



League of Women Voters of Minnesota Records

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memorandum

The League of Women Voters of the United States

This is going on DPM

February 8, 1974

TO: Local and State League Presidents
FROM: Ruth Clusen, Chairman, Environmental Program and Projects
RE: Energy 1

Last May the 1973 National Council asked the national board to provide all local and state Leagues with informational material on the energy problem. The national board agreed to try to fill the need described by the council delegates, but only if outside funding could be found to meet the cost of publishing and mailing the material.

The process has taken some time, but in this mailing you are receiving the first of the briefs on energy mentioned in the January 1974 National Board Report. Each one will be a fact sheet on one aspect of the problem with a short list of pertinent readings and a few questions to help focus that reading.

One copy of each energy fact sheet will be mailed without charge to every ILO, local and state League president and on duplicate presidents' mailings (DPMs). Because we think you will want to get ENERGY out to your members (e.g. along with your local League bulletins or local subscription service), ENERGY briefs are priced for bulk sale at \$1.00 for 25 copies of the same issue (large quantity prices on request).

State leaders asked for this information. The national Board is pleased to be able to meet the request.

ENERGY

Point of departure

Here is the first of a series of energy fact sheets. In answer to requests for information, reading suggestions, and discussion questions, the LWVEF is introducing ENERGY. Number 1 connects our long interest in environmental matters with upcoming specific attention to energy-related topics. Number 2 will be "Who's in charge, and of what?" Later briefs will take up federal help for new energy sources, conservation through pricing, depletion allowances, and other topics-though not in that sequence. ENERGY aims neither to report fast-breaking news nor to present definitive reports. ENERGY aims at citizen education by helping its readers think and talk about significant parts of the complex energy problem.

DISASTER OR ENVIRONMENTAL OPPORTUNITY?

In short

The United States produces less energy (from petroleum, natural gas, coal, and hydroelectric, nuclear, geothermal, and solar power) than it needs to satisfy its escalating demand for power. Anxiety about energy shortages has created an atmosphere favorable to interests who want pollution abatement standards and regulations set aside and deadlines for compliance postponed. Hard-won environmental gains are in danger. Attacks on environmental protection go beyond necessary adjustments and temporary variances. Yet changes put forward now to cut back the demand for energy are the very changes environmentalists have long been urging on the nation. The discomfort and trouble of today may stimulate new personal attitudes and national policies of benefit to the environment over the long term.

Background

Over the past ten years defenders of a physical environment beneficial to man have been calling attention to the extravagance and waste of resources in

- manufacturing large, heavy, over-powered cars and regularly using them to carry one person at a time
- neglecting public transportation while over-expanding the highway system
- operating inefficient energy-expensive industries and energy-consumptive public projects
- pricing energy at less than its true costs and charging less per increment as more is used
- increasing unnecessary packaging and numbers and types of throw-away articles
- burying or burning solid wastes without recovering energy or materials
- over-heating, over-cooling, and over-lighting homes, offices, public buildings

Environmentalists were the first to call for energy conservation, to draw attention to the danger of exponential growth in consumption, to urge development of technologies to utilize solar and geothermal heat. Conservationists' warnings, like Cassandra's, went largely unheeded. But now, with the cutback in petroleum imports, government and industry extoll these same resource-saving changes.

Everyone fears the effect of fuel shortages on employment. Everyone finds some inconvenience and discomfort in altering personal habits. But at least our country is experiencing these tests at a time when we are less dependent on foreign than on domestic sources.

The United States has been a nation of energy wastrels with the highest per capital energy consumption in the world. Our present energy problem could become the catalyst for less wasteful and destructive habits IF (and the ifs are big) environmental safeguards are relaxed only where and when energy short-

ages make such exceptions necessary to prevent suffering and if the nation adopts changes now advocated to conserve energy and avoids rushing blindly into every possibility to increase the supply of energy.

Recycling, light-weight cars, public transit, office and public buildings and homes better insulated and with less glass, efficient generating of electricity, process and product changes that turn industry from planned obsolescence and the "more-powerful-is-better" syndrome, recycling of waste materials--all might become the U.S. way of life. If so, what threatened to be disaster would have been the opportunity to move the United States from its orgy of energy consumption into a sane, energy-wise, environmentally-attuned society.

People are saying

"It should become a mark of distinction that an individual consumes less than he can afford--drives a smaller car or uses public transit, lives in a smaller home which he does not overheat in winter or overcool in summer, carefully controls his diet, and otherwise exercises self-restraint in the consumption of material things. And it should become a badge of shame that an individual leaves his electric lights blazing on a bright summer day, roars down the highway at 80 miles per hour in a two-ton automobile, or otherwise is profligate in the use of limited natural resources." Charles F. Luce, Chairman, Consolidated Edison Company of New York, in Citizens' Advisory Committee on Environmental Quality, Report to the President and to the Council on Environmental Quality, October 1973.

"We need a comprehensive assessment of the long-range outlook for energy for the purpose of arriving at a broad national policy to guide the future development of the energy industries along lines consistent with society's overall needs and nature's overall limitations." Lelan F. Sillin, Jr., Chairman and President, Northeast Utilities, in "A Project for Prometheus," Engineering Foundation Conference, Andover, N.H., 1971.

"There have been signs for several years that some people are moving, without organized leadership, toward lifestyles that require less energy....a subtle turning away from the traditional, more-is-necessarily-better, wealth-equals-success value system--a questioning of whether the slick, convenient throwaway society is so desirable after all." Robert Cahn, Christian Science Monitor, December 17, 1973.

To ponder and discuss

- Can environmental harm from modification of regulations and postponement of control deadlines be balanced by environmentally helpful adjustments to energy shortages?
- If the cutback in foreign petroleum ceases soon, will people continue energy conservation, having learned the lesson that domestic supplies can be overdrawn and dependence on foreign supplies overdone?
- How can individual habits be changed and government policies developed to make the nation less dependent on ever-increasing amounts of petroleum?

F.Y.I.

Shell Oil Company. THE NATIONAL ENERGY OUTLOOK. March 1973. 39 pp. Illus. Free on request from Shell Oil Company, Public Relations Operating, 1 Shell Plaza, P.O. Box 2463, Houston, Texas 77001. The corporation's assessment teams's forecast to 1990 of U.S. energy supply and demand in toto and by types of fuel, potential effect of energy conservation measures; excellent graphics.

Train, Russell. REMARKS BEFORE THE EDISON ELECTRIC INSTITUTE/ENVIRONMENTAL PROTECTION AGENCY SEMINAR. Washington, D.C. Dec. 1973. 13 pp. Free on request by title from Office of Public Affairs, EPA, Washington, D.C. 20460. Explains why concern for environmental values is not responsible for the energy shortage, why the nation must cut back its energy-demand growth, some ways to do so, why the current crisis may turn out to be good for us.

U.S. Department of the Interior. UNITED STATES ENERGY-A SUMMARY REVIEW. Jan. 1972. 42 pp. illus. biblio. glossary. 75¢ from Sup. of Docs., U.S. Govt. Printing Office, Washington, D.C. 20402. Drawn from detailed studies on which departmental decisions are based; energy needs and national objectives (security, environmental control, consumer interests); resource and supply problems of electric power, coal, gas, petroleum, etc.

ENERGY 2

WHO'S IN CHARGE? AND OF WHAT?

In short

Executive Order 11748, issued December 4, 1973, created new federal machinery to deal with the energy problem. Described as "the biggest government shake-up since new deal days," the Federal Energy Office took over energy responsibilities from several federal agencies. Petroleum price-control duties of the Cost of Living Council and the energy pricing task force of the Office of Management and Budget went to the new agency. Four U.S. Department of Interior Offices--Petroleum Allocation, Energy Conservation, Energy Data and Analyses, and the Office of Oil and Gas--were shifted to FEO. Having "decided to bring together in one agency the major energy resource management functions of the federal government," the President asked Congress to establish the new agency by legislation. When it does so, Congress will set the breadth and limits of the energy agency's duties and powers.

Background

As every interested person knows, the President named William E. Simon, Deputy Secretary of the Treasury, as administrator of the new Federal Energy Office. John C. Sawhill, for a short time one of four Associate Directors of the Office of Management and Budget with responsibility for natural resources, energy and science, is the Deputy Director. Until Congress acts, the operation which Simon heads is still part of the White House structure, the most recent of a line of arrangements intended to give policy direction in energy matters.

When President Nixon was inaugurated in 1969, the White House office included the Office of Emergency Planning (OEP) watching over oil and fuel stockpiles and the Office of Science and Technology (OST) with its small energy policy staff. After brownouts on the east coast and export cutbacks by Libya, the National Energy Subcommittee of the Domestic Council was organized (August 1970) as a cabinet level group to give energy policy attention at a higher level. Although President Nixon issued the first energy message (June 1971) sent to Congress, he is said to have given the subcommittee little policy guidance and been inaccessible to it. Cabinet level interest gradually faded.

The president's second term saw the OST and OEP abolished and the cabinet level Energy Subcommittee of the Domestic Council dismantled. Erlichman, Secretary of the Treasury Schultz, and Kissinger became an energy triumvirate. Early in 1973 Simon, from his post in Treasury, was named head of a cabinet-level committee on oil policy. When Erlichman left the White House with no firm energy policy established, Governor Love was brought in from Colorado to take charge of the White House Energy Policy Office and chair the President's Energy Emergency Action Group (established Nov. 1973). Love, dubbed the energy czar, had little power and a short reign, for on December 3 the White House Energy Policy Office was disbanded. Issuing his Executive Order on December 4 the President said, "I am personally assuming the Chairmanship of the Energy Emergency Action Group which will continue to oversee all major policy issues relating to energy." And Simon, the President continued, "will serve as executive director for the group."

When Simon succeeded Love (December 4) the President announced not only a new head for White House energy policy functions, but also a new centralization of operational and regulatory functions in the executive branch, where energy-related responsibilities had been dispersed among 60 agencies.

The new agency's powers over energy far exceed those held by any other executive agency or office charged with energy responsibilities. FEO's DIRECT power is limited to oil: the executive order delegated to the Administrator the authority vested in the President by the Emergency Petroleum Allocation Act of 1973, by section 203(a)(3) of the Economic Stabilization Act of 1970 as amended, and by the Defense Production Act of 1950 as it related to production, conservation use, control distribution, and allocation of energy. As of now, natural gas, coal, hydroelectric power, nuclear power, geothermal steam, and other forms of energy will continue under their present agencies in the executive branch. The FEO, however, has power to REVIEW energy POLICY in general: the executive order says, "The Adminis-

trator of FEO shall advise the President with respect to establishment and integration of domestic and foreign policies relating to production, conservation, use, control, distribution, and allocation of energy and all other energy matters."

As 1974 opened, functions transferred to FEO were organized into six offices, each with an assistant administrator. The names and tasks of the offices suggest the scope of FEO.

- Economic and Data Analysis and Strategic Planning under Eric Zausner compiles information gathered elsewhere in the government as the basis for planning options.
- Policy, Planning, and Regulation under Duke R. Ligon plans for product allocation and rationing, crude oil allocations, residual fuel, pricing and price controls.
- Operations and Compliance under John W. Weber implements the allocation policy. Because it applies the regulations, it receives the queries and complaints about petroleum and home heating fuel, diesel, and airplane fuel allotments.
- International Policy and Programs under Stephen A. Wakefield works on oil imports, overseas military needs, and other international concerns.
- Energy Conservation and Environment under Zausner (acting) studies long range transportation, residential, commercial, and industrial policy initiatives and research programs to conserve energy and their environmental impact and coordinates local, state, and federal conservation programs.
- Energy Resources Development under Robert Shatz works toward the President's Project Independence 1980 goal by speeding up technologies to exploit domestic sources and developing comprehensive R&D strategy toward national energy self-sufficiency.

The offices of International Policy and Programs and of Energy Resource Development are new. Of the Assistant Administrators, Zausner, Ligon and Wakefield came from Interior, Shatz from the Hudson Institute, N.Y., and Weber from a Connecticut manufacturing company.

A separate Energy Research and Development Office of FEO, headed by Dr. Alvin Weinburg, former director of AEC's Oak Ridge National Laboratory, has as its job to insure that R&D priorities are consistent with overall energy policy; to aid the Administrator in evaluating new R&D programs; to work with AEC, EPA, Interior, and National Science Foundation for balanced federal R&D programs and with OMB, CEQ, and other White House offices in presenting R&D alternatives to the President.

Five days after the formation of the FEO, Simon announced creation of 10 regional offices with full time regional directors. By December 14 he had formed seven citizen advisory committees: agriculture, business, consumer, environmental, petroleum industry all segments, petroleum industry independents, and state legislatures. The committee for the independent sector of the petroleum industry is organized on a regional basis and has the most committee members.

Formation of the FEO has accomplished a part of what the President sought through his proposals for a Department of Energy and Natural Resources and for an Energy Resources and Development Administration, both now before the Congress. The dilemma the FEO faces in carrying out its responsibilities is that the options that make the best economic sense are politically hazardous and the politically attractive solutions seem economically unsound.

F.Y.I.

Gillette, Robert. "Energy: The Muddle at the Top." SCIENCE. Dec. 1973. pp.1319-1321. Energy's shifting parentage pre-Simon.

Senate Committee on Interior & Insular Affairs. HISTORY OF FEDERAL ENERGY ORGANIZATION. 1973. Com. Print no. 93-19 (92-54). 59 pp. 60¢. Sup. Docs. stock no. 5270-02045. Analysis, by major national policy areas, of underlying considerations and principal historical events shaping the development of past federal governmental arrangements for making energy related decisions.

Senate Committee on Interior & Insular Affairs. LEGISLATIVE AUTHORITY OF FEDERAL AGENCIES WITH RESPECT TO FUELS & ENERGY. 1973 Com. Print no. 93-2 (92-37). 236 pp. \$1.65. Sup. Docs. stock no. 5270-02033. Analysis of how federal agencies view and use their statutory authority over energy.

The committee prints, background documents for National Fuels & Energy Policy Study authorized by Sen. Res. 45, are free on written request to Sen. Int. & Ins. Comm. Or purchase from Sup. of Docs., U.S. Govt. Printing Off., Washington, D.C. 20402; allow up to 6 weeks for delivery.

ENERGY 3

THOSE ELUSIVE FIGURES: OIL

In short

Many people--among them congressmen, truckers, and gasoline-short citizens--find TV and newspaper reports about the oil shortage confusing. Where do the experts get their figures for millions of barrels per day and percentages of normal supply? When experts cite different figures, how can we know who's right? Everyone cites the figures that best suit his purpose. Experts really do disagree on some things but in many cases the contradictory figures refer to different situations, times or places. The listener who understands these distinctions will find the figures less elusive. To get a firmer grasp on the numbers, learn the meaning of the terms used in the oil industry. Remember that almost all the figures are compiled from oil company data and estimates. Note that U.S. statistics on oil will continue to be meager even after Federal Energy Office improvements are in operation. And keep in mind that little of the data that agencies collect ever reaches the public because the oil companies insist that information they furnish is proprietary (exclusively the company's property).

Background

To what do the figures refer? It is essential to know what a figure for available U.S. oil includes. Is it the amount produced in the United States (domestic) or does it contain U.S. imports? Does the figure stand for supply, known quantities that can be produced from day to day? Or does the figure include reserves, materials known to exist (delineated) and capable of being developed for production (recoverable)? Or is it describing the estimated total resources, the amount of crude oil thought to be in the ground including that not yet discovered?

The term "available" has different meanings. Petroleum usable at near term (by 1985) must be distinguished from reserves that may become available nearer 2000 and from resources for the long term, 21st century. Availability of reserves depends on the degree of certainty with which the petroleum source is identified, on recovery technology, and on market price for the product. All three change with time. Immediate availability depends also on existing transportation and marketing arrangements. Availability from foreign sources depends on these same factors plus complications from international trading competition, cartels, and other nations' foreign and economic policies.

For statistics on supplies and reserves, it is important to know whether the figures describe total crude oil or one of its fractions--gasoline, middle distillates (jet fuel, diesel fuel, home heating oil), or residual fuel oil (used by industries and utilities) or in the case of U.S. imports, whether figures refer only to imports from overseas or include imports from North America as well.

Where do the figures come from? In the past the public has received its information about oil through the U.S. Department of the Interior, whose Bureau of Mines and U.S. Geological Survey have been the petroleum-data compiling agencies for the federal government. These agencies get most of their information from the oil industries, whose component parts supply such data as they chose to divulge. Important data sources include:

- oil companies that make estimates of production and reserves--domestic and worldwide--to guide their own planning and investing
- the American Petroleum Institute (API), trade association for the producing companies, which publishes studies of U.S. petroleum production and reserves of crude oil, compiled for each oil field
- the National Petroleum Council (NPC) an officially established federal advisory board, most of whose members are presidents or board chairmen of major U.S. oil companies

To fill its own urgent need-to-know, FEO has been drawing on the oil-data collection systems of the Bureau of Mines, the API, the states, and the Bureau of Customs. The Bureau of Mines gathers data on domestic petroleum supply through voluntary monthly reports by refining companies and terminal opera-

tors. The API reports weekly on refinery runs, production, and yields of all major refined products and inventories of crude oil production. The Bureau of Customs reports, via the Census Bureau, on daily tanker arrivals, and the API reports on the detailed import information which it compiles.

FEO's Administrator Simon says crosschecks of its reporting systems show that over long periods the statistics are accurate and consistent enough to be used in the agency's management decisions. (Since the reporting bodies draw much of their input from identical sources, consistency would seem built-in).

FEO finds other shortcomings in the data now available to it.

■ Information on supply systems is incomplete. Coverage of primary suppliers omits smaller refiners and importers, and statistical techniques used to compensate for their absence may be inadequate. Figures on secondary stocks (petroleum inventories held by other than refineries and major terminal operators) are only pieced together from a number of sources.

■ Information about consumption is scattered and inadequate. Data on use of all fuels for generation of electricity is collected by the Federal Power Commission; on certified carriers' use of aviation fuels, by the Civil Aeronautics Board; on electrical energy consumed in manufacturing industries, by the Bureau of Census. Data on past regional seasonal consumption patterns by state, by month, by industry or other users does not exist. Yet allocation needs must be determined in large part by reference to past consumption levels and trends.

To overcome these deficiencies in supply and demand data, FEO is setting up an integrated, mandatory, petroleum-product reporting system, which it expects to have completely operational by the middle of March. Refiners, major bulk terminal operators, and pipeline companies will be required to file reports directly with FEO. Reports will be of 3 kinds: (1) expected refinery operations during the coming quarter and expected inventories and shipments to each state for the coming month; (2) beginning February 22, 1974, weekly production, yields, and stocks; (3) monthly, a report certified by company officials. To mitigate public suspicion that the data is manipulated by the oil industry, Simon says reports will be subject to continuous field checks by the Internal Revenue Service and FEO, with each major refiner at least partially audited four times a year. FEO officials think the Economic Stabilization Act and Emergency Petroleum Allocation Act give FEO legal authority to require such reports and to enforce sanctions if they are not filed.

People are saying

"To develop sound public policy on energy resource development, pricing policies, and research and development programs, accurate information on reserves is needed. The Federal Government should have the authority to compile, maintain, and verify an inventory of the reserves and resources on public lands...We need cost and operating data for long range planning, as well as for current allocation programs...The operations of the major energy companies are worldwide and it is essential that we have the key information on their international activities which are critical for our domestic needs." W.E. Simon, Administrator, FEO, before the Senate Committee on Interior & Insular Affairs, Feb. 5, 1974.

"If and when oil companies are required to reveal heretofore secret data on estimates of petroleum reserves, that data will be made available to other federal agencies that regulate segments of the industry, Federal Energy Office officials assert. Eric R. Zausner, assistant FEO administrator for data and resources, says information his office receives will be made available--in raw form, identified by company--to agencies which regulate companies' pipeline rates, financial statements, and taxation." EN-ERGY RESOURCES REPORT, Feb. 8, 1974, p. 51.

To ponder and discuss

Should Congress by legislation give the Federal Energy Office, or its equivalent, responsibility and authority to compile figures on U.S. oil supply and demand, imports, refinery operations, and total resources? How much of this information should be available to the public?

F.Y.I.

Schurr, Sam. H. (ed.) ENERGY, ECONOMIC GROWTH, AND THE ENVIRONMENT. Resources For The Future. 1972. 232 pp. graphs. tables. \$10.00 hard cover/\$2.95 paper. Johns Hopkins University Press. Baltimore. RFF public forum papers on economic growth, energy growth and the environment, problems of public policy, trends and patterns in energy consumption.

Theobald, P.K. et. al. ENERGY RESOURCES OF THE UNITED STATES. U.S. Geological Survey. 1972. USGS circular 650. 27 pp. graphs. biblio. Free on request to USGS, Washington, D.C. 22092. Estimates of identified-recoverable to undiscovered-submarginal U.S. energy resources of all types.

ENERGY 4

REFINERIES--FUEL SUPPLY BOTTLENECK

In short

Months before the Arab countries curtailed shipments of crude oil to the United States, federal energy officials were worried about shortages this winter (1973-74) of certain refined petroleum products--home heating oil, diesel fuel and residual fuel (used in power plant and industrial boilers). Even when shipments from the Mideast resume, limited refinery capacity in the U.S. and abroad will cause spot shortages of oil products during the next 3 to 5 years while refineries are expanded or new ones are built.

Background

Modern refineries convert crude oil into a myriad of products including gasoline, diesel fuel, jet and aviation fuel, various grades of heating oils, lubricants, paint solvents, asphalt and liquified petroleum gas. Most refineries also process natural gas to make liquified natural gas and petrochemical feedstocks used for manufacturing rubber, plastics and synthetic fibers. Each refinery has its own product mix depending on the market it supplies and on which of the 8 types of crude oil (of varying density and viscosity) it uses.

The dominant U.S. refinery product is gasoline, followed by heating oil and diesel fuel. Production of each is varied to adjust to seasonal demand. For example, out of a given barrel of crude oil a higher percentage of gasoline than heating oil will be refined in the early summer months. By late summer, refiners usually shift production ratios to produce more heating oil. Because U.S. refiners had trouble meeting gasoline demand in the summer of 1973 and maintained peak-period gasoline production longer than normal, heating oil supplies were expected to be tight the winter of 1973-74. Federal projections showed heating oil would be adequate only if the U.S. winter were mild. The Arab oil boycott worsened the forecast, for in the last several years heating oil imports have been needed to supplement domestic production and almost 50% of the heating oil imported into the U.S. comes from Mideastern crude. To compensate for the import losses and low stockpile of heating oil at U.S. refineries, FEO directed refiners to increase their heating oil output by cutting back on gasoline production.

Fortunately, the winter was mild! FEO now says heating oil supplies are no longer critical and accordingly has directed refiners to produce more gasoline. Severe shortages are still projected for residual fuel, 2/3 of which is imported. Normally New England, for example, is totally dependent on refineries in the Caribbean to supply residual fuel oil for its power plants. Approximately 25% of the crude oil processed in the Caribbean for U.S. markets comes from the Mideast.

WHAT CAUSED THE U.S. REFINERY GAP?

- Oil companies found refineries less profitable than producing crude oil in the Mideast and North Africa. This factor has inhibited refinery construction in every part of the world.
- Dramatic growth in demand for refined products in Western Europe and Japan (rates of growth in consumption were higher than in the U.S.) attracted more refinery investment to these markets than to the U.S.
- The Mandatory Oil Import Program restricted crude oil imports needed to supply U.S. refinery expansion.

The Mandatory Oil Import Program was established by President Eisenhower in 1959 to encourage production from domestic oil reserves by discouraging imports of less costly foreign oil. Import quotas were set for both crude oil and refined products (imports from Canada and Mexico were not restricted). Every six months the allowable imports were allocated among companies wishing to process foreign crude or sell imported petroleum products.

After controls over importing residual oil were lifted (1966) for states in the Atlantic coastal region, oil companies found it profitable to cut back production of this fuel in the U.S. and to build refineries in the Caribbean where they could produce residual oil from less expensive foreign crude.

As demand for petroleum products outstripped domestic crude oil supplies the import quota program was gradually modified, but the allowed increase in crude oil imports was inadequate to stimulate refinery expansion. Despite mounting U.S. reliance on imports of crude and refined oil products, major oil companies and oil producing states opposed doing away with import restrictions. The program helped maintain high domestic oil prices and favored established refiners.

Some oil companies now argue that opposition from environmentalists, not the import program, was responsible for restricting growth in U.S. refinery capacity. The Department of Interior cites five instances where new refineries planned along the East Coast were not constructed because of objections from local citizen groups. In a sixth case a refinery proposed for Machiasport, Maine was killed largely by opposition from other oil companies and some federal officials. In 1973 the governors of five New England states sent a letter to the White House Energy Policy Office criticizing government officials for blaming oil shortages on conservationists. Governors Curtis (ME) and Salmon (VT) stated that "even the [refinery] proposals rejected on environmental grounds would have been impossible under the then existing [crude] oil import restraints."

It should be noted that building new refineries is only one way to increase refinery capacity. In 1971, most of the 45 companies that announced plans to increase refinery outputs were adding to ongoing operations. The Council on Environmental Quality's 1973 annual report noted that "roughly a 50 percent expansion of refinery capacity is possible at existing sites."

CLOSING THE REFINERY GAP?

■ On April 18, 1973 President Nixon abolished the oil import quota program and replaced it with a system designed to encourage refinery construction in the U.S. Importers can bring in any amount of crude oil and refined products, but pay lower import license fees for the crude oil. In addition, up to 75% of the crude oil imported for a new refinery is exempt from fees for the first five years of its operation. Since April 1973, 16 companies have announced major expansions or new construction.

■ Expanding existing U.S. refineries is expected to be less controversial than siting new ones. Most domestic refineries are located near oil fields in California, Texas, and Louisiana. Because it has become more economical to transport crude via tankers to refineries near major markets than to ship refined products to these markets, oil companies want to locate more refineries along the East Coast. But conservationists are becoming increasingly concerned about the environmental impacts of coastal development. In 1971 Delaware passed the Coastal Zone Act which barred heavy industry from its shorelines, and other Atlantic coast states are attracted by the Delaware law. Some states with economic problems are lured by the construction jobs and taxes that refineries would provide. They also hope that locally refined products will be cheaper.

■ Arab countries are interested in building refineries near their oil fields and may attract investors away from the U.S. market.

■ Oil companies claim that plans to build or expand refineries cannot go forward unless crude oil producers guarantee increased production levels. As obstacles to refinery investment the petroleum industry cites announced cutbacks in rates of crude oil extraction in Arab states, Venezuela, and Canada, as well as uncertainty about getting offshore drilling leases from the U.S. government.

To ponder and discuss

What should U.S. government policy be on the expansion or construction of refineries? Do refiners need more incentives? Fewer? Should local governments continue to make siting decisions or be superseded by state or federal boards?

F.Y.I.

"The Oil Issue," New England River Basins Commission Regional Report. Dec. 1973. vol. 5, no. 2, 8 pp. Order from New England River Basins Commission, 55 Court St., Boston, MA 02108. Free while supply lasts. Summary of New England's fuel problems.

Senate Committee on Interior and Insular Affairs, OIL REFINERY CAPACITY. 1973.Com. Print no. 93-17 (92-52). 456 pp. Request from your Senator. Free while supply lasts.

ENERGY 5

ENERGY AND ARCHITECTURE

In short

1973 saw a new kind of architectural competition in which all entries in one contest were buildings distinguished not by their style, design or use of space, but by their ability to conserve energy. The construction boom of the 1960s that produced buildings like the World Trade Center (which consumes more energy than the entire city of Schenectady, population 82,000) may be giving way to a system that relies less on demolishing existing buildings and constructing new ones and more on restoring and re-using sound structures. Architects, engineers, builders and their clients are reassessing traditional planning and construction techniques and utilizing energy-conserving materials and design.

Background

Since World War II, American architecture has been characterized by an airy, glass-wall aesthetic that many urban designers and planners welcomed as a needed change in what was often a dark, oppressive cityscape. But the exterior simplicity of a 50-story glass office building was belied by the complex ventilating, lighting, heating and cooling systems required to make the structure habitable in all seasons, at all times of day.

