REPP

SPECIAL REPORT

Renewable Energy Policy Project

Fall 2000

RESOLUTION ON SUSTAINABLE ENERGY AND LOW-INCOME AND MINORITY COMMUNITIES

with Fact Summary by Virinder Singh

Over 50 diverse groups from across the United States have come together to express common concerns and solutions for our energy system.

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A Message from the Staff of the Renewable Energy Policy Project

The following Resolution on Sustainable Energy and Low-Income and Minority Communities is the product of an extensive, consensus-based process among representatives of groups focusing on environmental justice, low-income energy advocacy, clean energy, environmental, enterprise development, and Indian Country issues. While the process was indeed long, it has yielded a document that truly reflects common concerns about the state of the U.S. energy sector. As the accompanying fact sheet indicates, there is much to be concerned about—so much so that greater cooperation between our diverse communities is warranted if we are to make a positive impact on our national energy infrastructure.

It is no small task. But successful examples abound of groups and programs that are finding a way to deliver cleaner and more affordable energy solutions to low-income and minority communities:

- The Energy Coordinating Agency of Philadelphia has successfully reached out to low-income residents to educate them on energy efficiency's benefits to their pocketbooks. ECA informs residents about efficiency in conjunction with local programs dealing with water, job training, and other core issues. In other words, ECA considers energy as part of a holistic community approach so that it is relevant to residents.

- The Center for Neighborhood Technology has launched two efforts in Chicago. One program offers energy-efficient appliances through local stores. Another involves the local utility to install community-owned, small-scale generation such as microturbines. Both efforts are addressing Chicago's notorious grid constraints so that local residents can save money and keep the lights on.

- Hopi SUN has successfully sold and installed solar photovoltaic systems for Hopi residents lacking electricity. The business is running full time and now even exports its services overseas. The business is a response to the disproportionate number of Indian reservation residents who lack basic energy services.

These and other efforts, some funded by the U.S. Department of Energy's Building America program, show that with project champions, some funding, and innovative strategies, cleaner energy is not just the province of middle- and upper-class households. However, these programs are among an isolated few. Further, they are working within an energy system that offers few policies and business incentives to make energy and equity one and the same.

The barriers to cooperation are not surprising. First, groups from the relevant communities have limited resources and limited time to dive into issues that are not central to their concerns—for example, environmental justice groups must scramble to head off looming threats knocking on their community doorsteps every day. And renewable energy firms with thin profit margins are pursuing higher-income customers to buy more expensive energy. Second, both communities are not familiar with each other and share little cultural commonality. Physicists specializing in the photovoltaic effect rarely talk with grassroots organizers in low-income neighborhoods.

But cooperation is possible, even promising, and increasingly desirable. As this resolution shows, there are concrete, shared interests in energy efficiency, renewable energy, and small power plants known as distributed energy. Ultimately, all of the communities represented in this resolution offer something the others need—ultimate technological solutions, grassroots organizing skills, legal expertise, energy policy know-how, and practical local wisdom.

Folks may ask "Now what should happen?" This resolution seeks to create a framework, and we hope it will encourage you think about what you can do to help implement successful clean energy and efficiency projects in your neighborhood.

Virinder Singh, Research Director
Fredric Beck, Research Manager
Mary Kathryn Campbell, Director of Marketing and Publications
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RESOLUTION ON SUSTAINABLE ENERGY AND LOW-INCOME AND MINORITY COMMUNITIES

WHEREAS everyone has the right to safe, clean, affordable, and reliable energy and transportation services;

WHEREAS our children's future, including their health, climate, water and air face serious consequences from our continued dependency on fossil fuels and nuclear power;

WHEREAS low-income, minority, and tribal communities should have full knowledge of and participation in all aspects of energy policy decision-making, yet have been excluded from energy policy design;

WHEREAS low-income, minority and tribal communities suffer disproportionate health and ecological impacts from the energy industry and from energy users, including coal and uranium mining, oil extraction, oil refining, power plant siting, dirty and unsafe industrial practices, and vehicle pollution;

WHEREAS low-income families disproportionately spend more of their income on basic energy services;

WHEREAS homes in low-income, minority and tribal communities severely lack energy efficiency features that ensure heating, cooling, and lower bills;

