New Mexico Sustainability Energy Charter

A Citizen Initiative

A Discussion Draft from the New Mexico Sustainable Energy Campaign

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This draft document has been prepared as a contribution to the New Mexico Sustainable Energy Campaign by the Environmental Program of the New Mexico Conference of Churches, in cooperation with the Coalition for Clean Affordable Energy. It is for discussion purposes.

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Summary

1. There is scientific consensus that global warming is already effecting weather and climate. Furthermore, this warming is, in significant part, caused by human activity. By far the largest cause is burning of fossil fuels. This destructive manipulation of the environment is unprecedented in human history.

2. Impacts will become much worse over time. These include more frequent and severe weather events, heating and drought, wildland fires, reduction of agricultural productivity, immense ecological destruction, massive species extinctions, and serious and spreading human health problems.

3. All people everywhere will be affected. But the most devastating effects will be on the poor in developing nations.

4. The ethical imperative is clear - we must reduce these harms. We must respond with a powerful yet straightforward ethic of responsibility. Both present and future human well being and ecosystem health are at stake here.

5. Ethical and religious norms of justice, security, peace, stewardship, reverence and respect are served by this sustainability ethic.

6. To reduce these harms, our fossil fuel energy system — a legacy of the 19th century — must transition with deliberate speed to a 21st century sustainable energy system. This system will comprise renewables, together with greater energy efficiencies and conservation.

7. The sustainable energy ethic supports giving sustainable energy significant preference in public policy, and stopping the subsidies and preferences so long accorded fossil and nuclear energy.

8. The transition to sustainable energy should be guided by the following themes: Climate Stewardship. Solidarity, Justice, Efficiency, Institutional Change, Strategic Planning, Leadership and Responsibility.

9. Principles for getting energy decisions right include:

- Use prudence and the precautionary rule in making energy decisions.
- Every energy decision should be aimed at reducing greenhouse gas emissions. Carbon emissions should be capped.
- Generate, transmit and use energy more efficiently.
- Always conserve energy.
- Give preference to sustainable energy in public policy.
- Stop subsidizing fossil fuel energy.
- Protect wild and traditional lands from petroleum exploitation that destroys ecosystems and creates more warming.

Preamble:

For the Common Good

When the political system fails to respond effectively to perceived threats and injustices, civil society answers.

In this case, the threat is global warming and the outdated, tax subsidized energy system that produces it. The threats and harms of such warming are so great as to be unique in human history, even possibly evolutionary history.

Civil society is represented by a great consensus of New Mexican public interest, health, religious and environmental organizations. By scientists, architects, public health specialists, technologists, entrepreneurs, religious leaders, physicians, and by a vibrant grass roots.

The answer they will continue to repeat needs etching on the marble floor of the Round House:

For The Common Good, It's Time To Move To Sustainable Energy!

A sustainable energy system is clean. It is often renewable. It is always efficient. It is always conservative of energy use.

Sustainable energy is contested by vested interests. Yet it is supported by a new constellation of progressive businesses. It is opposed by certain elected officials, yet supported by others who see the common good as requiring it. Sustainable energy is more and more in the economic mainstream. But it needs the kind of policy and fiscal preferences that fossil and nuclear energy have enjoyed for far too long.

In the deepest sense, the turn to sustainable energy is a test of our political and moral vision as a society. Do we pass to our grandchildren a burnt out world where maybe half of all current species go extinct? Where many island nations are no more? Where dangerous health conditions proliferate? Where economic and political insecurity is rampant?

We need leaders to move society beyond business as usual. And yes — all of us need to be those leaders.

2 Precautionary Findings:
What Science is Telling Us

Research results on present and predicted global warming impacts are accumulating rapidly, building on a general scientific consensus that human activity is already altering the planet's climate. Assessments are now available from an impressive array of our leading scientific institutions (including the National Oceanic and Atmospheric Administration, the International Panel on Climate Change, Institute of Oceanography and from respected organizations like the Union of Concerned Scientists and Physicians for Social Responsibility). Global and Regional findings are alarming.

Overall, estimates suggest the planet may lose more than half of its species if nothing is done to slow global warming, even with aggressive conservation efforts.

Global Findings:

• Many ecosystems, including those associated with coral reefs, forests, deserts, and arctic tundra, will likely collapse or change radically as the fundamental conditions upon with they depend change. These include conditions related to temperature, rainfall, ocean water pH, and evaporation rates. Collapse can occur in an ecosystem as soon as some critical threshold is crossed, for example, when rainfall falls below the level needed for trees to resist bark beetles, or when temperatures exceed the levels that coral can withstand. Overall, estimates suggest the planet may lose more than half of its species if nothing is done to slow global warming, even with aggressive conservation efforts. This would be unprecedented in evolutionary history, with the exception of several mass extinction episodes millions of years ago.