- Extensive glass absorbed heat in the summer but could not retain heat in winter.
- Light construction materials, prefabricated walls and modular units, most with noninsulative qualities, replaced heavy, highly insulative masonry.
- New standards of convenience and comfort developed: clients expected higher lighting levels in buildings, sophisticated temperature controls, reduced elevator waiting times, moving sidewalks.
- Developers of subdivisions cut down all trees because it was less expensive and far easier to level a tract than protect plants during construction.

But some architects admit that energy-saving design is technologically available without raising long-term costs or lowering aesthetic standards and convenience. Conservation methods include:

- *increased use of sunshades, both interior and exterior.* Some architects refuse to install shades or screening, which they say will detract from the purity of a building's design.
- *use of reflective or heat-absorbent glass.* When standard windows are used in western exposures, interior temperatures increase. In northern exposures, however, where heat entry is desirable, heat is not retained. Reflective glasses maintain interior temperatures, hot or cold, but unfortunately those glasses are more expensive than standard types. Developers may be reluctant to increase their initial costs, despite long-term economies.
- *better siting of structures to minimize "heat-loading."* Architects say that proper orientation of a building (that is 2-1/2 times longer than it is wide and has 50 percent glass coverage) can reduce heating or cooling loads by 30 percent.
- *increased structural mass and use of highly-insulative materials.* Thick walls and use of masonry retain temperatures more effectively than light-weight materials. Architects remind us that the Pueblo Indians built adobe houses that withstood blazing sun and severe winters. Buildings which retain heat or coolness use less energy because heating and air conditioning systems can operate at lower levels.
- *increased planting.* All plants, and trees in particular, have moderating effects on climate. In summer, trees shade and cool structures; in winter they act as windbreaks.
- *extended building usage.* Buildings used only 8 to 12 hours a day waste tremendous amounts of energy because the building climate that has been established during the work day is dissipated at night. A

single structure that includes a variety of uses (apartments, offices, theatres and shops) utilizes heating or cooling efficiently and consistently.

These measures conserve energy rather than utilize new sources. Few buildings have actually been constructed with solar heating systems that collect, store and use the sun's heat in any systematic way. (Most simply tend to capitalize on heat radiated from the sun.) Representatives of the National Bureau of Standards stress the need to develop energy storage facilities in buildings. They say that sporadic instances of abating heat loss/gain or improving the operating efficiency of heating and cooling plants are not enough by themselves to make a substantial dent in energy usage, although reduction of any inefficiency helps cut back demand. But people in the building professions say that no serious efforts to conserve or generate energy will be forthcoming until economic and institutional factors change:

1) Energy costs, when compared to other building costs, are extremely low:

financing - \$2/square foot	lighting - 60¢/square foot
cleaning - 75¢/square foot	heating and cooling - 30¢/square foot

Until the price of heating and cooling increases to reflect resource consumption and scarcity, developers have no incentive to consider alternative systems.

2) A builder's ability to obtain financing for new construction is largely dependent on his maintaining low construction costs. He will therefore be unlikely to utilize energy-conserving techniques that increase these initial construction costs but lower long-term operating costs. Although both construction and operating costs of income-producing properties are depreciable--and therefore might offset a builder's reluctance to employ energy-conserving design--current market trends indicate that most building is done speculatively, that building owners tend to sell the structure shortly after its completion. They are therefore uninterested in long-term savings.

3) The shortage of low-cost housing in the United States can best be remedied by inexpensive construction techniques. Because energy conservation measures increase initial costs, there may be a tendency to ignore conservation or to construct high-cost dwellings which are out of the financial reach of low- and moderate-income households.

4) Architects argue that clients are often willing to spend large sums (sometimes 25 percent above standard construction costs) to provide exceptionally attractive environments for workers and clients. As a result, energy-consuming features--increased footcandles, air conditioning, humidifiers--are installed. Says one architect: "There's no way to create this better environment and save energy; we're increasing his (the client's) energy requirements by probably 50 percent."

The debate that appears to be forthcoming about energy and architecture will probably revolve about precisely this point: what standards of comfort and convenience should be built into a structure? Have we come to rely too heavily upon engineered environments that use tremendous amounts of energy ever to revert to an architecture that is simple, frugal and energy-conserving?

People are saying

"What used to be necessities in years gone by--shade trees, porches, wide eaves, solid construction--have become today's luxuries; luxuries of a few years ago--air conditioning, indoor plumbing, electricity--have become today's necessities. There is nothing wrong with this...it is just that we become so caught up in today that we forget that yesterday's necessities are probably still valid today."
Editorial in PROGRESSIVE ARCHITECTURE, Oct. 1971.

"Residential and commercial heating consumes almost a fifth of all energy expended by end users in the U.S. Vast savings are, therefore, possible through even modest improvements in efficiency in this sector." Former Asst. Sec. for Mineral Res., U.S. Dept. Int., quoted in ARCHITECTURAL RECORD, July, 1973.

To ponder and discuss

Should government--federal, state or local--require changes in building codes and specifications to force use of energy-conserving construction techniques?

F.Y.I.

American Institute of Architects. "Roundtable on Energy Conservation." ARCHITECTURAL RECORD. Entire issue. July 1973. Discussion by architects, builders, government officials, bankers, planners, engineers on potentials for energy-conserving design, institutional and technical difficulties.

Large, David B. HIDDEN WASTE--POTENTIALS FOR ENERGY CONSERVATION. 1973. 137 pp. (paper) \$3 if prepaid, \$3.50 if billed. The Conservation Foundation, 1717 Mass. Ave. NW, Washington, D.C. 20036. Techniques of energy conservation in building; detailed section on home building (insulation, heating, air conditioning & appliances). Also explores energy usage in transportation, solid waste management and industry.

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ENERGY 6

AGRIBUSINESS AND ENERGY USE

In short

Spiraling food demand in the United States and throughout the world has led to development of a food industry that is dependent on tremendous amounts of energy. Increases in productivity per acre of land, in the use of farm machinery and in food processing and preparation raise the rate of energy consumption. Eric Hirst of the Oak Ridge National Laboratory estimates, for example, that

- It takes the equivalent of a half-glass of diesel fuel to put a glass of milk on the breakfast table.
- It takes the equivalent of two pounds of coal to produce a one-pound loaf of bread.
- It takes the equivalent of three pounds of coal to produce a pound of hamburger.
- And it takes 6.4 BTUs of primary energy (energy from basic fuels) to deliver one BTU of food value.

Background

Food production involves a number of activities that go far beyond the growing of crops, including processing, transportation, trade and household functions. Processing alone (such as slaughtering, milling, refining, pre-cooking) uses about 32 percent of total energy consumed in food production; transportation, trade and household functions (freezing, refrigerating, cooking, etc.) consume about 50 percent of total energy. Actual farming, using only about 18 percent of food production energy, uses more than 2,200 trillion BTUs each year--over 4 percent of the annual U.S. energy budget.

Farming requires energy fuels for virtually all of its operations. Farm machinery, irrigation systems (primarily pumps), cow-milking equipment and crop-drying facilities use petroleum products such as gasoline, diesel fuel, kerosene, liquified petroleum gas (LPG) and natural gas. At the same time, chemical fertilizers, herbicides and animal feeds are made with petroleum byproducts known as petrochemical inorganics. (Hydrogen produced from a refinery's catalytic reforming unit is combined with nitrogen from the atmosphere to form ammonia, an ingredient of commercial fertilizer.) Fertilizer and feed are less direct users of energy fuels than are farm tractors and combines. But Hirst estimates that these indirect uses consume 56 percent of farming energy, with the remainder supplying direct fuel needs.

Modern agriculture's startling dependency on petrochemicals plus a worldwide movement to highly mechanized, increase-yield agriculture mean that the effects of energy shortages on food production and agriculture have already been felt and will grow more acute.

Crop shortages: Much of the 1972-73 U.S. sugar cane crop was lost because natural gas shortages forced the closing of cane drying facilities. Shortages of other crops that same year were also aggravated by a wet, late harvest that made additional drying necessary. But farmers with inadequate supplies of natural gas were unable to dry much of what had been harvested so that shortages were compounded.

Unemployment: The U.S. fertilizer industry has been relocating to Europe for some time because methane (needed to produce some fertilizer) is more readily available there. Migrant farm workers are also expected to be hit by agricultural energy shortages. According to a survey conducted by the Migrant Legal Action Program, gasoline shortages will prevent 60-70 percent of migrant families from following the harvests north this summer. This will mean substantial unemployment for a segment of the work force that is currently underemployed, as well as shortages of fruits and vegetables that can only be hand-harvested and thus may go unpicked.

Higher prices: Food prices have been climbing for a myriad of reasons, but at least a portion of the increase is due to shortages of oil and gas from which anhydrous ammonia fertilizer is made. Prices can also be expected to rise if farmers have to pay more for fuels.

With food production so crucial to life, particularly at a time when agronomists fear for widespread food shortages and famine in many parts of the world, only limited attention has been given to potential energy conservation measures or new fuel sources readily available to farmers. Experts say that far-reaching change will come only when vegetable protein becomes an acceptable substitute for animal protein since plant-growing consumes less energy than livestock-raising. Changes to vegetable protein (such as soybeans) will be difficult to effect, however, because they will require radical readjustments in individual dietary habits. More immediate and realistic opportunities for energy conservation may lie instead in the following trends:

- More unprocessed foods and reduction in so-called convenience foods. The more food is processed and refined, the more energy used.
- More efficient appliances in stores and homes. Refrigerating, freezing and cooking equipment uses vast amounts of energy, and much of it is wasted through inefficient design and heating-cooling losses. Open refrigerators and freezers in supermarkets are examples of wasteful appliances.
- Greater use of manure for fertilizer. U.S. livestock produce more than 2 billion tons of waste each year, but little of it is returned to the land even though cattle manure is an effective fertilizer.
- Land disposal of waste water from sewage treatment plants. Proper application of some sludges or waste water from sewage treatment plants adds nitrates and phosphates to soils, diminishing reliance on chemical fertilizers while abating tremendous liquid waste disposal problems.
- Increased use of organic farm wastes (plant cuttings and animal manures) as fuel for farm and food processing equipment. A Georgia peanut factory, for example, burns peanut hulls to generate steam which runs the plant's machinery. Farmers in Europe and the U.S. are producing methane from manure to run crop-drying equipment.
- Switches to diesel fuel. FEO is encouraging farmers to use diesel-powered tractors because they are more energy-efficient than gasoline and liquified petroleum gas-powered machinery.

Although the FEO is assuring farmers that they will have adequate fuel supplies to maintain food production (gasoline, propane, butane, mixes, residual fuel oil and diesel fuel) and the Department of Agriculture is issuing fuel conservation guidelines, the federal government will not assure the provision of feeds and fertilizers. The possibility of lower yields and higher food prices grows more likely as the U.S. 1974 growing season approaches. Fuel and food shortages may also mean that the nation is less able to help impoverished countries threatened by famine.

People are saying

"...by the end of this century three-quarters of the world's population will be depending on...man-made fertilizer...by the year 2000 we would need the production of 50 million tons of nitrogen annually. And I should point out that the annual production of 1 million tons of nitrogen fertilizer requires the initial production of at least 1 million tons of steel to establish the basic industrial capacity to produce the fertilizer--and an additional energy expenditure equal to the burning of about 5 million tons of coal for its actual production." Glenn T. Seaborg, "The Erehwon Machine: Possibilities for Reconciling Goals by Way of New Technology," in *ENERGY, ECONOMIC GROWTH, AND THE ENVIRONMENT*, 1972.

"We cannot turn back the clock to days when farm technology used less fossil fuel. We cannot replace tractors with horses and mules. The horses and mules are not available. Nor is the additional manpower that would be required--nor is the increased acreage. Furthermore, reverting to production inefficiency would make food far more costly than it is today and more difficult to come by." Duke R. Ligon, Asst. Admin. for Policy, Planning and Regulation, FEO, before the Grain Sorghum Producers Assn., March 2, 1974.

To ponder and discuss

If change in food consumption patterns is not a realistic solution to the problem of high energy use in agriculture, what steps are available? Should federal energy conservation policies be aimed at reducing energy usage in food processing rather than in farming?

F.Y.I.

Hirst, Eric. *ENERGY USE FOR FOOD IN THE UNITED STATES*, Oct. 1973. 32 pp. (paper). ORNL-NSF-EP-57. Order free from Oak Ridge National Laboratory, Oak Ridge, Tenn. 37830. Detailed study of all energy use by all aspects of food production.

Connery, Robert H. and Robert S. Gilmour, eds. *THE NATIONAL ENERGY PROBLEM*. 1973, 194 pp. (paper) \$1.50. The Academy of Political Science, 2852 Broadway, New York, NY 10025. See especially, "The Energy Crisis."

ENERGY 7

OFFSHORE DRILLING

In short

Until the Union Oil Company blowout at an offshore drilling rig in the Santa Barbara Channel in 1969, crude oil and natural gas production from under the seas was regarded by many as an efficient way of supplying a large portion of the nation's energy needs. The Santa Barbara spill, which despoiled California's beaches and harmed animal and marine life, forced people to reassess the benefits of offshore drilling in view of its environmental consequences and led to the curtailment of most leasing of marine wells. But energy shortages have prompted government and industry to press for offshore exploration with all its attendant effects on international politics, economics, the environment and development of the coastal zone.

Background

Geologists divide undersea areas into four sections--the deep ocean floor, the continental rise, the steep continental slope and the continental shelf. Large quantities of crude oil and natural gas are believed to exist on the continental shelf, especially on the outer edge of the shelf or further seaward on the continental slope. The most recent estimates of the U.S. Geological Survey (USGS) indicate that the Outer Continental Shelf (OCS) could produce 80 billion barrels of crude oil and 850 trillion cubic feet of natural gas each year.

According to the American Petroleum Institute (API), wells located offshore of Alaska, California, Texas and Louisiana now produce about 615 million barrels of oil and 3.8 trillion cubic feet of natural gas annually, or about 17 percent of the oil and natural gas consumed in the U.S. in 1973.

Oil companies are interested in developing two untapped OCS areas in the northeast Gulf of Mexico and the Atlantic coast and in expanding operations at two other locations off the California and Alaska coasts. The oil industry and oil-hungry states view this tempting array of sites as a panacea for energy woes, but while the OCS will eventually yield great amounts of petroleum, offshore drilling will have a tremendous impact on many aspects of society.

The Environment. Oil companies claim that existing safeguards are adequate to prevent a repeat of past accidents like the blowouts that have occurred off the Gulf and West coasts. Producers tend to minimize the damage caused by the spills and say that rigs are beneficial to the marine environment because barnacles and other food stuffs attach themselves to the platforms and attract fish. Environmentalists insist, on the contrary, that oil spills are inevitable no matter how tight safeguards may be; that spills will coat shorelines and sink into ocean bottom sediments; that damage from spills will take months to clean up, and at high cost. Oil spills will also affect birds and the floating larvae of commercial fish. Until technologies are developed to prevent virtually all spills and until inspection and enforcement procedures are adopted to ensure safety, marine drilling is thought by many biologists to present too many risks to justify its continuation.

Land Use. Most discussion of offshore drilling tends to overlook its effect on adjacent coastal development, yet most forecasts show that marine oil will lead to storage, refinery and petrochemical plant complexes along coastlines, as near the rigs as possible. The issue of more refineries (see ENERGY 4) is open to considerable debate. Limitations on refinery construction will affect the oil industry's eagerness to develop offshore wells. Conversely, new refineries in coastal areas will spur oil companies to drill for oil in promising nearby marine locations.

Jurisdictional Issues. OCS drilling will also have tremendous ramifications on international politics, as shown by the debate over development rights in international waters. The U.S. has proposed an Inter-

national Trusteeship Zone to be supervised by the United Nations to oversee development of offshore areas between the 200 meter depth and the abyssal floor, but no agreement appears forthcoming as nations continue to squabble over ownership, profits and administration.

At the national level, coastal states and the federal government are also contesting development rights, the distance from shore states can control and the sites from which states can collect revenues. Both the U.S. Department of Interior (USDI) and several states issues leases for a number of offshore drilling areas. The federal government contends that state jurisdiction stops at a 3 mile limit while states say that their rights extend to 200 miles from shore. Resolution is expected when the Supreme Court hands down its decision on United States vs. Maine later this year.

Economics. Proponents of OCS drilling extol its economic benefits. Drilling, they say, will create jobs, increase regional revenues and cut the cost of oil to nearby areas. But a report on an Atlantic OCS site prepared by the Massachusetts Institute of Technology for the New England Regional Commission says that the employment effects of offshore drilling will be noticeable only if refineries are built nearby since offshore rigs employ only a small number of highly-trained workers; that an abundance of offshore oil will neither decrease the cost of New England oil (because the cost of a product is determined by the most expensive alternative source--in this case, foreign oil) nor supply all of the region's oil needs. The study also says that profits from the leasing of sites will not necessarily accrue to the states unless they receive an extremely large share of lease payments (and if the federal government controls all offshore drilling, little money will ever revert to the states). Environmentalists infer from these conclusions that offshore rigs are not the gold mine that oil companies say they are and that the benefits to areas most affected by marine drilling will be outweighed by an overwhelming potential for ecologic disaster.

In two energy messages delivered in 1973, President Nixon recommended a sizeable expansion in the acreage of offshore sites leased and regulated by USDI. Although OCS exploration and drilling was temporarily halted by the government in April 1973 pending completion of a study by the Council on Environmental Quality (to be released at the end of April) on the environmental impact of offshore drilling at several marine locations, USDI has lifted its ban in some western offshore fields. Resumption of drilling at other sites has been held up, however, because environmental impact statements have proved inadequate and congressmen and governors of several states have requested a delay in leasing of new sites. Conflict between oil companies and foes of offshore drilling, acute energy shortages and a lack of national (and indeed international) policy on oil rights indicate that offshore drilling will remain a hotly debated issue.

People are saying

"The OCS appears to be one of the few possibilities that can make a substantial contribution to relieving U.S. energy shortages...yet, recent decisions under the National Environmental Policy Act and existing government policies have severely restricted or halted exploration and development activities in these key areas. The nation cannot afford to sacrifice the potential resources located in its outer continental shelves, because the consequences of doing so may have regrettable and irreversible effects for the entire nation." Thornton F. Bradshaw, Pres., Atlantic Richfield Co., before the Senate Committee on Interior and Insular Affairs, April 11, 1972.

"We are getting a massive brainwashing that there is no problem with oil pollution of the seas. Oil is a deadly poison, which our studies have totally documented. We have found that when oil gets to the bottom of the ocean, it changes very little and it moves over a much larger area than the original spill." Dr. Howard Sanders of the Woods Hole Oceanographic Institute, quoted in "Right in Our (Watery) Backyard," FORBES, Dec. 15, 1973, p.20.

To ponder and discuss

Should offshore drilling policy and environmental protection standards for offshore rigs be expanded to include shorelands adjacent to rigs?

F.Y.I.

American Petroleum Institute. ONE ANSWER TO THE ENERGY CRISIS. 1972. 42 pp. (paper) Free from API, Committee on Public Affairs, 1801 K St., N.W., Washington, D.C. 20006. Testimony of oil company executives before the Senate Interior Committee on offshore drilling on the OCS.

"The Oil Issue," New England River Basins Commission REGIONAL REPORT. Dec. 1973. 8 pp. Available from NERBC, 55 Court St., Boston, MASS 02108. Discussions of offshore drilling on Georges Bank in the light of MIT studies, jurisdictional questions and refinery facilities.

ENERGY 8

TAPPING OUR COAL RESERVES

In short

Even though coal reserves of the United States are larger than the reserves of any other domestic fossil fuel, most of our energy needs are met by oil and natural gas. Within the last two years (1972-73), shortages of oil products and natural gas have led congressmen and federal officials to question dependence on these fuels at the expense of more abundant coal. Some politicians are now calling for national energy self-sufficiency based on coal. Higher prices for petroleum products are already making coal a more attractive fuel, but mining companies say extensive federal assistance is needed to boost coal use. In the short-run (to 1985), coal companies want to supply more power plants.

Background

While U.S. coal reserves are enormous, they are not of uniform quality. Deposits differ in their relative heat value (expressed in BTUs per pound), ash content, sulfur content, and volatility. Each characteristic affects how the coal will be used. Ranked by BTUs per pound, the four grades of coal are: anthracite ("hard"), bituminous ("soft"), subbituminous and lignite.

Although anthracite has a higher heating value, electric utilities (a major coal market) prefer the more plentiful, lower-smoking bituminous to fire their boilers. But over 70% of the bituminous reserve, located primarily in Appalachia and midwestern states east of the Mississippi, contains over 1% sulfur. In order to continue using this coal and comply with clean air regulations, power plants will have to install stack gas cleaning equipment.

Low sulfur (less than 1%), low ash, and highly volatile bituminous coals are used by the iron and steel industry to make coke. Steel companies own low sulfur coal mines in Appalachia, holding they are anxious to preserve to supply the domestic and foreign coke market. Some environmental groups believe this "clean" coal should go to power plants and industries in the eastern U.S. where reliable supplies of low sulfur residual oil for boilers have become hard to obtain.

Because of low heat values, high ash content, and distance from major coal markets, the huge subbituminous and lignite reserves in the Rocky Mountain states and northern Great Plains have barely been developed. Much of the controversy over federal coal policy now centers on plans to strip mine some of these low sulfur, western deposits. Most western coal is not strippable but must be recovered via deep mining.

Using more of our coal reserves requires expanded production. Debate centers over where expansion should occur, how coal should be extracted, and what incentives the coal industry should receive.

Deep mining vs. strip mining: In deep mining, people and machinery work underground cutting and loading coal. In strip mining, powerful equipment removes the relatively thin layer of rock, soil and vegetation (overburden) covering the seam and scoops out the coal. During the last decade deep mining has been declining and many older deep mines closing. Over half of current U.S. coal production comes from strip mining. Explanations for this trend include:

- Improvements in surface mining technology. Powerful excavating equipment has lowered production costs; more coal per man hour can be recovered from strippable deposits than from deep mining and a greater proportion of the coal in the seam can be recovered.

- Coal Mine Health and Safety Act. This 1969 law affects all coal mining operations but especially the more hazardous deep mining. Coal companies say requirements for safety inspectors, time-consuming precautionary measures, and safety equipment have cut deep into mine productivity.

Since most of the U.S. coal reserve will eventually have to be deep mined, some government officials,

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congressmen and energy analysts believe federal coal programs should offer incentives for deep mining. Conservation groups favor deep mining because they believe strip mining ruins land for future use. While reclamation is possible, most efforts to date have been inadequate. And a recent study by the National Academy of Sciences points out that reclamation is infeasible in parts of the west where annual rainfall is low and soils retain no moisture. Possible aids for deep mining include increased federal support for R & D in deep mine extraction, stringent limitations on strip mine locations and tough federal reclamation standards for stripmined lands.

The National Coal Association, on the other hand, emphasizes the environmental and worker hazards of deep mining. The association says that coal companies will reclaim stripmined lands, that stripping will allow more rapid expansion of coal production, and that overly strict reclamation laws will slow the achievement of self-sufficiency in energy.

Western vs. eastern mines: Western coal interests (including railroads, oil companies, and utilities) argue that low sulfur coal reserves will meet clean air standards and assure power plants of fuel supplies. In the near future, development plans call for coal to go to eastern markets via networks of unit trains. Eventually, western coal owners foresee plants at mine sites generating electricity for transmission over long distances or transforming coal into synthetic gas or oil for pipeline shipment.

Many western cattle ranchers, farmers and environmentalists oppose strip mining, mine-mouth electricity generation and coal gasification because they fear irreparable damage to crops, to grazing land, to air and water quality, and to the water table. Using scarce water resources for water-consuming energy projects means depriving farming and ranching.

Advocates of government incentives for increased investment in eastern mining areas maintain that:

- Western subbituminous and lignite coals will be expensive for utilities because of low heat values, excessive transportation costs, and fly ash control requirements.
- Workers are available in the east but would have to be imported to western mine sites; expansion of eastern mines would provide jobs in economically depressed areas.
- Expansion of eastern coal operations will mean immediate investment in the more abundant deep minable reserves, for only a fraction of the remaining eastern reserve is stripminable.

Federal incentives: The coal industry believes that U.S. coal output can be doubled by 1980 if policies are adopted to 1) increase the coal depletion allowance from 15%, 2) allow tax deductions for building roads, railroads, rights-of-way, and harbors needed to transport coal, 3) relax air quality standards so that utilities can burn high sulfur coal, 4) relieve the industry from payments to retired miners with black lung disease, and 5) increase coal leasing on western public lands.

The Nixon administration wants to spend \$2.2 billion over the next five years on new mining techniques, clean methods of burning high sulfur coal, coal gasification and liquefaction and favors leasing more federal lands for strip mining and granting coal-burning utilities long-term variances.

To ponder and discuss

Should the federal government encourage expansion of coal production? by special tax incentives? by relaxation of environmental regulations? by leasing more federal lands for mining?

People are saying

"As we view it the primary responsibility of government is to structure the rules of the game so that the coal industry is positively encouraged to expand." John N. Phillips, former president, National Coal Association, before the Senate Committee on Interior and Insular Affairs, June 6, 1973.

"The sooner we can make underground [mining] more economically attractive, more technologically feasible and more socially acceptable as a way of life, way of employment, the better off we're going to be." Russell E. Train, EPA Administrator in the Washington Post, September 27, 1973.

F.Y.I.

Edmund A. Nephew. "The Challenge and Promise of Coal." TECHNOLOGY REVIEW. Dec. 1973. pp. 21-29. Discusses latest mining technology, compares advantages and disadvantages of strip and deep mining.

Elburt F. Osborn. "Coal and the Present Energy Situation." SCIENCE. Feb. 8, 1974. 477-481 pp. Former director, U.S. Bureau of Mines talks about burning high sulfur coal without air pollution, new developments in coal gasification, liquefaction, and recovering methane from underground mines.

ENERGY 9

THE CITIES

In short

A few months ago, a large corporation in New York City about to join the exodus to new headquarters in the suburbs changed its plans and announced it would remain in the city. Energy shortages and the increasing difficulties of commuting were two of the reasons the company gave for its change of heart.

But while this business was strengthening its ties to one city, auto makers in others were announcing that assembly plant employees would be furloughed or laid off. The reason: energy shortages had caused drastic drops in new car sales.

What these two unrelated events mean is that the energy situation is having almost opposite effects on the nation's cities. While fuel shortages may revitalize some urban areas, those same shortages threaten the already tenuous lives of others.

Background

The scenario is familiar to many people: the suburbanization of America after the Second World War precipitated an unprecedented building spree of houses, apartments, factories, highways and shopping centers that often led to uncontrolled sprawl and leap-frog development. At the same time, cities were being neglected. Businesses were leaving; the middle class was moving out. Developers grew unwilling to make high-risk investments in urban areas. The city--with its attendant traffic, pollution, crime and blight--became, more and more, the home of the poor and elderly.

Within this framework, then, came energy shortages, and although suburban areas were certainly hard hit, the nation's cities--and their people--probably suffered the most. Suburbanites found themselves waiting in long gas lines; poor city residents could ill afford to buy gas. Affluent homeowners complained of skyrocketing home heating and electricity costs; inner city residents often found themselves in apartments where economy-minded landlords had turned off furnaces. And while more affluent families prepared to conserve fuel by installing insulation materials, a survey by the Washington Center for Metropolitan Studies revealed that millions of homes in U.S. cities lacked any insulation at all.

How have energy shortages affected the poor?

Housing. Low- and moderate-income housing, most of which are rental units, have been hard hit by shortages of heating fuels and rising fuel prices. Gary, Indiana Mayor Richard Hatcher recently testified before a Senate committee about inner city landlords who turn down thermostats in already underheated buildings. In addition, increased prices mean that families staggering from the effects of rapid inflation must divert even larger chunks of their paychecks to cover those rising costs. And Alvin Arnett, Director of the Office of Economic Opportunity, recently stated the OEO surveys indicate that poor families, when asked how they would spend an additional \$75 a month (hypothetically added to paychecks), said they considered home repairs (including insulation) most important but that they would be compelled to spend virtually all of their income on food, clothing and--ironically--fuel.

Municipal Services. Among the many services provided by city governments, one of the hardest hit will be sanitation--street cleaning and trash collection. Although the Federal Energy Office has assured municipal officials that they will receive full allocations of fuel for normal operations, cities must pay higher prices, prices they can barely pay at a time when many municipalities verge on bankruptcy.