WHEREAS rising energy demand and the restructuring of the electric industry is unleashing more fossil fuel power plants and extending the operating hours of existing nuclear and fossil fuel plants in low-income and minority communities—thereby degrading the air, displacing other uses of community space, and lowering local property values;

WHEREAS the current state of electric industry restructuring may create higher and more volatile electric rates for residential customers, excessive payoffs to dirty power plants, and inadequate support for cleaner energy options, despite its potential to advance cleaner, more affordable energy;

WHEREAS transportation policies that promote urban sprawl, encourage greater reliance on gasoline and diesel fuel, and neglect mass transit seriously affect low-income, minority, and tribal communities through air pollution, increased health problems and fewer job opportunities;

WHEREAS increased energy efficiency, renewable energy sources such as solar and wind, new energy technologies such as fuel cells, and cleaner transportation fuels such as natural gas offer significant yet virtually untapped potential to improve the environment; supply affordable energy to meet diverse needs; foster energy independence; create jobs in low-income, minority and tribal communities; and lessen global warming;

Therefore, we the undersigned call for the following:

All parties that affect the energy system must commit to working with local communities, particularly low-income and minority communities, as equal partners when making energy choices;

Utility and environmental regulators must prevent further clustering of fossil fuel and nuclear power plants in low-income and minority communities by including equity criteria and cumulative environmental impact assessments in the siting process;

Federal and state legislators, utility and environmental regulators, and energy providers must work with local communities to maximize energy efficiency measures in all communities, so low-income, minority and tribal communities in particular can benefit from a higher quality of life, greater energy independence, and lower bills;

Federal and state legislators, utility and environmental regulators, and energy producers must shift our present energy supply from fossil fuels and nuclear toward cleaner energy sources such as solar, wind, and fuel cells in all affected communities as appropriate and in ways that create living-wage jobs and build community wealth;

RESOLUTION ON SUSTAINABLE ENERGY AND LOW-INCOME AND MINORITY COMMUNITIES

Federal and state legislators and utility regulators should adopt electricity restructuring policies that offer affordable and stable electricity rates to low-income communities, shun subsidies to nuclear and fossil fuels, and expand cleaner energy solutions;

Fuel companies must commit to mass-producing cleaner fuels while operating refineries in ways that do not pose health and environmental risks to the surrounding community or threats to worker safety;

Industries in low-income, minority and tribal communities must commit to adopting the cleanest available energy options available through lower materials use, energy efficiency, renewable energy, and cleaner fuels;

Federal and state governments must consult with tribes to supply technical and financial resources for renewable energy and energy efficiency while respecting their unique sovereign status;

Environmental justice groups, low-income energy advocates, clean energy advocates, community development organizations, labor unions, energy providers, elected officials, and local citizens must commit to working together to craft clean, affordable local energy and transportation models.

SIGNED:

(Star denotes national membership groups)

Association for Energy Affordability
California Planning and Conservation League
Californians for Renewable Energy
Center for Energy Efficiency and Renewable Technologies
Center on Race, Poverty and the Environment
Communities for a Better Environment
Corporation for Enterprise Development
Environmental Advocates
Episcopal Power and Light
Esperanza Environmental Justice Project
475 Kent Avenue Tenants Association
Friends of the Earth U.S.*
Georgians for Clean Energy
Global Exchange
Global Green USA
GreenAction
Greenpeace USA*
Hickory Woods Homeowners Association
Indigenous Environmental Network
Institute for Local Self-Reliance
Intertribal Council on Utility Policy
Land and Water Fund of the Rockies
Legal Environmental Assistance Foundation
Loka Institute
Low-Income Energy Affordability Network
Magnolia Tree Earth Center
Massachusetts Energy Consumers Alliance
Minnesotans for an Energy Efficient Economy
Natural Resources Defense Council*
New York City Environmental Justice Alliance
New York Lawyers for the Public Interest
New York Public Interest Research Group
The Next Generation
Northwest Energy Coalition
Pacific Institute for Development, Environment and Security/Green Power Institute
Physicians for Social Responsibility
The Point CDC
Pratt Institute Center for Community and Environmental Development
Project Underground
Public Citizen*
Public Utility Law Project
Redefining Progress
Renewable Energy Policy Project
Texas Legal Services Center
Texas Ratepayers' Organization to Save Energy
Texas Sustainable Energy and Economic Development Coalition
The United Tribes of North Dakota
Union of Concerned Scientists*
Vermont Energy Investment Corporation
West County Toxics Coalition
Youth Ministries for Peace and Justice

