

Kansas City
Climate Protection
Research and Recommendations for a
Comprehensive
Planning Process

*The depth of our understanding of environmental issues
can be measured in the web of connections we draw
between human made environments and nature's.*

Table of Contents

..... Page

Global Warming and Climate Protection 4

Recommendations for Kansas City 5

KCMO Climate Protection Planning..... 5

 1. Policy Research, Planning and Education 6

 2. Energy Efficiency in the Built Environment 7

 3. Transportation and Land Use Patterns..... 10

 4. Energy Resources 13

 5. Carbon Offsets 14

Kansas City’s Leadership Role 15

Appendix 1

Potential Benefits of a KC Climate Protection Plan as identified by EPA 18

Appendix 2

Climate Protection Plans of Other Jurisdictions 17

Appendix 3

City Charter..... 22

Appendix 4

References and Internet Links: 23

The Kansas City Environmental Management Commission



The Environmental Management Commission (EMC) of Kansas City was created, under Ordinance 960220, to fulfill the following duties listed in Section 2-933: (1) Review plans, budgets, programs and actions of the City which substantially impact the City's environment, (2) Provide for the preparation of a comprehensive plan for addressing the long term environmental needs of the City, and (3) Monitor the City's actions for compliance with State and Federal environmental laws and regulations.

The Environmental Management Commission is appointed by the Mayor:

EMC Co-Chair J.C. Alonzo

EMC Co-Chair Bob Berkebile, FAIA, LEED AP

EMC Vice Chair John Ware, AIA, LEED AP

Energy Committee Chair James Scott, AIA, AICP

with Commissioner Jim Van Eman, AIA, LEED AP

Social Justice Committee Chair James Sheppard, Ph.D.

Landscape Committee Chair Marty Kraft

Water Resources Committee Chair Andrew Bailey, Esq.

with Commissioner Thomas Kimes, PE and Carol Adams, AICP

Compliance Committee Chair Faith Brennen, J.D.

with Commissioner Shawna Bligh, J.D.

Communications Committee Chair Sherry Jackson

Ad Hoc Climate Protection Committee: John Ware and Carol Adams. To comment, please contact the Environmental Management Commission, John Ware at 816.701.5387 or john.ware@gouldevans.com

At the request of Mayor Kay Barnes, the EMC has prepared this report and recommendations for actions to be taken by the City in response to Mayor Barnes' endorsement of the U.S. Mayors Climate Protection Agreement on June 13, 2005. The primary recommendation herein is for the City to undertake a climate protection planning process.

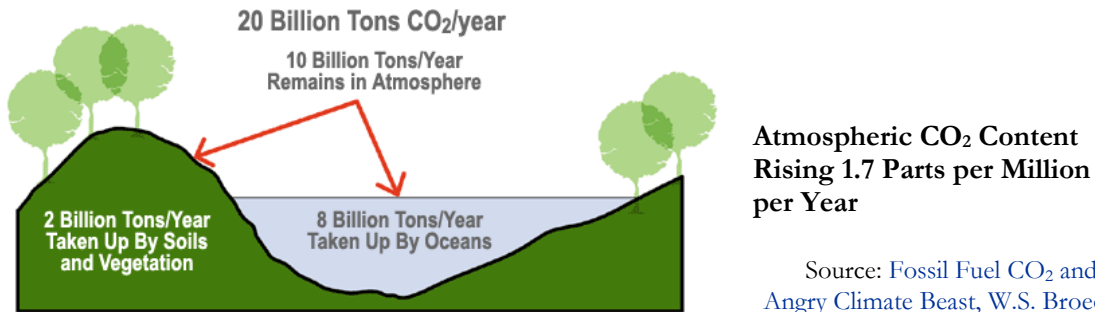
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Kansas City Climate Protection Research and Recommendations for a Comprehensive Planning Process

Global Warming and Climate Protection

There is absolutely no scientific doubt that [the atmosphere is warming](#), no inconsistency among [peer reviewed scientific papers](#) that human activity—chiefly fossil-fuel burning, deforestation, and soil-depleting farming practices—are at least partly to blame. [The Union of Concerned Scientists](#) tells us, “The evidence that human-induced global climate change is under way is increasingly clear and compelling.”



Scientists are measuring rapid climate change worldwide. It is commonly termed “global warming.” By whatever name, it is a serious potential threat to Kansas City’s environment and its heritage. The Kansas City metropolitan area, with its near one million people, produces more greenhouse gas emissions than seven developing nations with a combined population of forty million people. Kansas City has the opportunity to substantially reduce emissions of greenhouse gases while improving our quality of life.



“Six former administrators of the Environmental Protection Agency, including five Republicans, said yesterday that the Bush administration should impose mandatory controls on greenhouse gas emissions to curb global warming.”

[Washington Post, January 19, 2006](#)

Over the past forty years, we have come to understand that the stability of earth’s weather patterns are vulnerable to global warming from the release of CO₂ into the atmosphere from fossil-fueled human activity. Increasingly violent storms threaten our existing urban community and the agricultural productivity of the surrounding area. Data highlights include:

- The 10 hottest years on record have all occurred since 1990 and the worst hurricanes on record are occurring with more frequency than ever before.
- Animal species worldwide, from birds to amphibians to polar bears, already are exhibiting symptoms of disruption and harm, having dramatic effects on the food chain (of which we are a part) and the spread of diseases that even affect humans.
- Coral reefs, a fundamental building block of the oceans' ecosystem, are becoming bleached from warmer, more acidic ocean water, and are dying at unprecedented rates.
- Of more than 600 peer-reviewed research publications, not a single one has disputed the view that global warming is real and measurable, but 53% of media stories continue to refer to global warming as an issue that is in dispute.

Within the next two decades we are also likely see increasing instability in the energy sector of our economy and increasing environmental impacts from oil and gas extraction as known reserves become depleted. World oil production is likely to peak in the not too distant future. Thereafter the market will react in unpredictable ways to the widening shortfall in oil supply.

In the absence of an effective national strategy to reduce greenhouse gas emissions, it is prudent to act regionally. Kansas City government has a responsibility to its citizens and to the children who will enjoy or suffer the consequences of our actions. It is economically prudent to get ahead of the “peak oil” curve.

Benefits of Climate Protection Planning

[Economic benefits](#) of a climate protection initiative should be expected. A [recent paper](#) by the Oak Ridge National Laboratory, Lawrence Berkeley National Laboratory and the U.S. DOE compares the results of four recent engineering-economic studies of the potential for energy technologies to reduce greenhouse gas emissions. These studies document that numerous cost-effective, energy-efficient technologies remain underutilized in each end-use sector of the economy.

Climate Protection Report

Kansas City Environmental Management Commission

November 2006

Undertaking a Climate Protection Planning Process will likely produce many benefits including increased economic strength resulting from reduced vulnerability to fossil fuel price instability, greater success in economic development as Kansas City distinguishes itself in the competitive world market, increased public health resulting from lower levels of energy-related air emissions, public health improvements from better buildings with better indoor air quality, and stronger neighborhoods that have discussed their opportunities and implemented micro-solutions.