• Both human societies and ecosystems can expect to suffer more frequent and extreme weather events, including floods, heat waves, windstorms, and droughts. Serious diseases like malaria and yellow fever will spread. Natural resource industries such as agriculture, fishing and forestry will be strongly impacted. As polar ice caps melt and sea levels rise, entire island nations will disappear. Coastal flooding will leave hundreds of thousands homeless – mostly in very poor, developing countries, and will inundate countless freshwater coastal wetlands with seawater, including the Everglades.

• The concentration of carbon dioxide in our atmosphere today is higher than at anytime in the last 420,000 years, and possibly in the last 20 million years. By the end of the 21st century, carbon dioxide concentrations may rise from 490 to 1260 ppm, 75-350 percent above the pre-industrial concentration.

• *Future carbon dioxide concentrations could be even greater if the warming itself triggers additional feedback mechanisms not yet fully accounted for that could further accelerate the buildup of greenhouse gases***.** These include the contributions associated with burning forests, drying soils, melting permafrosts, melting methane hydrate deposits in the ocean, changes in plant cover type, changes in ocean circulation patterns, etc.

• *Northern Hemisphere summer temperatures in recent decades appear to be the warmest since at least about 1000 AD, and the warming since late 19th century is unprecedented over the last 1000 year***s.**

• *The projected global warming of 2.5 - 10.4º F over the next century would be unprecedented, in comparison with the best available records for the last several thousand years.*

Regional Impacts & Predictions

• *In the western U.S., already over-committed water resources will likely suffer a devastating 15 to 30 percent reduction during the 21st century***.** This will greatly compound problems already incurred by increasing population and water demand.

• *The droughts of 1998-2002 may be linked to global warming*. They were likely caused in part by an unprecedented warming of the western Pacific Ocean. Models suggest an "increased risk of severe and synchronized drying at mid latitudes in the future, if these conditions continue".

• *El Niños have been more frequent and intense in recent decades. A rather abrupt change in El Niño's frequency occurred around 1976/77 and the new regime has persisted.* This behavior is highly unusual in the last 120 years (the entire period of instrumental record), as well as further back in to the 19th century.

• *Northern Hemisphere annual snow cover extent has consistently remained below average since 1987, and has decreased by about 10% since 1966.* This is mostly due to a decrease in spring snowfall over both the Eurasian and North American continents since the mid-1980s.

Power plant emissions are associated with respiratory hospitalizations, asthma attacks, low birth weight, stunted lung growth, infant death, and climate-related illnesses.

• *Massive and unprecedented coral bleaching occurred in 1998, the warmest year of the 20th century, coincident with anomalously warm sea surface temperatures***.** This is a new phenomenon.

• *Arctic sea ice has decreased between 1973 and 1996 at a rate of about -2.8%/decade, and extremely rapid rate on geophysical time scales***.** Arctic sea ice hit a record low in the summers of 2002 and 2003.

Significant Health Impacts of Fossil Fuel Dependency

• *Eighty eight percent of New Mexico's electricity is from coal, the dirtiest of fossil fuels.*

• *Over 192,000 New Mexicans were exposed to a total of 34 million tons of health impairing gases, particulates, volatile organics and mercury produced by the four New Mexico coal fired power plants.*

• *Power plant emissions are associated with respiratory hospitalizations, asthma attacks, low birth weight, stunted lung growth, infant death, and climate-related illnesses.*

•*Coal-fired power plants in particular emit more than one-third of all mercury pollution in the nation***.** Mercury is a potent neurotoxin that interferes with healthy brain development, and can affect the cardiovascular system and kidneys. Fishing in many New Mexico streams is now restricted for mercury related reasons.

For those who think the practicality of moving away from fossil fuels is remote, one further hard headed business finding is relevant:

•The Task Force on Renewable Energy of the G-8 group of industrial countries found in a 2000 study that " successfully promoting renewables over the period to 2030 will prove less expensive than taking a ' business as usual' approach within any realistic range of discount rates" (p. 90, State of the World 2003, World Watch Institute.)

What Ethics and Religion Are Telling Us:

It's Time to Move into the Sustainable Energy Era!

Given the gravity of the problems cited above, plus the well known security threats of our energy dependency, there is a deeply perplexing question: Why the lack of real progress on energy? Why are we stuck with a 19th-20th century system when technology and economics are ripe for a 21st century sustainable energy era?

(By sustainable energy we simply mean clean, efficient and renewable sources of energy — moving with deliberate speed from fossil fuels, nuclear power and wasteful energy patterns to 21st century energy technologies, efficiencies and conservation.)

Resistance to new ways is nothing new. Vested economic interests are always powerful. But there is also a more subtle kind of resistance: **There has been societal and political denial of the profound ethical and moral implications of our energy system.**

Energy and Social Ethics

How we produce and use energy is a moral issue. And energy politics is thus in part moral politics.