Fact Summary for Resolution on Sustainable Energy and Low-Income and Minority Communities

*by the Renewable Energy Policy Project**

The following fact summary provides background information on the preamble clauses in the *Resolution on Sustainable Energy and Low-Income and Minority Communities*, which is supported by over 50 groups from groups across the nation.*

"WHEREAS our children's future, including their health, climate, water and air face serious consequences from our continued dependency on fossil fuels and nuclear power"

- Electric utilities are responsible for 26% of the nation's nitrogen oxide emissions and 64% of sulfur dioxide emissions. The electric utility sector ranks first among U.S. industries emitting toxics as listed in the federal Toxic Release Inventory, releasing 1 billion pounds of toxics in 1998, more than the chemical, paper, plastics and refining industries combined. Many of these emissions are known carcinogens, neurotoxins, and acid gases that contribute to respiratory problems such as asthma and emphysema.[1]

- Utilities are the leading source of mercury emissions (32.8% of the nation's total). The National Academy of Sciences recently found that mercury causes developmental defects in 60,000 American children in utero each year. Its impacts are similar to those of lead, and include impaired mental development, learning disabilities and delayed development or deficits in language, deficient motor function, attention and memory. Since mercury can accumulate in fish, Native American and low-income and minority fisherfolk and their families are most at risk.[2]

- U.S. electric utilities accounted for 36% of total U.S. greenhouse gas emissions in 1997, and over 8% of the world's greenhouse gas emissions in 1997.[3] Plants fueled by coal, natural gas, and oil make up the vast majority of these totals.

- Coal mines have produced 95% of the total acid mine drainage in the U.S. Acid drainage harms 12,000 miles of American rivers, and damages and eliminates aquatic life.[4]

- Coal mining has disturbed 2.4 million hectares of American land. Mountaintop removal in West Virginia (in which the tops of mountains are cut off and dumped into adjacent valleys) and surface mining in Wyoming are the two most prominent examples of land disturbance by coal mining today.[7]

- All 6 low-level nuclear waste dumps ever used in the U.S. have leaked material into surrounding groundwater and vegetation. (Unshielded nuclear waste can deliver a lethal dose of radioactivity in as little as 30 seconds.)[5]

- Waste "tailings" from uranium mining represent the vast majority of low-level radioactive waste in the U.S. The principal radioactive component, thorium-230, has a half-life of 75,000 years.[6]

"WHEREAS low-income, minority and tribal communities suffer disproportionate health and ecological impacts from the energy industry and from energy users, including coal and uranium mining, oil extraction, oil refining, power plant siting, dirty and unsafe industrial practices, and vehicle pollution"

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* This fact summary, however, is not assumed to have the support of the groups that have expressed support for the resolution. The author, Virinder Singh, takes sole responsibility for the content of this fact summary, which does not necessarily reflect the opinions of REPP, the REPP Board of Directors, or its funders. A portion of this summary has benefited from research in Adam Serchuk, *The Environmental Imperative for Renewable Energy: An Update*. Washington, DC: Renewable Energy Policy Project, April 2000.

- Indian Country holds one-third of the uranium mining and milling waste in the U.S. Mines on the Crow,Hopi and Navajo nations yielded more coal than the state of Illinois in first quarter of 1998—all from surface mining. In Navajo nation, over a third of all homes do not have access to electricity.[8]

- Oil extraction threatens the autonomy of a number of local peoples throughout the world, including the Ogoni in the Niger Delta of Africa, the U'wa of Colombia, and the Gwichin of northern Alaska. All of these groups have protested the presence or plans of major oil companies, due to negative environmental, economic, and political impacts. For example, in one of the most extreme cases of oil extraction impacts, Human Rights Watch found that foreign oil companies in Nigeria have habitually spilled oil with no threat of penalty. Government and quasi-government security forces, some of whom have received funding from foreign oil companies, have beaten and killed local citizens who have demand compensation for spills on their property. Oil companies have failed to protest or even monitor the repression of local citizens.[9]