With its CO2 Emissions Trading Scheme in place, Europe has resolutely opted for a 'market pull' approach to bring clean technologies onto the market in the short run. However, politicians there understand that new breakthrough technologies are also needed if deeper emission cuts are to be achieved in the long run (2020-2050 and beyond). This 'technology push' approach is currently championed by the US, which has put in place large-scale R&D programs with impressive budgets. Opportunities may exist for Kansas City to shape its environmental and economic future, funded by the federal government, by adopting a focus on clean technologies and climate change mitigation business opportunities.

Kansas City took an important step toward climate protection when [Mayor Kay Barnes](#) endorsed the [US Mayor's Climate Protection Agreement](#) at the [U.S. Conference of Mayors](#) on June 13, 2005. This report proposes steps to implement the intent of that agreement.

On August 17, 2006 the Mayor signed Resolution 060777 directing a Climate Protection Planning process for Kansas City.

SECOND COMMITTEE SUBSTITUTE FOR RESOLUTION NO. 060777

Directing the City Manager and the City's Chief Environmental Officer to undertake a Climate Protection Planning Process for the City of Kansas City, Missouri.

WHEREAS, the Intergovernmental Panel on Climate Change (IPCC), an international assemblage of scientists, has found that climate disruptions, such as rising global sea levels and nine of the ten hottest years on record occurring in the past decade, is a reality and that human activities are largely responsible for increasing concentrations of greenhouse gas emissions; and

WHEREAS, many leading U.S. companies have adopted greenhouse gas reduction programs to demonstrate corporate social responsibility.

WHEREAS, state and local governments throughout the United States are adopting emission reduction programs and that this leadership is bipartisan among governors and mayors alike; and

WHEREAS, many cities throughout the nation, both large and small, are reducing greenhouse gas emissions through programs that provide economic and quality of life benefits such as reduced energy bills, green space preservation, air quality improvements, reduced traffic congestion, improved transportation choices, job creation, and economic growth through energy conservation and new energy technologies; NOW, THEREFORE,

BE IT RESOLVED BY THE COUNCIL OF KANSAS CITY:

Section 1. That the City Manager is hereby directed to undertake a Climate Protection Planning Process for the City in active consultation with the community; conduct an inventory of existing city programs and measures to reduce greenhouse gas emissions; establish goals to significantly reduce greenhouse gas emissions while preserving economic development, transportation options and the ability of responsible producers of energy to provide a stable and cost-effective energy supply; provide necessary staffing and resources for that process; establish a task force representing all stakeholders including membership from the Environmental Management Commission to provide input; and, by 2007, recommend for City Council consideration specific actions that the City will implement.

Section 2. That Kansas City will work in conjunction with International Council for Local Environmental Initiatives (ICLEI), the Mid-America Regional Council, and other appropriate organizations to develop a Climate Protection Plan for the City.

Section 3. That the task force/steering committee established to guide the process of developing a Climate Protection Plan for Kansas City be comprised of not more than eleven members, balanced among stakeholder interests, and appointed by the Mayor.

Recommendations for Kansas City Climate Protection

The EMC makes the following recommendations to the Climate Protection Steering Committee for a first phase action plan:

1. Develop a Kansas City Climate Protection Plan in active consultation with the community.
2. Provide staffing and resources to develop a Climate Protection Action Plan for Kansas City during FY'06 and FY'07.
3. Ramp up implementation beginning in FY'07 to full implementation in FY'08. Ongoing planning should be anticipated as new opportunities and circumstances evolve.

Kansas City Climate Protection Planning

Development of a Climate Protection Plan for Kansas City can provide an impetus for the whole community to consider what kind of natural and built environment will serve our city best in the long term.

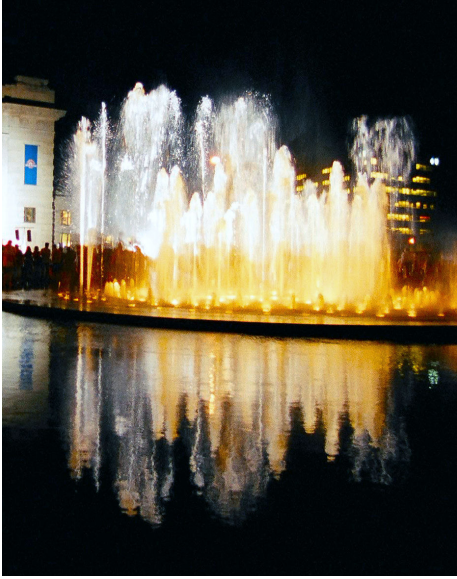
There is a great deal of overlap between ideas that reduce emission of greenhouse gases and ideas that make cities more livable and economical for residents. Simply by engaging in a broad discussion of the possibilities, the City will stimulate changes in the current trends that limit its future.

Development of a Climate Protection Plan unique to Kansas City during the coming fiscal year is an attainable objective. Kansas City already has the seeds of a climate protection program in the form of numerous current local initiatives that have climate protection benefits. The City can continue to make progress on the reduction of greenhouse gases even as the plan is developed.

Opportunities to engage other jurisdictions in the metropolitan area will likely occur during the process of developing the climate protection plan for the City. Kansas City with all the other cities and neighborhood associations, counties, state and federal governments along with area business and professional associations share the problem and are appropriate partners in the solution. Ultimately, these metro-wide partnerships will be critical to an effective outcome.

The Kansas City Climate Protection Plan might include the following component areas:

1. Policy Research, Planning and Education
2. Energy Efficiency in the Built Environment
3. Transportation and Land Use Patterns
4. Energy Resources
5. Carbon Offsets



Climate Protection Report

Kansas City Environmental Management Commission

November 2006

To make progress toward climate protection and all the peripheral benefits that come with it, Kansas City needs to achieve a marriage between the long term view of a community that is far less dependent on fossil fuels and the actions that need to be initiated now to facilitate and ease that transition. A climate protection planning process would achieve this and actively engage area residents and businesses in discussions about current trends that limit our economic viability and pull us away

from a more economically and ecologically sustainable future. Making our city more energy and resource efficient through climate protection, added to the positive publicity to be gained in the process, will help to assure our competitive position.

In the long run, Kansas City will be more competitive if it preserves its place as a low-cost, high quality place to live. Our built environment will be substantially renovated and revitalized in the next thirty years. Buildings and urban form are at the core of today's global warming and offer prime solutions for climate protection strategies. Trends in our built environment that work counter to climate protection and a competitive future include sprawl, inadequate maintenance of existing buildings and infrastructure, and over capacity in new building and infrastructure. Although our built environment changes in very small increments in any one year, cumulatively we face opportunities to move in new directions. As we begin, our initiatives will likely seem isolated but as we gain our stride toward climate protection all our efforts will be mutually supportive so that every piece provides traction for the next.

Climate Protection Plan Component Areas

1. Policy Research, Planning and Education

Current Policy Research, Planning and Education initiatives

- A great deal of public education is done through MARC and the City often defers to them. For example, MARC applies for Congestion Mitigation Air Quality (CMAQ) funding to provide a public education program for car pooling, ozone alert days, etc. The City typically appears on the MARC application as a supporter of the program.
- The LEED Ordinance calls for education and training of appropriate staff regarding the [LEED Green Building Rating System](#).
- The 10,000 Rain Gardens initiative provides best practices information to Kansas City residents.

