A Call for Climate Leadership
Progress and Opportunities in Addressing the Defining Challenge of our Time
Higher Education has a unique role in society. It has been granted tax-free status, the ability to receive public and private funds, and academic freedom, in exchange for educating students and producing the knowledge that will result in a thriving and civil global society. With global warming, society faces a crisis that threatens its very viability. Reversing global warming is the defining challenge of the 21st century. Addressing this threat successfully will mean transforming our economy, our institutions, our daily lives - and doing so within a generation. This is a challenge of massive proportions, one that desperately calls for vision and leadership of higher education.

A group of college and university presidents have created an unprecedented initiative to lead this effort by higher education. The American College & University Presidents Climate Commitment is a high-visibility effort to address global warming through a joint commitment to achieve climate neutrality for their campuses and develop the capability of society to do the same. These presidents are leading their institutions to develop comprehensive plans for making their campuses climate neutral, and for providing the education and research necessary for society to re-stabilize the world's climate. Modeled after the U.S. Mayors Climate Protection Agreement, the initiative seeks the commitment of 200 college and university presidents by June 2007 and 1,000 by the end of 2009.

By committing to rapidly eliminate their own contributions to global warming and swiftly accelerate education and research, institutions will be leading the crucial race to find global warming solutions - contributing to public health; social justice; a preserved natural resource base; reliable, locally-generated energy; new jobs and career paths to build America's economic base; thriving communities; and the advancement of our civilization as a whole.

More than ever, universities must take leadership roles to address the grand challenges of the twenty-first century, and climate change is paramount amongst these. ASU is committed to achieving a sustainable future by defining the role of higher education institutions as innovators creating long-term global endowments, knowledge and technology for the stewardship of the earth's human and natural resources. The Presidents Climate Commitment is a bold step in the right direction.

—Michael M. Crow, President
Arizona State University
The Defining Challenge

An immense and ever-growing body of scientific evidence concludes that over-reliance on fossil fuels is destabilizing the climate and causing the planet to warm at dangerous rates. This threatens our ability to continue the human progress that has occurred over the last 10,000 years - a time of relatively stable climate. The world’s top scientists tell us that the U.S. and other industrialized nations must halt the growth of global warming pollution within this decade, begin reducing greenhouse gases very soon, and slash these emissions by eighty percent by the middle of this century. In doing so, the we can serve as a model for nations like China and India, poised to push emissions up exponentially in the coming decades due to swelling populations and burgeoning economic growth.

In the same way that historical revolutions in industry, transportation and telecommunications translated massive investment into huge quality-of-life advances, our pursuit of energy and climate solutions can drive incalculable social benefit if we act now. A report from the Apollo Alliance points to a potential for 3.3 million new jobs and an increase in $1.4 trillion dollars in American Gross Domestic Product in the rapid pursuit of climate sustainability and energy innovation. Delay, on the other hand, will mean enormous upheaval and suffering, millions of environmental refugees, and 5-20% cuts in global GDP in our lifetimes.

Achieving such reductions will be challenging. In 2004, 86% of U.S. global warming pollution came from burning fossil fuels to drive over 80% of economic activity in the U.S. - powering our homes, businesses, vehicles, cities, farms, factories, planes, communications and all manner of goods distribution systems. Much of this energy is imported, leaving us economically vulnerable and constraining our foreign policy. Oil and natural gas costs are rising steadily, presenting significant and escalating long-term economic risks and challenges. Coal, while more viable in the long-term from an availability perspective, is a major contributor to global warming as well as being harmful to public health and destructive of critical natural resources. Agricultural and land-use practices also exacerbate the fossil fuel and global warming problems. Our reliance on current fossil fuel technologies is no longer tenable economically or ecologically.