- While statistics remain difficult to obtain, refineries located in low-income communities of color present serious environmental health threats. On March 25, 1999, Richmond, California (a predominantly low-income, African-American community) witnessed two explosions caused by valve failures at an oil refinery that sent 350 people to the hospital with breathing difficulties and vomiting. Emergency shutdowns, leaks and substantial "business-as-usual" emissions have occurred in low-income communities of color from Marcus Hook, Pennsylvania to Norco, Louisiana.[10]

- The poverty rate of communities located within one mile of coal-fired power plants—20%—is almost double that of the general population (11.3%). Such communities are 21.5% non-white, compared with 17% in the general population.[11]

- Families with annual incomes below $10,000 suffer more than twice the incidence of asthma, a respiratory illness partly attributable to air pollution, than families making more than $35,000. This makes low-income families more vulnerable to pollution-related illness. African-Americans are 2 to 6 times more likely than whites to die from asthma.[12]

"WHEREAS low-income families disproportionately spend more of their income on basic energy services"

- Low-income households spend 14.5% of their annual income on energy, compared to an average of 3.5% for all other households in the U.S.[13]

- Households making less than $25,000 per year spend on average $1,155 per year on energy bills. For the *wealthiest* families in this group (those making $24,999), that comprises 4.6% of annual income. That compares with $1,696 spent per year on energy for households making $50,000 or more per year, which translates to only 3.4% spent on energy for the families making the *least* in this group (that is, $50,000).[14]

- Households in Indian Country pay 8.7 cents per kWh for their electricity, which is 7% higher than the average rates paid by all American households (8.1 cents per kWh).[15]

"WHEREAS homes in low-income, minority and tribal communities severely lack energy efficiency features that ensure heating, cooling, and lower bills"

- Since energy efficiency measures such as insulation, better building materials, efficient appliances, lighting, and water heating reduce energy use and therefore energy bills, low-income citizens in particular will save an important portion of their income from energy costs. In addition to energy costs, energy efficiency benefits low-income households through reduced housing loss and abandonment, reduced loss of service due to terminations, improved property values and reduced health effects.[16]

- Twenty million eligible, low-income homes still await energy weatherization installations to reduce energy use and improve comfort.[17]

"WHEREAS rising energy demand and the restructuring of the electric industry is unleashing more fossil fuel power plants and extending the operating hours of existing nuclear and fossil fuel plants in low-income and minority communities—thereby degrading the air, displacing other uses of community space, and lowering local property values"

■ Americans are expected to use 27% more energy in 2020 compared to 1998. Energy consumption should increase for all primary sectors—residential, commercial, industrial and transportation. Electricity use is the top driver for greater energy use in the residential, commercial and industrial sectors. Without a significant commitment to energy efficiency and renewable energy, high electricity consumption could result in 1,000 new power plants in 2020, the vast majority (97%) powered by fossil fuels.[18]

■ The volatile price of electricity in electricity markets in the Midwest in 1999 and in California in 2000 has prompted many electric utility officials to assert the need for more power plants rather than cutting energy use. Electricity restructuring, once legislated in individual states, provides the rules of the road for power companies to embark on building new power plants. For example, one estimate found that the mid-Atlantic states (New Jersey, Maryland, Delaware and Pennsylvania) are the target for over 30,000 megawatts-worth of new power plants, none of which were likely to be renewable.[19]

■ Many energy planners today are calling for siting new, large power plants near where the power is consumed, thereby foregoing transmission line constraints and reducing power lost in transit along the grid from source to consumer. Consumers of electricity are predominately located in cities. Power plants will be sited in neighborhoods that resist them the least. However, by locating large industrial facilities in neighborhoods, energy planners and companies can degrade the visual qualities of the neighborhood, attract high volumes of vehicle traffic related to plant operations, and occupy space such as waterfronts that are increasingly attractive sites for commercial, residential and recreational development that have benefited cities such as Baltimore, Providence, San Francisco, and New York.