Employment. Even before energy shortages were having an effect on the nation's economy, unemployment in the cities--particularly among the poor and unskilled--was far higher than elsewhere in the country. Now the situation promises to grow worse. Said a recent Senate subcommittee report: "the marginally employed and the working poor will be the first to be laid off as economic slowdowns occur due to energy short-

ages." In addition, cities whose commercial interests depend on energy--the tourism, transportation and petrochemical industries, for example--can also expect substantial increases in their unemployment rates.

Many people say, however, that with federal sensitivity to urban problems, with financial assistance, fuel price rollbacks and mass transit systems, the energy "crisis" could result in a revitalization of cities. A number of hopeful trends are becoming apparent:

■ Development of mass transit systems. Although many cities had been planning mass transit systems long before energy shortages were felt, long gasoline lines, higher prices and a scarcity of fuel appear to have convinced many others that alternatives to the private car must be made available to the public. Recently in Virginia, for example, plans for a long-disputed interstate highway that would have carried commuters into Washington, D.C. from the suburbs met strong opposition from the U.S. Environmental Protection Agency and the Council on Environmental Quality and may now be abandoned. In addition to the road's disruption of residences and business, EPA gave fuel shortages as another reason why the highway had become unnecessary. Many people are now pushing state officials to consider mass transit.

■ Redevelopment of inner city areas. Recent newspaper accounts say that suburban residents, finding commuting to the city increasingly difficult and costly, are considering relocating to the cities. If the building industry sees expanded markets for in-city living, wide-spread construction--of homes, businesses and industry--might occur. The return of the middle class to the cities is welcomed by all local officials, but spokesmen for the poor remind governments that the city cannot be redeveloped at their expense, that rising property values in a city will help the municipal tax base but will also make it more difficult for the poor to afford decent homes. Experiments like the urban homesteading program--where vacant inner-city houses are sold for \$1 on the condition that the buyer renovate the house (with a low-cost loan) and live in it for a number years--may help guarantee a better environment for the urban poor as well. A number of east coast cities have started urban homesteading, and many more are expected to follow suit, although few people regard the program as a panacea for housing shortages.

■ Development of new towns and new towns-in-town. Many planners see the growth of new self-sufficient communities or major new developments within cities as a desirable result of energy shortages. Energy conservation can be built into communities if mini-bus systems and bikeways are provided, if shopping areas and services are located within walking distances from homes. In much the same way, experts think that traditional zoning patterns that reinforced dependence on cars by isolating uses are now susceptible to change as awareness of the costs of energy use grows.

These proposals mean that energy shortages can have a two-sided effect on cities' residents, institutions and physical plants. If government policies recognize the potential pitfalls and benefits of the energy situation, many people think that cities could experience an unexpected rejuvenation. But some mayors, along with organizations representing the poor, are less optimistic and fear that energy policy--like so many policies before it--will neglect the poor, the underemployed and the cities.

To ponder and discuss

How can federal energy policy take into account the particular needs of cities? What actions can local governments take to encourage energy-conserving life styles and development?

People are saying

"Consumption [of energy] per square foot of commercial floor space tends to decline as density rises. The same is true of industry...thus one can say without much exaggeration that high-density urban environments are energy-conserving environments...the dispersed development in the suburbs is more harmful to the environment than the concentrated development of the city." Boris S. Pushkarev in "Energy in the New York Region," Robert H. Connery and Robert S. Gilmour, eds., The National Energy Problem, 1973.

"The intensification of environmental problems associated with urbanization is not so much due to the increasing size of the population as it is to the maldistribution of the living and working places in metropolitan areas." Barry Commoner, The Closing Circle, 1971.

F.Y.I.

Connery, Robert H. and Robert S. Gilmour, eds. The National Energy Problem. 1973. 194 pp. (paper) \$1.50. The Academy of Political Science, 2852 Broadway, New York, NY 10025. Essays on a variety of energy subjects, including new sources, international ramifications and energy policy.

Schmandt, Henry J. and Warner Bloomberg, Jr. The Quality of Urban Life, vol 3. 1969. 590 pp. (cloth). Sage Publications, Inc., 295 S. Beverly Drive, Beverly Hills, CA 90212. Selected readings on urban growth.

ENERGY 10

DANGER FROM THE DEMAND SIDE

In short

Americans have taken cheap, abundant energy for granted in industry and in our personal lives. As one result of our low cost energy-supply system, the United States by the early 1970s was requiring millions of barrels per day of imported oil, most of it from the Middle East. If the United States returns to its euphoric pre-embargo course of expanding year by year its use of petroleum products, the gap between our national demand and our domestic oil production will continue to widen. Measures used to deal with the oil-shortage emergency produced by the Arab oil embargo are not the final answer, important as they were. Continuing danger from the demand side requires that the American people and their leaders reach decisions on long-term energy management. Deciding wisely means balancing the pros and cons and interrelationships of depending on foreign energy sources, of developing a multiplicity of U.S. energy resources, and of maintaining an environment beneficial to life. In this balancing both U.S. national interests and those of the world community have to be considered.

Background

Facts to keep in mind: Energy is essential to life. Growth, whether physical or economic, requires energy. Economically advanced nations are energy-consumptive nations. Per capita Gross National Product correlates with a nation's consumption of fossil fuels (coal, gas, oil). No major industrial nation, except Canada, is currently able to produce as much oil as it consumes. Most of the world's oil reserves (see ENERGY 3) lie in the Middle East and North Africa. Fossil fuels are non-renewable resources.

Rising demand: Petroleum products (oil and natural gas) are the favored fossil fuels, providing over three-fourths of U.S. energy requirements. U.S. demand for petroleum products has increased faster than total U.S. demand for energy. Automobiles, trucks, and buses are the main cause of this upswing in oil consumption, for virtually all U.S. transportation energy comes from petroleum products. As suburbia spread, workers commuted longer distances by car--usually singly. Interstate and urban highway systems, built with Highway Trust Fund monies, fostered automobile and truck transport. Bus systems and railroads, less oil consumptive per passenger, declined while cars and trucks appeared in larger and heavier models each year, requiring more gasoline per mile. While air travel is relatively efficient for passenger travel, the large number of flights made--many less than full--enormous demand on oil. Because petroleum products are clean and easy to use, oil and gas rapidly replaced coal in home furnaces, in industry, and in electric generating utilities. Electric heating supplied by a petroleum-burning utility is an especially wasteful demand.

The steep rise between 1962 and 1972 in farm production per man-hour of labor, which produced the spectacular U.S. farm yields in 1972 and 1973 and made the U.S. the world's chief exporter of foodstuffs, rests on U.S. farmers' large outlays for fertilizers and farm machinery. (See ENERGY 6). Agricultural output correlates directly with energy input to farm activity.

Oil is the source of petrochemicals, vital to manufacture of a great variety of products--drugs, plastics, synthetic fibers. A \$20 billion industry in 1972, petrochemicals are everywhere in American markets: penicillin, plastic toys, carpeting, microfilm, furniture, squeeze bottles, and the ubiquitous plastic bag. Agribusiness devours herbicides and insecticides made from petrochemicals. Industrial petrochemical uses are many and heavy--commercial solvents, for example.

While estimates varied about how much oil it would take to fill the gap between U.S. oil demands and potential U.S. supply, a common forecast was that by 1985 the U.S. would need about 30 to 35 million barrels of petroleum liquids a day, assuming that we continued limited use of coal and continued building nuclear plants without too great a delay.

Declining U.S. production: While U.S. demand for oil was rising steeply through the last 10 years, domestic production of crude oil peaked in 1970. Why had U.S. production begun to decline?

- Proved U.S. reserves have increased only slightly since the mid-1950s. Exploratory drilling in the U.S. has declined sharply in recent years. Less than half as many wildcat wells were drilled in 1971 as in 1956. Wildcatters and independents said average cost of drilling and equipping a well was too high (80 percent rise since 1960) and the price of oil too low. Major companies found higher profits in foreign fields. (See ENERGY 4).
- While there undoubtedly is undiscovered oil in the United States (though this country has been more thoroughly explored than any other land mass) new fields are harder to find and will probably be deeper and more difficult to bring into production. About half of U.S. resources are expected to be in Alaska and on the outer continental shelf (OCS). (See ENERGY 7).
- OCS leasing and drilling and Alaskan pipeline construction have been held up, a consequence of efforts to limit environmental damage from development and production in these hazardous areas.
- Techniques that produce maximum oil field yield were given inadequate attention.
- U.S. refinery capacity leveled off. Oil companies say low profits in the 1960s limited investment in new facilities and environmental constraints made it difficult to obtain desirable sites.

Compared to other industrial nations, the United States is still rich in energy reserves, with domestic oil fields, natural gas, and enormous supplies of coal. But in terms of domestic supply of oil in relation to national demand, were the trends of 1970-1973 to continue, the United States would join Japan and the countries of western Europe as a have-not nation.

Closing the gap: Consider the range of choices to close the gap between supply and demand. A nation could 1) try to seize foreign oil fields by force, 2) acquiesce to political and economic demands of oil-supplying nations, 3) compete with nations that are its allies for whatever crude oil producing nations will sell, 4) severely cut back its use of oil, 5) maximize domestic energy production without concern for environmental and health effects, 6) develop domestic oil production and alternative sources of energy in environmentally sound ways, 7) adopt practices that reduce waste of oil, 8) cooperate with other nations in programs that convince oil-supplying nations to continue to market their petroleum.

Some options along this continuum are unthinkable, some are grim, some are acceptable but require a long lead time. Nevertheless, adjustment between supply and demand must be faced.

People are saying

"Americans are far and away the most energy intensive society in the world, accounting for more than one-third of total energy consumption while representing only about 6 percent of the world's population. Our hard-working energy servants have made us the most productive and affluent people on Earth. ...Thirty years ago Buckminster Fuller estimated that the average American had at his beck and call the equivalent of 153 slaves. Today that number would be about 400." Robert W. Fri, Acting Administrator, U.S. EPA, to Aerospace Industries Association, May 23, 1973.

"...we have chosen to make ourselves dependent on an incredibly wasteful system of personal transportation, and the spectacular growth of this system, overwhelming our ability to produce fuel for it, has in turn made us dependent on foreign sources and vulnerable to any sudden cutoff of supply." Ralph E. Lapp, "Outgrowing Our Gas," Washington Post, Dec. 9, 1973.

To ponder and discuss

Is the challenge the U.S. faces one of reversing habits and policies that led to heedless gigantic national demand for oil? Or is the challenge one of increasing our physical facilities--tankers, ports, import terminals, refineries--to handle oil imports to meet U.S. demand in 2000?

F.Y.I.

Concern, Inc. "Energy Conservation." ECO-TYPS. #5. Feb. 1973. Single copies free on request accompanied by stamped, self-addressed, business-size envelope. Well researched, succinct resume.

Love, Sam. "Energy--The Crisis Behind the Crisis." THE PROGRESSIVE. Jan. 1974. pp. 15-21. Power and fuel shortages demonstrate the urgent need to restructure the nation's economy.

Weaver, Theodore. ENERGY--THE LARGEST PROBLEM. Summer, 1973. 12 pp. Free on request to the American Institute of Chemical Engineers, 345 E. 47th St., New York, NY 10017. Reasons for disruptions in U.S. energy supply systems and insights into the difficult choices ahead.



memorandum

The League of Women Voters of the United States

June 21, 1974

This is going on DPM

TO: Local, State and ILO Presidents

FROM: Ruth Clusen, President
Gwen Murphree, Chairman, Energy Task Force

RE: Energy Task Force

We thought you would like a report on the national board's preliminary planning for the Energy Task Force created by the 1974 national convention.

The overall goal of the Energy Task Force will be to lift the sights of citizens to the totality involved in energy: generation and use, supply and need. Both regional (geographic) and substantive interests (such as energy sources, e.g. nuclear, geo-thermal, fossil, etc.) will be put into this perspective of overall total concern for the general good. The Task Force will compile a "laundry list" of ideas to be tackled and will examine and compare the assumptions in each, considering domestic and international economic, social and environmental problems.

The task force structure will be in circles--yes, circles, for the most efficient and productive use of national board, staff, state and local League members, and non-League consultants and specialists. The first, inner circle will be a core committee, composed of national board and staff program people: Marion Nichol and Alice Klavans, Land Use; Betty MacDonald and Lois Sharpe, Environmental Quality; Ruth Hinerfeld and staff to be designated, International Relations; Virginia Nugent and Alice Kinkead, Human Resources. Martha Mills, who coordinates the program staff, will also be a core committee member. The program chairmen and staff will help the task force focus on the interrelatedness of energy issues and League national program and positions. Public Relations and Action board and staff will also participate when appropriate. The core committee will meet at every national board meeting.

The second circle of the Energy Task Force will be the working group and will meet with the core committee at least twice during 1975-76, in Washington, D.C. most likely. Members of the working group will be 4 or 5 non-national board members with experience in League and energy related work, chosen to give a geographic as well as a specialist "spread" to the task force. We are in the process of recruiting these people now.

The third circle of the task force will serve as the major device for communication between the task force and local Leagues. A wide variety of specializations as well as geography will again be the major criteria for choices of League members for this circle. Once selected they will become the focal point around whom field work will be planned. Depending on funding, it is possible that regional meetings of the ETF can be held where there will be on-site, personal contact with League members and citizens.

A fourth circle will involve those League members who have substantial substantive knowledge of particular facets in the field of energy. As the Energy Task Force identifies the directions needing definitive exploration, it will draw on the expertise within our own organization.

In addition, as the League has done in the past, the Energy Task Force will consult non-League experts, both government and non-government, for information.

Very soon you will receive ENERGY 11 and 12, the reading lists of non-League and League publications you asked for to help interested members bone up in their spare time.

To begin the energy information flow directly to League members, plans are to include material on energy in issues of the National VOTER. You may want to begin thinking of ways this particular information can be shared with your community. Some ideas for possible articles in the VOTER might be: the real lessons of the recent energy crisis; what energy crisis problems will do to other countries; the U.S. as a "have-not" country; moving local communities and citizens toward a realization that we must ultimately confront the resources available, kilowatts and calories, as it were.

The core committee has made no decisions on the definitive forms that information to League members and citizens might take.

As explained to Convention delegates, action on energy will be taken only in so far as energy bills impinge on present program positions. Given the clear direction for our continuing action priority on campaign financing, the "no stretch-no latitude" of the national budget, and the massive congressional interest in energy related bills, the difficulty of following legislation and then mounting any kind of effective response is apparent. We obviously can't be on top of it all, all the time.

The core committee and first circle ETF will meet initially in mid-summer to refine ideas for local League input as well as to plan for the general thrust and mechanics of the task force's work.

The Energy Task Force holds great promise, but it will take time to get it all together. Stay loose!



memorandum

League of Women Voters Education Fund

July 29, 1974

THIS IS GOING ON DPM

TO: Local, ILO, and State League Presidents

FROM: Ruth C. Clusen, President
Gwen Murphree, Chairman, Energy Task Force

RE: FEA's regional public hearings on Project Independence

Hear are the details the Energy Task Force section of the NATIONAL BOARD REPORT said we would send you about the public hearings the Federal Energy Administration has scheduled in each of the 10 federal regions. We regret that this mailing will arrive too late to help local Leagues whose regional hearings come in August, but we have just now obtained all the information.

WHAT YOUR LEAGUE CAN DO

According to the FEA, the regional hearings are being held "to solicit broadbased public views, information and perspective on Project Independence." If your League has studied some aspect of the energy problem in depth, this is an opportunity to let the FEA know your views and desires. You may want to arrange for a spokesman to speak for your League at the hearing in your region. Or, if you wish, your League can submit a statement for the record. State Leagues may want to take steps to correlate the League effort in each state. League members are free, of course, to deliver or file statements as individuals.

I hope League members who conveniently can will attend some sessions of the FEA hearings.

WHY THESE HEARINGS ARE BEING HELD

Project Independence is the code word for President Nixon's announced goal of energy independence. Although there are many different interpretations of what is meant by "energy independence" or "energy self-sufficiency," there is general agreement that no such condition can be achieved by 1980. In general, the administration's present aim in Project Independence is to make the United States less vulnerable to future supply interruptions and arbitrary price increases.

The Federal Energy Administration, which is assigned the lead role in Project Independence, says the operation has two parts: (1) a short-term program to maximize security of imports, increase domestic supply, and stimulate conservation of energy and (2) a medium-term effort to develop a comprehensive, multi-faceted plan that will increase domestic supply; reduce growth in energy demand; develop contingency plans for energy storage, standby domestic production capability, and effective demand reduction programs; and foster international activities to reduce the likelihood of future oil cutoffs.

Part 2, the comprehensive, interagency plan, known as Project Independence Blueprint, is to be on the President's desk on November 1, 1974.

FEA says PIB will contain legislative, administrative, economic, and budget recommendations for reaching energy independence. The PIB document will also set forth, according to FEA, (a) an evaluation of the costs, environmental effects, and ability of a number of supply and demand alternatives to reduce U.S. vulnerability and (b) an analysis of the manpower, financial, material, transportation, and other constraints that Project Independence might produce.

WHY PEOPLE SHOULD TAKE PART IN THE HEARINGS

The 10 regional hearings will allow the public some input into development of Project Independence Blueprint. To be effective, decisions on how the U.S. will respond to the new energy situation must have public support; the steps taken must be politically acceptable. It is essential that FEA learn what citizens think and want, and therefore important for citizens and citizens' organizations to speak out strongly. I hope Leagues and League members will utilize the sounding board these hearings offer.

I am sure you will agree with me that a record of citizen support for energy conservation should be made at the FEA hearings. If people and industry use no more energy than is really needed and use that energy at peak efficiency, we will buy time during which the public can come to understand the options and government and industry can develop sound programs that will create a minimum of destructive side effects. Much testimony at the FEA hearings will come from those who have a vested interest in rising demand or who stand to profit from the development of a particular energy source. Voices of citizens and public officials are needed to champion energy conservation.

HOW THE HEARINGS WILL BE RUN

On the first day of each hearing all testimony will focus on the single subject (or the several closely related subjects) listed as the special topic for that hearing. (See list 1) FEA's Washington office says that after the first day, witnesses can speak on any aspect of energy related to Project Independence. Hearings will, of course, be open to the public.

Each hearing will run from 3 to 5 days. Oral testimony will be heard at both day and evening sessions. Those unable to testify in person are invited to submit written statements for the record. Such statements should be sent to the federal energy administrator in your region (See list 2) before the hearing, if possible, or to arrive no later than 5 days after the hearing. There is no length limit to written submissions.

For dates, cities, and hearing focus see list 1, attached. For the place the hearing will be held, the exact times, on how many evenings there will be hearings and what special rules will prevail in your region, inquire from the federal agency administrator for your federal region, whose name and other necessary information on list 2, attached. These federal energy administrators are scheduling the hearing witnesses, the FEA's Washington office tells us.

"To make sure that all points of view are represented," says FEA, regional energy administrators have invited the witnesses for the first day of each hearing. It is not clear whether in every region the first-day list is absolutely firm.

You may be able to have your League heard as a first day witness, especially if--after inquiry--you are able to convince your regional federal energy administrator that his list of invited witnesses is skewed toward one type of interest. FEA has announced that the "opportunity to testify at these hearings will be available to everyone--representatives of energy industries, environmental groups, educational concerns, consumers and public officials."

To speak on subsequent days you also must make advance arrangements with your region's federal energy administrator. The sooner you do this the better, for the lists may already be filling up. Oral presentations will be limited to 10 minutes. Washington FEA headquarters says one advance copy of the testimony or a synopsis listing the points that will be made in the oral presentation should reach the federal energy administrator for your region at least 10 days before the hearing; check this with your regional energy administrator. If you want to make your statement available to the press, 50 copies for that purpose are suggested, but only one copy for the record is required and this may be any length.

We hear that one regional office is planning to hold hearings in a number of cities subsequent to the region's main hearing. If you find that many organizations or individuals were unable to get on the witness list or that many could not travel to the single city listed for the hearing in your region, you might try to convince your region's energy administrator that it would be well to conduct additional hearings at accessible places.

The League's new Energy Task Force will be interested to hear of the experiences of Leagues that testify and to receive copies of what you say or submit. Please send your report to Gwen Murphree, ETF Chairman, at the national office.

LIST I

PROJECT INDEPENDENCE - PUBLIC HEARINGS

<u>Conference Cities</u>	<u>Dates</u>	<u>Topics for Emphasis</u>
1. Denver	August 6-9	Western Regional Resource Development including, Coal, Oil Shale, and Synthetic Fuels
2. New York	Aug. 19-22	Capital Requirements for Project Independence International Implications of Project Independence
3. Boston	Aug. 26-29	Definition of U.S. Energy Independence Emergency Measures to Deal with Import Cutoffs Future Options for New England
4. Seattle	Sept. 5-7	Research Needs for Project Independence Alaskan Development
5. Chicago	Sept. 9-13	Role of Nuclear Power and Advanced Energy Systems in U.S. Energy Development
6. Kansas City	Sept. 10-13	Labor, Material, Construction, and Transportation Needs in Achieving Project Independence
7. Houston	Sept. 16-19	Federal Leasing and Regulatory Policies and the Energy Industry
8. Atlanta	Sept. 23-27	Development of the Outer Continental Shelf, Superports, Refinery Siting
9. Philadelphia	Sept. 30-Oct 4	The Environment and Project Independence Development of Eastern Coal
10. San Francisco	Oct. 7-10	Strategies for Energy Conservation-- Reducing the U.S. Demand for Energy

LIST II

FEDERAL ENERGY COORDINATORS

Region Number & Location of Hearing	Regional Coordinator for Project Independence Hearing	Confirmed Site for Hearing
1. Boston	Bob Rutenberg 150 Causeway St., Rm. 607 Boston, MA 02114 (617) 223-5257	Faneuil Hall Haymarket Square Boston, MA
2. New York	Sally Martinez 26 Federal Plaza Room 3206 New York, NY 10007 (212) 264-1021	Carnegie International Center Banquet Room 345 E. 46th St. New York, NY
3. Philadelphia	Gene Harris 1421 Cherry St. Philadelphia, PA 19102 (215) 597-0792	Samuel P. Mandell Theatre Drexell University Philadelphia, PA
4. Atlanta	Jerry Rowe 1655 Peachtree St., N.E. Atlanta, GA 30309 (404) 526-4758	
5. Chicago	Juanita Liesse 175 W. Jackson Blvd. Chicago, ILL 60604 (312) 353-0538	Conrad Hilton Summit Room Chicago, ILL
6. Houston	Delbert Fowler Room 1300 212 N. St. Paul St. Dallas, TX 75201 (214) 749-7345	Shamrock Hilton Continental Room Main St. Houston, TX
7. Kansas City	Hilbur Jenny 811 Grand St. Kansas City, MO 64106 (816) 374-2931	Crown Center Hotel Century Room 1 Pershing Rd. Kansas City, MO
8. Denver	Polly Garrett 1075 South Yukon St. Lakewood, CO 80226 (303) 234-2507	Post Office Auditorium Room 269 1823 Stout St. Denver, CO 80202
9. San Francisco	Stacy Swor 111 Pine St. San Francisco, CA 94111 (415) 556-7145	U.S. Courthouse Ceremonial Courtroom 450 Golden Gate Ave. San Francisco, CA
10. Seattle	Allan G. Patterson 909 First Ave. Room 3098 Seattle, WA 98104 (206) 442-7230	Seattle Center Olympic Room 305 Harrison Seattle, WA

ENERGY

Point of Departure

Articles, pamphlets and books on energy pour out. Some repeat, some develop fresh insights into familiar ideas, others break new ground. Without knowing what each of you has read, we cannot tell what to suggest to round out or enlarge your grasp of energy issues. These suggestions are for that imaginary person, the general reader.

Deliberately, this reading list is a mixed bag: short, long; simple, advanced; books, magazines; some your library has, some expensive enough that you may want to ask your library to buy them, others low priced; some with short articles on many aspects of energy related problems by writers with different viewpoints, some in depth on a single facet. Later lists will follow the same plan.

The reading list is mixed in another way, this also by design: included are views of government agencies, of energy companies, of harsh critics of both. The conflicting points of view are intended to provide the reader with a broad spectrum of opinion.

SUGGESTED ENERGY READING: INTRODUCTORY

General

American Enterprise Institute for Public Policy Research. THE ENERGY CRISIS. 110 pp. \$2.00 (paper). 1974. Am. Ent. Inst., 1150-17th St., N.W., Washington, D.C. 20036. Sen. Hansen, Rep. Udall, Rep. McCormack, and Spahr of Standard Oil of Indiana discuss basic policy issues. Sen. Randolph, Sen. Hatfield, Ray of AEC, and Trezise of Brookings Institution give views on future options for energy policies. Sen. Fulbright, George Ball, Di Bona, and Nassikas of FPC take up domestic and international issues. With such variety in input of ideas, this chatty, smooth-reading booklet presents a lot of information and demonstrates the difficulties in arriving at agreement on the course to pursue. Worthwhile reading though not as new as some of the other materials.

"Energy." SCIENCE. vol.184, pp.247-389. \$1.00. April 19, 1974. American Association for Advancement of Science, 1515 Massachusetts Ave., N.W., Washington, D.C. 20005. Don't miss this issue, entirely on energy. Introductory article by Landsberg (Resources for the Future) superbly recaps and looks ahead. Articles (25), each by different experts, are grouped under People and Institutions, the impact of the crisis (social system, public response, conservation by industry, individual self-sufficiency); Policy, with a hard look at proposals for energy R&D and at Project Independence; Economics, U.S. food system, import-export controls, oil money; Oil, Coal, Gas, Uranium, prognosis, problems, and timetables; Sun and Earth, developing technology for geothermal electricity production and for solar energy (photosynthesis, physical). See p.386 ff for other energy articles from SCIENCE. See description, prices of AAAS energy reprints and tapes 2 pages ahead of editorial page.

Washington Journalism Center. ENERGY AND THE ENVIRONMENT: A COLLISION OF CRISES. Irwin Goodwin, ed. 272 pp. \$14.95 (hardcover). 1974. Publishing Sciences Group, Inc., 411 Massachusetts Ave., Acton, MA 01720. From an April 1973 4-day conference of 18 leading energy experts and 22 seasoned journalists comes this thoughtful, readable examination of interwoven energy/environment/foreign policy problems and their implication for trade balance, industrial development, public health. Grouped into 4 sections --Power Shock, Security Factor, Conservation Potential, Survival Strategy--each article is followed by an illuminating question and answer section.

World Future Society. ENERGY TODAY'S CHOICES, TOMORROW'S OPPORTUNITIES. Anton B. Schmalz, ed., 301 pp. \$6.00 (paper). 1974. World Future Society, 4916 St. Elmo Ave. (Bethesda), Washington, D.C. 20014. Includes Odum (Univ. Florida) on fallacies in U.S. public policies on energy; Schatz (Oregon Office Energy Research & Planning) on two taxes that most directly and least disruptively would alter energy use; Landsberg (RFF) on trends and forces ending low-cost, reliable energy supply, short and long term remedies. Sen. Hatfield on a steady state society, 6 commonly held myths about energy problems, and unity of energy, ecology, and economics.

International

The Academy of Political Science. PROCEEDINGS--THE NATIONAL ENERGY PROBLEM. Robert H. Connery and Robert S. Gilmour, eds. vol. 31, no. 2. \$3.00. Dec. 1973. 2852 Broadway, NYC, NY 10025. Includes 4 articles on international implications of energy crisis: Issawi, "Oil and Middle East Politics," internal Middle East politics and external big power policies affecting Mideast oil industry. Spero, "Energy Self-sufficiency and National Security," military and non-military threats to U.S. oil supply; future energy security policies. Stewart, "Energy and the Balance of Payments," dismisses likelihood of future U.S. self-sufficiency in energy resources; examines constraints on U.S. energy resource policy based on interdependence. Riddick, "Nature of the Petroleum Industry," components of oil and natural gas industry in U.S. with reference to Mideast.

Akins, James E. "The Oil Crisis: This Time the Wolf is Here." FOREIGN AFFAIRS. vol. 51, no. 3, pp. 426-490. April 1973. 428 E. Preston St., Baltimore, MD 21202. Surveys world's proven oil reserves; warns of effectiveness of oil used as political weapon. History of OPEC negotiations. Effects of oil producers' increased revenue. Need for oil consumer solidarity.