Planning Commentary - How could we do it?

- 2006** Compile an inventory of greenhouse gas emissions generated by activity in Kansas City and by City government operations and develop a system to track related energy, economic and environmental data.

- Kansas City could join the [International Council for Local Environmental Initiatives \(ICLEI\)](#) which would cost Kansas City \$2750 or MARC \$2500. ICLEI helps local governments generate public and political awareness of key issues, build community capacity through technical assistance and training, and evaluate tangible progress toward their goals. One benefit of membership is access to the ICLEI [Greenhouse Gas Emissions Software by Torrie Smith Associates](#) which can be used to estimate current and future emissions levels and quantify progress. MARC can provide an estimate of green house gas emissions from roadway traffic using the EPA Mobile Source Model. The planning process would also include review of City policies and programs that reduce related greenhouse gas emissions and a survey of best practices from other U.S. cities.

In particular, it appears particularly effective for Kansas City to work with the ICLEI [Building Sustainable Cities](#) program: Using the LA21 approach or participatory sustainable development planning, ICLEI aims to assist local authorities to move beyond general sustainable development planning and to apply this approach in tackling areas of priority concern, i.e. to work with their communities and local stakeholders to address the interrelated challenges of poverty; injustice, conflict and insecurity; vulnerability to extreme events; and unhealthy environments. ICLEI seeks to create sustainable communities and cities by achieving Resilient Communities and Cities, Just and Peaceful Communities, Viable Local Economies, and Eco-efficient Cities.

- Funding for a climate protection planning process is likely available from EPA in the areas of environmental education (CFDA 66.951), environmental justice through pollution prevention (CFDA 66.708) and from DOE in the areas of energy efficiency and renewable energy including bio-energy.

2007 Complete a Climate Protection planning process to set emission reduction targets and establish long term strategies for reductions from various sources of greenhouse gas emissions in consultation with citizens, elected officials and the business community.

- Develop an education strategy to broadly communicate planned governmental and community actions to reduce emission of greenhouse gases.

2008 Ramp up to full implementation of the Climate Protection Plan strategies.

- Prepare the first bi-annual progress report on greenhouse gas emissions reduction and related energy, economic and environmental data in order to evaluate the success of first steps.

2. Energy Efficiency in the Built Environment

Energy Efficiency Commentary

Contrary to the typical focus on greenhouse gas emissions from cars and trucks, fully 48 percent of total U.S. energy consumption occurs in the operation of buildings. The most effective

opportunity for an average citizen can combat global warming is by making their buildings more efficient. The technology is readily available to make both new and existing buildings more than twice as efficient as they are today. Energy efficiency initiatives have several mutually reinforcing benefits: lower cost of living, improved comfort, increased economic activity and lower greenhouse gas emissions.

In Kansas City we have the ability to flatten the growth in energy use while benefiting our business opportunity and improving our quality of life.

Current Energy Initiatives

In November 2004 an ordinance requiring certain City capital improvement projects to meet at least the LEED Silver standard was adopted. See www.usgbc.org. Develop procedures implementing the LEED ordinance. Convene the LEED Standards Committee created by the ordinance. The best source of information regarding the City's current failure to implement the LEED ordinance is Richard Noll, City Managers Office, and Eric Bosch of CIMO.

The International Energy Code has been adopted by the City.

The City has taken significant steps to improve the energy efficiency of its largest structures. Through "performance contracting" arrangements with Johnson Controls, significant energy efficiency retrofit work has been completed in the Conventions Department facilities and the City Hall complex. Additional potential may exist in this area. Similar savings are available at other City owned buildings. The best source of information regarding these projects is Bob Lawler in the Public Works Dept.

The Water Services Department has taken significant steps to increase the energy efficiency of its pumps. The best source of information about the status of these efforts is Bob Keller, Water Services Department.

The Water Services Department generates electricity from recovered methane at the Blue River Treatment Plant. The best source of information regarding the status of these efforts is Bob Williamson, Water Services Department.

EnergyStar rated equipment purchases: The IT Department has implemented a policy of buying only flat panel computer monitors, which use significantly less electricity than CRT monitors. The City has an ordinance allowing the City to pay a premium for environmentally preferable products, but does not require such products.

Building Energy Use issues likely to be addressed in the climate protection planning process:

Utility administered energy efficiency [incentive](#) programs.

Weatherization programs: Neighborhood based outreach efforts to combine and promote energy and water conservation, solid waste reduction, safety and livability. Incentive programs for developers and affordable housing owners who incorporate [green building principles](#).

- [Green Roof initiatives](#) promoting roof gardens that help both insulate buildings better and improve overall air quality.

- Comprehensive Housing Policy that targets energy efficiency through the use of infrared satellite photos to identify residential structures that have higher than normal heat loss. This information would comprise a residential property record. In Kansas City a Property Record might assess insulation, plumbing, wiring, appliances, lead paint, infestations, utility services, environmental health and any special needs of the residents. Owners could receive a “check up” of their property conducted by an expert who inspects the residence. The property evaluation report could prioritize recommendations for improvements, maintenance and available assistance. The program would likely grow to become the gateway to public services for many disadvantaged households. A fully developed program would likely include participation of residents, neighborhoods, City departments, architects, builders, contractors, suppliers, financial services, realtors, social service agencies and local charities. The desirable outcome would be to preserve and improve the efficiency of our existing housing stock; our architectural heritage.
- Provide incentives for targeted, highly cost effective measures like low-flow shower heads for all households.
- KCPL’s Community Programs Advisory Group
- In partnership with KCPL, join the [EPA’s Energy Efficiency Solution](#). More than 50 organizations, the U.S. DOE and the U.S. EPA have developed a leadership group to launch an aggressive new national commitment to energy efficiency. The joint effort could substantially increase utility funding for energy efficiency and could save customers \$200 to \$300 billion on energy bills over the next 15 to 20 years. "Improving energy efficiency is not just a responsibility that falls to consumers, but the private sector and the government too," Energy Secretary Samuel W. Bodman said. However, a number of factors are limiting greater utility investment in energy efficiency. Accordingly, the leadership group will look at policies and programs that are delivering results around the country, develop a common understanding of what works, and develop and follow through on recommendations for action. The leadership group is co-chaired by Diane Munns, member of the Iowa Utilities Board and president of the Natural Association Regulatory Utility Commissioners, and Jim Rogers, chairman and chief executive officer of Cinergy. "Given the interrelationship between price, reliability and environmental impact of our energy resource decisions, I am honored to be part of this process which encourages regulators to take a fresh look at cost-effective energy efficiency resources as a means to provide necessary utility services to the customer today and in the future," said Munns.
- City tax-assisted construction and rehab to meet the appropriate LEED Silver standard with emphasis on energy efficiency requirements.
- Ongoing efforts to cut greenhouse gas emissions from operations in the commercial, industrial, public and non-profit sectors
- Chamber of Commerce Green lights program
- Increased energy performance requirements for the [Street Light Program](#). New technologies available today could significantly reduce our costs to light our streets. For instance, use of instant-on LED streetlights with photovoltaic power can be coupled with motion detectors to save a substantial percentage of cost going to energy and streetlight maintenance. New York City, among others, has explored this potential.