There are many examples of power plant operations targeting low-income and minority communities. Recently, in response to calls for more secure power supplies in California's Bay Area, a California utility attempted to install an oil-fired power plant on a barge next to Hunter's Point, a low-income community of color in San Francisco. After substantial protest the project was dropped. However, similar issues face other cities. In New York City, a utility has proposed to ramp up operations in a power plant located in Manhattan's Lower East Side, a low-income community of color, to compensate for a plant closure in midtown Manhattan.[20]

"WHEREAS the current state of electric industry restructuring may create higher and more volatile electric rates for residential customers, excessive payoffs to dirty power plants, and inadequate support for cleaner energy options, despite its potential to advance cleaner, more affordable energy"

■ Unfortunately, San Diego, California, the first city in the U.S. to experience unregulated pricing for electricity, endured a doubling in electricity prices in the summer partly due to high demand for power in nearby regions. Such volatility may spread to other states, particularly in the summer when demand for power is often greatest, unless restructuring policies do the following, among others: offer sufficient incentives or requirements to curb electricity consumption; encourage new, appropriate supplies of power; and contain sufficient consumer provisions to guard against extreme price volatility.

Throughout the U.S., state deregulation bills have included some form of support for renewable energy and energy efficiency. However, given the importance of moving to a clean energy future, it is unlikely that the current amount of support for these cleaner energy options will lead to an ambitious transition within our energy system. For example, the total amount of money for renewable energy and energy efficiency in all state deregulation programs up to September 2000 was roughly equal to $1.5 billion. While this will contribute to clean energy development, it is just one-fifth of the money to be raised by California utilities alone to

pay off the remainder of their nuclear power plants ($7.3 billion). The trend for funding nuclear energy more than renewable energy is not new—since 1943 nuclear power has received 120 times more federal money than wind energy, and 33 times more federal money than solar energy. Nuclear energy has also received more money than both wind and solar during comparable periods of early technological development.[21]

"WHEREAS transportation policies that promote urban sprawl, encourage greater reliance on gasoline and diesel fuel, and neglect mass transit seriously affect low-income, minority, and tribal communities through air pollution, increased health problems and fewer job opportunities"

A study by the Environmental Justice Resource Center found the following trends in Atlanta, which has the lowest population density of any U.S. metropolitan area:[22]

- The average Atlantan drives more miles per day than any other population in the world, even 50% more than the average Los Angeleno. While 34.9% of Atlanta's black females and 24.3% of black males use public transit, 5.2% and 4.2% of their respective white counterparts use public transit.

- Increased driving due to Atlanta's sprawl has contributed to four counties in the region nonattainment of U.S. EPA standards for ground-level ozone. Two of the four counties have the largest share of people of color. A disproportionately large share of the childhood asthma cases—90.1%—in the Atlanta nonattainment area occur in Fulton and DeKalb counties—two counties with the largest share of people of color.

- Sprawl in Atlanta has separated minorities from new jobs. The core city of Atlanta's share of regional jobs dropped from 40% in 1980 to 29.5% in 1990, while Atlanta's northern suburbs share of jobs rose from 40% to 52% from 1980 to 1990. One third of the region's people of color live in the city of Atlanta, compared to 6.3% of the region's whites.

"WHEREAS increased energy efficiency, renewable energy sources such as solar and wind, new energy technologies such as fuel cells, and cleaner transportation fuels such as natural gas offer significant yet virtually untapped potential to improve the environment; supply affordable energy to meet diverse needs; foster energy independence; create jobs in low-income, minority and tribal communities; and lessen global warming"

- According to a study by five clean energy organizations, a significant national commitment to renewable energy and energy efficiency up to 2010 would cut electric sector NOx emissions by 48%, SO_2 emissions by 77%, particulates by 38%, and CO_2 emissions by 27% below 1990 levels. This would save $530 per U.S. household.[23]

- The study mentioned above estimates that energy efficiency could actually cut national energy use from 2000 to 2020.