Levy, Walter J. "World Oil Cooperation of International Chaos." FOREIGN AFFAIRS. vol. 52, no. 4, pp. 690-713. July 1974. 428 E. Preston St., Baltimore, MD 21202. Far-reaching questions about international implications of changing world oil scene. Examines key elements necessary to avoid economic chaos and political dislocations: cooperation among oil-importing nations; understanding by importing nations of interests and aspirations of oil producers; energy austerity programs by oil importers; recognition by producers of their vulnerability to worldwide effects of continued high oil prices.

Overseas Development Council. THE U.S. AND THE DEVELOPING WORLD. James W. Howe, ed. 210 pp. \$3.95 (paper). 1974. Praeger, NY. Includes Grant, "Energy Shock and Development Prospect," how rise of oil prices affect particular developing countries directly (oil) and indirectly (foodstuffs and fertilizers); ways International Monetary Fund, OPEC countries, developed countries, and international financial institutions might assist LDCs through current difficulties; global nature of the rapidly spreading scarcities of commodity resources and environmental capacity for waste carrying; proposals on access to the world supply of food and raw materials. Brown and Eckholm "Food: Growing Global Insecurity," how ecological overstress diminishes world food economy; recent attitudes on protein production, global food reserves, and food aid programs.

Environment

Congressional Reference Service, Environmental Policy Division. "Impact of Energy Shortages on Environmental Standards." CONGRESSIONAL RECORD. pp. S5258-S5265. April 4, 1974. Low-key survey of tensions between environmental and energy objectives in air quality goals, nuclear power problems, powerplant siting, Outer Continental Shelf development, surface mining of oil shale and western coal.

Council on Environmental Quality. ENERGY AND THE ENVIRONMENT. 58 pp. illus. 85¢. Aug. 1973. Supt. on Docs., U.S. Gov't Printing Office, Washington, D.C. 20402. Stock no. 4111-00019. Trends in demand, environmental effects of energy consumption, alternative sources of electric power and their impact on environmental quality, importance of energy conservation and system efficiency. Useful in considering environmental impacts of present and future energy systems.

Economics

Policy Study Group of M.I.T. Energy Laboratory, "Energy Self-Sufficiency: An Economic Evaluation." TECHNOLOGY REVIEW. vol. 76, no. 6, pp. 22-56, May 1974. Edited at Massachusetts Institute of Technology, Cambridge, MA 02139. Evaluates the state of the U.S. economy were self-sufficiency reached by 1980. Considers energy supply/demand in 1980; domestic supply of petroleum, coal, natural gas, nuclear power and synthetic fuels; U.S. and world oil market, including tariffs and quotas as instruments of oil policy. Concludes that the two goals underlying Project Independence--(a) reducing risk and cost of disruption of oil imports to foreign policy and domestic economy and (b) freeing the U.S. from the burden of high-priced oil imports that cost more than increased domestic supplies--are separate and not necessarily compatible; that allowing market forces to operate will transfer income from consumers to owners of energy assets; that speed in trying to achieve self-sufficiency will increase costs. Explains need to correct federal regulatory policies, let the market work, redress income distribution, and provide security against disruption of oil imports.

ENERGY 12

SUGGESTED ENERGY READING: OPTIONS

General

Hammond, Allen L., William D. Metz, Thomas H. Maugh II. *ENERGY AND THE FUTURE*. 184 pp. glossary, biblio. \$3.95 (paper). 1973. American Assoc. for the Advancement of Science, 1515 Massachusetts Ave., N.W., Wash., D.C. 20036. Following a superb 3-page summary of the situation up to March 1973, this book assesses the technology and research developments that will be the basis for future energy policies. Covers grades, location, reserves, and pollution impact of coal; coal gasification, combined gas and steam cycles for clean production of electricity, and magnetohydrodynamic power. Informative on fission and breeder reactors and alternative sources: geothermal, solar, photovoltaic cells, fuel from wastes, fusion and the greater feasibility of laser fusion. Discusses new questions of energy transport and storage as ways to overcome economic and environmental costs of electrical transmission. Short chapters on energy conservation, energy needs (projected demands and how to reduce them) and energy and the future (research priorities and energy policy). A bargain even for people unable to understand every page of it.

"How to Kick the Fossil Fuel Habit." *ENVIRONMENTAL ACTION*. pp. 3-6, 12-15. 50¢. Feb. 2, 1974. Room 731, 1346 Connecticut Ave., N.W., Wash., D.C. 20036. A special issue on energy alternatives from sun, wind, earth, sea, and atom plus a 2-page spread, "Community Energy Use Inventory."

Ray, Dixy Lee. *THE NATION'S ENERGY FUTURE*. 171 pp. illus. \$1.95. Dec. 1973. Supt. of Docs., Gov't Printing Office, Wash., D.C. 20402. Stock no. 5210-00363. Report to the President from special committee Dr. Ray chaired. Recommends a 5-year \$10 billion federal program for energy research and development, percentages to be committed to short-, mid-, and long-term objectives, and presidential budget for FY 1975. Summarizes work proposed for each principal program element. Also chapters on energy supply and demand, 5 recommended ways toward self-sufficiency, the federal role, technological and institutional obstacles to decreasing demand and increasing supply. Full of figures for budget buffs.

Rose, David J. "Energy Policy in the U.S." *SCIENTIFIC AMERICAN*. vol.230, no.1, pp.20-29. \$1.50 (prepaid). Jan. 1974. 415 Madison Ave., NYC, NY 10017. Fact-packed, thought-inducing. Why U.S. energy self-sufficiency by 1980 is unrealistic. How options for electric power generation (oil, coal, fission, fusion, tide, wind, hot rock, sun) compare on technologic, dollar, and social costs. Imbalance in U.S. investment in utilization and conservation vs. production of energy. Suggestions for ameliorating strategies.

Nuclear

Cochran, Thomas B. *THE LIQUID METAL FAST BREEDER REACTOR*. 271 pp. \$6.95 (paper). 1974. Resources for the Future. Distributed by the Johns Hopkins Univ. Press, Baltimore, MD 21218. Subtitled "an environmental and economic critique," this monograph finds economic argument for light metal fast breeder reactors (LMFBR) open to serious questions and no environmental advantages of the LMFBR over the presently operating light water reactors or the developing high temperature gas reactors. Since the LMFBR is a central component of Administration proposals for expanded domestic energy supplies, Cochran's analysis of costs, uranium supplies, environmental impacts, and safety aspects are important.

Knight, Jeffrey. "Nuclear Power: The Angel of Death." *CIC BRIEF*. 4 pp. biblio. 60¢. Oct. 1973. Corporate Information Center, Nat'l. Council of Churches, Room 846, 475 Riverside Dr., NYC, NY 10027. Describes clearly and directly the growth of nuclear power, the nuclear process, the emergency core cooling system and why its safety is questioned. Succinct paragraphs on thermal pollution, low-level radiation, fuel rod and quality control problems, transportation, sabotage, waste storage, breeder reactor, and nuclear development overseas. Lists major corporations in nuclear industry, organizations concerned over nuclear upswing, and readings.

Novick, Sheldon. "Nuclear Breeders." ENVIRONMENT. vol.16, no.6, pp.6-15. July/August 1974. Scientist's Institute for Public Information, 438 N. Skinker Blvd., St. Louis, MO 63130. (Back issues available from Maxwell Reprint Co., Fairview Park, Elmsford, NY 10523). Disturbing view of 5-volume environmental impact statement recently released by AEC on liquid fast metal breeder reactors (400) it proposes to build over 25 years at development cost of \$6 billion. Reviews problems AEC "minimized or ignored" and its conclusion that alternate technologies "will have 'no significant' impact."

Willrich, Mason and Theodore Taylor. NUCLEAR THEFT: RISKS AND SAFEGUARDS. 250 pp. appendices, biblio. \$4.95 (paper). 1974. Ballinger Publishing Co., Cambridge, MA 02138. In this report to the Ford Foundation's Energy Policy Project on a study commissioned by EPP, the authors address matters of concern to those investing heavily in nuclear power and to every citizen and community. With nuclear power here and growing, this expert analysis of the possibility of nuclear violence and the safeguards which, if implemented, would reduce the risk of nuclear theft is important to public understanding of technical facts and policy issues.

McCormick, John L. FACTS ABOUT COAL IN THE UNITED STATES. 32pp. \$2.00 (paper/repro). 1974. Environmental Policy Center, 324 C St., S.E., Wash., D.C. 20003. Brief, clear, factual explanation of production, availability, reserves, future demand for types of coal in relation to their heat and sulfur content, geographic distribution and depth. Explains importance of heat content (BTUs) in relation to sulfur content in comparing polluting effects of various coals. Corrects impression that all eastern coal is high sulfur. Describes importance of deep mining to meet post-1980 needs, and effect on eastern and midwestern coal industry of shift to western strip mining.

National Academy of Sciences. REHABILITATION POTENTIAL OF WESTERN COAL LANDS. 198pp. appendices, illus. reviewer comments. \$2.95 (paper). 1974. Ballinger Publishing Co., Cambridge, MA 02138. Reports conclusions and specific recommendations agreed upon by National Academy of Sciences/National Academy of Engineering study committee on potential for rehabilitating lands surface-mined for coal in the western U.S. Describes land, coal resource, and past surface mining. Deals with water resources in relation to surface mining (including the impact of disturbance in arid environments and the water requirements of rehabilitation) and with techniques and potential for rehabilitating surfaces (handling of topsoil and overburden, reshaping the surface, revegetation, etc.). Points out how little comprehensive experimentation and research has been directed to potential for rehabilitation. Notes related environmental issues (mining laws and permits, generation of electricity, social and demographic changes, land ownership and leasing). One of the reports commissioned by the Ford Foundation's Energy Policy Project. Important for people all over the U.S.

Alternatives

Dineen, Gerald U. and Glen L. Cook. "Oil Shale and the Energy Crisis." TECHNOLOGY REVIEW. vol. 76, no.3, pp.27-34. Jan. 1974. Edited at Massachusetts Institute of Technology, Cambridge, MA 02139. A succinct description of the U.S. oil shales, the two approaches to recovery of shale oil in the U.S., and the environmental impact of a shale oil industry. Also John W. Devanney III, "Key Issues in Off-shore Oil." pp. 21-26. A report on the study by M.I.T.'s Sea Grant Program of the possible effects for New England of successful exploration for petroleum on Georges Bank.

Hammond, Allen L. "Geothermal Energy: An Emerging Major Resource." SCIENCE. vol. 177, pp.978-980, Sept. 15, 1972. "Dry Geothermal Wells: Promising Experimental Results." SCIENCE. vol.182, pp.43-44. Oct. 1973. Compares steam, hot water, and hot rock sources, experience in use of geothermal energy, current experiments of Los Alamos Scientific Laboratory with drilling and hydrofracturing of hot rocks.

Wade, Nicholas. "Windmills: The Resurrection of an Ancient Energy Technology." SCIENCE. vol. 184, pp. 1055-1058. \$2.00. June 7, 1974. American Association for the Advancement of Science, 1515 Massachusetts Ave., N.W., Wash., D.C. 20005. Basic technology known. Problem primarily economic: to make windmill energy costs competitive with rival sources. Cheap, locally-made windmills would help oil-short countries of Third World. Will large-scale generation of electricity by windmills become that feasible?

Morgan, Richard and Sandra Jerabek. HOW TO CHALLENGE YOUR LOCAL ELECTRIC UTILITY. Environmental Action Foundation. 104 pp. \$1.50 (paper). 1974. 720 Dupont Circle Building, Wash., D.C. 20036. Subtitled "A Citizen's Guide to the Power Industry." Part I explains in simple language how electricity is made; how its production affects air, water, land; utility regulation, ratesetting and rising rates, reasons behind utilities' problems of capital accumulation. Part II gives citizens tips on how to challenge a rate increase, environmental impacts, and promotional policies of utilities.



League of Women Voters Education Fund

memorandum

September 5, 1974

This is going on DPM

TO: Local, State and ILO Presidents

FROM: Gwen Murphree, Chairman, Energy Task Force

RE: Energy Task Force: Interim Report

Our first report to you on the Energy Task Force highlighted the national Board's preliminary planning and described ETF's overall goals and "circular" structure in terms of what "will be." (See June 21, 1974 Memo.) We can now share with you "what is."

We have just completed the time-consuming job of organizing the basic structure of the Task Force and filling all the slots on three of the five concentric circles. (See attached rosters with the names and addresses of members of Circles 1, 2, and 3.) The core committee (Circle 1), which has already met several times, will meet with Circle 2 on September 5 and 6. These two circles share the basic responsibility for moving ETF ahead in its two-fold job of (a) exploring the complex range of energy problems and (b) working to broaden public awareness of the totality of energy issues and the relationship of domestic and worldwide energy resources. Circle 3, which will meet with Circles 1 and 2 at a national training conference in Washington, D.C. November 20-22, has a special role to play in fostering two-way communication between the ETF and Leagues in all regions of the country.

Energy Materials Already Available

In addition to the June 21 Memo and the June National Board Report, the summer issue of the National VOTER projected plans for the Energy Task Force through an interview with the ETF Chairman.

A July 29 Memo, sent to all Leagues, described the Federal Energy Administration's plans for regional public hearings on Project Independence. If enough information comes in, we'll report to you on the Leagues' part in these hearings.

The flow of ENERGY BRIEFS will continue. Energy Brief #11 has already been sent to you and #12 is on its way. These two briefs provide a basic bibliography.

Funding for ETF Outreach

You have probably already read the good news (June 1974 National Board Report) that the Education Fund has received a \$50,000 grant from the Office of Consumer Affairs of the Department of Health, Education and Welfare. This grant will enable the Task Force to conduct a series of conferences (the November national training conference, to be followed by seven regional workshops during 1975) designed to develop an energy conservation ethic among the citizenry.

Communicating with the Task Force

Circles 1, 2 and 3 are in operation. We hope you will begin communicating immediately, particularly with Circle 3. We think we have recruited an outstanding group of League members who can bring a variety of skills, talents, expertise, League program interests and geographical concerns to the Task Force.

To recap:

Circle 1, composed of national Board program chairmen and staff program specialists (EQ, HR, LU and IR), provides the basic core committee work with particular responsibility for ETF's interdisciplinary approach to energy issues. Circle 1 meets during every national Board meeting (dates listed in June National Board Report).

Circle 2 is a working group of five "off Board" members with experience in League and energy-related work, chosen to provide not only geographical balance to Circle 1 but to help undertake development of the on-going and crucial substantive work of the ETF. Present funding provides for two joint meetings of Circles 1 and 2 during the 1974-75 fiscal year.

Circle 3 consists of 15 League members chosen from the seven ETF regions. This group is seen as the ETF's direct communications link with state and local Leagues.

Circle 3 members' immediate prime responsibility will be managing the regional workshops on energy conservation to follow the national conference.

Circles 4 and 5, which have not yet been set up, will consist of League and non-League energy experts respectively.

ETF Regions

In order to facilitate input concerning regional problems and delineate areas for the regional conferences made possible by the HEW/OCA grant, we have arbitrarily divided the country into regions. See attached list.

Two members of Circle 3 were chosen from each region except for the Northeast, which has 3 members (it has the largest number of states and the greatest concentration of League population).

National Training Conference

The primary purpose of the national training conference on energy conservation, to be convened in Washington, D.C. at the Mayflower Hotel November 20-22, will be to train League leaders to conduct workshops in their respective regions. At the same time it will provide the first opportunity for the three ETF Circles to meet together. A League member from each state not represented on any of the three circles will be invited to participate in the national conference. Expenses of Circles 1, 2, 3, and invited persons from states not on circles will be paid from the HEW/OCA grant. Energy officials and specialists and representatives of diverse concerned citizens' groups will also participate.

Regional Workshops

A workshop will be held in each of the seven ETF regions during the next year (1975). Workshop participants will include League leaders from surrounding local Leagues and

from Circles 1 and 2. Energy officials and specialists, representatives of other concerned groups, and HEW/OCA staff will participate. The purpose of these working sessions is three-fold: to give local participants the opportunity to focus on how energy problems affect their community; to familiarize themselves with materials and methods available to foster an energy conservation ethic within their communities; and to develop plans that relate specifically to local conditions.

OTHER Happenings

- The national Board will spend a day at the United Nations September 16th, preceding the September Board meeting. The briefing will cover the international aspects of the energy problem.
- The ETF plans to be represented at the World Energy Conference in Detroit September 23-27. The theme is, "The Economic and Environmental Challenges of Future Energy Requirements."
- International Relations Committee Chairman Ruth Hinerfeld is encouraging League I.R. chairmen to participate in the Fund for Peace's 4th International Convocation in New York City on November 20 on "The Energy Outlook and Global Interdependence." For more details, write to The Fund for Peace, 1855 Broadway, New York, NY 10023.
- Gwen Murphree, ETF chairman and Lois Sharpe, Environmental Quality staff coordinator, attended an Engineering Foundation and Federation of Materials Societies Conference at New England College in Henniker, New Hampshire, August 11-16. This conference dealt with 4 tasks: 1) how to handle materials information; 2) international issues of materials; 3) designing for materials conservation; and 4) materials recycling.

* * * * *

DON'T FORGET to send us a report of your activities re the FEA regional hearings on Project Independence (July 29 Memo).

League of Women Voters Education Fund
1730 M Street, N. W.
Washington, D. C. 20036

August 15, 1974

ENERGY TASK FORCE ROSTER

CIRCLE 1

Board: Gwen Murphree, Chairman, Energy Task Force, P.O. Box 7084, Sunny
Isle, Christiansted -- St. Croix, U. S. Virgin Islands 00920

Betty MacDonald, Chairman, Environmental Quality, 1155 Edgewood
Avenue, Madison, Wisconsin 53711

Ruth Hinerfeld, Chairman, International Relations, 11 Oak Lane,
Larchmont, New York 10538

Virginia Nugent, Chairman, Human Resources, 760 Mountain View
Place, Morgantown, West Virginia 26505

Marion Nichol, Chairman, Land Use, 1509 Ward Street, Durham,
North Carolina 27707

Staff: Helen Burke, Administrative Assistant, Energy Task Force
Martha Mills, League of Women Voters Education Fund Staff Director
Lois Sharpe, Department Manager, Environmental Quality
Susan Stone, Staff Specialist, International Relations
Alice Kinkead, Department Manager, Human Resources
Alice Klavans, Staff Specialist, Land Use

CIRCLE 2

Selma Kallis, Northeast, Region 1, 3502 Legation St., N. W., Washington,
D. C. 20015

Becky Meier, Great Lakes, Region 3, 1205 Summit, Bluffton, Indiana 46714

Margaret Sutherland, Heartland, Region 4, 1320 North 79th St., Lincoln,
Nebraska 68505

Cynthia Jessell, Plains/Mountains, Region 5, 1500 Bluebell,/
Boulder
80302

Mac Firey, Northwest, Region 7, 3700 Sylvan Rd., N. W., Corvallis,
Oregon 97330

League of Women Voters Education Fund
1730 M Street, N. W.
Washington, D. C. 20036

August 15, 1974

ENERGY TASK FORCE ROSTER

CIRCLE 3

(includes members accepting to date)

Region 1 - Northeast

Lois Taylor, 20 Lock Street, Nashua, New Hampshire 03060
Joan Crowley, 49 Beverly Road, Upper Montclair, New Jersey 07043
Alice Ayers, Mason's Island, Mystic, Connecticut 06355

Region 2 - Southeast

Merilyn Reeves, 16506 Forest Mill Ct., Laurel, Maryland 20810
Chris Powers, 698 Upton Rd., N.W., Atlanta, Georgia 30318

Region 3 - Great Lakes

Maxine Hanson, 409 Carleton, Glen Ellyn, Illinois 60137
Henrietta Britton, 1624 Bixby Ave., Bemidji, Minnesota 56601

Region 4 - Heartland

Laura Keever, 10515 Laneview Drive, Houston, Texas 77070
Johanna Pilewski, 2231 Fifth Ave., S. E., Cedar Rapids, Iowa 52403

Region 5 - Plains/Mountains

Grace Edwards, 140 Crestwood Drive, Billings, Montana 59102
Pauline Utter, 922 S. Center, Casper, Wyoming 82601

Region 6 - Southwest

Lois Ewen, 567 B Avenue, Coronado, California 92118
Barbara Tellman, 728 N. Olsen Avenue, Tucson, Arizona 85719

Region 7 - Northwest

Doli Obee, 329 S. Phillippi, Boise, Idaho 83705
Sue Gosline, 5501 Kensington Pl. N., Seattle, Washington 98103

League of Women Voters Education Fund
1730 M Street, N. W.
Washington, D. C. 20036

August 15, 1974

ENERGY TASK FORCE REGIONS

1. Northeast

1. Maine
2. Vermont
3. New Hampshire
4. Massachusetts
5. Connecticut
6. Rhode Island
7. New York
8. New Jersey
9. Delaware
10. Pennsylvania
11. D. C.

2. Southeast

1. Virginia
2. Tennessee
3. Kentucky
4. North Carolina
5. South Carolina
6. Georgia
7. Florida
8. Alabama
9. Mississippi
10. Maryland
11. Puerto Rico
12. Virgin Islands

3. Great Lakes

1. Minnesota
2. Wisconsin
3. Michigan
4. Illinois
5. Indiana
6. Ohio
7. West Virginia

4. Heartland

1. Nebraska
2. Iowa
3. Kansas
4. Missouri
5. Oklahoma
6. Arkansas
7. Texas
8. Louisiana

5. Plains/Mountains

1. Montana
2. North Dakota
3. South Dakota
4. Utah
5. Wyoming
6. Colorado
7. New Mexico

6. Southwest

1. California
2. Nevada
3. Arizona
4. Hawaii

7. Northwest

1. Washington
2. Oregon
3. Idaho
4. Alaska

League of Women Voters of the U.S.
1730 M Street, N.W.
Washington, D.C. 20036

October 17, 1974

This is going on DPM

STATEMENT TO THE FEDERAL ENERGY ADMINISTRATION
REGIONAL HEARINGS - SAN FRANCISCO, CALIFORNIA
OCTOBER 8, 1974
by
GWEN MURPHREE
BOARD OF DIRECTORS
LEAGUE OF WOMEN VOTERS OF THE UNITED STATES

"CITIZEN PARTICIPATION IN ENERGY CONSERVATION"

The League of Women Voters of the United States welcomes this opportunity to speak on citizen participation in energy conservation at this regional hearing of the Federal Energy Administration on Project Independence. It seems particularly apropos for a representative of the national League to address this aspect of the energy problem since the League of Women Voters exists to develop informed citizen participation in government.

Citizen participation in developing energy conservation strategies deserves serious attention. Messages in print and on TV screens counseling the house-spouse to turn out the lights or motorists not to be "fuelish" have their place. But exhortations to citizens are no substitute for attentive and constructive response by government agencies and officials to citizen input.

The League of Women Voters strongly urges the FEA to use, seriously and simultaneously, the testimony presented at all 10 regional hearings by representatives of public interest spokesmen from the League, from consumer, environmental, welfare organizations and other citizen groups. Too frequently, statements from citizen representatives are lost amid the pressure and rhetoric of those who represent more specialized points of view.

Beyond making statements at hearings such as this, what can citizens do to participate in formulating energy conservation strategies? To be able to operate effectively, the public, first and foremost, needs to understand clearly the reasons energy must be conserved. Next, the public must learn where and how to cut back waste of energy. Only then can we, the public, deal with the long and short-term implications of energy conservation: What energy should be conserved? by whom? at what and whose sacrifice?

Global Interdependence

Members of the League of Women Voters have been telling me how distasteful they find the term "Project Independence," with its

implication that the United States can and should be self-sufficient.

Believing firmly in the importance of international trade and in global responsibility for lesser developed countries, our members--I am certain--welcomed President Ford's saying, at the United Nations, on September 18th, "...Developing and developed countries, market and non-market countries--we are all part of one interdependent economic system...A global strategy for food and energy is urgently needed." At the World Energy Conference in Detroit September 23, I had the pleasure of hearing President Ford issue a call to that international group to formulate "Project Interdependence" as a comprehensive energy program for the world. I might add that a good part of the discussion at that conference centered on conservation of energy resources. One notable quote: "...Only the developed countries can afford conservation since only they enjoy the luxury of waste!"

INDIVIDUAL LIFE-STYLE AND THE NEW CONSERVATION ETHIC

All consumers--corporate and individual--are urged to develop this energy conservation ethic: To use energy wisely, conservatively, for the greatest good for the greatest number; to use energy efficiently to meet national needs and no longer wastefully as if it were still cheap and abundant.

Turning to citizen participation, I must emphasize that the energy conservation ethic applies to the entire fabric of our life-style. As individuals we must alter the careless way we overheat and overcool our homes, jump into our cars for short errands, cross the continent with scarcely more concern than our grandparents showed when they went downtown. We must consider the energy consumption of the equipment we buy--dryers, refrigerators, irons, ovens, air conditioners, automobiles and so on. We must insist on durability, on repairable products. We must consider the place where we live in relation to the place where we work. Can we carpool or use public transportation?

Such changes in life-style are personal applications of the new energy conservation ethic. Whether or not we are motivated by principle to adopt this new energy ethic, rising prices, if not actual shortages, will compel most of us to use less energy.

Utility Rate Structure Changes

But what happened after citizens responded so well to last winter's "turn out the lights," "turn down the thermostats," "turn up the air conditioner" exhortations from all sides? The saving

in energy use lowered utility bills. Utility companies found their sales down at a time when their costs for fuel were going up. To compensate, many utilities have obtained or are calling for rate increases. Thus most citizens are now paying higher monthly utility bills as a result of responding to a plea to use less energy.

What can be done? The League suggests that citizens ask their government regulatory agencies to direct utility companies and public power installations to develop a rate structure that will reward the small user and reduce the need for so great a peak power production capacity. Those using a small amount will get a lower rate, and the peak-load user will pay at a higher rate. If the rate curve is made flatter, citizens on fixed incomes and in the lowest income brackets will be penalized less heavily by their conservation efforts.

While energy was cheap, people paid little attention to utility rate setting. But now the citizen activist must watch what is going on at the state and national level, consider how the rate change will affect him, and make his views known.

CITIZEN ACTIVISTS AND PUBLIC CHOICES

We in the League of Women Voters see citizen participation in energy conservation going far beyond individuals' personal choices for themselves. As voters, as constituents of elected officials, as spokespersons for those whom government agencies are intended to serve, citizen activists must emphatically state what they want and what they expect governmental bodies to do.

Insulation and Construction Changes

For example, the League of Women Voters believes it is not enough to suggest that citizens on an individual basis should insulate their homes in order to cut energy use and energy fuel bills.

- + Citizens should urge that, in cold parts of the country, low-income property owners are offered low cost loans to carry out insulation of their homes, a money-saving device in the long run.
- + Citizens should insist on changes in specifications for public buildings (schools, libraries, hospitals, government offices) so that their design and construction will embody energy-conserving principles. Public buildings paid for by tax monies should set an example and create a market for new energy conservation ideas and technology. (I call your attention to the effort of a League member in Tampa, Florida, who, as a member of the school board, is working to have the first school in the United States totally heated and cooled by solar energy.)

- + As contract renewals for office space come up, citizens should insist that buildings rented by any level of government be modified by their owners to reduce heat loss and air conditioning demands.
- + Citizens should insist that government influence on construction standards and availability of mortgage money be applied to advance the construction industry's use of solar energy and of energy-saving design.

Transportation Changes

Turning to a second example, the League of Women Voters believes that citizens should obey the federal law making 55 miles an hour the national maximum speed. But this action is not enough.

- + Citizens must insist that their congressmen make a much larger share of the Highway Trust Fund available for improvement and expansion of mass transportation systems.
- + The Environmental Protection Agency's responsibility under the Clean Air Act is to reduce air pollution in the heart of the cities to a level that meets the primary (health) standards. Therefore, citizens must uphold EPA where it says that automobile traffic must be cut back.
- + Citizens must insist that their local and state governments:
 - . Enforce the 55 miles-per-hour speed limit
 - . Apply for federal aid or utilize revenue-sharing monies for needed expansion of the local bus or other transit system
 - . Put into effect devices to discourage one-person car travel: limitation on number of parking spaces provided; high parking fees; incentives for car pooling; feeder bus systems; provision by companies for transportation to new job locations.