Addressing these problems will require great increases in energy efficiency; generation of power from clean renewable sources; wide-scale adoption of alternative fuel vehicles; and rapid implementation of radically more efficient building technologies (since buildings account for 40% of all energy and 70% of electricity use). Creating a low carbon economy will also mean redesigning our communities to be much less auto-dependent, purchasing local goods and locally grown foods, strategically using farms and forests to serve as carbon sinks, consuming fewer resources and re-using what we have.
Leading society to reverse human-induced global warming is a task that fits squarely into the educational, research, and public service missions of higher education. There is no other institution in society that has the influence, the critical mass and the diversity of skills needed to successfully make this transformation. Tomorrow’s architects, engineers, attorneys, business leaders, scientists, urban planners, policy analysts, cultural and spiritual leaders, journalists, advocates, activists and politicians - more than 17 million of them - are currently attending the more than 4,000 institutions of higher learning in the United States. This group will play a central role in transforming today’s greenhouse gas-intensive economy into tomorrow’s low-carbon economy. Higher education must provide these students with the necessary knowledge and skills to do so.

Colleges and universities are also ideal settings to develop workable new strategies, systems, behaviors and technologies that can be scaled up to the community and state levels. By involving students, faculty and staff, these institutions can become effective models for achieving climate neutrality and sustainability. We need academia to take the lead on cutting-edge research, action and demonstration projects that will speed the path to climate neutrality across all society’s sectors - catalyzing investment and driving the development of new markets.

Research and development of new technologies and systems will indeed happen, as it always has, at colleges and universities. Researchers on campuses across the nation have already been instrumental in work on everything from bio-fuels and renewable energy, to community planning and development of model behavior-change programs, to policy analysis and advocacy.

Higher education is a $317 billion industry\textsuperscript{13} that employs millions, and spends billions of dollars on fuel, energy, and infrastructure. If every U.S. campus used 100% clean energy, it would nearly quadruple our current renewable electricity demand\textsuperscript{14,15} create thousands of new jobs, support emerging “green” industries, and speed the availability of innovative financing options. Moreover, if every campus was to partner on renewable energy with the local community of which it is a part, it would exponentially increase this positive impact, while strengthening local communities and improving ‘town-gown’ relations.

Community colleges have a unique role to play in the necessary transition. Many of their students are currently in the workforce, augmenting their experience with knowledge and skills
about newly emerging energy and other clean technologies and other information that will help society make the necessary transition. These students are poised to make an impact in real-world situations with cutting-edge technologies right away. In addition, community colleges’ close ties with local businesses allow them to model climate stewardship while demonstrating economic and other benefits for business.

Given the wide range of activities and the new intellectual direction that will be necessary to achieve climate neutrality, every discipline must contribute to solutions. Colleges and universities can give students the education they need now by becoming living laboratories for change; by offering scholarships, fellowships, and other incentives; and by training their staff to act as mentors and advisors to students. There is tremendous demand among students for this kind of attention. Already, tens of thousands of students on campuses across the country are forming climate action groups, organizing technology demonstration projects, and lobbying their administrators to eliminate their school’s greenhouse gas emissions. Today’s higher education students recognize that, without question, global warming will affect their generation’s future and they are eager to work together with decision-makers to stop global warming now.

The American College & University President’s Climate Commitment seeks to leverage the unique roles and strengths of higher education to reverse human-induced global warming. Participating presidents will lead their institutions to develop plans within two years for the achievement of climate neutrality in a reasonable time frame – fast enough to avoid the worst impacts of climate change while enabling them to maximize economic and other benefits to their communities while minimizing costs. The plans will include an inventory of emissions, target dates and specific actions to reduce greenhouse gases, mechanisms for tracking progress, as well as education, research and collaboration with communities. Participating institutions will make these plans and periodic progress reports publicly available through the Association for the Advancement of Sustainability in Higher Education.

The American College & University Presidents Climate Commitment has been organized and is being supported by the Association for the Advancement of Sustainability in Higher Education (AASHE), ecoAmerica and Second Nature.
Colleges and universities that demonstrate climate leadership will reap many benefits.

- Recruit more and better students
- Attract the next generation of leading faculty
- Appeal to alumni, trustees and other stakeholders
- Secure important partnerships with and funding from the private sector and government agencies
- Receive high levels of public, private and governmental support for the institution’s mission
- Fulfill their teaching, research and service missions
- Lead the scientific and technology race to find global warming solutions and contribute to community and nationwide efforts

At a basic operational level, addressing energy sustainability and climate change can help colleges and universities operate more efficiently and effectively.

- Generate cost savings, as many campuses have
- Stabilize long-term operating costs
- Increase capacity for better long-range planning
- Create more attractive, convenient and productive campuses

Taking leadership now will also put post-secondary institutions ahead of the regulatory curve.