- Installing 3,000 MW of wind power in Texas would add just 75 cents to average family's monthly electric bills. A national wind program that installed 10,000 MW of wind over 10 years would create $7 billion in direct economic activity, or 52 cents per American household per month over 10 years.[24]

- Wind, solar, biomass and geothermal technologies have all exceeded published expectations of cost reductions from 1975 to the present. Wind is the fastest growing energy source in the world, driven by efforts in Germany, Denmark and Spain.[25]

- A study by the U.S. Energy Information Administration found that Indian nations containing 50% of the U.S. Indian population have renewable resources (such as wind, solar and biomass) that could be developed for less than 2 cents above average wholesale electricity prices in their respective regions. Indian nations can even become exporters of green power, earn revenue, and create new jobs. These Indian nations are located throughout the U.S.[26]

■ Fuel cells provide power by cleanly processing hydrogen and oxygen to produce power, heat, and water. If a fuel cell user harnesses both power and heat, then fuel cells offer energy with lower emissions of nitrogen oxide and other regulated air pollutants than any large fossil fuel power plant.[27]

■ Natural gas buses emit 90% less particulate matter than diesel buses. They also reduce emissions of volatile organic compounds and nitrogen oxide, two key contributors to smog, and of certain toxic chemicals such as benzene.[28]

■ Fuel cells, solar photovoltaics, and other small clean energy technologies are relatively unobtrusive compared to large power plants. Therefore, they are appropriate "neighborhood technologies" for urban areas facing energy shortages, since they do not carry negative impacts on property values and neighborhood quality-of-life. And if they are installed and maintained by local businesses and workers, they will contribute to new jobs and capital investments in communities. For example, a new photovoltaic facility in Chicago is expected to create 100 new jobs in the city.[29]

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1 U.S. EPA, *National Air Quality and Emissions Trends Report, 1997*, EPA 454-R-98-016. December 1998. National Environmental Trust, *What the Toxics Release Inventory Tells Us About Power Plant Pollution*. August 2000.

2 U.S. EPA, *Mercury Study Report to Congress, Volume II: An Inventory of Anthropogenic Mercury Emissions in the United States*, EPA 452-R-97-004. December 1997. National Academy of Sciences. "EPA's Methylmercury Guideline is Scientifically Justifiable For Protecting Most Americans, But Some May Be at Risk" July 11, 2000.

3 U.S. EPA, *Inventory of Greenhouse Gas Emissions and Sinks: 1990-1997*, EPA 236-R-99-003. April 1999.

4 Jeff Skousen, West Virginia University, personal communication with Adam Serchuk, 18 February 2000. American Rivers. "Acid Mine Pollution" <http://www.arivers.org/mines.html> Accessed 5 September 2000.

5 Auke Piersma, *Petition to Federal Trade Commission to Declare Nuclear Energy Institute Advertisements False and Misleading* <http://www.citizen.org/cmep/restructuring/ftc.pdf> Accessed 22 August 2000.

6 Institute for Energy and Environmental Research. *Uranium: Its Uses and Hazards.* <http://www.ieer.org/fctsheet/ uranium.html>. Accessed 19 November 2000.

7 Jeff Skousen, Paul Ziemkiewicz, and Christina Venable. "Evaluation of Tree Growth on Surface Mined Lands in Southern West Virginia" Available at <http://www.wvu.edu/~agexten/landrec/evaltree.htm>.

8 U.S. Office of Surface Mining, <http://www.osmre.gov/hidden/coalprod.htm>. U.S. Energy Information Administration. *Energy Consumption and Renewable Energy Development Potential on Indian Lands.* Washington, DC: April 2000.

9 Human Rights Watch. *The Price of Oil: Corporate Responsibility and Human Rights Violations in Nigeria's Oil Producing Communities*. New York: January 1999. Available at <http://www.humanrightswatch.org/hrw/reports/ 1999/nigeria/index.htm>.

10 Larry Hatfield, Marsha Ginsburg and Tyche Hendricks. "Chevron Fire Sparks E. Bay Fears: Safety audits demanded" *San Francisco Examiner*. March 26, 1999. Most recently, a refinery in Marcus Hook experienced an emergency shut-down due to a malfunction. *Oil & Gas Journal Online, Processing News Briefs.* Sept. 4, 2000. A refinery near Norco, a low-income community of color, released 855 tons of toxic chemicals in 1997. National Oil Refinery Action Network, "Federal Investigation Bolster's Norco's Diamond Community Demand for Relocation From Shell" November 12, 1999.