Purchasing Policy Changes

My third example deals with purchasing policy. The purchasing done by national, state and local governments makes an enormous total amount which can powerfully influence production. Citizens can have impact by insisting that local, state and federal government agencies adopt a purchasing policy that has energy conservation as its motivating force.

Energy savings are increased by three purchasing policies:

1) Durability

Planned obsolescence has no place in an energy-short, energy-expensive society. The example set by some government agencies in purchasing equipment and supplies on the basis of durability should be emulated by all government purchasers and by the private sector. The 'lowest bidder' requirement has resulted in short life for most government purchases. This policy has produced a 'throw-away' or 'disposable' attitude rather than durable, long-life expectations. The League suggests that citizens demand that durability receive consideration in governmental purchasing policies.

2) Energy Efficiency

Citizens should urge their congressional representatives to do what is needed (appropriations, employee ceilings) to speed up the federal Bureau of Standards program for identifying for purchasers the energy requirements of products. This "energy tagging" -- now completed for air conditioners and refrigerators -- should receive top priority for consideration in the Bureau. Energy efficiency ratings should be included in governmental purchasing specifications.

The League suggests, too, that the Bureau develop simplified guidelines to help the citizen consumer understand the relative energy-saving merits of a particular product and that this information be widely disseminated. Combining purchasing power of public and private sectors has the strength to bring about product changes that will make it cheaper and easier to "repair the old one" than to "buy a new one."

3) Recycling

An obvious advantage of increasing the use of longer-life products is to reduce the amount of solid waste. Smaller collections and less waste to be disposed of mean fuel saving. When energy used in transportation, processing, and manufacturing is considered, reusing, recycling or reclaiming many materials is less energy-intensive than producing them as virgin materials. Citizens should urge, therefore, that all government procurement specifications be written on the basis of product performance, rather than on product composition, which often mandate needless use of virgin materials. Federal purchase specification re-writing--required by law--should be speeded up. Railroad freight rates and special tax policies that give virgin materials an advantage distort prices, impede recycling efforts and discourage energy conservation. Alternate policies that will advance use of recyclables are needed.

Citizen activists should make themselves heard now, for Congress has before it bills to increase use of energy-saving, reusable beverage bottles, to adjust freight rates, to establish performance standards for products.

SUMMARY

No one seriously questions that the United States must reassess its wasteful use of resources and high energy.

Rhetoric must be replaced by a real energy conservation ethic which recognizes that while less energy means a certain inconvenience for many U.S. citizens, in global terms energy shortages are a matter of life and death for peoples in lesser developed countries.

Citizens can participate in energy conservation by personally adopting a different set of life-style options, a way of living that demands less energy use.

Citizens can go beyond these personal applications of energy conservation to work actively for legislation, regulations and standards that will shape industrial and governmental policies toward more efficient less wasteful use of energy.

For strong, broad-based citizen participation, citizen interest in energy conservation must be aroused and held. Contradictory statements such as, "Save gas," from some government spokesmen and "There is plenty of gas," from others create a credibility gap and increase citizen apathy.

Citizens must be exposed to the energy problems faced by this country and this world, both short and long-term, which hard facts rather than private interest propaganda or governmental rhetoric.

Avenues for citizen participation must be available and responsive; participation that is mere window-dressing wastes time and money.

To be effective, the national effort to conserve energy must be a responsibility shared by all levels of government, business, and industry, and the public. To be successful it must have citizen understanding, support and earnest participation.



memorandum

The League of Women Voters of the United States

October 22, 1974

This Memo is going on DPM
(Please note that the Ford
Foundation Energy Policy Pro-
ject Report is NOT going on
DPM.)

TO: Local, State and ILO Presidents

FROM: Ruth Clusen, President

RE: Resource Materials on Energy

This mailing brings you three pieces of new material on energy:

- 1) "Citizen Participation in Energy Conservation," a statement presented on October 8, 1974 by National Board Member Gwen Murphree to the Federal Energy Administration Regional Hearing in San Francisco, California;
- 2) Solid Waste -- To Burn," Energy Brief #13; and
- 3) A Time To Choose, America's Energy Future, the final report of the Energy Policy Project of the Ford Foundation, which was released October 18th.

We decided to share Gwen Murphree's testimony with all Leagues because it demonstrates how established League positions can be applied to energy issues. This testimony is particularly relevant to the Education Fund's energy conservation conferences (the national conference in Washington, D.C., November 20-22, 1974, to be followed by seven regional workshops during 1975--see September 5th memo to Local, State and ILO Presidents.)

Energy Brief #13 will be of particular interest to your environmental quality chairman in following up her solid waste responsibilities and to other League leaders concerned with energy policy issues and energy conservation.

The Ford Foundation has provided us with complimentary copies of the Energy Policy Project Report, one for each local and state League and each ILO. Please be certain to put your League's copy to the best possible use. For your guidance: a copy of A Time To Choose is also being sent directly to all Energy Task Force members and all state representatives coming to the national energy conference. You will be able to purchase this book in the bookstores, or you can write to: Ballinger Publishing Co., 17 Dunster St., Cambridge, Mass., 02138. The paperback sells for \$3.95 and the hard cover version sells for \$10.95.

ENERGY

SUMMARIES

OF

A TIME TO CHOOSE: AMERICA'S ENERGY FUTURE. Final Report
of the Energy Policy Project, Ford Foundation.
October 1974.

AND

A Selection of Five Research Reports Commissioned (and
summarized) by the Ford Foundation Energy Policy Project:

ENERGY TAXES AND SUBSIDIES. Gerard M. Brannon. August 1974.

ENERGY AND U.S. FOREIGN POLICY. Joseph A. Yager and Eleanor
B. Steinberg, et al. Brookings Institution. January
1975.

OIL SPILLS AND THE MARINE ENVIRONMENT. Donald F. Boesch,
Carl H. Hershner and Jerome Milgram. June 1974.

PERSPECTIVE ON POWER. Edward Berlin, Charles J. Cicchetti
and William Gillen. November 1974.

REHABILITATION POTENTIAL OF WESTERN COAL LANDS. National
Academy of Sciences/National Academy of Engineering.
May 1974.

Summaries Prepared by the Energy Policy Project and Reproduced
by the League of Women Voters Education Fund, 1730 M Street, NW,
Washington, DC 20036. May 1975.



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ENERGY 13

SOLID WASTE--ENERGY TO BURN

In short

The nation's trash--more than 230 million tons of municipal wastes alone--has become surprisingly relevant to discussions about energy shortages, energy conservation and new fuel sources. Solid waste management, from trash collection to sophisticated resource recovery systems, could play an important role in national energy policy.

A few examples:

- Increasing the efficiency of trash collection saves fuel, because improved routing enables trucks to make fewer pick-ups.
- Recycling waste materials saves fuel, because production of goods from recyclables uses less energy than production from virgin materials.
- Reducing the volume of wastes generated saves energy, because fewer throw-away goods are produced and many products are reused.
- Using the organic fraction of solid waste as fuel creates new sources of energy.

Background

The Environmental Protection Agency (EPA) and a number of private researchers as well have become interested in the conservation of energy and the development of fuels through various solid waste management programs. EPA's dramatic conclusions have encouraged policy-makers at all levels of government, along with industry, to look at solid waste as something too valuable to throw away.

Waste Collection. Garbage collection in the U.S. consumes about 163 million gallons of diesel fuel each year. Substantial reductions could be realized, says EPA, by increasing the efficiency of waste collection. For example, communities switching from two trash pick-ups per week to one could save 29 percent of their normal fuel requirements. If special pick-ups (such as for bulky items) were eliminated entirely (and incorporated into regular service), fuel savings of 50 percent could be realized. Diminished frequency of collections and improved routing would result in annual fuel savings of more than 18 million gallons of diesel fuel and 39 million gallons of gasoline.

Many people think, however, that fuel conservation in this category may represent a false economy because of the need for diligent waste collection, particularly in inner city areas that have often been neglected by sanitation agencies. EPA says, however, that cleanliness need not be sacrificed by increased efficiency and thoughtfully-diminished routing.

Recycling. In a report from the Oak Ridge National Laboratory, Eric Hirst concluded that the energy requirements for production from steel, aluminum and paper scrap are far lower than those for production from virgin materials. Reprocessing aluminum scrap, for example, consumes less than five percent of the energy needed to produce aluminum from bauxite; reprocessing steel scrap uses 25 percent of the energy used to make steel from virgin ores. Energy savings result because virgin materials (ores, wood, etc.) used in manufacturing must first be extracted or harvested, refined, and then transported to the processor while products made from scrap eliminate the extraction and refining steps (and require only separation and transportation). EPA estimates that if all municipal wastes had been recovered in 1972 (using available technologies), almost 170 trillion BTUs of primary energy would have been saved that year (equivalent to 30 million barrels of oil). It is estimated that these figures will double by 1985, a significant growth rate if energy demand does not skyrocket. Environmentalists also point out that increased recycling has other benefits: valuable, often non-renewable, resources are conserved as well.

Waste Reduction. Changes in packaging, consumer habits and product durability can also have an impact on energy consumption. EPA says, for example, that use of a refillable bottle saves 50 percent of the energy that would have been needed to produce a non-refillable bottle or can; that a national policy requiring the use of returnable, refillable beverage containers would save 244 trillion BTUs each year. Dr. Bruce Hannon of the Center for Advanced Computation at the University of Illinois adds that the "annual energy now diverted into supplying beer and soft drinks in throw-away cans and bottles would supply all of the electrical needs of Pittsburgh, Boston, Washington, D.C. and San Francisco for one year" [emphasis added].

Oregon, the first state to mandate use of returnable containers for beer and soft drinks, estimates it has conserved 1.32 trillion BTUs in one year, enough energy to meet all the energy needs of two percent of the state's population for one year.

EPA also says that an end to excessive packaging (such as individually-wrapped foods, superfluous bagging, etc.) would also result in tremendous energy savings. The agency's Second Report to Congress on Resource Recovery and Source Reduction estimates that if the volume of packaging were held at 1958 levels, almost 600 trillion BTUs could be saved in one year, equal to 300,000 barrels of oil each day.

Energy Recovery. Using the combustible fraction of solid waste for fuel will conserve oil, gas, or coal (as well as relieving local waste disposal problems). The most basic system, used in other countries for years, burns trash as a supplemental fuel in coal-fired boilers. Waste-burning in the U.S. has not been widespread, but the best known facility is an EPA-sponsored demonstration project in St. Louis where the Union Electric Company uses a combination of municipal waste (from which ferrous and non-ferrous metals have been salvaged) and coal to run boilers. It is estimated that use of solid waste cuts coal consumption at the plant by up to 15 percent and that one ton of trash can be converted into 900 kilowatts of electricity. A second method of heat recovery, pyrolysis (burning in the virtual absence of air), converts the organic component of waste into oil or gas which is then burned. Although this system is still experimental (and some experts question its feasibility), EPA demonstration projects are now under construction in Baltimore and San Diego to convert trash to combustible gas and oil. EPA's Office of Solid Waste Management Programs (OSWMP) says that if energy recovery from municipal wastes were practiced in every Standard Metropolitan Statistical Area (SMSA) in the country, 800 trillion BTUs could be produced each year, or about 400,000 barrels of oil each day. According to OSWMP, this is roughly equivalent to one percent of all energy consumed in the U.S. in 1970.

Energy recovery is not limited to municipal wastes alone. The Bureau of Mines (in the Interior Dept.) has been developing processes that convert animal wastes (primarily cattle manure) into fuel oil or methane gas but only a few prototype systems have been built by private enterprise. It is estimated that more than 1.2 billion barrels of oil could be produced each year from cattle wastes alone.

Despite limited interest in energy conservation from recycling on the part of many federal agencies and the Congress (as evidenced by a lack of active support for such programs), response from the public and many industries has generally been favorable. Stiff opposition to waste reduction, however, has come primarily from the container industries which are fighting efforts to regulate packaging. They say that any energy savings from returnable containers will be cancelled by economic dislocations (shutting down of canning operations, etc.), public health risks and consumer inconvenience. Debate over source reduction and its energy implications promises to grow more heated as Congress and state legislators around the country take longer and harder looks at the figures.

People are saying

"Waste is a big energy resource. To paraphrase a TV commercial, 'a nation that runs on oil can't afford to waste its garbage'." Arsen Darnay, Deputy Asst. Administrator, OSWMP, U.S. EPA, Feb. 22, 1974.

"Sixty billion throw-away soft drink and beer containers were produced in the U.S. last year. This is a lot of trash. It is a monument, as well, to wasted energy. Indeed, at a time when federal and local governments--and families--are searching for ways to conserve energy, they will do well to take a look at this mounting mess of metal and glass." Editorial in the Washington Post, Dec. 20, 1973.

F.Y.I.

Office of Solid Waste Management Programs. Press Briefing on Solid Waste Management and Energy. Feb. 22, 1974. 18 pp. Order from OSWMP, 1835 K St., N.W., Washington, D.C. 20460. Review of energy savings available through a number of solid waste management programs.



Federal Energy Administration Project Independence

Executive Summary



Project Independence

November 1974



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news release

League of Women Voters Education Fund

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FOR IMMEDIATE RELEASE
NOVEMBER 22, 1974

Washington, D.C.--A national Energy Conservation Conference held by the League of Women Voters Education Fund this week pointed up the difficulties in attempting to reconcile conflicting public and private recommendations for meeting the country's energy crisis.

The conference, which was the first of a series designed to develop a national energy conservation ethic, opened November 20th with a keynote address by Russell Train, administrator of the Environmental Protection Agency.

In the first day and a half of the conference, speakers who were experts in their fields of environment, building construction, solid waste disposal, transportation and industrial management, made conflicting recommendations as to where and how were the best means of conserving energy.

Ruth C. Clusen, Chairperson of the Education Fund, commented on the urgent need to bring a sense of direction and purpose to energy policy recommendations. "Citizens understand the gravity of the problem," she said. "However, the on-again, off-again statements of government and industry spokesmen leave them confused and frustrated about what is being done about solutions. There is no one answer that can be given in our pluralistic society, but there is a need for a coherent long-range projection of steps that must be taken by all segments of society."

Russell Train, in his keynote speech, recommended reduced energy consumption, use of new fuel sources, and recycling as means of dealing with the burgeoning energy

MORE

Copies to: Ebbott, Jenkins, Borg, and Watson

shortage. Noting that the technology exists to produce geo-thermal, solar, nuclear, windpower, and solid waste conversion energy, Mr. Train warned, however, that, without public support for lower levels of energy consumption in the long range future, government efforts to develop new energy sources would be inadequate. "We must move from a throwaway mentality to a recycling mentality," he added.

Addressing the conference on Friday, November 22nd, Virginia Knauer, Director of the Office of Consumer Affairs of HEW, warned of the need for foresight and energy economizing by consumers in order to ease the pressure on our energy supplies over the long term. "The real test of our ability to face the energy shortage is not the ways we save for a few weeks, but the ways we adjust to conserve energy over the years. We have proven ourselves in a crisis. Now we must prove ourselves over the long haul."

In a panel discussion, experts from government and industry made similar, if sometimes conflicting, recommendations for coping with energy shortages.

In an introductory 'overview,' Robert Williams, senior scientist with the Ford Foundation's Energy Policy Project, said, "Volunteerism and market forces in themselves are inadequate to achieve the goals we have set out -- to reduce energy growth over the next decade to less than 2 percent per year and perhaps to zero after that -- without adversely affecting economic growth or producing unemployment."

In contrast, Neil DeKoker from the energy management section of the General Motors Corporation advocated letting free market forces determine energy policy, noting that the automobile industry has already been forced to manufacture greater numbers of smaller, more gas efficient cars because of reduced sales rather than because of government regulation. Mr. DeKoker insisted that energy conservation cannot substitute for his recommended solution -- increasing the supply of energy now available for continued manufacturing growth.

Robert Hemphill, associate administrator for transportation programs in the Federal Energy Administration, noted that passenger cars account for 15 percent of national energy use and recommended attacking the fuel shortage at government, manufacturing, and consumer levels. Mr. Hemphill suggested that if President Ford's request to the automobile industry for a 40 percent improved gas mileage capacity for passenger cars by 1980 could not be met voluntarily by industry, government regulation might be required to bring it about. He also hinted that if consumption levels were not lowered voluntarily by consumers, taxation measures may be used to discourage the public from buying high gasoline consumption automobiles.

Questions raised by League members addressed such issues as how energy supplies were to be increased without further devastating the environment, what plans the automobile industry had to promote small cars as they had once so effectively promoted big cars, and how the automobile industry might convert to small car production without producing massive unemployment such as is currently occurring in Detroit.

Other speakers included Paul Achenbach, chief of the Building Environment Division at the National Bureau of Standards who recommended changes in building codes to obtain energy efficient structures, but acknowledged that this must be a joint effort on the part of state and local governments rather than an effort achievable at the federal level.

Bernard Baratz of the Mitre Corporation discussed the possibilities of solid waste conversion to fuel and of recycling technology which enables separation of recyclable and combustible wastes, thereby enabling both energy production and recovery and recycling of resource materials. Mr. Baratz was unable to supply information in response to audience questions as to the air pollution effects from combustion of solid waste.

The conference which was partially funded by a grant from the Office of Consumer Affairs of the Department of Health, Education, and Welfare, will be followed by regional conferences sponsored by the League of Women Voters Education Fund.

Mrs. Clusen stated that the purpose of the project "is to give citizens the information necessary to reconcile some of the points of conflict and to develop a conservation ethic which is consistent with government, industrial, and public needs."

ENERGY 14

OIL -- A GLOBAL VIEW

In short

Global interdependence was once thought by some to be the catchword of the "soft-minded utopians" who at one time in their lives had traveled abroad. But that was before the energy crisis. The quadrupling of the price of oil over the last year has sent shock waves rippling across the globe. The problem of demand, supply, and price of energy sources is an international challenge which demands the creativity and collective wisdom of world leaders.

Background

- India's farmers can't afford fertilizer to produce food for a severely undernourished populace.
- The Italian government is staving off insolvency with a \$2 billion loan from West Germany.
- South Korean laborers find that each monthly paycheck loses almost 2% purchasing power as inflation climbs to an annual rate of 22%.
- The United States faces inflation, unemployment, and a projected \$5 billion balance of trade deficit for 1974.

Most of these problems are rooted in history. Neither hunger in India nor inflation in the United States can be blamed on the decision of the oil-producing nations to raise the price of oil. But the energy crunch has certainly added an element of crisis to the economic woes of nations across the world. The seemingly high-flown rhetoric of global interdependence has made an emergency landing and people everywhere are feeling in their daily lives the effects of decisions taken by far-off countries.

Just as industrialized nations depend on oil, developing countries need it to fuel infant industries and to increase crop yield. The world's proven oil resources are unevenly distributed, with most of the exportable supply coming from the Middle East. Possessing oil has not, until recently, ensured great wealth for the oil-producing countries; the international companies that drilled for the oil controlled prices and got the lion's share of profits.

Abu Dhabi, Algeria, Ecuador, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia and Venezuela are members of the Organization of Petroleum Exporting Countries (OPEC) formed in 1960 to try to increase producing country control over energy resources. Not until after 1970 did they succeed in gaining "participation" in the international oil companies and raising the taxes paid by the companies. During the October 1973 Mideast war, Arab producers, joining oil and politics, restricted oil exports to industrialized countries. Building on the new-found strength of a successfully coordinated embargo, OPEC continued to increase control over international oil companies and raised posted prices from the October 1973 average of \$3 to today's average of \$12 per barrel.

High oil prices have affected all oil consuming nations, some more severely than others.

Inflation In a world already plagued by spiraling inflation, the recent quadrupling of oil prices has caused an inflationary explosion. U.S. consumer prices went up more than 11% in the past year; British, 17%; Japanese, more than 21%; and Indian, 28%. U.S. and European economists expect increased oil costs to account for two to four percentage points of the rise in consumer prices in 1974.

World food crisis The energy crisis has aggravated an already severe problem of world food supply. Annual World population growth of 2%, poor weather conditions, and increased demand for greater protein intake sent world food prices skyrocketing in 1972 and 1973. Now the energy crunch threatens to

further jeopardize the supply side of the food/price equation. Food production requires energy: tractors use gas, irrigation pumps run on electricity, and chemical fertilizers, herbicides, and animal feeds are made from petroleum by-products.

Balance-of-payments deficits The oil importers' cumulative deficit could climb to \$650 billion by 1980 (World Bank estimates). Oil-consuming nations are being driven to export more and import less to conserve declining foreign exchange reserves. Oil producers can absorb only a limited quantity of additional foreign goods and services, so oil-consuming countries will continue to build up trade deficits. If the consuming countries combine competitive export drives with import curbs to eliminate deficits, the international trading system could be headed for disaster. The poorest nations are the hardest hit. Higher import bills for oil and other goods, plus decreased export demand that reflects other nations' growing economic difficulties compound the developing countries' traditional foreign exchange problem. Aid from developed countries will need to double just to keep the poorest nations' impoverished living standards from eroding.

Declining economic growth Demand is weakening in industrial nations because of high oil prices and tight monetary and fiscal policies designed to dampen inflation. Decreased demand translates into slower economic growth. A recent General Agreement on Tariffs and Trade (GATT) report shows that the combined GNP of seven major industrial countries was growing at a rate of 8% in the first half and 3% in the last six months of 1973, and at 1.5% in the first half of 1974. The economic downturn of the industrialized countries has a spill-over effect on the poorest developing nations; developed countries buy fewer raw materials from the developing countries, and pressures build to reduce the flow of aid.

International monetary turmoil The energy crisis further strains the already troubled international monetary system. Oil-consuming countries are expected to transfer \$80 billion (more than five times the 1972 figure) to oil-producing coffers this year. As oil producers cannot spend this amount at home, they deposit funds in Western commercial bank deposits that can be withdrawn on short notice (24 hours to 30 days). Some oil-producing countries shop around daily for the best interest rates on their so-called "petrodollars," moving large sums rapidly. While banks are accepting these short-term deposits, they are lending long-term to oil consuming countries to offset balance-of-payments deficits. There are several problems with this system: the commercial banks could face severe financial strain if short-term deposits were unexpectedly withdrawn; loans are not going to the neediest nations; and many nations are going deeply into debt to buy a good that is rapidly consumed. Long-term investment by the producing countries may be the answer, but resistance to such large scale foreign investment is growing in the industrialized countries.

Political factors Economic woes cause political strains. There has been talk about the fragility of democracy in Britain. The beleaguered Indian government has been confronted with riots over inflation. Japan's ruling party suffered serious setbacks in the July 1974 elections in which inflation was the major issue. Oil-exporting nations are in a position to play a new global political and economic role commensurate with their wealth. And rich and poor nations alike are beginning to scramble for resources vital to their well-being. How nations will pursue "resource diplomacy"--with its strains among allies as potential competitors, its tensions between producers and consumers, and its devastating effect on the poorest countries--is one of the major new challenges facing humankind.

People are saying

"Everyone can now see the pulverizing impact of energy-price increases on every aspect of the world economy. The food problem, the inflation problem, the monetary problem and other major problems are linked to the all-pervasive energy problem. President Ford, to World Energy Conference, Detroit, Sept. 23, 1974.

"...the developed countries have been taking advantage of the fundamental needs of the Latin American, Asian or African man. To cite the particular case of Venezuela, petroleum prices showed a steady decline for many years, while our country was obliged to purchase manufactured goods from the United States at ever-higher prices which restricted even further the possibilities of development and well-being for Venezuelans." Carlos Andres Perez, Venezuelan President, in letter to President Ford, N.Y. Times, Sept. 25, 1974.

F.Y.I.

Walter J. Levy. "World Oil Cooperation or International Chaos." FOREIGN AFFAIRS. July 1974. pp. 690-713. A recognized oil expert who serves as advisor to industry and governments discusses the need and opportunities for international cooperation on energy.

A GUIDE FOR PLANNING
AREA CONFERENCES OR WORKSHOPS TO
DEVELOP A NEW ENERGY CONSERVATION ETHIC

With the launching of a national energy conservation-training conference in Washington, D.C. in November 1974, the League of Women Voters Education Fund has started a project to help citizens become more energy-conservation conscious. Under a contract with the Office of Consumer Affairs, U.S. Department of Health, Education and Welfare, the LWVEF -- as a next step -- will sponsor seven two-day area conferences aimed at developing a new energy conservation ethic among consumers.

This GUIDE FOR PLANNING AREA CONFERENCES is directed specifically to the seven area conferences for which funding is provided under contract HEW-OS-74-269. It will be useful also to people who are arranging other area, state-wide, or local energy-conservation conferences or workshops funded from other sources.

This guide is an addendum to LWVEF Publication 695, HOW TO PLAN AN ENVIRONMENTAL CONFERENCE: A TECHNIQUE FOR DEVELOPING CITIZEN LEADERSHIP. Many of the suggestions, checklists, and samples in Pub. No. 695 (free on request from the LWVEF) are applicable to any conference or workshop whose purpose is to bring together a diverse group of citizens to consider what needs to be done about a problem and how they can interest their own and other organizations and the general community. Where this much shorter GUIDE FOR PLANNING AREA CONFERENCES carries a number in parentheses, that number refers to pages in HOW TO PLAN AN ENVIRONMENTAL CONFERENCE, which should be consulted. Where advice in the two guides differs, directions in these mimeographed sheets are to be followed by those planning the area conferences sponsored by the LWVEF and funded by the Office of Consumer Affairs in HEW (OCA/HEW) under contract HEW-OS-74-269.

INITIATING THE PROJECT (pp.4-5)

Goal, Scope, and Basic Format

The GOAL of the project is to develop a strong new energy-conservation ethic among the people of the United States, to stimulate them to reduce their own consumption of energy and to influence community energy-related decisions in that same direction.

For the seven LWVEF-sponsored, OCA/HEW-funded area conferences, the SCOPE is limited to bringing diverse groups of citizens together (a) to gain insights into the importance of energy conservation locally, regionally, nationally, and internationally and (b) to determine which ways of energy saving and which strategies to that end will be effective in their communities and what their effects will be. For these area conferences the BASIC FORMAT is a two-day meeting, to be followed by independent outreach efforts of conference participants. Each of the seven conferences is to be conducted in the spirit of genuine inquiry. Expression of a variety of viewpoints and uninhibited exchange of ideas is to be fostered. No votes will be taken, no resolutions passed, no legislation proposed or endorsed. Participants are to be drawn from a diversity of groups in the vicinity of the conference location, including members of local Leagues of Women Voters.

Location of the Area Conferences

The general location for each of the seven area conferences has been selected by the LWVEF and the OCA/HEW. Final decision about the exact location will be made through consultation between the chairman of the LWVEF's Energy Task Force (ETF), the project officer from OCA/HEW, and ETF Circle 2 and 3 members from the region. Criteria for selection of the exact location will include:

- . local leadership available to staff the conference
- . accessibility for media people
- . proximity to leaders from a variety of organizations and to ETF members involved in that conference
- . adequate physical facilities at a cost within the area conference budget.

THE GENERAL CHAIRMAN AND HER DUTIES (p.8)

The general chairman for each of the seven LWVEF-sponsored, OCA/HEW-funded, energy-conservation area conferences will be the ETF Circle 3 member living near the conference site. The other ETF Circle 3 member(s) from the region will serve as co-chairperson(s). The ETF Circle 1 or 2 member from the region will serve as a major resource person and as liaison with the LWVEF.

The general chairman will have overall responsibility for the entire area conference. In that connection she will

- . administer the conference budget, approve all local expenditures, maintain an accurate record of expenses
- . appoint and chair the planning committee, assign duties to its members, keep in close touch with subcommittee chairmen, and serve as an ex officio member of all subcommittees
- . open and close the conference and share other chairing responsibilities with members of ETF Circles 2 and 3 and planning committee members
- . work closely with the ETF chairman, the LWVEF staff, ETF Circle 1, 2 and 3 members from her region and serve as the link between them and the area-conference planning committee
- . encourage follow-up and outreach effort after the area conference.

See p.9 of this guide under "AREA CONFERENCE BUDGET" for other responsibilities of the general chairman.