- Anticipate state and regional energy mandates
- Gain competitive advantage over institutions that choose to wait
- Minimize risk and maximize expertise in long-term carbon management
- Capitalize on the expanding carbon-trading financial market

GOING “CLIMATE NEUTRAL”

Foster energy conservation and efficiency
- Building construction and retrofits
- Energy saver programs
- Master planning

Generate or buy renewable power
- Install wind, solar, geothermal power
- Use biofuels
- Purchase clean electricity from utility
- Purchase offsets (which decrease steadily as campus “footprint” decreases)

Transportation systems
- Alternative fuels for fleet
- Walkable/bikeable campuses
- Good transit systems
- Student, staff, faculty incentives to drive less

Purchasing
- Buying local
- Buying recycled
- Buying sustainable goods

Recycling/Waste
- Waste source reduction (e.g. paper, disposable dishes, packaging)
- Composting, recycling

Campus food systems
- Local, sustainably grown

Investment in climate solutions
- Dedicated funds
- Endowment used to support climate innovation, discourage negative impacts

Research and development
- New energy technologies
- New system designs
- Adaptation measures

Teach climate science, policy; educate community about climate solutions

Partner with communities/businesses to share climate expertise

presidentsclimatecommitment.org
Institutionalizing Solutions to Climate Disruption

VISION: A diverse array of campuses – from major research universities like University of Pennsylvania and University of North Carolina at Chapel Hill, to liberal arts colleges such as Oberlin, Furman, and Pitzer Colleges, to community colleges like the Los Angeles Community College District, Cape Cod Community College and Lane Community College – set their sights on achieving carbon neutrality. Four University of Wisconsin campuses are working to make their campuses completely energy independent by 2012. 17

COMPREHENSIVE POLICIES: The 10-campus University of California system passed a policy to meet 20% of its electricity needs from renewable sources by 2017; ensure 10% of its energy comes from locally-generated clean sources by 2014; reduce energy consumption by 10% by 2014; hold all new buildings and renovations to stringent efficiency standards; require a percentage of university fleets be converted to low emissions/carbon-free vehicles by 2010; and implement a plan to track and reduce university-related personal vehicle trips. The 23-campus CSU system followed suit with similar policies mandating renewable energy purchase and installation, conservation, and green building. 18,19,20,21

BUILDING POLICIES: The Los Angeles Community College District, encompassing nine colleges that collectively educate over 130,000 students per year, is currently undertaking one of the largest public sector sustainable building efforts in the U.S. 22 More than 18 American colleges and universities have adopted “LEED” (Leadership in Energy and Environmental Design) building policies, and another 9 have approved policies that require green design for all new buildings. 23 The improved performance of green buildings, coupled with cost savings, have prompted over 10 states to require all new state-funded or public buildings to comply with LEED standards. 24

Cape Cod Community College made a commitment more than a decade ago to apply the principles of its environmental technology degrees and certificates to its management of the campus grounds and facilities. That decision has made us a model for both people and organizations in our fragile slip of sand on the Atlantic coast. It has also made crisp economic sense, for we have both reduced our costs and attracted grant funding and private philanthropy while strengthening our ties to businesses and other employers in our region.

—Kathy Schatzberg, President
Cape Cod Community College
CARBON TRADING: The Universities of Oklahoma, Minnesota, and Iowa, and Michigan State University have joined the Chicago Climate Exchange (CCX), North America’s only legally binding greenhouse gas (GHG) emission registry, reduction and trading system. In joining, these institutions have committed to either reducing their GHG emissions each year beginning in 2003, or to buying carbon offsets from another member to bring them into compliance with CCX’s membership terms. As member institutions continue to lower their emissions, they may benefit from the sale of their emission allowances through CCX.25,26

INVESTING: Harvard University’s Green Loan Fund is an interest-free revolving fund that provides capital for projects that reduce pollution, resource and energy consumption, and is paid back with energy efficiency savings. This fund solves the common problem of separate capital and operating budgets creating a disincentive to invest in more efficient designs and technologies - realizing a consistent return on investment of over 30%.27