- Continued support of Environmental Excellence Business Network, a program of [Bridging the Gap](#).
- Join with other Missouri governments, schools and businesses as an [EPA Energy Star Partner](#).
- Participate in national initiatives to reduce greenhouse gases like the [Chicago Climate Exchange \(CCX\)](#). The CCX is the world's first and North America's only voluntary, legally binding rules-based greenhouse gas emission reduction and trading system. Some Kansas City area companies are already members of the CCX: Ford Motor Company, Bayer Corporation, Dow Corning, and Amtrak. The CCX also includes cities (Berkeley, Boulder, Chicago, and Oakland) and the Universities of Iowa, Minnesota, and Oklahoma.

3. Transportation and Land Use Patterns

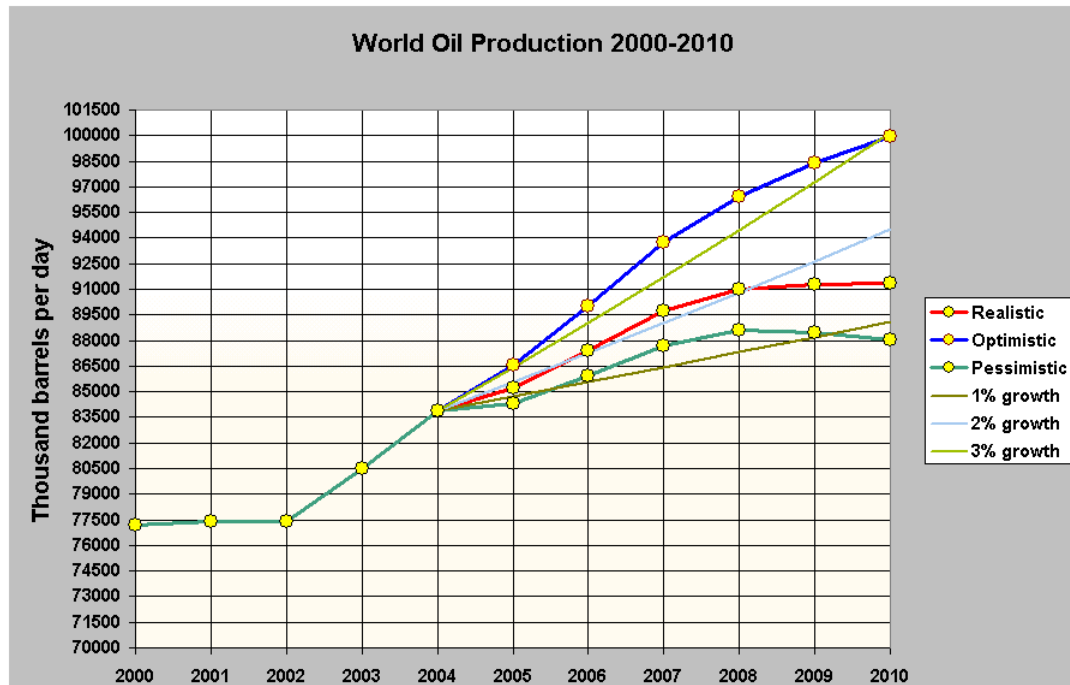
Current Transportation and Land Use Initiatives

- The City has over 200 alternative fuel vehicles in its fleet, including predominantly compressed natural gas vehicles. The City uses B20 biodiesel, containing 20% soybean oil, for most of its diesel fuel needs (800,000 gallons used in FY05). The best source of information regarding the City's use of alternative fuel vehicles and alternative fuels is Sam Swearngin, Central Fleet.
- With the help of CMAQ funding, Kansas City has developed a comprehensive system of on-road bicycle lanes. The Vivion Road trail, the Brush Creek trail, and the use of bicycles as a serious mode of transportation is stalled due to short staffing caused by other projects, such as Barry Road, N Congress, and the addition, some area plans, such as the development to include accommodation information regarding this effort is Pat Debra Smith in the City Planning and Development Department.
- The City has endorsed "Metro Green," a MARC proposed 1,144-mile interconnected system of public and private open spaces, greenways and trails designed to link seven counties in the Kansas City metropolitan area. The City's Walkability Plan has had limited applicability. The concept is to have developers do an assessment of their proposed plan regarding walkability whenever they have to do a traffic assessment. But few developers been asked to do these studies.
- The City continues to support the Kansas City Area Transit Authority's (KCATA) efforts to bring more extensive mass transit to the City. Although several light-rail initiatives have not moved forward, KCATA successfully funded the addition of bicycle racks to their fleet. KCATA has constructed the MAX which includes dedicated bus lanes and traffic light priority during peak hours. KCATA has had federal funds allocated to study expansion of



the express bus service in the Northland. Contact Mark Huffer, General Manager, for information on status of this work.

- MARC is working to pull together a regional vote regarding bi-state transit funding.
- The City’s Zoning and Development Code is in the process of being rewritten. The “Big Ideas” report was discussed extensively with stakeholders in 2005 and a first draft of ordinance revisions is expected early in 2006. Some of the big ideas have been to support transit-oriented development and urban density that is needed to make public transit feasible, promoting mixed use and promoting design with nature. These elements are important in the big picture related to global climate change by making the city more desirable for development and combating sprawl.



Peak Oil is the simplest label for the problem of energy resource depletion, or more specifically, the peak in global oil production. Oil is a finite, non-renewable resource, one that has powered phenomenal economic and population growth over the last century and a half. The rate of oil 'production,' meaning extraction and refining (currently about 84 million barrels/day), has grown in most years over the last century, but once we go through the halfway point of all reserves, production becomes ever more likely to decline, hence 'peak'. Peak Oil means not 'running out of oil', but 'running out of cheap oil'.



Some experts believe that a dramatic energy efficiency effort is unavoidable. The world’s oil production will eventually peak. Some

believe that period is not too distant. Thereafter oil production will decline and prices will rise because the remaining reserves will be of lower quality and extracted from deeper, more problematic deposits. We won't "run out of oil," they say, so much as find increasing unavailability and price instability.