THE PLANNING COMMITTEE

Setting Up the Planning Committee

Careful selection of the planning committee is one of the most important tasks of the general chairman. Keep the committee small, certainly no more than ten. Most or all planning committee members should be from the area's local Leagues of Women Voters. It may be advantageous, however, to have one or two outsiders on the planning committee. Consider appointing an interested representative of the media and of one or two organizations whose cooperation is especially important to the success of the project. Consider also inviting a member of the state LWV board to serve on the planning committee; this decision will be influenced by distance and cost of transportation.

Planning committee members should know who are the civic leaders, who helps form opinion, and what elements of their governments affect energy decisions. Each member should be sensitive to the needs, interests, and prejudices of the area and be willing to cooperate with other groups.

The planning committee is a working group whose members have responsibilities in addition to attending and participating in the conference. Each member needs to understand that in accepting the invitation to serve on the committee she or he is agreeing to accept and discharge definite duties.

Meetings of the Planning Committee (pp.7-8)

At least two meetings of the planning committee are necessary. As many more as will be productive should be held if the budget permits. The first meeting should be held at least two months (3-5 is better) before the probable conference date. If only two planning committee meetings are possible, a full day (e.g. 10:00 a.m. to 3:00 p.m.) should be allotted to each.

At the first planning committee meeting for one of the seven area energy-conservation conferences funded under the contract between the LWVEF and the OCA/HEW, make sure that all committee members understand the project goals, scope, and basic format as set forth on p.1 of this guide. At this first meeting decide on a work schedule (10), set deadlines, and assign responsibilities. This first meeting should also deal with specific dates and location for the conference, discuss the conference program -- considering what can be accomplished through the resources of the area, suggest names of participants to be invited, and suggest names of possible speakers from the area.

The second full meeting of the planning committee (if only two are held) should take place no less than one month before the date of the conference. At this second meeting the committee should review the list of participants and the tentative program and suggest adjustments, plan the external public relations effort, review the participants' kit and publications display. Ideas for post-conference outreach (follow-up) should be discussed.

The planning committee should meet briefly immediately before the conference to review arrangements and take care of last minute adjustments.

SUBCOMMITTEES AND THEIR DUTIES

Conference planning seems to divide naturally into the following tasks:

- | | |
|--------------------|-------------------------------------|
| - arrangements | - kits and visuals |
| - recruitment | - printing and reproduction |
| - program content | - secretarial and financial records |
| - public relations | - follow-up or outreach |

It is important to have a competent member of the planning committee taking responsibility for carrying out each of these tasks. Work assignments should be made at the first planning committee meeting, and work should be started immediately. Each planning committee member should draw in some helpers from local Leagues or from other organizations. The local arrangements, recruitment, and program-content subcommittees will need the most members, and the latter two especially will benefit from the presence of non-League people. Members of each subcommittee will need to meet or consult frequently. Each subcommittee chairman should keep in constant communication with the general chairman and should coordinate with other subcommittee chairmen whose work interrelates.

Local Arrangements (pp.29-31)

The planning committee member in charge of local arrangements should help the general chairman find the site for the conference. Prime considerations are suitable meeting rooms, simple but comfortable housing, adequate meals, and accessibility for participants and media representatives. Cost of transportation is important. Amount of energy used in getting back and forth must be weighed.

There is a close relation between site selection and recruitment, for the price of the accommodations is the critical factor determining how many participants' attendance can be funded. The obvious hotels and motels may not be the only possibilities; a variety of institutions now offer conference facilities. Look into what is available in your area. Seek out the best possible combination of low price, adequate comfort for meetings and living, accessibility, and freedom from distractions.

Read and reread the advice on pp.29-31 of HOW TO PLAN AN ENVIRONMENTAL CONFERENCE. The suggestions there are based on wide experience. In choosing the site for your conference, try to find a place where

- . the conference room is large enough to hold all participants plus press at tables (others attending -- committee, observers, etc. -- can sit at rear and sides without tables)
- . the conference room has a raised platform for speakers, with room for a lectern, tables and chairs, and a blackboard; has satisfactory acoustics, ventilation, projector and microphone connections, and places to put up visual aids
- . additional meeting rooms will be available if the program calls for dividing into several groups
- . meeting and dining areas are separated sufficiently so that clatter of setting and clearing tables will not distract from the program (under no circumstances should the meeting room also be used for eating; the loss of time is too great)
- . facilities for no-host social hour are available and can be reserved exclusively for conference participants
- . suitable menus can be selected at prices within the amount budgeted.

When you have decided upon the site, confirm specific details in writing with the management. Check a day or two before the conference to make sure that all equipment agreed upon has been provided and is in working order and that all spaces promised will be available.

Amplifying equipment always seems to present problems. Make sure you have arranged for it and have some plan for checking to make sure that it is functioning properly and for securing service if the equipment fails.

Make sure that the arrangements chairman and the site management have the same understanding about handling room reservations and paying bills. Are room reservations to be made individually by those who will attend? In this case the management should provide reservation forms. Or will the arrangements chairman reserve the correct number of rooms, assign roommates, and set up a master account (p.39) for paying for rooms and group meals? In either case the management should provide travel directions. Whatever the plan for room reservations and payment, it must be made clear in advance to all who are to attend the conference.

Recruitment

How many people? Under the terms of the contract between the LWVEF and the OCA/HEW, at least 40 people (i.e. 30 participants and 10 committee members) must have their conference expenses (travel and living) paid out of the funds provided for each area energy-conservation conference. Where a planning committee can work out a budget that will cover the expenses of more than 40 people, the committee can increase the number of funded participants.

Some planning committees will feel that the ideal situation would be to have a total of 50 to 80 people all staying at the conference site for the full period, but this arrangement may not be feasible. After determining the number of participants plus committee members whose expenses can be paid, an area conference planning committee may decide to increase the size of the conference by inviting (a) some additional people to attend the full conference at their own expense, or (b) some additional people from the immediate vicinity to attend the program sessions only, thus adding nothing to the cost of the conference, or (c) some combination of the two. The number who can be accommodated at an energy-conservation conference will depend, of course, on the facilities at each conference site. Each planning committee should consider the advantages and disadvantages of larger or smaller numbers of attendees and of having every one who attends live-in for the full time versus having more people hear the program but using gasoline to drive back and forth.

Who shall attend: The ideal conference would be composed of citizen leaders from all segments of the community. In addition to types suggested in LWVEF Publication 695 (pp.11-12), think of representatives from consumer groups, NOW, National Women's Political Caucus, Common Cause, VFW and auxiliary, Police and Firemen's Associations and their auxiliaries, American Bar Association, American Civil Liberties Association, senior citizens, minority groups, youth groups, political parties, aviation industry, trucking industry, National Home Builders Association, garbage contractors, junk dealers, fuel oil suppliers, food processors, nuclear physicists, welfare rights groups, hospital associations, bankers, building and loan association people, architects, community college faculty.

How many LWV members: All LWVEF projects are intended to serve the general public. Therefore, NO MORE THAN ONE-HALF, including members of the planning committee, of those who attend the LWVEF-sponsored, OCA/HEW-funded energy-conservation area conferences WITH THEIR EXPENSES PAID shall be League of Women Voters members. A sincere effort should be made to achieve approximately this same balance between League members and people from other organizations, from industry, or from government in the total attendance at these conferences. The recruitment chairman should send letters of invitation to the following League leaders:

- . ETF Circle 1 and 2 members from the region (Circle 3 members will be on the conference planning committee)
- . LWV national board members from the region
- . President of the state LWV in the state where the area conference is to be held, inviting her to attend in person or -- if a member of the state board is not on the conference planning committee -- to select someone else from the state board to attend in the president's place.

Since the presence of these League leaders is desirable because they are part of the organizational machinery for running the total project, they will NOT BE COUNTED as part of the permissible number

of funded League attendees. Expenses for Circle 1 and 2 members, national board members, and state League presidents will be handled directly from the LWVEF office and will not be paid out of the seven area conference budgets.

Because there is a limit on the number of League members who can be conference participants WITH THEIR EXPENSES PAID FROM CONFERENCE FUNDING and a limit on the proportion of total attendees who represent local Leagues, in areas where there are many local Leagues not every League may be able to send a representative to the conference. Each planning committee, therefore, should work out arrangements for dealing with this situation. If representatives from all local Leagues cannot be accommodated, probably no local League should have more than one member at the conference.

Where the conference planning committee decides that some people can attend the program sessions only, perhaps as observers, members of some close-by local Leagues may find that a convenient arrangement. Other local Leagues close to the conference site may be asked to provide a person to assist with conference duties and these aides will be welcome to sit in at all conference sessions.

A local League board that accepts the privilege of sending a representative with expenses paid is making a commitment to assume some responsibility for follow-up among its League members and in its community.

In recruiting local League members, the president of a League should be asked to suggest the member whom she thinks best qualified to carry out the goal of the project. It may not be the League's "energy expert" who can best win support for a new energy-conservation ethic, stimulate people to reduce their own consumption of energy, or influence government decisions in the direction of energy conservation.

The basis for selecting participants: All persons whose expenses are to be paid should understand that they are making a commitment to attend for the full two days and to carry out some type of follow-up activity.

In selecting participants, the recruitment committee will want to take these factors into account: Does the person seem to

- . be a leader in his organization?
- . have a good potential for effective follow-up?
- . be interested in promoting energy conservation?
- . be receptive to new information and different viewpoints?
- . represent a segment of society whose support for project goals is needed?
- . add to the diversity of the conference makeup?

How to carry on recruiting: The method of recruiting described in LWVEF Publication 695 (pp.11-20) is effective, but it takes a long time and is complicated. A simpler system is to (a) list people whom members of the planning committee think should be invited, (b) ask heads of organizations not represented on the first list to find among their members one who meets the requirements and will agree to make the necessary commitment, and (c) from these two sources, compile a reasonably balanced and diverse list of people to whom invitations, all necessary information about where, when, and what, and an acceptance form to be returned by a certain date are sent (pp.17-20).

Because some of those invited will decline and a few who accept will drop out at the last moment, the recruitment chairman will need to send out more invitations than she has places, be prepared with names of additional candidates to whom to send invitations later, and know of a few people willing to come on very short notice.

The recruitment chairman is responsible for assembling lists of potential invitees, lists of organizations asked to recommend or select someone, and finally lists of participants, observers, aides, etc. The recruitment chairman is responsible for all correspondence with those selected to attend. It is she and her helpers who must see that all those invited (except for speakers who will receive this information from the program chairman) have the information they need, that the required number of people of suitable diversity -- but not more than can be accommodated under the budget and by the site -- plan to come. During this process the recruitment chairman should supply the

general chairman with tentative lists and consult frequently with her. A list of those invited, their affiliations, and whether or not they have accepted should be prepared for each planning committee member to review at the second planning committee meeting.

Each recruitment committee should work out a procedure that it can handle in the time available and that seems appropriate to the number of people the planning committee has decided shall attend the conference and to whether they all will be funded, some will attend at their own expense, and some come for the program sessions only.

Program (pp.21, 24)

The program chairman and her subcommittee is responsible for the format and content of the conference program, which should be planned in consultation with the planning committee. Remember that the goal of the conference is not to create energy experts but to train community leaders to become agents of change, to help them develop a conservation ethic of their own, and to demonstrate ways the ethic can be developed among others. In addition the conference should suggest how community leaders can move community institutions toward energy saving practices.

The program chairman is responsible for making sure that the printed or duplicated program carries the notation that the conference "is sponsored by the League of Women Voters Education Fund under contract HEW-OS-74-269 with the Office of Consumer Affairs of the U.S. Department of Health, Education and Welfare." In general this information should be given in all letters inviting speakers.

For planning a program for an energy conservation conference, only the general advice on pp.21 and 24 of HOW TO PLAN AN ENVIRONMENTAL CONFERENCE is relevant, and possibly the section on problem solving sessions (pp.25-26). Although the purpose and scope of the LWVEF-sponsored national energy training conference in Washington, D.C. differed from the goals of the area conferences, some elements of the Washington conference program will be helpful as illustrations of subjects and organization.

Each area conference program committee should develop a program that (a) relates directly to the situation in its area, (b) shows that energy conservation there will be meaningful nationally and internationally, and (c) is relevant to the current energy-conservation issues. Rapidly changing conditions and policies may mean that the program emphasis of the last area conference held in 1975 should be substantially different from the one held earliest in that year.

The next page suggests a possible format for a conference on energy conservation, a format generally suitable for a regional, state, area, or community meeting. The conference planning committee and program subcommittee can flesh out or modify the contents to suit the needs of the place and time. For the area energy-conservation conferences sponsored by the LWVEF and funded by the OCA/HEW, the goal must remain unchanged.

SUGGESTED FORMAT FOR AREA ENERGY-CONSERVATION CONFERENCE

TITLE: THE WHY AND HOW OF ENERGY CONSERVATION FOR CITIZENS

GOAL: To help community leaders learn

- ..why energy conservation is necessary
- ..what energy conservation will accomplish
- ..how energy conservation can be achieved
- ..how energy conservation affects "special impact" groups such as the poor
- ..how the energy conservation message can be spread
- ..what role people, institutions, and governments can play

- CONTENT:
- I. The Charge - Why Energy Conservation is Necessary (speaker)
 - II. The Situation (in the region, state, area, community)
 - ..characteristics of the area that affect energy use
 - ..kind of energy the area uses; where it comes from and how
 - ..major ways the area uses energy
 - ..places to which the area sends energy (if it is a supplier)
 - III. The Possibilities for energy conservation by individuals, corporations, communities, governments
 - ..in space heating and cooling
 - ..in industrial and commercial management
 - ..in transportation
 - ..in construction
 - ..in recycling (reuse, reduction of waste at source, incineration)
 - ..in agriculture
 - IV. The Problems of modifying energy uses and developing a new ethic
 - V. The Steps that can be taken by individuals, communities, governments, industry
 - VI. The Recapitulation - Relation of Individual/Local Effort to State, National, International Energy Problems of Use and Source of Supply (speaker)

Under II - Consider asking participants to prepare an "energy profile" for their area before coming to the conference. This exercise helps develop background for conference participation and suggests the basic thrust needed in energy conservation in that area.

Under II, IV and V - Consider covering these parts of the program through discussion, with participants divided into small groups on the basis of either similarities or differences.

Under V - Have like groups meet together to develop plans for stimulating their communities interest in energy conservation. Even if there are only two or three from the same community, they need to begin thinking about their follow-up activities before leaving the conference.

Selection of speakers will be affected by other conference costs. It may prove impossible to pay a fee or honorarium to any speaker and may be necessary to recruit all speakers from close by to cut down on travel and overnight expenses. Remember that many an excellent program has been developed with local and unpaid experts from academia, government, industry, and citizen organizations.

Explain to each speaker as precisely as possible what the program planners expect him to cover in his talk and how it fits into the program flow. Ask each speaker to provide copies of his talk, preferably enough to distribute to the entire audience, but if this is impossible certainly three copies for the program chairman.

Try not to crowd the program; instead allow plenty of time between sessions. Avoid having the participants talked at too long and too often. When those attending are divided into small groups, try to arrange a seating pattern that will let participants face each other.

Kits and Displays (pp.32-33)

There are a plethora of energy materials, both general and specific. The problem will be quality, not quantity. Selectivity is important. The kit sub-committee chairman will need to keep reminding herself of the goal of the conference.

The kit must contain essential information pertaining to the conference: program, biographies (including addresses) of speakers, list of participants with their addresses, vouchers and directions for using them, check-out instructions, etc. Pertinent informational material for later use can be in the same or a separate container. Or supplementary materials can be given out during or at the close of the meeting. A display table, with information about where and how to order, is essential.

Except for the press, who need copies to make while speakers are talking, copies of speeches should be distributed at the close of sessions at which they are made.

Every conference needs a large map of the area displayed where it can be viewed during the program. Other visuals that are relevant and informative and can be seen from a distance will be helpful but avoid clutter.

Public Relations (pp.34-36)

All press releases prepared by the Public Relations Chairman or committee must carry the official attribution that the area energy-conservation conference is "sponsored by the League of Women Voters Education Fund under contract HEW-OS-74-269 with the Office of Consumer Affairs of the U.S. Department of Health, Education and Welfare."

The advice on publicity in HOW TO PLAN AN ENVIRONMENTAL CONFERENCE is clear and complete. Try especially to apply the section "At the Seminar."

Try to hold the area energy conservation conference in a place easily accessible to the media. Since the conference is not open to the public, reports on what is said and done there are especially important. If speakers are provocative or have stature, try to arrange on-site interviews with reporters. An interaction interview, presenting two sides of an issue -- perhaps who is to conserve what -- may appeal to reporters.

Remember to help the press and other media in all the ways suggested in Publication 695, including advance copies of speeches. All publicity should emphasize that energy conservation is a continuing way of life for all Americans, that a new energy conservation ethic is not an occasional, emergency, once-in-a-while impulse.

Printing and Reproduction (p.36)

A certain amount of printing and reproduction is essential and inevitable. Budget for it and make someone on the planning committee responsible for it.

Credit to the League of Women Voters Education Fund and to the Office of Consumer Affairs of the U.S. Department of Health, Education and Welfare must appear on all printed material. The printed or duplicated program for the conference must bear this notation: "Sponsored by the League of Women Voters Education Fund under contract HEW-OS-74-269 with the Office of Consumer Affairs of the U.S. Department of Health, Education and Welfare."

Will plans for your area conference call for all the items listed on p.36 of LWVEF Publication 695? For other items? In consultation with the general chairman and other subcommittee chairmen, make a list of items to be reproduced and the probable cost; then add on or scratch off as things develop and budget dictates.

Follow-up (Outreach)

Participants in the LWVEF-sponsored national energy-conservation training conference held in Washington, D.C. in November 1974 will work out ways to take the conference message to members of their organizations.

OCA/HEW funding will support follow-up in seven areas across the country. Those promoting follow-up events in other areas, states, or localities will need to seek their own funding.

The necessity for a new energy conservation ethic, for cutting back on wasteful energy use, will be with us for a long time. Many organizations and corporations realize the need for energy conservation. Seek possibilities for pooling resources to develop community information programs on this subject.

ETF Circle 3 members will advise the Leagues in their regions on follow-up or outreach, working always in consultation with the League state boards.

THE AREA CONFERENCE BUDGET (pp.37-39)

General

Each of the seven area conferences funded by the LWVEF contract with the OCA/HEW will be allotted \$3,000.00. The LWVEF will not send the general chairman of an area conference a check for that amount. Payment will be made from the LWVEF national office on submission of properly made out vouchers, with receipts attached, and signed by the area conference general chairman.

The general chairman for each of these conferences, with the help of the planning committee, should prepare a budget that will provide for planning-committee meeting expenses, telephone, postage, supplies, kit materials, equipment rental, printing and duplicating, subcommittee meetings as needed, and for the area conference's speakers' and participants' housing, meals, and travel. The budget must fund an area conference that runs approximately from noon or mid-morning of one day to noon or early afternoon of the next day, with overnight stay for at least 30 participants and the committee (see above p.4). The largest chunk of the budget will be needed for conference housing and meals and for travel.

The League of Women Voters Education Fund will

- . allocate \$3,000 to each of the seven funded area energy-conservation conferences
- . provide expense vouchers
- . approve and process vouchers for repayment
- . make advances of up to \$200, as needed, to the general chairmen
- . keep official accounts for the federal auditors
- . make the monthly progress reports and final financial and descriptive reports as required by the contract with OCA/HEW

The General Chairman, assisted by the Planning Committee will

- . draw up a conference budget (p.37)
- . set up a simple bookkeeping system by which to monitor outlay and projected expenses for planning committee and subcommittee guidance
- . approve all local expenditures and forward vouchers promptly, following instructions about allowable and non-allowable items
- . decide best distribution of available funds between individual budget items

- . write the director of the federal region in which the area-conference is to be held, informing him -- well ahead of time -- of the coming event and inviting him to select the suitable representative from the federal regional office to attend, with the understanding that the person's expenses will be paid by that office, as is customary
- . send the LWVEF the following report:
 - a) monthly, a brief progress report
 - b) within 30 days after the conference, a general financial report and a descriptive report on the conference to which shall be attached a list of attendees, the program, copies of publicity, and (if convenient), copies of speeches
 - c) from time to time, instances of follow-up or outreach from the area energy-conservation conference as they come to her attention.

Using the Vouchers

- A. The five-part vouchers are to be used in three circumstances:
 - . when an individual requests reimbursement for expenditures
 - . when forwarding a bill to the national office for payment
 - . when accounting for an advance.
- B. Expenses are to be entered on the vouchers in the budget categories in this way:
 - . Transportation -- enter cost of air, bus, or rail tickets; taxis to and from station or airport or as otherwise necessary; automobile mileage at 12 cents per mile for distance traveled in private cars
 - . Other Travel -- tips, food, lodging
 - . Other -- printing, duplication, postage, telephone, supplies, clerical help, publications, rental of projector or other equipment, etc.
 - . Personnel -- services you engage such as typing, running a projector, etc.
- C. In order to meet the requirements of the federal auditors the LWVEF must insist that the following points are carefully observed:
 - . To all vouchers covering charges for printing and duplicating, a sample of the product must be attached
 - . Every expenditure of \$5.00 or more must be listed separately, its purpose explained unless it is obvious, and a receipt (if voucher is for reimbursement) or an official bill from the supplier attached.
 - . Telephone calls must be listed and described or a copy of the long distance telephone bill must be attached with the calls for which reimbursement is requested clearly marked.
 - . Original ticket stubs or the official final tissue from the airline ticket must be submitted. Xerox copies of ticket receipts or of hotel bills are not accepted by the federal government.
 - . If private motor vehicles are used, a memorandum of the total mileage and the trip's starting and ending points must be stated on the voucher.
 - . COMMITTEE MEMBERS AND ALL WHOSE EXPENSES ARE TO BE PAID FROM FUNDED PROJECTS MUST BE INSTRUCTED TO GET AND SUBMIT RECEIPTS FOR EXPENDITURES. Restaurants will provide receipts. The U.S. Post Offices will provide, upon request, a receipt for purchase of stamps. Credit card receipts will not be accepted for payment.

- D. When the five-part voucher has been filled out, the person submitting the request for payment keeps the back copy (orange) for her record; the general chairman keeps the next (pink) copy; the top three copies (the original, green and yellow), approved and signed by the general chairman and with receipts stapled to them, are sent to Helen Burke, Administrative Assistant, Energy Task Force, League of Women Voters Education Fund, 1730 M St., N.W., Washington, D.C. 20036. No voucher will be honored without the signed approval of the general chairman of the conference.

The LWVEF will send a check to the name on the "Pay to..." line, so be sure to give name, address and zip code of the payee as requested.

By reporting the full details of expenditures on vouchers and sending all supporting documents, the area energy-conservation conference chairman will discharge her responsibility for providing a full accounting to the LWVEF for eventual auditing purposes. The chairman will have a duplicate set of vouchers from which to keep her own accounts and check how expenditures are matching the budget.

Advances

If the general chairman needs an advance, she should notify Helen Burke (see paragraph above), who will arrange to have up to \$200.00 sent. The entire amount of the advance must be accounted for by submission of vouchers with receipted bills. There is a place on the voucher to insert the amount of the advance, deduct what has been paid from it, and arrive at the amount of the advance remaining to be used. The unused remainder will be the amount entered on the next voucher under "Advance".

Allowable and Non-Allowable Expenses

- . Allowable expenses include: project planning costs, project costs, preparing new releases, transportation, lodging & meals, postage, printing, copy work, supplies, space rental, kit materials, speakers fees & expenses, hired services related directly to the project.
- . Non-allowable expenses include: alcoholic beverages, entertainment fees.
- . Keep in mind that:
 - . Less-than-first-class travel (i.e. economy class) must be used when available.
 - . Conference participants and committee members are lodged in double rooms. Persons desiring a single room must personally pay the difference in rate.
 - . Speakers who must be lodged overnight are provided with single rooms.
 - . Cost of personal telephone calls, extra food, room service, and all other personal services must be paid by the individual incurring the expense.
 - . Because the conference is funded, no registration fee should be charged.
 - . Speakers travel costs and related expenses should be paid unless their organizations or agencies are willing to assume the cost. This question and the matter of speakers' fees and honoraria should be carefully established before a firm invitation is issued.

To stretch your funds

- . Seek inexpensive but adequate non-commercial conference facilities
- . Plan to provide three but no more than four meals at the conference. Consider carefully the comparative expense and benefit of food functions (i.e. seated meals catered by the management where all participants, committee, and speakers eat together at one time) versus a per diem within which the participants and committee members must feed themselves or bear the additional expense.
- . Seek and select free and inexpensive material for kits

- . Watch duplicating and long distance telephone costs
- . Recruit most planning committee members, speakers, and other resource people from the same vicinity and from near the conference site
- . Arrange for and insist on car pooling for committee meetings and the area conference. Car pooling will save money, but more important it will save gasoline.
- . Let it be known that contributions of all or part of a person's expenses are welcome. Some business and industry representatives and agency officials will be participating as part of their work and their expenses will be covered by their companies or agencies. Beyond the basic funded forty, allow some people to attend the conference at their own expense and some to come only for program sessions paying their own local commuter costs.

ENERGY 15

COOPERATION OR CONFRONTATION?

In short

Many of the developed oil-consuming nations have agreed to share oil during supply emergencies, cooperate in energy conservation and development of alternative energy sources, and promote a dialogue with producing and other consuming countries. The agreement, the International Energy Program (IEP), has been praised by some as a step toward a new international dialogue. Others view it as a "club for the rich" and a hindrance to the development of an international approach to global problems.

Background

The Arab countries' oil embargo during the October 1973 Middle East war plus the Organization of Petroleum Exporting Countries' (OPEC) announcement of a second doubling of oil prices in December sent consumer nation diplomats scurrying to Arabian capitals to seek bilateral concessions. Even Common Market countries, with a long history of verbal commitment to a common energy policy, scrambled to outbid one another to gain favor in the producing countries. The U.S. urged its allies to work together to bring down the price of oil, arguing that the best way to cope with a producers' cartel was to form a buyers' cartel. In February 1974 the U.S. State Department convened a conference of industrialized oil-consuming countries in Washington, D.C., hoping that the show of consumer solidarity would force the producers to roll back oil prices. The U.S. was disappointed in the results of the conference. Western Europe and Japan, which import more than 95 percent of their oil, were wary of taking any action which might antagonize producing nations and introduce to the international situation a new element of consumer/producer confrontation. France, fearful of jeopardizing its longstanding bilateral relations with the Arab countries, did not join the Energy Coordinating Group (ECG) established by the conference. Many of the nations which did join urged the U.S. to call a consumer/producer conference as soon as possible, but the U.S. was reportedly reluctant to support a conference until consuming nations could present a united front.

Long months of negotiations followed during which the U.S. urged the industrialized nations to decrease their vulnerability to an embargo, arguing that consumer solidarity would deter Arab producing nations from using their oil weapon again. The industrialized nations finally agreed on the International Energy Program (IEP) and, in November 1974, established the International Energy Agency (IEA). Belgium, Canada, Italy, Denmark, Ireland, Japan, Luxembourg, the Netherlands, the United Kingdom, the U.S., and West Germany joined by Sweden, Switzerland, Austria, Spain, and Turkey are members of IEA which operates under the aegis of the Organization of Economic Cooperation and Development (OECD) in Paris. The IEA is working on a provisional basis until May 1975 when participating nations are expected to have passed whatever legislation each needs to implement the IEP agreement. (The U.S. is participating by executive agreement; the IEP is not considered a treaty and does not need Senate ratification. Some specific provisions, however, do require implementing legislation by Congress.)

Emergency Oil-Sharing Under the IEP, each member agreed to decrease domestic demand for oil and to share both domestic oil production and imports in the event of another embargo. The plan will work this way: Each country is to increase reserves to a 90-day supply. Should any one nation be singled out for an embargo that reduces its supplies by 7 percent, other countries will share supplies with the embargoed nation. If supplies to the participants as a group fall short by 7 percent, each nation is pledged to reduce demand by 7 percent. Should the shortfall to the group reach 12 percent or more, the demand-restraint obligation of each country will rise to 10 percent and sharing will begin. Countries are obligated under an allocation system based on prior consumption patterns to share all crude oil and related petroleum products in their possession whether imported, domestically produced, or in reserve.