STUDENT LEADERSHIP: Students at the University of Colorado-Boulder organized a vote increasing student fees ($1 per semester) to purchase the entire output of a 2 million kWh/year turbine, and later voted to expand the wind purchase to 8.8 million kWh/year, reducing annual CO₂ emissions by 12 million pounds.28 Similar renewable energy fees have been approved at more than 25 additional institutions. Students at over 490 campuses have joined the Campus Climate Challenge to promote GHG reductions at their institutions.29

Model Projects in Energy and Transportation

RENEWABLE ENERGY: In 2004, Carleton College used money from its endowment to build a 1.65 MW wind turbine, which produces enough electricity to supply 40% of the college’s electricity use. With state financial incentives, the project’s payback period is 10 years - providing 10 years of earnings on investment.30 Mt. Wachusett Community College converted its electric heating system to a biomass hydronic district heating system, reducing its CO₂ emissions by 23% over four years and saving $300,000 in annual fuel costs.31 Napa Valley College installed a 1.2 MW photovoltaic solar array on its campus, saving the college $300,000 annually on its electric bills.32 More than 130 campuses have on-site renewable energy generation capacity, collectively producing over 50 MW of clean energy. More than 70 educational institutions are buying renewable energy,33 with University of California, Santa Cruz, Evergreen State College, New York University, Eastern University, Western Washington University, University of Central Oklahoma, and College of the Atlantic powered 100% renewably.34

CONSERVATION: At the State University of New York at Buffalo, students, faculty and staff have practiced energy conservation through the university’s “Conserve UB” program since the late 1970’s. In 2003, the “You Have the Power” campaign saved the school $10,000 in energy costs in a single day. Documented energy savings are in excess of $10 million dollars annually and $100 million since the beginning of the program.35
**TRANSPORTATION INITIATIVES:** Cornell University has raised parking fees, redrawn parking systems to favor carpooling, integrated school transit systems with the city’s, and given free public transit throughout the county to anyone who doesn’t get a parking pass. These efforts have saved 417,000 gallons of fuel and 10,000,000 vehicle miles traveled annually, cutting costs by more than $36 million and reducing greenhouse gas emissions by 51,100 tons over 12 years. Several hundred colleges and universities are implementing plans to make their campuses more pedestrian and bicycle friendly, thereby saving money and reducing their ecological footprint.

**Education for Climate Neutrality and Sustainability**

**TRANSFORMING EDUCATION:** Northern Arizona University and Emory University have implemented faculty development programs that have helped approximately 200 faculty revise 300 courses in virtually every discipline to make sustainability the context or the content of learning – reaching more than 15,000 students. University of Georgia has made coursework in environmental literacy a requirement for all graduates; sustainability is the foundation of all curricula at the six members of the EcoLeague. Cape Cod Community College is developing renewable energy education and training in collaboration with technical high schools, education and non-profits.

Making sustainability one of its top priorities, Arizona State University in 2006 established the first School of Sustainability – a degree-granting unit fully dedicated to sustainability at the BS, MS and PhD levels. The new school advances the scholarship of sustainability science and policy, and facilitates the offerings of sustainability-focused degrees and minors in Law, Business, Engineering, Architecture, Planning, and Education and seeks to include all the majors and professional offerings.

**RESEARCH:** Chevron Technology Ventures, a subsidiary of Chevron Corp., recently entered into an agreement to invest up to $25 million in the University of California, Davis over the next five years to fund research on developing transportation fuel from cellulosic biomass. Many experts believe our ability to successfully transition from oil to biofuels depends on cellulosic technology.
Successful efforts to make a campus carbon neutral begin with broad-based institutional support and commitment from top decision makers - returning to rest on that commitment over and over again.

