankind than we can imagine. This Crisis is indeed a dangerous opportunity: I profoundly hope and pray this Manual and its online Toolkit will inform, inspire, and guide the human instinct to survive.

Robert Murray, Member, St. Andrew's Presbyterian Church, Co-founder, Climate Buddies, Member, IEN Steering Committee

"When it comes to responding to climate change, more and more people of faith are ready to get to work--and this manual is designed to help them do just that. Written by a small group of dedicated, caring people, this is more than just a how-to guide; it is a testament to the fact that real people can make a real difference in their communities--and in this world."

Yaira A. Robinson, Member, Congregation Agudas Achim, Associate Director, Texas Interfaith Power & Light, Member, IEN Steering Committee