Conservation and Alternative Sources Participating nations agreed to try to reduce dependence on imported oil through conservation and development of alternative sources of energy. (The U.S. target is a 1 million barrel a day reduction in imports by the end of 1975--a 15 percent reduction.)

The OECD reports that conservation among the industrialized nations could cut demand for oil by 15 percent to 20 percent. Conservation could be decidedly more painful for some nations than others. The U.S. in 1973 consumed more energy per capita than any other OECD nation; Americans consumed two times more than Germans, three times more than Japanese, and over four times more than Italians.

The new agency will oversee international cooperation to expand production of domestic oil, coal, natural gas, nuclear energy and hydroelectric power. Participants also agreed to establish cooperative R&D programs in such areas as solar energy, coal technology, and controlled thermonuclear fusion.

Cooperation With Producers and Other Consumers The participating nations agreed to promote a "purposeful dialogue" with producing countries and with other consuming countries and promised to "give full consideration to the needs and interests of other oil consuming countries, particularly those of the developing countries." The agreement does not establish a negotiating group to deal with OPEC on the terms of oil supply since many participants considered their interests too diverse for a common negotiating position. Moreover some importing nations believed they would have no greater bargaining power collectively than they have had individually. In an attempt to avoid the bidding up of prices, which occurred after October 1973, the industrialized countries did, however, agree to inform one another of relevant bilateral arrangements with the producing nations.

Some critics of the IEP say the pact does not go far enough; for instance, it says nothing about a common effort to bring down the price of oil. Others criticize the oil-sharing arrangement as not so much a deterrent against another oil embargo as it is an assurance that the next embargo will be worldwide rather than selective. They argue that if Arab producing nations decide to try again to influence U.S. policy by using their oil weapon, a selective embargo against the U.S. is no longer a realistic option since other IEP members would make up the difference. The Arab producers would instead apply a worldwide embargo with far more severe consequences for the world economy. Still other critics argue that the division of the world into two rival blocs made up of the rich consuming countries and rich producing countries not only overlooks the needs of the poorest countries but also introduces a new and dangerous rigidity to international dialogue.

Debate on the appropriate international solutions to global energy problems will undoubtedly continue. Coordinated conservation efforts and development of new energy sources by the industrialized nations, which consume 85 percent of the oil traded in the world, would certainly go a long way toward freeing global resources to fight hunger and poverty in the poorest nations. Industrialized nations' efforts to maintain stability in the world economy would also benefit the producing nations, which need secure and profitable investment opportunities, as well as the developing nations, which need stable markets for their raw material exports.

People are saying

"We agree that a consumer/producer dialogue is essential. But it must be accompanied by the elaboration of greater consumer solidarity. The heart of our approach must be collaboration among the consuming nations. No one else will do the job for us." Secy. of State Kissinger, Chicago, Ill., Nov. 14, 1974.

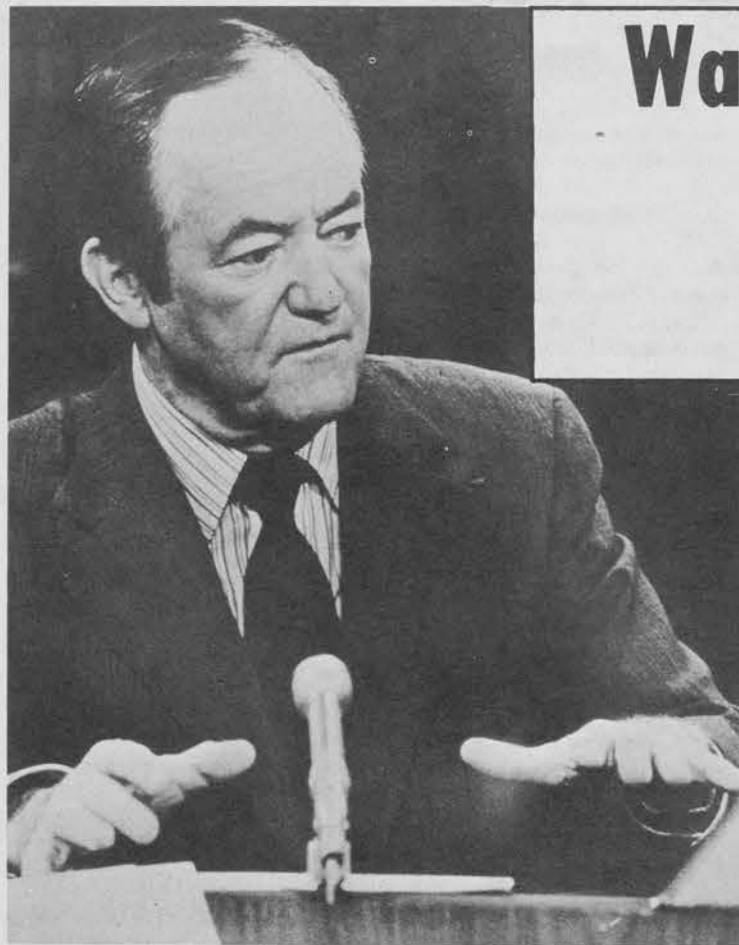
"If we have refrained from joining one or another organization whose objectives we naturally understand, it is because those organizations were set up without international concertation and thus might steer the solution toward confrontation rather than joint discussion." French President Valéry Giscard D'Estaing, press conference, Paris, Oct. 24, 1974.

F.Y.I.

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Washington Report

— The Energy Shortage

Senator Hubert H. Humphrey

March, 1974

Government Lacks Vital Oil Facts

It has become glaringly apparent during the past three months that the Administration and Congress don't know enough about the petroleum industry. For years, oil executives have told elected officials and bureaucrats, in effect, that it was none of their business how the industry operated. Generally speaking, the oil industry has had its way. This must change.

As far back as March 1956, I introduced legislation directing the Federal Trade Commission to investigate the structure of the petroleum industry: supply, production, transportation, distribution and sale of refined products. But the bill didn't get out of committee, largely because few anticipated the situation we presently face.

Again, in March 1961, I cosponsored a resolution to establish a Joint Committee on National Fuel Policy. And, in February 1971, I cosponsored another resolution calling for a study of national fuels and energy policy. Now these earlier ideas must be implemented through new legislation.

In addition to the Federal Energy Administration bill, which would eliminate duplication in Federal energy efforts, I am cosponsoring legislation requiring all energy producers to report detailed information on reserves, on distribution and other vital aspects of the energy question.

But more than this must be done, and I am working to get support for a package of energy legislation which would go a long way toward ensuring adequate fuel supplies to Minnesotans and the rest of the country at a reasonable cost. The key portions of this legislation would:

- Give the government the power it needs to get all the necessary information from the oil companies, utilities and other power producers.
- Establish a Federal oil and gas corporation to develop those resources on publicly owned lands. Modeled after the Tennessee Valley Authority, it would stimulate competition in the industry, give government a yardstick to measure production costs against industry claims, build strategic reserves and aid the independents.
- Regulate the price of oil at the well head for the first time and place Federal Power Commission price controls on oil and gas produced by the large multinational companies, while allowing the small operators that are now competing to continue to do so without regulations.
- Guarantee fair access to petroleum pipelines to all members of the industry.
- Protect gasoline retailers from arbitrary termination of leases and franchises, and ensure more equal fuel allocation procedures.

NEWS BULLETIN

President Nixon has vetoed a sweeping Energy Emergency Act, passed by Congress, which provided authority for the government to deal with some of the most pressing problems caused by the energy crisis. This is a victory for the oil companies and a defeat for the consumers.

The bill contained an oil price rollback provision which would have placed a top price of \$7.09 a barrel on crude oil. Last November a Senate committee was told by oil industry spokesmen that \$5 to \$6 a barrel was enough to encourage domestic exploration. Now the Administration insists that \$7.09 is not enough.

President's Employment Plan Is "Woefully Inadequate" in Aiding Employees Dislocated by Energy Shortage, Humphrey Maintains

The Nixon Administration's response to rapidly rising unemployment due to the energy crisis has been woefully inadequate. As a result, I have introduced legislation to help relieve the problem. We need a more comprehensive approach than simply unemployment compensation after July 1, as the President has proposed.

Although the Administration's plan would help workers make ends meet, it would not provide a single new job or help workers whose unemployment benefits expire before July 1. Neither does it respond to the special circumstances of energy-related unemployment.

My bill establishes a program of financial assistance to public service employers to provide jobs to the unemployed, with special emphasis on those unemployed as a result of the energy shortage.

The bill establishes a special program of incentives to private employers to hire those idled by the energy crisis and includes reimbursement of training and recruitment costs.

It also allows a 15 percent Federal income tax credit on the first 12 months of wages paid by a private employer to a worker formerly unemployed because of the energy problem.

An Energy Emergency Employment Board, chaired by the Secretary of Labor, would be established to oversee these employment programs, develop an early warning system by industry and geographic area to anticipate major energy crisis related lay-offs, and to assure that programs are in place when needed.

The bill calls, too, for economic adjustment assistance to workers losing jobs because of the crisis, until they can find a new job, including a readjustment allowance, training and counseling help, a relocation allowance and health insurance benefits.

During the second week in January, the number of Minnesotans with active claims for jobless benefits soared by 2,722 persons to 61,182, the highest level in more than a decade. My bill would help ease the plight of these persons.

Energy Shortage Definitely Real

Is there an energy shortage? The answer is "Yes."

In terms of proved recoverable reserves, we have in the United States, based on present consumption, 10 years of oil, 11 years of natural gas, anywhere from 35 to 120 years of shale oil reserve and 500 years of coal.

The world's known oil reserves are being drained more rapidly than new reserves are being discovered. As population and industrialization increase, the drain on these reserves becomes greater and greater.

The situation is now aggravated, because the known oil reserves are concentrated in just a few areas of the world. This enables a few producing nations to impose prices which may disrupt the economic balance, not only of this country, but elsewhere as well.

Over the years, the United States has not increased domestic exploration or refinery capacity enough to remain self-sufficient in petroleum. And the government has done little to develop a wide range of new energy sources or to promote energy conservation, at least until recent days.

So, as the demand in this country grew by leaps and bounds, we became more and more dependent on imported oil. Then, when the Arab oil boycott began last fall, it brought the already serious world shortage home to our gasoline pumps and propane tanks and to the consumer.

Questions on the Energy Shortage Raised Most Frequently — and the Answers

Q. Why are there short supplies at service stations?

A. The newly created Federal Energy Office (FEO) is trying to allocate or distribute fuel to those who need it most first, and the average driver is the low man on the totem pole. Without allocation, there might be more gasoline at the service station, but farmers, emergency vehicle operators, schools, hospitals and power plants might find themselves without fuel to perform vital services.

Q. Will a peace settlement in the Middle East permanently solve the energy crisis?

A. No. Even a peace settlement and a return to the level of crude oil imports that prevailed before the Arab embargo would do little to assure the United States that it would have adequate energy for future growth. An end to the oil embargo would simply ease the pain temporarily, but would not guarantee long-term energy supplies.

Q. What are the chances we will have coupon rationing of gasoline by summer?

A. A fifty-fifty chance, according to FEO Administrator William Simon.

Q. Why are oil prices continually rising?

A. The Cost of Living Council has allowed oil companies to "pass through" to the customer in this country the increased cost of oil they produce. Most oil companies have claimed that they merely are passing along the increase charged by Middle East countries for extracting oil.

Q. If cost "pass throughs" are the main reason for increased prices, they shouldn't show up as increased oil company profits, should they?

A. No. And that's where the profit figures don't jibe with the statements of industry spokesmen. A *Business Week* magazine survey showed that the oil industry's earnings for the first nine months of 1973 were up 47 percent over the same period in 1972, and sales were up only 22 percent. In the third quarter of 1973, Gulf Oil Company profits were up 91 percent from 1972 on a 29 percent increase in sales, and Exxon's profits were up 81 percent on a sales increase of 35 percent. Obviously, these are record profits.

Q. What is the present pricing system for crude oil produced in this country?

A. Since May 1973, only oil from wells that existed in 1972 has been subject to price controls. The Cost of Living Council freed oil from newly drilled or newly activated wells from such controls. And, for each new barrel produced free of controls, oil producers are allowed to sell without controls *another* barrel that otherwise would be subject to them.

Q. What did this do to the price of oil?

A. About 70 percent of the country's domestic oil has been held to no more than \$5.25 a barrel, and the rest — from new

and stripper wells — has been selling for as high as \$11 a barrel, whatever the traffic will bear.

Q. What special tax breaks do oil companies enjoy?

A. An oil producer can deduct from his annual taxable income 22 percent of the value of the oil production from his property. This is the so-called "depletion allowance." He is also given special tax advantage for "intangible" costs involved in preparing a well production — and he can subtract royalties paid to foreign governments from his U.S. tax bill on a dollar-for-dollar basis.

Q. Can these tax credits be accumulated?

A. Yes. A Senate subcommittee has investigated the amount of tax credits piled up by the oil industry and estimates them at \$2 billion in 1971. These credits can be spread over a five-year period to cancel U.S. taxes.

Q. Do you support tax reform measures for the oil industry?

A. Yes. For instance, if the foreign tax credit were eliminated, the incentive for domestic exploration would be much greater.

Q. Hasn't the Nixon Administration proposed to cut windfall profits?

A. Oil industry profit cash flow is estimated at \$16 billion more this year than last. The Nixon proposal would collect about \$3 billion of that from the industry. Such a limited proposal is not an excess profits tax.

Q. What are some alternative energy sources?

A. Those discovered thus far include solar energy, geothermal, nuclear, coal gasification and liquefaction and hydroelectric. One area that especially shows great promise is solar energy. I have introduced legislation to authorize \$600 million over five years for solar energy research. The House of Representatives has passed a similar bill. We simply cannot remain so dependent on petroleum for energy.

Q. Is there a hoarding of gasoline in the tanks of closed stations?

A. Some isolated instances have been cited. When the FEO gets such a report, it sends Internal Revenue Service inspectors to look into the situation.

ENERGY OFFICE LOCATIONS

Mr. F. James Erchul
Director of Civil Defense
State Capitol
St. Paul, Minnesota, 55155
(Serves primarily consumers)

Mr. George Delegationis
FEO Regional Office
175 W. Jackson
Chicago, Illinois, 60604
(Serves primarily suppliers,
wholesale purchasers)

WASHINGTON

Room 232, Senate Office Bldg.
Washington, D.C. 20510
Phone: (202) 225-3244

MINNEAPOLIS

Room 462, Federal Bldg.
Minneapolis, Minn. 55401
Phone: (612) 725-2633

United States Senate

WASHINGTON, D.C. 20510

Hubert H. Humphrey
U.S.S.

207047.24
TODD BORG
P. O. BOX 5
MOUND, MN. 55364



memorandum

The League of Women Voters of the United States

16 May 1975

This is going on DPH mailing.

TO: State, Local and ILO Presidents
FROM: Ruth Clusen, President
SUBJECT: Report on Energy Conservation Concurrence

I. ANNOUNCEMENT OF POSITION

Following a discussion of the responses to the request for concurrence, the national board adopted a new national energy conservation position at its meeting on Sunday, May 4. The position, established through the League's first nationwide use of the concurrence process, was announced to Council delegates on Tuesday, May 6. The statement appears below and is the same as originally presented to local Leagues in January. (Clusen's January 20 memorandum and National Board Report for January, 1975.)

ENERGY CONSERVATION

Energy conservation must be a part of any national or state energy policy.

Public understanding and cooperation are essential to the success of any program of energy conservation; citizens should be involved in the difficult choices that must be made.

Implementation of energy conservation must

- ° take full account of economic consequences
- ° distribute costs and hardships as fairly as possible without bearing unduly upon the poor
- ° give full consideration to the environment.

Wise use of energy resources will

- ° buy time to decide on other long-range energy-related policies and programs
- ° enable Americans to act as responsible citizens of the world community.

II. SUMMARY OF CONCURRENCE RESPONSES

	<u>Rec'd from Local Leagues</u>	<u>Percent of total responses</u>	<u>Percent of Total Recognized Local Leagues (1290)</u>
Responses received	901		69.8
(of which)			
Concur	848	94.1	65.7
Do Not Concur	40	4.4	
Abstain	13	1.4	5.8

Comparison of response on energy concurrence with recent consensus responses:

Land Use 1975	964
Campaign Financing 1974	1076
Trade 1973	835

III. LEAGUE COMMENTS AND CONCERNS

Although Leagues overwhelmingly agreed with the statement, some wrote letters or added comments on the concurrence tear-offs. An individual reply has been or is in the process of being prepared to each letter and memo. The board decided, however, that they would like to share with you, as they did with Council delegates, some of the most frequently recurring comments received.

There was concern that the statement was too general and too bland. The statement, as conceived by the National Energy Conference delegates and agreed to by the national board, was intended to be general. While it pulls together some aspects of the other League positions as they relate to energy conservation, it does make overt and explicit the importance of cutting back on energy consumption in the opinion of League members. There was also some concern with the wording and emphasis. However, years of experience with consensus questions, formulation of program items, and statements of positions have shown us that there is no way that satisfies everyone all of the time.

Concern was also expressed about the kind of action possible under the position. This is always a legitimate concern, regardless of the process used to determine the position. In its role of interpreting program positions, the national board always considers the degree of member understanding and support before deciding on the appropriate action. The section on Action Possibilities sets forth the board's approach and views in detail.

Discussion at Council reflected a further local League concern about the concurrence process. Delegates were generally satisfied with using the concurrence process per se but stated that they would like to have had more substantive information and procedural guidelines beforehand and earlier notification on deadlines. The board

pointed out that it was the feeling of the delegates at the National Energy Conference that many Leagues were ready to move ahead in the area of energy conservation and that the statement reflected member thinking. The board also emphasized that the use of concurrence this time in no way implies that this method will be the dominant way of establishing League agreement on issues.

IV. ACTION POSSIBILITIES

This newest of League positions directly expresses a positive League commitment to energy conservation. Heretofore our action has been limited to opposing wasteful use of energy based on the effects of such consumption on existing League positions. The new position can be used to reinforce and undergird other League positions; it can also be the basis for action on specific energy conservation proposals. The board emphasized that its approach to action possibilities under this broad position will be both careful and cautious. Some proposals for energy conservation are clearly in line with member thinking; on many decisions about how to conserve energy (e.g., on some that will affect consumers immediately such as gasoline taxes, rationing of gasoline, import quotas, and fuel allocation), the board recognizes that it will be necessary to seek member input before taking action.

The request for concurrence on energy conservation is only the first step in what the national board sees as a sequential process in which the League will build up a comprehensive position on energy, probably through a series of member agreements differing in degree of specificity and arrived at by a variety of processes.

Under the new energy conservation position the national board plans to focus primarily on transportation, since it is here that the quickest and largest energy savings can be effected. The LWVUS could take a stand for manufacture and use of lighter weight and more energy-efficient automobiles; for extension, improvement and use of mass transit (and less highway construction); compliance with the 55-mile speed limit; disincentives for use of gas guzzling cars. If the League is out in front for transportation-related energy conservation, we must expect to face strong opposition for this is not a popular goal. The emphasis, however, is one that fits in well with other League positions.

The LWVUS might also work for

- ° mandatory thermal efficiency standards for heating and cooling systems for new homes and commercial buildings. Here, the League would speak to the need for such standards rather than the exact standards which are considered a technical decision.
- ° programs to winterize the homes of low income persons.
- ° required labeling of appliances and motor vehicles for their energy efficiency.
- ° increased funding for R & D on alternate sources (non-nuclear, non-fossil) of energy.

Local and state League action under the national energy conservation position need not be identical with League action at the national level. Local and state League

action under the aegis of this position should be related to the ways in which energy uses in the community or state can be reduced. A number of local and state Leagues already have positions in specific energy subject areas far beyond this initial national position. The new national position could be used to reinforce and strengthen these where appropriate in the same way as is contemplated with other League positions.

LEAGUE OF WOMEN VOTERS OF MINNESOTA

555 WABASHA, ST. PAUL, MINNESOTA 55102

Comments on proposed legislation of the Subcommittee on Conservation Measures of the Legislative Commission on Energy

The League of Women Voters of Minnesota commends the Conservation Subcommittee for its work in preparing legislative proposals in a difficult area. We have tried to consider the proposals in light of our human resources position, as well as taking into account environmental protection and resource savings.

The League supports the concept of low interest loans for home insulation, particularly with the inclusion of a sliding interest rate to help equalize the burden on low income families. We believe the public education provision of this proposal is absolutely essential to its success. We agree with the suggestion that inspection be done at the local level, using existing inspection departments, if localities are reimbursed in some way for this effort. The cities cannot afford any more mandated programs without accompanying funds. Many local inspection departments are presently understaffed. We question the \$250. limit on loans for multiple dwelling units. Shouldn't the emphasis be on rewarding the use of these dwellings, since they are relatively less energy-consumptive than single family units?

The League also supports the concept of upgrading existing school buildings to conserve energy. This would be difficult under present funding limits, however, since most school budgets are already strained. Increased bonding authority for capital outlay would be helpful, but also would, of course, increase the property tax and thus add to the regressive impact of that tax. Ideally, the state would provide grants for retrofitting.

On the question of appliance efficiency disclosure labeling--we understand the difficulties of implementation, particularly on a one state basis. We also recognize that the energy savings resulting from this legislation would not be as significant as in the areas affecting housing and transportation. Nevertheless, we believe this would be an important piece of legislation for several reasons:

1. Appliance labels would be a highly visible symbol of the state's effort in the conservation program.
2. It would allow the consumer to have a voice in decision-making, thus alleviating the feeling of powerlessness often felt in the energy area. There is presently no way to make wise choices in appliance buying. A list of appliance efficiencies would be helpful, but individual appliance labeling is far more visible, thus preferable.
3. When choices are made on the basis of energy efficiency as well as cost, manufacturers of less energy efficient appliances will be forced to give this factor greater consideration in future production.
4. Federal legislation in this area would, of course, be desirable; however, it may be long in coming. Enactment of a Minnesota law could have a significant impact in forcing federal legislation. New York City has an



appliance labeling law in effect, so apparently implementation on a non-federal level is not too difficult.

5. Manufacturers already have or could easily develop information on efficiencies and could provide it at little cost to consumers and no cost to the state.

The above reasons are applicable to automobile efficiency labeling, with the additional argument that auto travel constitutes a far greater proportion of total energy use than appliances. Very significant savings could result in a shift to more efficient cars.

The idea of taxing low-efficiency cars is consistent with past legislation taxing alcoholic beverages and cigarettes (luxuries) heavily. Funds from this tax could go for research and development and energy conservation education. This would allow those who consume most to pay for efforts to alleviate the results of their consumption.

A state research and development fund for innovative energy sources is an important effort, particularly since most federal funds will probably be spent on nuclear research. The League believes there are a number of projects which can be successfully undertaken on a state level with fairly limited funds. Our demonstrated expertise in solar experimentation is an example. The Upper Midwest Council study, completed in August 1974, recommends state funding for projects involving the use of solid waste and agricultural waste to produce energy, and for the development of total energy systems. We have some reservations about funding R and D projects with a fuel surtax. Since low income families use a larger portion of their income on necessities than do other families, they would bear a disproportionate share of this burden. Ideally, we believe an R and D fund should be established with a surtax on luxury items or through general revenues of the state. However, since the surtax proposed is estimated to amount to only 34 cents per household per year, it would be an acceptable alternative if funds are not available from other sources.

Nancy Lattimer
Environmental Quality Committee
League of Women Voters of Minnesota
January 20, 1975

League of Women Voters Education Fund
1730 M Street, N.W.
Washington, D.C. 20036

(state)

Proposal for Pass-through Grant
for State League Energy Education Program

Date:

League:

State President:

Address & Phone:

Address & Phone:

Project Manager:

Fiscal Agent
Treasurer (if appointed):

Address & Phone:

Address & Phone:

1. Describe your overall project:

2. Objectives

a. What are your specific objectives in carrying out this project: How will the project fill the need for public education about energy problems and issues in your state?

b. Which groups in your state do you expect to reach?

c. Who will be the major audience(s) of your project?

2. d. Does your project present the national as well as the state (and possibly local) energy perspectives? Explain.
3. If the proposal is for a conference, seminars, workshops, etc.--
 - a. Format and Content of Sessions
 - b. Participants - Kinds and Numbers
4. If the proposal is for other events, go-see tours, etc.--
 - a. What kind?
 - b. Content?
 - c. Who will participate?
 - d. How many people do you expect to reach? Directly? Indirectly?
Training

Timetable - Briefly describe the projected goals and related activities you aim to undertake during each time period.

Present--September:

October--December:

January--March:

April--May:

Budget - Be sure to attach a detailed grant budget.

Sent on League letterhead

To Members of the Senate Labor and Commerce Committee

From: Nancy Latimer, Energy Lobbyist

March 8, 1976

Members of the League of Women Voters of Minnesota strongly support S.F. 1798 relating to energy conservation. We urge your approval of the bill.

Since the oil embargo of 1974, much has been said about our profligate use of energy, but almost nothing has been about conservation. We believe this bill is an opportunity for Minnesota to demonstrate leadership and to give policy direction to the conservation efforts of the Energy Agency.

League members would have preferred to retain the deleted portions of the bill dealing with auto and appliance labeling, since there is presently no readily available information upon which consumers can make energy-wise choices in these areas. However, the bill in its amended form is a good beginning to "setting our own house in order" by requiring conservation standards for state and school buildings. We believe the research and development program is vital. One possible application would be projects like the Ourobouros East house in St. Paul, which is designed to demonstrate relative efficiencies of different kinds of insulation in older homes, as well as applications of solar energy and other conservation methods. Although the house itself is free and labor is voluntary, this very necessary demonstration project has been languishing for lack of funds for materials.

The time for paying lip service to energy conservation is past - the time for action is now.

Testimony submitted to the General Legislation and Veterans Affairs
Committee of the House of Representatives
by Ann Knutson, Director, League of Women Voters of Minnesota
March 3, 1976

Regular and equitable reapportionment of the Minnesota Legislature has been a continuing concern of the League of Women Voters of Minnesota for several decades. Our present position was adopted in 1965 and reaffirmed in 1975. The League of Women Voters of Minnesota concludes that although the primary responsibility for reapportionment rests with the legislature, procedures should be established in the Minnesota Constitution should the legislature fail to act.

Provision for a bipartisan commission to ensure reapportionment has been recommended by the League of Women Voters in previous sessions. In 1973-1974 we supported the same proposal before us today. The bipartisan commission as presented in H.F. 72 meets the criteria of the League of Women Voters of Minnesota.

The bipartisan commission:

- includes legislators, political party appointments, and citizens representing the various geographical sections of the state;
- recognizes the political nature of reapportionment;
- provides accountability to the public;
- provides court enforcement in each step should there be a failure in procedure;
- provides additional remedies other than a citizen suit; and
- establishes districts based on equal population.

We reiterate our support for periodic reapportionment with recognition that a smaller legislature is desirable, that there be no increase in the size of the legislature, and that district apportionment be based on equal population. We urge the present legislature to enact an amendment to the Minnesota Constitution to ensure prompt, orderly and fair reapportionment of the state legislative districts. Let Minnesota voters decide the question at the 1976 General Election.

LEAGUE OF WOMEN VOTERS OF MINNESOTA

555 WABASHA, ST. PAUL, MINNESOTA 55102

March 26, 1976

The Honorable Bill McCutcheon
301 State Capitol
St. Paul, MN 55155

Dear Senator McCutcheon:

We understand SF 2122, your energy bill, will be coming up in conference next week with Representative Munger's HF 1437. The League of Women Voters of Minnesota supported Representative Munger's bill and we urge you to retain several of its provisions. The requirement for energy conservant practices for state and school buildings is important, but more is needed. It is high time for significant action in energy.

As you know, Minnesota's supply of gas will be diminished over the next few years; this has negative implications for Minnesota's industry. Restrictions on gas lamps and pilot lights can help to alleviate this problem.

We believe the research and development program is vital. One possible application would be projects like the Ourobourous House East in St. Paul, which is designed to demonstrate relative efficiencies of different kinds of insulation in older homes, as well as applications of solar energy and other conservation measures. Although the house itself is free and labor is voluntary, this very necessary demonstration project has been languishing for lack of funds for materials.

There is presently no readily available information with which consumers can make energy-wise choices when purchasing appliances; therefore we urge retention of the appliance labeling provision of the bill.