(Graph: Dr. C.J. Campbell/Petroconsultants)

Transportation and Land Use issues likely to be addressed in the climate protection planning process:

- The City has an extensive system of development incentives, including tax increment financing, tax abatement through Chapter 353 urban redevelopment or the Planned Industrial Expansion Authority, urban renewal through the Land Clearance for Redevelopment Authority, Chapter 100 bonds and others. These incentives do not currently take into account matters such as energy conservation, LEED standards, incorporating public transit, or walkability.
- Making the city attractive to developers is part of the strategy to discourage development at the edge of our region (combating sprawl) and therefore less driving, energy consumption and air pollution. More compact development is more transportation efficient. One of the important elements in this regard is work already underway on "wet weather solutions" including stormwater treatment (lessening flood hazards), creation of green open spaces, and improving water quality. The Storm Water Coordinating Committee (SWCC) is working on a variety of initiatives that can help create land use policies affecting open space and compact development patterns. Watershed studies for all watersheds in the city are being done or have been done and an overall comprehensive plan called "KC ONE" is underway. Specific ordinances for stream setbacks and development controls may be the result. In the mean time, the SWCC is working to implement engineering standards for land development: the APWA "Chapter 5100" and "Chapter 5600" standards. The latter includes stream setbacks.
- Urban core "Feet First District" making all streets safe for walking and biking (drain inlet grates).
- Improve opportunities and incentives for transit friendly, compact, contiguous development and mixed uses through the re-write of the City's current subdivision and zoning regulations.
- Focus zoning density incentives around a new transit station network. In Dallas, a city with similar development patterns as ours, the [value of development](#) near light-rail stations since 1999 now is more than \$3.3 billion!
- Increased mixed live/work opportunities. See many other opportunities outlined in www.carfreecities.com
- Support utilization and expansion of the KCATA's bus rapid transit system by providing incentives for multi-family development within ½ mile of a transit station.



- Interconnected signalization to reduce stop and go traffic and time at idle.

4. *Energy Resources*

Current Energy Resource Initiatives: *Kansas City has none*

Energy resource issues likely to be addressed in the climate protection planning process:

- Purchase of [Green-e Certificates](#) to encourage renewable energy development and offset grid energy produced by fossil fuels.
- Regulate emissions from all backup electric generators.
- Removal of regulatory restraints to net metering in Missouri and Kansas. [Net metering](#) programs could serve as an important incentive for consumer investment in renewable energy generation. Net metering enables customers to use their own generation to offset their consumption over a billing period by allowing their electric meters to turn backwards when they generate electricity in excess of their demand. This offset means that customers receive retail prices for the excess electricity they generate. Without net metering, as is the case in Kansas and Missouri today, a second meter is usually installed to measure the electricity that flows back to the provider, with the provider purchasing the power at a rate much lower than the retail rate. Net metering is a low-cost, easily administered method of encouraging customer investment in renewable energy technologies. Kansas City should consider support of state legislative proposals that give power companies profit incentives for administering net metering as well as regulatory requirement.
- Support for state incentives for energy efficiency and renewable energy (to complement the new federal energy bill). [Kansas wind](#) could supply the regional grid with near-zero greenhouse gas emissions. [Kansas](#) could do more. [Missouri](#) could do more.
- Potentials for City-owned energy systems: given the size of the City's energy budget, there may be a business case for creation of City owned power generation at a variety of scales:
- Installation of small to medium sized wind or solar systems on City owned facilities. The [City of Independence](#) is now evaluating bids from wind power providers.
- [Bio-energy](#) plant using fuel from urban forest, municipal solid waste, industrial waste and short rotation agricultural crops.
- Direct ownership of large scale power plants like [Austin Energy](#) in Austin, Texas.

5. Carbon Offsets

A greenhouse gas (GHG) offset is a project implemented specifically to reduce the level of greenhouse gases in the atmosphere. Offsets are so named because they counteract or offset GHG emissions. The primary offset strategy involves tree planting because trees sequester large amounts of greenhouse gas. Offsets are a critical piece of the climate change solution because they can be readily implemented using existing technology. Offsets make a difference today.

Current Carbon Offset Initiatives:

- 10,000 Rain Gardens Initiative
- Kansas City Green Roofs Initiative
- The City maintains a substantial urban forest, involving both tree maintenance and tree planting. Although not backed by ordinance, it is common practice for the City to require tree plantings and other landscaped features on new developments.
- The City is completing a streetscape master plan for the downtown loop that includes extensive tree planting as well as landscaping. The plan avoids the development of a monoculture by identifying ten species and several varieties of those species. It also recommends the use of "structural soil" to encourage healthy tree growth. Landscaped boxes include such native species as Cone Flower, Juniper, and Prairie Drop Seed.
- Although not yet adopted, the City has included plantings in the Library District streetscape and has partially funded the 12th Street streetscape project. The best source of information regarding the City's urban forest is Kevin Lapointe, Parks and Recreation Department.

Carbon Offset issues likely to be addressed in the climate protection planning process:

- Street tree ordinance requiring shade trees at the street in all new development.
- Tree preservation and replacement requirements.
- Prioritization of native plantings for City property and new development.

Kansas City's Leadership Role

"Think globally, act locally." Kansas City can turn that phrase to action. The 21st Century will be led by thinking/learning communities that leverage their place and their resources.

The City is well positioned to build on its current initiatives that relate to climate protection.

Kansas City also has regulatory authority over many direct and indirect sources of greenhouse gas emissions such as land-use, zoning, and transportation policy, and building code enforcement. Increasingly, Kansas City will have to deal directly with the impacts of climate change and pay for many of the associated costs. Kansas City can play a leadership role in mitigating these costs by encouraging the larger community to undertake climate protection strategies.

Undertaking a climate protection planning process could help us visualize Kansas City fifty years in the future when fossil fuels prices are likely to be increasingly and unpredictably volatile. It is certain that the energy and regulatory future will be very different than today. World competition for energy and resources will dramatically increase in coming years. City government is best able to identify effective climate protection initiatives for its locale.

The City can lead the research and visualization process, but it is the business community of Kansas City that has the ultimate ability to lower our greenhouse gas emissions. On the regulatory side, Kansas City can advocate up the jurisdictional ladder for better comprehensive climate protection policy.

Efforts for climate protection will yield a range of additional [environmental and social benefits](#) and make good economic sense. State and local governments across the country are discovering that many policies and measures that reduce greenhouse gas emissions make good economic and environmental sense on the basis of added benefits alone.

1. The planning process, involving participation of neighborhood associations, civic leaders, department heads and experts of every stripe, will likely result in a new comprehensive strategic planning document for the coming decades. The document may well serve the City in coming years much as FOCUS Kansas City served us at the close of the last Century. It will format and anchor priorities and decision points to our collective values and a commonly held vision of Kansas City's future. Many long held goals of the City will tend to flow from the question of climate protection: energy efficient economy, better public health, urban forest incentives, and transit orientation coupled with zoning incentives. Even stormwater management is related to the extent that best practices create a green city with connected parkways along creek lines and special areas. One could even say that social justice issues are essential because people must be able to see beyond existence needs in order to contribute to the good of the community and many of our most apparent environmental needs are in economically strapped neighborhoods.
2. Respect for one's own nest is always a fundamental requirement for success in the wider world. We live in a beautiful place. If Kansas City were to act on an effective climate protection initiative, we would further distinguish ourselves in a competitive market. Businesses looking for a new home would know Kansas City as a quality place to live and a cost effective place to do business. Our reputation would grow in new ways.
3. A climate protection orientation would give the City an organizing priority system for all its incentive programs.
4. If effective, development of a climate protection plan would be a lasting legacy for the Council and Administration to shape Kansas City's future.
5. Our children will thank us. Our grandchildren and their descendants will thank us. This first decade of the 21st Century is critical to efforts at climate protection. The effort is being made worldwide. Kansas City should add its strong hand to the task.