Science informs us about energy impacts and energy options. The market system places dollar measurements on units of energy production. But these indicators cannot tell us what energy path is *right*. For this we need a moral compass.

For all its undoubted benefits, the fact is that our current fossil fuel energy system causes great harms, as the above scientific findings overwhelmingly demonstrate. The potential for cascading harm threatens nature itself, and the health and well being of everyone everywhere. **A categorical and fundamental ethical response to this unique situation is simply: reduce harm to individuals, society and nature. This is the ethics of personal and public responsibility. It creates cascading positive effects.**

Our society is now faced — in Washington and Santa Fe and everywhere policies are formed — with profound choices in energy policy. We cannot duck these choices. The energy status quo is itself a choice. These stakes are unprecedented in history. Perhaps this explains the denial. But denial only inhibits societal progress across the energy frontier.

To move into that frontier confidently, moral and ethical responses are emerging, responses that are viable in the practical realm of politics and economics. These

contest deeply ingrained habits that cause serious harms:

• Habits of profligate energy use

• Dependence on polluting fossil fuels when alternatives are available

• Status quo resistance to bold revision and redesign of our energy systems.

Sustainable energy can only reduce the threat of international and ecological violence.

To move beyond these habits into an era of sustainable energy moves society away from severe existing and potential harms, It moves us toward the universal human values of peace, security, justice and opportunity.

• *Sustainable energy can only reduce the threat of international and ecological violence.* Sustainable energy means more energy self sufficiency, less violence toward nature and more equitable distribution worldwide of the benefits of economic growth.

• *Personal, national and global security are increased as energy sources become renewable, efficient and decentralized., and as the harms resulting from global warming and pollution are abated.*

• *Justice is served when the least powerful are given equal protection from societal and ecological harm.* Pollution and health effects of global warming fall inordinately on the poor. The monetary benefits of our current energy system accrue inordinately to the affluent. Sustainable energy, both in its economics and its environmental impacts, will reduce these inequalities.

• *Eco-justice will be served by reducing global warming and pollution that threaten survival of both species and ecosystems, that may in fact interrupt evolutionary patterns.*

• *Inter-generational justice — the future — will be served with energy systems that protect nature from harm and that develop a pollution-free, sustainable economy.*

• *Sustainable energy opens dynamic possibilities for new industries and new jobs that reduce harm and create sustainable opportunity.*

Energy Policy and Religious Faith

The ethical framework described above applies to civil society without recourse to faith traditions. But beyond this "civic ethics" lies a rich tapestry of religious and spiritual teaching — a tapestry that is an important part of our history and current societal makeup. For example:

• *Reverence for Life.* The earth (Creation) and all life — being of divine or spiritual manifestation — are to be listened to, respected, revered and loved.

• *Earth Care and Stewardship***.** The good earth is to be nurtured and cared for. It is wrong to exploit and abuse life systems. The bounty of the good earth is to be passed on from generation to generation.

• *Justice.* Individuals, regardless of their rank or wealth, their country or their belief system, demand justice, dignity, respect, fairness and love. Injustice, as when pollution inordinately exploits the less powerful in society, is wrong.

• *The Holy Earth***.** In many spiritual traditions the harms resulting from pollution and global warming are seen as tearing at the very fabric of creation, at the plants and

animals and the life systems of the holy and sacred earth itself. This is a profound lack of respect for our home planet, as a lack of reverence for our very ground of being.

• *Speaking to Power.* The prophetic voice in Jewish and Christian teaching challenges believers to confront power when that power is used to continue injustices. The power of the religious vision is the power to say:" Let's get real! It's time to take seriously the threats and injustices posed by our current energy system. It's time to redefine how we produce and use energy!"

Faith communities have not hidden their concern about our outdated energy system, or our overconsumption of energy, or our disregard for international conventions like the Kyoto Protocols. Catholic, Orthodox, Protestant and Jewish bodies have consistently expressed anguish at the destruction of the environment and the effects of that destruction on the less privileged.

The weight of this preference should depend on the relative effects such policy preferences will have on the actual energy market. In other words, give greater preference to those policies that will have the most effect in moving to sustainable energy.

An Ethic to Guide Energy Policy: the Weighted Preference for Sustainable Energy.