1. Top-Level Commitment
   - Sign the Presidents Climate Commitment, integrate in mission and planning

2. Strategies to get broad buy-in by the entire community – administrators, staff, faculty, students, trustees and alumni – and to get the job done
   - Develop a climate neutral action plan, which will include:
     • Policies and procedures for reducing the university's emissions
     • A target date for achieving climate neutrality rapidly
     • Interim targets to track progress toward this goal
     • Actions to make climate neutrality/sustainability an integral part of the educational experience for all
     • Actions to expand research or other efforts necessary to achieve climate neutrality
   - Create mechanisms for institutionalization and accountability that include:
     • An office or group to coordinate efforts
     • Cross-sector responsibility for implementation
     • Development of a baseline of a GHG inventory, baseline of current emissions, reduction schedules
     • Have ongoing measures of progress
     • Periodically report to campus and community
     • Training/education for all groups in the campus
     • Rewards and incentives for all groups in the campus
     • Encouragement and support of student leadership on climate neutrality

3. Implement plan and report progress to American College & University Presidents Climate Commitment
The magnitude of the climate challenge necessitates more than mere improvements, or incremental adjustments in policy. We must transform our economy, our infrastructure and our communities in creative and positive ways that will fuel economic growth, protect our communities and the quality of life we cherish, and move our civilization forward.

We already have many of the tools necessary to meet this challenge, and many additional clean, renewable technologies are in development. Now, we need America’s great higher educational institutions to put these pieces together in a way that creates a new foundation for growth, prosperity and peace—tapping their research, education and public service missions and harnessing all of the scientific, technological and pedagogical resources at their disposal. By creating and implementing coordinated plans to reduce their global warming impact down to zero within a generation, our campuses can drive the scientific innovation and public education necessary to catalyze rapid change.

The U.S. has risen to challenges before, assuming leadership with the Marshall Plan, in the space race in the 1960s, and in the advancement of cures for deadly diseases like cancer and AIDS. We are now on the cusp of a new age that requires us to build a more sustainable future. Higher education can take a leadership role in this endeavor by preparing students, providing knowledge and information, and modeling sustainability in every aspect of its operations. Campus leaders—presidents, provosts, business and facilities officers and planners—can do their part by stepping up to the challenge. In steering their campuses down the path to climate neutrality, they will provide desperately-needed leadership for the nation and indeed the world.
The **American College & University Presidents Climate Commitment** is a high-visibility effort to make campuses more sustainable and address global warming by garnering institutional commitments to reduce and ultimately neutralize greenhouse gas emissions on campus. The effort is modeled after the U.S. Mayors Climate Protection Agreement.

*The challenge to reverse global warming will reshape the 21st century.* An immense and growing body of scientific evidence demonstrates that our over-reliance on fossil fuels is destabilizing the climate and causing the planet to warm dangerously and the climate to destabilize. Participating presidents recognize the need to reduce the global emission of greenhouse gases dramatically, in order to avert the worst impacts of global warming.

**America’s higher education community can play a determinant role in addressing climate change.** Leading society in this effort fits squarely into their educational, research, and public service missions. No other institution has the influence, the critical mass and the diversity of skills needed to successfully reverse global warming. Tomorrow’s architects, engineers, attorneys, business leaders, scientists, urban planners, policy analysts, cultural leaders, journalists, advocates, activists and politicians—more than 17 million of them—are currently attending the more than 4,000 institutions of higher learning in the United States. Higher education is also a $317 billion economic engine that employs millions of people and spends billions of dollars on fuel, energy, products, services and infrastructure.

**The Presidents Climate Commitment provides a framework and support for America’s colleges and universities to go climate neutral.** It recognizes the unique role of presidents and chancellors in providing leadership and guidance in their institutions and in society. Participating presidents are leading their institutions to develop a comprehensive plan of actions that will ultimately lead to campus climate neutrality, and provide the critical education and research necessary to help society re-stabilize the world’s climate. Through the Commitment’s flexible program of conservation, renewable energy, offsets and other creative strategies, campuses can go carbon neutral in a timely and efficient manner.

**The program seeks the commitment of 200 college and university presidents by June 2007 and 1,000 by December 2009 and has three major phases:**

*Phase I: Laying the Groundwork*: Oct 06 – Mar 07: Development of support materials, and creation of the “Leadership Circle” of presidents - the public face and lead supporters of the program.

*Phase II: Launch*: Mar 07 – Jun 07: Following the community launch by the Leadership Circle, marketing and personal solicitation efforts targeting all American college and university presidents.

*Phase III: Public Rollout*: Jun 07 through 2009: A public launch and summit meeting in June 2007 will be followed by ongoing outreach to solicit additional signatories and provide progress support.