Effective climate protection, resulting in real reductions in greenhouse gas emissions on a citywide scale will require leadership by the city, action by business and households with heightened awareness by individuals of the daily opportunities to conserve fossil fuel use. It will define a new age of

Climate Protection Report

Kansas City Environmental Management Commission

November 2006

Kansas Citians living with nature and with a light environmental footprint. Our metropolitan area is an appropriate scale for this effort. Optimally, the process will eventually involve the 100+ metro-area governments as well as civic organizations, nonprofits and business.

The window of effective opportunity for climate protection planning is open now.

Kansas City's leadership is critical.

Appendix 1 Potential Benefits of a KC Climate Protection Plan

as identified by EPA

Potential Economic Benefits:

- Reduced energy costs to households, recognized by a certified rating system, increases property values. Reduced energy costs also strengthen one of Kansas City's calling cards – low cost of living.
- Reduced energy cost to businesses would have similar effect and lower the hurdle for our ongoing Economic Development efforts to bring new business to Kansas City.

Reduced economic dependence on oil, natural gas and coal and reduced vulnerability to market fluctuations.

Economic benefits from the production and use of regional renewable fuels.

Lower maintenance costs of alternative technologies such as efficient fluorescent lights, compared with conventional products.

Increased worker productivity from improved indoor air quality, and efficient lighting.

Less traffic congestion and the associated inefficiencies of time delays plus lower costs for infrastructure maintenance.

Job creation through development and deployment of new technologies.

Increased success in attracting business to Kansas City's overall low cost of operation and our clean environment.

Potential Air Quality Benefits:

Reduced emissions of air pollutants and decreased instances of respiratory diseases, such as chronic bronchitis and asthma, as well as the discomfort associated with these diseases.

Improved compliance with air quality standards and confidence that we will continue to comply even as the standards become more stringent in the future.

Reduced environmental costs associated with air pollution.

Potential Forestry Benefits:

Reduced summer cooling costs through strategic tree planting and city wide reduction of the "urban heat island effect" reducing the cost of living for all Kansas Citians.

Aesthetic benefits of tree planting programs in urban and suburban locations.

Promotion of sustainable forestry through initiatives for biomass energy or carbon sequestration.

Reduced urban runoff resulting in lower property damage, loss of life and reduced pressure on stormwater systems.

Potential Agricultural Benefits:

New potential source of income for farmers from the use of agricultural crops for biofuels such as methanol or biodiesel and bio-energy generating systems with rapidly renewable crops such as [switch grass](#).

Reduced energy costs for farms through processing of [livestock waste](#) to produce power in bio-energy generating systems.

Lower risk resulting from greater weather stability during [planting and harvest seasons](#).

Appendix 2 Climate Protection Plans of Other Jurisdictions

Several other U.S. cities have already undertaken a climate protection planning process. Kansas City can benefit from their experience.

With U.S. EPA funding, the [International Council for Local Environmental Initiatives' Cities for Climate Protection Campaign](#) assisted 275 U.S. cities and counties to reduce emissions by 5.4 million tons of CO₂ equivalent. Other benefits from these actions include saving \$25.7 million in energy and fuel costs and preventing the release of 7,000 tons of criteria air pollutants.

Example comprehensive plans in U.S. cities:

The [Portland and Multnomah County Climate Protection Plan](#) provides one example of a well organized approach and illustrates the range of issues that are included in climate protection planning. Now, after more than a decade of focused work on climate protection, Portland has achieved a 13% reduction in emissions relative to 1993.

Brattleboro, Vermont has a well developed [Climate Action Plan](#).

The [Madison, Wisconsin Climate Protection Plan](#) is another well organized and well developed example.

Other climate protection initiatives of U.S. cities include:

Ann Arbor, Michigan is taking part in the [Great Lakes Climate Policy Project](#) with Chicago, Toronto, Minneapolis, Milwaukee, Buffalo, Toledo, St. Paul and Duluth.

Arlington County, Virginia has several environmental initiatives including [Green Buildings](#).

Austin, Texas has created a [Sustainability Communities Initiative](#) which includes equity, economic and environmental issues.

Berkeley, California has an [Energy and Sustainable Development](#) program for homes and businesses and an Energy Commission advising on renewable energy.

Cambridge, Massachusetts Community Development Department's [Climate Protection Initiatives](#)

Chicago, Illinois Mayor Daley places environmental initiatives among his top five concerns. [Air Quality](#) initiatives include the Chicago Climate Exchange, a self-regulatory exchange that administers a voluntary, legally binding pilot program for reducing and trading greenhouse gas (GHG) emissions in North America, with participation of Offset Providers from Brazil. Chicago's [Green Building Initiative](#) includes the Chicago Green Tech Campus.

- **Chicago's Millennium Park Bicycle Station**
- **I-go: Chicago's** non-profit carsharing service. Reserve a car by the hour when you need it.

Eco-City Cleveland

http://www.ecocitycleveland.org/ecologicaldesign/greenbuilding/green_building.html

Denver, Colorado created their [Sustainable Initiatives](#) based on a Council resolution on ICLEI's Urban CO₂ Reduction program.

Los Angeles, California has an [Energy Climate Action Plan](#) to reduce GHG emissions from municipal activities, a “Cool Green Communities” urban forestry project to reduce heat island effect and programs for a “Green LA”.

Marin County, California has implemented a [Climate Protection Plan](#).

Miami Dade County, Florida has implemented an [Urban CO₂ Reduction Plan](#) which sets out methods, metrics, goals and implementation guidelines.

Minneapolis, Minnesota has adopted several [Sustainability Initiatives](#).

A Global Warming Strategy For New York City

<http://www.climaterescue.org/Intro%20661.htm>

- Creates a framework of transparency with annual reporting of greenhouse gas (GHG) emissions and plans submitted to the public. (This is often a problem with city government.)
- It also commits the city to 20% reductions of GHGs from a 1994 baseline by 2009
- Stipulates further reductions of 25% by 2015 and 30% by 2020.
- It creates a framework for involving private sector partners
- And it covers all city operations.

Oakland County, Michigan is developing as an international hub of research and energy innovation http://www.co.oakland.mi.us/peds/assets/docs/Alt_Energy.pdf

San Diego, California has an informative [Sustainable Community](#) initiative.

San Francisco, California has adopted the [Urban Environmental Accords](#) and has implemented comprehensive environmental programs including a [Peak Energy Reduction](#) initiative and recognition of the [Precautionary Principal](#) in the establishment environmental regulations.

San Jose, California has made sustainability a priority and has implemented a [Green Building Policy](#).

Santa Monica, California has adopted a [Sustainable City Plan](#) which sets specific goals, indicators and targets.



Seattle Achieves Zero Emissions Goal

In 1994 Seattle City Light, Seattle’s electric utility, set a zero greenhouse gas emissions goal. In 2005 they met that goal and became the first public utility in the nation do so. They achieved their goal through a combination of measures that include energy conservation, purchasing from renewable energy sources, and offsetting emissions by paying others to curb pollution. City Light operations annually release greenhouse gases that cause damage equal to 200,000 metric tons of carbon dioxide. To offset that release, the utility pays other entities up to \$756,000 per year to reduce emissions elsewhere by an equal amount. For example, some of the money goes to power city buses, garbage trucks, and municipal vehicles with a mix of diesel and biodiesel. The City pays cruise ships to plug into its electrical grid instead of running off dirtier diesel engines while in port. City Light also pays companies to switch to cleaner concrete manufacturing processes.