If well being is enhanced and harm reduced with sustainable energy generally, if the moral voice of faith communities is rising to support a sustainable energy path, and if sustainable energy is indeed within the realm of the practical, then a powerful case is made for an ethically based "weighted preference" to foster sustainable energy:

• *Other things being equal, sustainable energy — including renewable energy, efficiencies and conservation — should be favored in public policy.*

• *Even when other things are not equal —e.g., if short term market costs of renewables are somewhat higher — public policy should still favor sustainable energy, or should at the least give special consideration to sustainable energy policies and supports.*

• *The weight of this preference should depend on the relative effects such policy preferences will have on the actual energy market. In other words, give greater preference to those policies that will have the most effect in moving to sustainable energy.*

This is not a revolutionary idea. Our current energy fossil fuel and nuclear system have been given preferential treatment for years. Eminent domain, tax write-offs, government subsidies, liability guarantees, highway subsidies — these have been the "weighted preference" — all slanted to an energy system that is now dysfunctional..

Furthermore, if full costing of fossil fuel based and nuclear power was accounted for, if environmental, social and esthetic costs were factored in, these traditional energy sources would appear far more costly than is reflected in market prices.

In sum, the "weighted preference" for sustainable energy merely encourages movement to an ethically preferable energy system, and reduces the historic preference for a now flawed carbon dominated system.

Sustainable Energy Themes and Principles

The following themes and principles make sustainable energy the focus of energy decision-making. They articulate the implications of the ethical imperative to reduce the harms of our current energy system.

They suggest directions for implementing the ethical/political norm of a "weighted preference" for sustainable energy.

General Themes For The Transition

1. **Climate Stewardship.** It's time to transition with deliberate speed from our fossil fuel energy system to stewardship in the form of 21st century sustainable energy. Science, ethics, technology, and the economy are all ripe for this transition. Yes, the issue is complex and there are uncertainties about feasibility and impact. Yet doing nothing or too little is irresponsible, a breach of trust with the future. It risks far too much of society's most cherished values of peace, security, justice and future well being. It may mortally jeopardize our blue living planet.

2. **Solidarity.** We New Mexicans are all part of the global commons. Justice, respect, and solidarity demand we be part of the global solution to the harms of global warming.

3. **Justice.** Justice and equity are foundational norms for guiding the transition to sustainable energy. Those disadvantaged should be aided in the transition.

4. **Efficiency**. Market mechanisms should be used to transition wherever possible, consistent with equity.

5. **Institutions**. A historic transition, — moving into the sustainable energy era — will require significant changes in the institutional environment in which energy decisions are made. These changes will include new organizational structures and new ways of broadening impact analysis beyond strictly monetary criteria.

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6. **Strategic Planning.** The sustainability transition needs a long range, comprehensive, strategic coherence. Energy production, energy transmission, energy institutions and decision-making, energy use, transportation, land use, research, technological innovation, economic innovation —- all are part of the sustainable

energy transition. All need to be considered in a future- moving **state sustainable energy policy.**

7. **Leadership.** New Mexico should become a leader in the 21st century sustainable energy era. We have abundant wind and solar resources, advanced technological capabilities, and great potential for business and political innovation. One hundred years ago innovations leading to the automobile society developed in some out of the way places. With leadership and smartness, New Mexico can lead innovation for the next 100 years of the sustainable energy society.

8. **Responsibility.** We are all in this together. No time to pass the buck. No time for scapegoats, no self righteousness! It is everyone's responsibility to play a role in the transition through measures personal and public. That is: "we have met the enemy and he is us."

Some Principles For Getting Energy Decisions Right

1. **Be conservative and prudent. When evaluating energy choices, the precautionary rule should apply.** That is: when significant, especially irreversible harm is identified, act to reduce that harm, even though there may be some uncertainty about the timing or degree of that harm. (In the case of global warming, the more we have learned, the more certain we have become of the great harms it will cause.)

2. **Every energy decision should be aimed at reducing greenhouse gas emissions. New Mexico —possibly in cooperation with other states in the region — should move directly toward a framework for capping carbon dioxide emissions.** New England and Pacific Coast states are in this process. This year, 24 state legislatures have seen initiatives aimed at regulating carbon dioxide emissions. Total reductions will need to be large, e.g., 10% reductions over 1990 levels by 2010, and eventually nearing 85% reductions.

3. **Generate, transmit and use energy much more efficiently.** This is a highly cost effective and practical means toward sustainable energy, and full of local jobs potential.

4. **Conserve energy always.** Californians found out they could reduce energy use 10% without hardly trying.

5. **Don't continue to subsidize fossil and nuclear fuels.** Why pay corporations —or Hummer owners —to warm the earth?

6. **Give preference to all forms of sustainable energy,** in direct proportion to their efficiency in reducing greenhouse gases and pollution. This includes state tax, legal and fiscal benefits, involving sustainable energy production and use as well as more efficient transportation modes. .

7. **Protect wild and rural lands from the encroachment of polluting fossil fuel production.** Under current federal policies, many beautiful or sacred or traditional lands are under siege by greenhouse gas-producing petroleum exploitation. This is a double blow to our lands . It destroys ecosystems and wildlands on site, and it only adds to greenhouse gases and pollution that further fray ecological integrity and species survival everywhere.