The fight against global warming is gathering momentum among students, faculty and administrators in the public and corporate sectors. *It is time for America’s colleges and universities to show their strength and leadership.* Early movers can realize extensive benefits in funding, attracting talent, achieving long-term cost reduction and generating broad support from alumni and communities while leading America to a new energy and economic future that is hopeful, healthy and prosperous.
We, the undersigned presidents and chancellors of colleges and universities, are deeply concerned about the unprecedented scale and speed of global warming and its potential for large scale, adverse health, social, economic and ecological effects. We recognize the scientific consensus that global warming is real and is largely being caused by humans. We further recognize the need to reduce the global emission of greenhouse gases by 80% by mid-century at the latest, in order to avert the worst impacts of global warming and to reestablish the more stable climatic conditions that have made human progress over the last 10,000 years possible.

While we understand that there might be short-term challenges associated with this effort, we believe that there will be great short-, medium-, and long-term economic, health, social and environmental benefits, including achieving energy independence for the U.S. as quickly as possible.

We believe colleges and universities must exercise leadership in their communities and throughout society by modeling ways to minimize global warming emissions, and by providing the knowledge and the educated graduates to achieve climate neutrality. Campuses that address the climate challenge by reducing global warming emissions and by integrating sustainability into their curriculum will better serve their students and meet their social mandate to help create a thriving, ethical and civil society. These colleges and universities will be providing students with the knowledge and skills needed to address the critical, systemic challenges faced by the world in this new century and enable them to benefit from the economic opportunities that will arise as a result of solutions they develop.

We further believe that colleges and universities that exert leadership in addressing climate change will stabilize and reduce their long term energy costs, attract excellent students and faculty, attract new sources of funding and increase the support of alumni and local communities.

Accordingly, we commit our institutions to taking the following steps in pursuit of climate neutrality:

1. Initiate the development of a comprehensive plan to achieve climate neutrality as soon as possible.
   a. Within two months of signing this document, create institutional structures to guide the development and implementation of the plan.
   b. Within one year of signing this document, complete a comprehensive inventory of all greenhouse gas emissions (including emissions from electricity, heating, commuting, and air travel) and update the inventory every other year thereafter.
c. Within two years of signing this document, develop its own action plan for becoming climate neutral, which will include:
   i. A target date for achieving climate neutrality as soon as possible.
   ii. Interim targets for goals and action that will lead to climate neutrality.
   iii. Actions to make climate neutrality and sustainability an integral part of the curriculum and other educational experience for all students.
   iv. Actions to expand research or other efforts necessary to achieve climate neutrality.
   v. Mechanisms for tracking progress on goals and actions.

2. Initiate two or more of the following tangible actions to reduce greenhouse gases while the more comprehensive plan is being developed.
   a. Establish a policy that all new campus construction will be built to at least the U.S. Green Building Council’s LEED Silver standard or equivalent.
   b. Adopt an energy efficient appliance purchasing policy requiring purchase of ENERGY STAR certified products in all areas for which ENERGY STAR ratings exist.
   c. Establish a policy of offsetting all greenhouse gas emissions generated by air travel paid for by our institution.
   d. Encourage use of and provide access to public transportation for all faculty, staff, students and visitors at our institution.
   e. Within one year of signing this document, begin purchasing or producing at least 15% of our institution’s electricity consumption from renewable sources.
   f. Establish a policy or a committee that supports climate and sustainability shareholder proposals at companies where our institution’s endowment is invested.

3. Make the action plan, inventory and periodic progress reports publicly available by providing them to the Association for the Advancement of Sustainability in Higher Education (AASHE) for posting and dissemination.

In recognition of the need to build support for this effort among college and university administrations across America, we will encourage other presidents to join this effort and become signatories to this commitment.

Signed,
The Signatories of the American College & University Presidents Climate Commitment

presidentsclimatecommitment.org
The American College & University Presidents Climate Commitment was developed and is being coordinated and supported by Second Nature, ecoAmerica and the Association for the Advancement of Sustainability in Higher Education (AASHE).

For footnoted references please go to: presidentsclimatecommitment.org/pdf/footnotes.pdf

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Printed on Neenah Paper, Environment, Tortilla. Made from alternative fibers.
• 50% sugar cane bagasse pulp
• 50% recycled fiber, including 30% post consumer fiber
• No new trees
• Elemental chlorine free

March 2007
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