Seattle, Washington has a well developed set of initiatives on [Clean Air and Climate Protection](#).

State Initiatives:

Dozens of state programs exist to record and track emissions, capture and sequester carbon, encourage the development of renewable energy sources, and promote energy efficiency. A comprehensive examination of these policies and programs is available in the report “[Climate Change Activities in the United States](#),” prepared by the Pew Center on Global Climate Change.

35 states and territories have initiated and 34 have completed [state greenhouse gas emission inventories](#). In addition, 26 states and territories have initiated and 17 have completed [greenhouse gas emission reduction strategies](#). Five of the state plans alone have identified strategies that could collectively reduce greenhouse gas emissions by 34 MMTCE, or 2 percent of U.S. 2010 emissions, while saving over \$600 million per year.

30 [demonstration and education projects](#) have also been launched, testing mitigation policies identified by states and localities. Many states followed the process outlined above.

California Climate Change Initiative

In addition, 68 cities and counties, representing 25 million people and 8 percent of U.S. GHGs, have begun developing inventories and implementing plans, some already reducing over one million tons of carbon-equivalent each year. For more information, see the [International Council for Local Environmental Initiatives’ Cities for Climate Protection Campaign](#).



International Initiatives:

ICLEI—Local Governments for Sustainability is an international association of local governments and national and regional local government organizations that have made a

commitment to sustainable development. More than 475 cities, towns, counties, and their associations worldwide comprise ICLEI's growing membership. ICLEI works with these and hundreds of other local governments through international performance-based, results-oriented campaigns and programs.

There are over 500 cities worldwide and 50 **U.S. member cities** (including Overland Park, Kansas) in ICLEI. The ICLEI program is divided into five main stages.

First Stage: the city conducts a base year emission analysis of the whole community, as well as municipal operations.

Second Stage: the city calculates a forecast for the emissions in a business as usual scenario, if no measures were introduced to reduce emissions.

Third Stage: an emission reduction target is determined, which establishes the goal and timetable within which city measures will be implemented.

Fourth Stage: the city develops a Local Action Plan (LAP), including emission reduction measures for the transportation, energy and waste sectors.

Fifth Stage: implement and further develop the measures in the Local Action Plan.

Sweden plans on being the first country in the world to be free from oil in 2020
<http://www.gpisd.net/resource.html?Id=190>

Appendix 3 City Charter

Authority to undertake Climate Protection Planning:

- “Pursuant to the powers invested in the Mayor by the City Charter, Art. 2, Section 11.”
- “Pursuant to the powers invested in the City Council by the City Charter, Art. 1, et seq.”

And the following specific powers granted in the Charter:

- Article 1, § 1, Subsection 29 [*Acts, pursuits detrimental to health, morals, etc.*] – To define, prohibit, abate, suppress, prevent or regulate all acts, practices, conduct, businesses, occupations, callings, trades, uses of property, and all other things whatsoever detrimental or liable to become detrimental to the health, morals, comfort, prosperity, safety, convenience or welfare of the inhabitants of the city, and to prescribe limits within which the same shall be prohibited.
- Article 1, § 1, Subsection 41 [*Regulations for general health.*] - . . . to secure the general health and safety of the inhabitants by any necessary measure; . . . and to regulate or prevent the manufacture or distribution of articles deleterious to the health, safety, comfort, peace or morals of the inhabitants.
- Article 1, §1, Subsection 44 [*Acts detrimental to welfare; gambling; tobacco and tobacco products; drugs.*] – To regulate any place or thing, whatsoever, which may be injurious or detrimental to the public morals, health, safety, comfort, convenience, prosperity or general welfare, or dangerous to property of the inhabitants of the city, or detrimental to the peace or reputation of any neighborhood therein.

Article 1, § 1, Subsection 61 [*General welfare clause.*] - To enact all needful ordinances for preserving order, securing persons or property from violence, danger and destruction, for protecting public and private property, for promoting the public health, safety, convenience, comfort, morals, prosperity and general interests and welfare, for insuring the good government of the city, and for the protection, regulation and orderly government of parks, public grounds and other public property of the city, both within and without the corporate limits of the city.

Appendix 4 *References and Internet Links:*

Environmental Foundations and Organizations

AGU is a worldwide scientific community that advances, through unselfish cooperation in research, the understanding of Earth and space for the benefit of humanity. <http://www.agu.org/>

Greenhouse Gases http://www.agu.org/eos_elec/99148e.html

Architecture 2030.org <http://www.architecture2030.org/home.html> Architecture 2030 was established in 2005 and is sponsored by New Energy Economy, a non-profit, non-partisan and independent organization. Our mission is to conduct research, and provide information and innovative solutions in the fields of architecture and planning, in an effort to address global climate change.

The Association for the Study of Peak Oil and Gas <http://www.peakoil.net/> Search “peak oil” for further research.

Carbon Trust The transition to a low carbon economy will have a negligible impact on long term GDP growth and will present tremendous opportunities for those who develop and deliver low carbon products and services.

http://www.thecarbontrust.co.uk/carbontrust/climate_change/iocc4_2_4.html

ClimateArk is a **Climate Change Portal and Search Engine** dedicated to promoting public policy that addresses global climate change through reductions in carbon dioxide and other emissions, renewable energy, energy conservation and ending deforestation. <http://www.climateark.org/>

Climate HotMap <http://www.climatehotmap.org/solutions/index.html>

Climate Crisis Coalition <http://www.climatecrisiscoalition.org/>

Conservation Law Foundation <http://www.clf.org/> advocating regionally for the environment in New England

Environmental Management Accounting http://www.emawebsite.org/about_ema.htm

Global Climate Change Links

<http://www.calacademy.org/research/library/biodiv/biblio/gcc.htm>

Global Warming Hot Map <http://www.climatehotmap.org/index.html>

Great Plains Institute Our current focus is energy security and bio-based materials. Because the Upper Midwest has vast and largely untapped sources of clean, domestic energy to produce power, fuel and materials, we are working with elected and government officials, energy industry executives, agricultural leaders and environmental advocates to capture the enormous economic prize that these home-grown resources represent. By engaging a strong, bipartisan, multi-interest coalition of leaders today, our region will prosper as outside events require rapid change or present unique economic opportunities. <http://www.gpisd.net/>

Green Car Congress <http://www.greencarcongress.com/> policies for sustainable mobility

Green Facts http://www.greenfacts.org/studies/climate_change/level_1.htm

The Midwest Energy Efficiency Alliance (MEEA) is a collaborative network whose purpose is to advance energy efficiency in the Midwest in order to support sustainable economic development and environmental preservation. <http://www.mwalliance.org>