11 Martha Keating. *Laid to Waste: The Dirty Secret of Combustion Waste from America's Power Plants* Denver, Colo: Citizens Coal Council et al., 2000. Available at <http://www.cleanair.net/laidtowaste.htm>.

12 Centers for Disease Control, "Asthma-United States, 1980-1990." *Mortality and Morbidity Weekly Report* 39 (1992): 733-735.

13 National Community Action Foundation. <http://www. ncaf.org/wxamndtp.htm>. Accessed 5 October 2000.

14 U.S. Energy Information Administration. *1997 Residential Energy Consumption Survey*. <ftp://ftp.eia.doe.gov/pub/consumption/residential/ce_tables/enduse_expend.pdf>. Accessed 26 September 2000.

15 U.S. Energy Information Administration. *Energy Consumption and Renewable Energy Development Potential on Indian Lands.* Washington, DC: April 2000. <http://www.eia.doe.gov/cneaf/solar.renewables/ ilands/fig7.html>

16 John Howat and Jerrold Oppenheim. *Analysis of Low-Income Benefits in Determining Cost-Effectiveness of Energy Efficiency Programs*. National Consumer Law Center, 1999.

17 Statement by Dan Reicher, Assistant Secretary of Energy. Presentation at Energy and Environment Study Institute, Washington, DC. October 4, 2000.

18 U.S. Energy Information Administration. Annual Energy Outlook 2000. Washington, DC: December 1999. DOE/EIA-0383 (2000).

19 "Merchant Mania: Regional Markets Draw Gen Plant Projects" *Public Utilities Fortnightly*. January 1, 2000. Vol. 138, No. 1.

20 David Lazarus, "Ready or Not, Power Barge Headed for Bay: PG&E has some legalities to iron out in meantime" *San Francisco Chronicle*. July 18, 2000.

21 Clean energy funds data from American Council for an Energy Efficient Economy. <http://www.aceee.org/briefs/mktabl.htm>. Data on federal money for nuclear, wind and solar from Marshall Goldberg, *Federal Subsidies: Not All Technologies Are Created Equal*. Washington, DC: Renewable Energy Policy Project, July 2000.

22 Environmental Justice Resource Center. *Sprawl Atlanta: Social Equity Dimensions of Uneven Growth and Development*. Atlanta: January 1999. <http://www.ejrc.cau.edu>.

23 Alliance to Save Energy et al. *Energy Innovations: A Prosperous Path to a Clean Environment*. Washington, DC: 1997.

24 Jamie Chapman et al. *Expanding Wind Power: Can America Afford It?* Washington, DC: Renewable Energy Policy Project, 1998. Available at <http://www.repp.org>. The estimate of U.S. benefits assumes a constant U.S. population of 300 million over 10 years, at 2.61 people per household (based on 1998 Census average household data).

25 James McVeigh, Dallas Burtraw, Joel Darmstadter and Karen Palmer. *Winner, Loser of Innocent Victim: Has Renewable Energy Performed as Expected?* Washington, DC: Renewable Energy Policy Project, March 1999.

26 U.S. Energy Information Administration. *Energy Consumption and Renewable Energy Development Potential on Indian Lands.* Washington, DC: April 2000.

27 For example, see Nathanael Greene and Roel Hammerschlag, "Small and Clean Is Beautiful" *Electricity Journal*. June 2000.

28 Natural Resources Defense Council. "Clean Fuel Buses" <http://www.nrdc.org> Accessed 25 September 2000.

29 U.S. Department of Energy. "Chicago Developing New Center for 'Green Industry'" August 4, 1999. <http://home.doe.gov/news/releases99/augpr/prl99088.htm>. Accessed October 19, 2000.

The Renewable Energy Policy Project (REPP) supports the advancement of renewable energy technology through policy research. We seek to define growth strategies for renewables that respond to competitive energy markets and environmental needs. Since its inception in 1995, REPP has investigated the relationship among policy, markets and public demand in accelerating the deployment of renewable energy technologies, which include biomass, hydropower, geothermal, photovoltaic, solar thermal, wind and renewable hydrogen. The organization offers a platform from which experts in the field can examine issues of medium- to long-term importance to policy makers, green energy entrepreneurs, and environmental advocates.

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