Millennium Ecosystem Assessment

<http://www.millenniumassessment.org/en/Products.Synthesis.aspx>

Missouri Public Interest Research Group (MOPIRG). MoPIRG's mission is to deliver persistent, result-oriented public interest activism that protects our environment, encourages a fair, sustainable economy, and fosters responsive, democratic government. www.mopirg.org

National Resources Defense Council <http://www.nrdc.org/globalWarming/default.asp>

Pew Center on Global Climate Change – GHG Reduction Targets of the Business Environmental Leadership Council

http://www.pewclimate.org/companies_leading_the_way_belc/targets/index.cfm

Rocky Mountain Institute an entrepreneurial nonprofit organization that fosters the efficient and restorative use of resources to make the world secure, just, prosperous, and life-sustaining. We do this by inspiring business, civil society, and government to design integrative solutions that create true wealth. www.rmi.org

Stop Global Warming.org Join hundreds of thousands of virtual marchers
<http://www.stopglobalwarming.org/default.asp>



Sundance Institute: Robert Redford met with U.S. Mayors at the first annual 2005 Sundance Summit: A Mayors' Gathering on Climate Protection. <http://www.sundance.org/>

SUNDANCE SUMMIT
A Mayors' Gathering on Climate Protection

David Suzuki Foundation

http://www.davidsuzuki.org/Publications/Climate_Change_Reports/

Weathervane provides access to RFF's research on environmental and economic aspects of climate change. Weathervane signals developments in climate change policies in the U.S. and around the world. <http://www.weathervane.rff.org/index.cfm>

Federal Government

DOE Building Technology Program <http://www.eere.energy.gov/buildings/>

DOE Climate Change Report

Aug. 9 -- The U.S. Department of Energy has released its Vision and Framework report for addressing climate change. The report provides strategic direction and guidance to the 10 federal agencies developing new and advanced global climate change technologies, according to Energy Department officials. The report is available online at <http://www.climatechange.gov/>

Energy Dept. climate change report available online

Aug. 9 -- The U.S. Department of Energy has released its Vision and Framework report for addressing climate change. The report provides strategic direction and guidance to the 10 federal agencies developing new and advanced global climate change technologies, according to Energy Department officials. It focuses on reducing emissions of greenhouse gases and capturing and sequestering carbon dioxide, one of the most common greenhouse gases. "The Vision and Framework is a comprehensive strategy that promotes the use of technology to reduce greenhouse gas emissions," Energy Secretary Samuel Bodman said. "It provides guidance and direction, along

with goals, to federal agencies involved in climate change research and development." The report is available online at Home: Climate Change Technology Program <http://www.climatechange.gov/>

EPA Climate Leaders Partners: an industry-government partnership that works with companies to develop long-term comprehensive climate change strategies. Partners set a corporate-wide greenhouse gas (GHG) reduction goal and inventory their emissions to measure progress. <http://www.epa.gov/climateleaders/partners/index.html>

EPA's Actions cities and states are taking re climate protection <http://yosemite.epa.gov/oar/globalwarming.nsf/content/VisitorCenterPublicOfficials.html>

EPA's Gateway to International Best Practices and Initiatives This Web site is a gateway to information and resources on innovative environmental projects and programs from around the world. <http://www.epa.gov/innovation/international/>

EPA's Industry Potentials and Climate Change <http://yosemite.epa.gov/oar/globalwarming.nsf/content/VisitorCenterIndustry.html>

EPA Resources for Public Officials provides education and outreach assistance, technical assistance, conferences, publications, a mailing list for public officials <http://yosemite.epa.gov/oar/globalwarming.nsf/content/VisitorCenterPublicOfficials.html>

Global Climate Change and Transportation Infrastructure <http://climate.volpe.dot.gov/workshop1002/zimmermanrch.pdf>

NOAA Research: Climate Variability and Change and New York City Planning for the Future http://www.oar.noaa.gov/spotlite/archive/spot_nycplanning.html

U.S. Dept. of Transportation Center for Climate Change and Environmental Forecasting (pic chart) <http://climate.volpe.dot.gov/>

U.S. Climate Science Program Strategic Plan: Draft Report, September 2005 <http://www.climatechange.gov/stratplan/draft/>

U.S. Global Change Research Program <http://www.usgcrp.gov/>

International

International Energy Agency: an intergovernmental agency committed to advancing security of energy supply, economic growth and environmental sustainability through energy policy cooperation. <http://www.iea.org/>

United Nations "Intergovernmental Panel on Climate Change" (IPCC): assessing the scientific, technical and socio- economic information relevant to the understanding of climate change, its potential impacts and options for adaptation and mitigation. Find it here: <http://www.ipcc.ch/about/faq.htm#guide>

EU Energy Efficiency: energy performance of buildings <http://europa.eu.int/scadplus/leg/en/lvb/l27042.htm>

EU and China Partnership on Climate Change <http://europa.eu.int/rapid/pressReleasesAction.do?reference=MEMO/05/298&format=HTML&aged=0&language=EN&guiLanguage=en>

Articles, White Papers and the Business of Climate Protection

Affordable housing goes 'green' <http://www.csmonitor.com/2005/1122/p03s03-ussc.html>

Carfree Cities www.carfree.com the companion website to the book of the same name

"Climate Change and New York: A Global City Responds" <http://www.climateescue.org/>

"Ex-EPA Chiefs Agree on Greenhouse Gas Lid", Washington Post, January 19, 2006; Page A04
Six former administrators of the Environmental Protection Agency, including five Republicans, said yesterday that the Bush administration should impose mandatory controls on greenhouse gas emissions to curb global warming. The group, which came together in Washington for a roundtable discussion to celebrate the agency's 35th anniversary, said the White House is not moving fast enough to address the global threat that human-generated climate change poses.

<http://www.washingtonpost.com/wp-dyn/content/article/2006/01/18/AR2006011802072.html>

Global warming articles

<http://www.keepmedia.com/featuredtopics/globalwarming?extID=10036>

Green Cities and the End of the Age of Oil <http://www.ecocitybuilders.org/> and

<http://www.commongroundmag.com/2005/cg3206/greencities3206.html>

Green investors hope for new Kyoto rules post-2012

http://yahoo.reuters.com/financeQuoteCompanyNewsArticle.jhtml?duid=mtfh01952_2005-11-27_09-50-36_126614200_newsml

EPA's Small Business Is Also Impacted by Climate Change

<http://yosemite.epa.gov/oar/globalwarming.nsf/content/VisitorCenterSmallBusiness.html>

Grist "The Death of Environmentalism: Global warming politics in a post-environmental world"
at www.grist.org

New York Times: Climate

A compendium of climate-related articles from the New York Times.

<http://www.nytimes.com/library/national/science/climate-index.html>

Business

The Business of Climate Change: Corporate Response to Kyoto <http://www.greenleaf-publishing.com/catalogue/climchng.htm>

ClimateBiz 101 <http://www.climatebiz.com/?CFID=1718982&CFTOKEN=75655122>

Safe Climate for Business A joint project of the World Resources Institute and the Center for Environmental Leadership in Business, dedicated to helping business of all sizes understand and take action on climate change. <http://www.safeclimate.net/business/index.php>