A comprehensive energy bill this session would help buy time to develop alternatives to our dwindling supply picture. Please give these conservation efforts your support.

Sincerely,

Nancy Latimer, Energy Lobbyist
League of Women Voters of Minnesota

NL/hh

copies: Latimer, Borg, Jenkins, Poppleton



To Members of the Senate Labor and Commerce Committee

From: Nancy Latimer, Energy Lobbyist

March 8, 1976

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The time for paying lip service to energy conservation is past - the time for action is now.



memorandum

The League of Women Voters of the United States

January 20, 1975

This Memo is going on DPM

TO: Local, State and ILO Presidents
 FROM: Ruth Clusen, President
 RE: Energy--Request for Concurrence

As you know, the LWVEF sponsored an Energy Conservation Conference in Washington, DC on Nov. 20-22, 1974. The conference was funded by the Office of Consumer Affairs, Department of Health, Education and Welfare and was attended by a League member from each of the 48 contiguous states.

Following the conclusion of the formal agenda, League conferees recommended that the Energy Task Force request the national board to consider presenting to local Leagues, for concurrence, a statement on energy which was drawn up by representatives from a number of states and approved in principle by the conferees. The conferees believed that Leagues were ready to move ahead and that this statement reflected member thinking.

The national board at its January meeting considered the statement presented by ETF on behalf of the conferees and approved its presentation to local Leagues for their concurrence:

ENERGY CONSERVATION

- Energy conservation must be a part of any national or state energy policy.
- Public understanding and cooperation are essential to the success of any program of energy conservation; citizens should be involved in the difficult choices that must be made.
- Implementation of energy conservation must
 - take full account of economic consequences
 - distribute costs and hardships as fairly as possible without bearing unduly upon the poor
 - give full consideration to the environment.
- Wise use of energy resources will
 - buy time to decide on other long range energy-related policies and programs
 - enable Americans to act as responsible citizens of the world community.

The national board in concurring with the statement recognized that such a position would allow the League to act on many important decisions which go beyond current League positions in environmental quality, land use, international relations and human resources.

Both the national board report and the winter issue of the NATIONAL VOTER will carry this statement, explaining its origin and national board action, so that all League members will be informed. To give local Leagues as much time as possible to decide whether they concur, this statement is sent to you this week by a special mailing.

Procedure for local Leagues to follow for concurrence on this energy statement

1. Each local League should ascertain whether its members concur, using whatever process the local League board thinks appropriate.
2. The local League president should report whether or not a League concurs with the statement by completing the tear-off sheet below.
3. The deadline for return is April 1, 1975. Early replies will be welcomed.

Memorandum

TO: LWVUS -- Energy Concurrence

FROM: President, League of Women Voters of _____

(state)

RE: Decision on Energy Concurrence

The League of Women Voters of _____
does [] does not [] concur in the statement on energy.

Please mail this form to: League of Women Voters of U. S.
1730 M Street, N. W.
Washington, D. C. 20036

Envelope should be marked -- Energy Concurrence

ENERGY CONSERVATION CONFERENCE

Program Suggestions

- I. Overview of the energy situation - emphasis on Minnesota - perhaps using slides from Minnesota Horizons program.
- II. Who makes the decisions? Organizational structure on Federal State, and local levels. Possibilities for citizen input.
- III. Keynote speech on policy alternatives - Ford Foundation Report and Project Independence.
- IV. Supply possibilities: oil, natural gas, coal, nuclear, solar, shale oil, coal gasification, solid waste, etc.
- V. Workshops on conservation in:
 - Architecture and construction
 - Space heating and cooling
 - Industry and commerce
 - Transportation
 - Local govt.
 - Recycling: reuse, reduction at source, recycling
 - Energy conservation education
- VI. International implication of energy policy
- VII. Utilities: funding problems, rate restructuring
- VIII. Agriculture: energy use in food production and processing
- IX. Socio-economic costs and benefits of policy alternatives - panel with representatives from labor, environmental movement, consumer group, business, and an economist.
- X. Conclusion: "Developing A New Energy Ethic"

A discussion of pending legislation would also be valuable, perhaps incorporated into the above topics?

M
E
M
O

TO: Boarders

FROM: Mary Ann McCoy

SUBJECT Energy Conference

LEAGUE OF WOMEN VOTERS OF MINNESOTA

555 WABASHA

ST. PAUL, MINNESOTA 55102

PHONE: 224-5445

DATE January 20, 1975

The attached background information, supplied by Henrietta Britton (1/10/75), is sent to you now so you can give thought to it and drop her a note if you have questions (1624 Bixby, Bemidji, MN 56601). She will be with us at our February 11 Board meeting (afternoon) to discuss the proposal for an energy conference in Minnesota. Please hang onto this background material--it will not be reprinted with the February 11 agenda!

More detailed information is being given to the following Board members: Mary Ann McCoy, Liz Ebbott, Jerry Jenkins, Helene Borg, Carolyn Cushing - and Mary Poppleton and Nancy Lattimer. Two copies of this information are in the office .

Circle #3 members of the National Energy Conservation Task Force have been commissioned to promote area energy conservation conferences across their regions. The grant, given by the Department of Health, Education and Welfare, will provide for one area conference. Others, preferably on a statewide basis, will have to be financed within the state in which the conference is held. The area conference to be financed by HEW in the Great Lakes Region will be held in the Chicago area. Therefore, it is very urgent that the Minnesota State League consider ways and means of financing such a conference in Minnesota. There has been talk among my local Leaguers about having a mini-conference in northern Minnesota, if not in Bemidji, then perhaps in the Iron Range area.

In the meantime, it is important that considerations of ways and means be promoted for such a conference in the Twin Cities area. Each regional circle #3 member has been provided with ten copies of How to Plan an Environmental Conference, and ten copies of A Guide for Planning Area Conferences or Workshops to Develop a New Energy Conservation Ethic.

Committees would be desired to handle the following tasks:

- | | |
|--------------------|-------------------------------------|
| - arrangements | - Kits and visuals |
| - financing | - printing and reproduction |
| - program content | - secretarial and financial records |
| - public relations | - follow-up and outreach |

All the above topics are covered in the Guide, except the financing. It was the considered opinion that local businesses, labor unions, etc., might cooperate in such a program which would be of considerable significance to all walks of life. The Twin Cities area is almost redundant with people who have been working and are well aware of the needs of such conservation in everyday living, so there should be little or no trouble in getting speakers for such an occasion. The Environmental Quality Council possibly should also provide some input into such a conference.

To report on the Washington Conference at this time seems redundant, so I'll just say the experience was fantastic and challenging.

This is a proposal for a possible recommendation from this body, members from 48 states and the Energy Task Force, to be presented to the national board.

- Energy conservation must be a part of any national or state energy policy.
- Energy conservation can only be implemented through a program of public education. Citizens must have opportunities to participate from the beginning in the hard choices that must be made.
- The implementation of energy conservation must take full account of economic consequences, especially for the poor.
- Energy conservation must be pursued in a manner that takes into full consideration the protection of the environment.
- Wise use of our energy resources will allow us to be more responsible citizens in the world community.
- Wise use of energy resources would make it possible for other energy-related decisions to be made on a long-range basis.

Becky Meier - Indiana

Chris Carlson - Ohio



memorandum

The League of Women Voters of the United States

January 20, 1975

This is going on DPM

To: Local, State and ILO Presidents

From: Ruth Clusen, President

Re: Enclosed Memo re Energy-Request for Concurrence and forthcoming mailings on Proposed Budget, 1975-76 and January 1975 National Board Report.

The national board is anxious for you to know about various decisions made at its January 13-16 meetings at the earliest possible moment. We thought it would help you to have the expected mailing dates of the major communications from the board:

1. Memo re Energy-Request for Concurrence - the first piece of material we were able to process. (Enclosed Memo includes a blank form for Leagues to return to the national office by April 1). The statement was submitted to the national board (for presentation to local Leagues for concurrence) by the Energy Task Force at the request of League members from 48 states who met together after the close of the November 20-22 LWVEF Energy Conservation Conference in Washington, D.C.

The national board concurred with the overall statement and agreed to the conferees' proposed deadline of April 1 for local League response. Remember, concurrence is different from consensus and other member agreement techniques. (See "Program Management," pp.7-8, June-July 1973 National VOTER). It's up to your board to decide how you want to go about determining whether your League concurs.

2. The Proposed Budget 1975-76, drawn up by the National Budget Committee and as approved by the national board, is now in the process of being assembled with various background papers. We expect to mail it in early February.

3. The January National Board Report will be sent to you mid-February.

In addition to discussing the board decisions about the energy concurrence process and the Proposed Budget, the January Report will set forth the major League commitments for national action as recommended by the Action Committee and approved by the national board. Plans for the National Council May 5-8, 1975 will also be outlined. (State presidents can expect to receive additional information on Council next month).

ENERGY 16

WHO'S IN CHARGE IN 1975

In short

On May 7, 1974, former President Nixon signed PL 93-275 creating a new, independent agency, the Federal Energy Administration, out of the Federal Energy Office established by executive order in December 1971 (See Energy 2). FEA took over FEO's responsibilities to plan broadly for energy and particularly for expansion of energy supplies, to administer fuel allocation and pricing regulations, to promote individual and industrial energy conservation, and to collect and analyze energy data.

To insure increased development of new and renewable energy sources, Congress enacted PL 93-438, signed by President Ford on October 11, 1974, establishing the Energy Research and Development Administration and providing for transfer of numerous R&D functions from the National Science Foundation, Atomic Energy Commission, Department of Interior, and Environmental Protection Agency to the new agency.

Background

FEDERAL ENERGY ADMINISTRATION (FEA) Though the name has changed, the core of the assignment remains the same: to the extent that authority is delegated to him by the President or vested in him by the Congress, FEA's administrator is to develop plans for dealing with energy shortages, see that energy programs minimize hardship and inequity but meet the nation's priority needs, prevent unreasonable energy industry profits, promote efficient energy use and stable energy prices, develop equitable voluntary and mandatory conservation programs, keep a firm hand on the price of propane gas, recommend energy import and export policies, and arrange for state and local governments to take part in resolving energy problems. In carrying out this and other assignments, FEA faces the same dilemma as its predecessor: the options that make the best economic sense are politically hazardous and the politically attractive solutions may prove economically unsound.

FEA is organized into five major program divisions: Policy and Analysis; Conservation and Environment; Energy Resource Development; Operations, Regulations and Compliance; and International Affairs.

John Sawhill, who came from the Office of Management and Budget to serve as William Simon's deputy administrator at FEO, became the first administrator of FEA. Sawhill left FEA after a policy disagreement centering around his support for a mandatory program to cut back gasoline consumption and his rejection by Rogers Morton, Secretary of Interior, for the position of executive director of the Energy Resources Council. Frank Zarb, also from OMB's office of natural resources, energy and science, took over as FEA administrator in December 1974.

Legislation creating FEA also set a date for the agency to expire--June 30, 1976.

ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION (ERDA) The main thrust of the National Energy Reorganization Act of 1974 is consolidation of fragmented federal programs for energy research and development. PL 93-438 transferred to ERDA from the Department of Interior the functions of the Office of Coal Research, the fossil fuel energy R&D conducted by the energy centers and coal gasification plant of the Bureau of Mines, and the underground electric power transmission research. Also transferred: the National Science Foundation's solar heating and cooling and geothermal power R&D; many functions of the Atomic Energy Commission; and EPA's program of research, development and demonstration of alternative automotive power systems but not EPA's assessment or monitoring of them for regulatory purposes. In signing the act President Ford said that ERDA would "bring together into one agency major Federal programs of research and development for all forms of energy and will organize these programs for cooperation with industry, academic institutions, and other organizations..."

ERDA has been organized into these six main R&D offices, each headed by an assistant administrator. According to the agency's organizational chart, the assignments are:

- Fossil Fuel--coal liquefaction and gasification; oil shale; advanced technology relating to materials research, combustion systems, extraction, offshore drilling, and reclamation.
- Nuclear Energy--reactor research and development, naval reactors, space nuclear systems and nuclear materials production and management.
- Environment and Safety--biomedical and environmental research, waste management and transportation, operational safety, and reactor safety research coordination.
- Solar, Geothermal and Advanced Energy Systems--physical research, geothermal and solar development, controlled thermonuclear research, and advanced concepts.
- National Security--weapons research, development, testing and production; arms and export controls; laser fusion and isotope separation technology; and nuclear materials security.
- Conservation--electric power transmission and distribution, advanced automotive systems, energy storage, improved conversion efficiency, large scale conservation demonstrations, residential and commercial building efficiency, and industrial process efficiency.

NUCLEAR REGULATORY COMMISSION (NRC) The legislation creating ERDA divided the dual and contradictory functions of the Atomic Energy Commission, placing its R&D functions in ERDA's Office of Nuclear Energy and assigning its licensing and regulatory functions to an independent body, the Nuclear Regulatory Commission. Three co-equal offices were established by law under the 5-man commission: the Office of Nuclear Reactor Regulation to license, regulate, monitor, and test construction and operation of reactors, improve their safety, and evaluate transportation and storage of nuclear substances; the Office of Nuclear Materials Safety and Safeguards to license and regulate processing, transport, and handling of nuclear materials and protect them against theft and sabotage; and the Office of Nuclear Regulatory Research to recommend and carry out research the commission needs to perform its functions.

Robert C. Seamans, former president of the National Academy of Engineers (1973-1974), Secretary of the Air Force (1969-1973), and deputy administrator of NASA (1965-1968) was named head of ERDA in December 1974. William A. Anders was appointed chairman of the NRC, and his fellow commissioners are Victor Gilinsky, Richard T. Kennedy, Edward A. Mason, Marcus A. Rowden.

ENERGY RESOURCES COUNCIL (ERC) To insure communication among federal agencies with responsibilities for policy or energy resources, the Energy Reorganization Act of 1974 established the Energy Resources Council in the Executive Office. President Ford named Rogers Morton, Secretary of Interior, as chairman of this interagency body. Other members are the administrators of FEA and of ERDA, the Secretary of State, and the director of the Office of Management and Budget, as the law requires. In addition President Ford has designated, as members of the council, the Assistant to the President for Economic Affairs, the secretaries of the Treasury, Defense, Commerce and Transportation, the Attorney General, the chairmen of the Council of Economic Advisors and Council on Environmental Quality, the Administrator of EPA, the director of the National Science Foundation, and the executive director of the Domestic Council.

FUTURE REORGANIZATION A provision in the Energy Reorganization Act of 1974 keeps open the way to future reorganization. The President is required to transmit to Congress before June 30, 1975 recommendations he deems advisable "for organization of energy and related functions in the federal government, including but not limited to, whether or not there shall be established (1) a Department of Energy and Natural Resources, (2) an Energy Policy Council, and (3) a consolidation in whole or in part of regulatory functions concerning energy." Secretary Morton, chief proponent of DENR, argues that "Modern day problems, technological improvements, and the time compression required to provide effective solutions require responsiveness that is difficult and perhaps impossible under the present Federal structure." Opponents of DENR believe federal responsibility for all U.S. natural resources, with their tremendous influence on the domestic economy, is too much to lodge under one secretary and within the confines of one department. They see value in the checks and balances of the present competitive, multi-department set-up and question whether efficiency is enhanced by one huge, complex department.

F.Y.I.

Federal Energy Administration Act of 1974, PL 93-276. Energy Reorganization Act of 1974, PL 93-438. Free on request from House Documents Department, H-226, the Capital Building, Washington, D.C. 20515. Send self-addressed envelope.

ENERGY 16 replaces and updates ENERGY 2, on executive branch structure for energy, 1969--early 1974.

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League of Women Voters Education Fund

memorandum

30 May 1975

This is going on DPM

TO: Local, State and ILO Presidents

FROM: Gwen Murphree, Chairman, Energy Task Force

RE: Energy Task Force -- A Year Later

A new League concept for handling a national issue was launched by the delegates to the May 1974 convention when they agreed to establish a "national task force on energy issues (composed of board and nonboard members) to direct the production of energy-related materials to further League and public understanding and to produce recommendations to be used as a basis for League discussion, concurrence and action." Delegates further directed the national board to take action on energy issues wherever they affected existing program positions.

Soon after convention, the League of Women Voters Education Fund undertook the job of creating the Energy Task Force, utilizing as seed money to get energy moving the \$10,000 authorized in the Education Fund budget. The task force, structured in three concentric circles, was a reality by late summer. It was designed to 1) make the best use of the talents and expertise of the national board and staff, 2) involve as many local and state League members as possible, and 3) provide opportunities for a variety of approaches to the subject.

Circle 1, national board and staff program people (Environmental Quality, Human Resources, Land Use and International Relations), meets at the time of national board meetings to give overall direction and to provide a multidisciplinary approach to the task force. Substantive briefings of Circle 1 by energy experts have ranged from three UN speakers on "Energy and Power--A Global Outlook" (Fall NATIONAL VOTER) to Congressman Mike McCormack (D-Wash.) who briefed the board at its March meeting on his view of the national energy problem and the role of nuclear power in closing the gap in the nation's energy budget (Spring NATIONAL VOTER).

Circle 2 is a working group of five Leaguers selected for their specialized experience in energy-related fields and their geographical location. Circle 2 members are: Selma Kallis of Washington, D.C.; Becky Meier of Bluffton, Indiana; Margaret Sutherland of Lincoln, Nebraska; Cynthia Jessel of Boulder, Colorado; and Mac Firey of Corvallis, Oregon. Circle 2 has met twice, in September and March.

Circle 3 consists of fifteen League members chosen from the seven regions ETF has established for organizational purposes. In addition to helping

30 May 1975

manage the seven area energy conservation conferences under the contract with HEW's Office of Consumer Affairs, Circle 3 is ETF's direct communications link with state and local Leagues. Circle 3 members are: Lois Taylor--Nashua, New Hampshire; Joan Crowley--Upper Montclair, New Jersey; Alice Ayers--Wilton, Connecticut; Marilyn Reeves--Laurel, Maryland; Chris Powers--Atlanta, Georgia; Maxine Hansen--Glen Ellyn, Illinois; Henrietta Britton--Bemidji, Minnesota; Laura Keever--Houston, Texas; Juanita Vetter--Iowa City, Iowa; Grace Edwards--Billings, Montana; Pauline Utter--Casper, Wyoming; Lois Ewen--Coronado, California; Barbara Tellman--Tucson, Arizona; Doli Obee--Boise, Idaho; and Sue Gosline--Seattle, Washington.

To keep all League members informed on League activities in energy, each issue of the NATIONAL VOTER has included an article related to energy and/or the task force's work. The Summer VOTER reported on the national board briefings by Dr. John H. Gibbons, Federal Energy Administration and S. David Freeman, director of the Ford Foundation's Energy Policy Project, while the Fall VOTER covered the briefing by three UN speakers. The Winter VOTER reported on the national energy conservation conference ("Energy--What We Can Do"); the spring issue carries a lead story on "Energy, Unemployment and the Economy."

From August through October, local and state Leagues throughout the country testified before the Federal Energy Administration's thirteen regional hearings on Project Independence Blueprint. The national League's testimony on energy conservation strategies was presented in San Francisco, the first of the series. Various testimony given by League spokespersons around the country was reviewed by ETF Circle 2 at its March meeting. If this review provides some useful insight into where Leagues are on the energy issue, it will be shared with all Leagues.

Energy Briefs. Following the 1973 national council, where energy was first discussed as a possible program item, the national board received permission from Shell Oil Company to use an undesignated \$10,000 gift to the Education Fund's environmental quality work to publish a series of one-page Energy Briefs. Ten were produced by the Environmental Quality staff before the ETF was established. Seven more have been published since: Energy 11--Suggested Energy Reading: Introductory; Energy 12--Suggested Energy Reading: Options; Energy 13--Solid Waste: Energy to Burn; Energy 14--Oil: A Global View; Energy 15--Cooperation or Confrontation?; Energy 16--Who's In Charge in 1975?; and Energy 17--Petrodollar Prospects. More are planned through the cooperative efforts of the Education Fund program staff. Close to 500,000 have now been published and distributed throughout the country, not counting the untold numbers reproduced, excerpted, or "condensed" by local Leagues for inclusion in local bulletins. The Energy Briefs are now packaged into an attractive Energy envelope priced at \$1.00 for a complete set.

Funding Directions. From the beginning, ETF board and staff have been "energetically" seeking funding for specific projects and following through on the results of these efforts.

30 May 1975

1) An Office of Consumer Affairs, Dept. of Health, Education and Welfare, grant (\$50,000) to develop a conservation ethic among citizens has enabled us to bring together members of all three circles, as well as additional Leaguers from states without representation on the task force circle structure.

This grant provided for the national training conference mentioned earlier, on the challenge of developing a citizens' conservation ethic by encouraging changes in the basic American lifestyle, and the area conferences now in progress in each of the 7 ETF regions. To date, conferences have been held in Santa Monica, Atlanta, Lake Bluff, Illinois (near Chicago), Seattle, Wethersfield, Conn. (near Hartford) and Dallas. Boulder is the site of the seventh in August. Conference participants have included community leaders as well as Leaguers.

2) A Ford Foundation grant of \$30,000, announced in the January NATIONAL BOARD REPORT, covers the cost of salaries and production costs of a COMMUNITY GUIDE and kit of energy materials to help groups and individuals focus citizen attention on the national energy problems. The guide includes an outline for an overview of national energy issues, suggests agendas for a variety of programs and, of course, includes a list of selected energy books and articles and other resources. It stresses the need to reassess our country's pattern of energy growth and reexamine our basic values. It is designed to stimulate citizens to look beyond their own household and local energy problems to those of the nation. The kit includes a copy of the Ford Foundation Energy Policy Project's (FFEPP) preliminary report, Exploring Energy Choices; an LWVEF reprint of FFEPP's summaries of A Time to Choose and five selected research reports commissioned by the EPP; and a copy of the Executive Summary of Project Independence Blueprint. The guide and kit will be sent out on the President's Mailing and DPM in early June.

The search for additional funding continues. One proposal we have been working on since January contains a component that would make funds available to local Leagues to carry out energy conservation projects in their communities.

Local and State League Activities

The task force approach to energy has permitted local and state Leagues a variety of choices for informing members and their community about energy problems.

1. Many local Leagues have included the Energy Briefs in their bulletins, used them in finance calls and organized discussions around them.
2. A Time To Choose, final report of the Ford Foundation Energy Policy Project, sent to local Leagues in October 1974, became the starting focus for League members' study and discussion of the national energy problem and introduced many of them to the need for a serious energy conservation effort.

3. Many local and some state Leagues have begun a regular "Energy" column in bulletins to keep members informed not only about the ETF's activities but also about national and community issues. Several state Leagues published in their bulletins the energy profiles they prepared for the National Energy Conservation Conference, Nebraska and Iowa being among the first.
4. Some local Leagues have organized a task force or a study group, or have added an energy dimension to one of the program resource committees, e.g. the Kansas City International Relations committee has begun a study of the relationship of food to energy. The Monmouth County ILO in New Jersey reached a position on energy-related problems as part of their overall environmental quality work. Nuclear energy has been studied by Leagues in all parts of the country, including Maryland, New York, Oregon and Wisconsin; the Suffolk County, New York League is participating as an intervenor in a hearing on the siting of a nuclear power plant, while the Columbia, South Carolina League has just begun a nuclear energy study. The District of Columbia and Montgomery County, Md. Leagues recently held unit meetings on energy conservation.
5. Conferences, public meetings and open forums have been sponsored and conducted by many Leagues. Idaho Falls held an all-day conference on energy conservation problems; Youngstown, Ohio held a public luncheon where speakers focused on state and national energy problems; Auburn, Alabama sponsored a Citizens' Workshop on Energy and Environment; San Mateo, California had a panel present the pros and cons on nuclear plants; the Cleveland, Ohio League sponsored a symposium on "The Energy Crisis and the Economy: Now and in the Year 2000"; the Albany Area, Oregon League held a question and answer forum on waste and water related to nuclear power plants; the Illinois League sponsored a state-wide conference entitled Coal and the Illinois Environment; the Ann Arbor, Michigan LWV has organized an "In the Public Interest" energy series of public meetings.
6. Serving on energy-related commissions is also becoming a way of life for League members. A former Nevada state League Environmental Quality Chairman was appointed by the Governor to a commission to study the feasibility of Nevada's being used as a nuclear waste storage site. A member of the ETF Circle 3 has been appointed to the San Diego Regional Coastal Zone Conservation Commission in California, while another Circle 3 member from Minnesota was appointed to the Governor's Task Force on Energy Policy. The former Oregon state environmental quality chairman has been appointed chairman of the Governor's Energy Advisory Committee.
7. Funding for energy projects and activities is being sought by many Leagues. Nevada has applied for a \$9000 grant from the Nevada Humanities Commission to conduct three energy conservation conferences. Iowa is planning a similar series. The Montana and North Dakota Leagues sponsored the Tri-States Humanities Conference entitled "The Critical Years: Alternative Futures for the Northern Plains."

30 May 1975

8. Testifying on energy problems is rapidly becoming routine following the FEA regional hearing experience in Aug. - Oct. 1974. Utility rate structures, power plant siting, off-shore drilling are some of the substantive energy problems now being addressed in such testimony, e.g. the Kansas state League to the Kansas Corporation Commission.

9. The media, too, is being used by local Leagues to develop an energy conservation ethic, e.g., the Austin, Texas League is working with the Austin School District and the Urban Transportation Dept. to produce a 30-minute multi-media presentation on energy and conservation directed toward 6th graders and up. It will be followed by a field trip on a regularly scheduled bus, to demonstrate how children can ride the bus to places they need or want to reach. The Delaware State League has organized a panel discussion on energy conservation on WPVI-TV (Channel 6, Philadelphia). This will be one of a series conducted by area Leagues two or three times a month.

The above is obviously just a sampling of League energy efforts gathered from bulletins and letters we've received. We are most interested in the kinds of things Leagues are doing and hope you will take the time to tell us about your activities.

ENERGY 17

PETRODOLLAR PROSPECTS

In short

The shrill cries predicting world economic collapse resulting from the so-called "petrodollar crisis" have diminished. Recent analyses that cut in half the projected surplus of OPEC nations, and international efforts to cope with the new balance of financial power seem to have reduced the crisis to problem proportions. Unprecedented even according to the new statistics, however, the transfer of wealth to oil-producing nations will still cause painful adjustments for the world economy.

Background

The oil earnings of the nations in the Organization of Petroleum Exporting Countries (OPEC) totaled about \$95 billion in 1974, more than a three-fold increase over 1973. Since OPEC nations cannot possibly spend amounts of that size on imports, the oil-consuming nations are unable to sell enough goods to pay for OPEC oil. The oil-consuming nations, therefore, face severe payments deficits that must be financed through loans or investments. The OPEC nations, on the other hand, want to invest their surplus funds--called "petrodollars"--in a way that will ensure them the ability to purchase tomorrow what they cannot absorb today. The basic problem is finding a way to rechannel--or "recycle"--petrodollars to the deficit nations in a way acceptable to both the oil-consuming and oil-producing nations.

Last July, when the World Bank predicted that OPEC nations would accumulate a \$655 billion surplus by 1980, with the surplus piling up throughout the Eighties, doomsayers announced the pending financial collapse of the Western world. Debts that large, the thinking went, would set off a chain reaction of national bankruptcies, currency devaluations, and trade restrictions among deficit nations. Since July, however, other economic forecasters in and out of government have produced less pessimistic projections of petrodollar surpluses. The U.S. Treasury Department is now predicting an OPEC surplus of \$200 billion to \$250 billion by 1980, then a leveling-off followed by a decline starting about 1985. These new projections are based on decreased oil consumption in industrialized nations due to fuel conservation and recessionary slowdown, plus an upward reassessment of the ability of OPEC nations to absorb imported goods and services.

The new statistical analyses may have taken the hysterical edge out of petrodollar discussions in the Western world, but an OPEC surplus of even \$250 billion by 1980 is still a very large sum--almost double the total amount of monetary reserves held by developed countries at the end of 1974.

Financing Flows To The Deficit Nations Petrodollars do not naturally flow to nations in proportion to their need for loans to overcome balance-of-payments difficulties. OPEC nations, desiring sound investments, channel most of their money into the commercial banking system of industrialized nations or into government and corporate securities and direct investments in economically strong nations.

Initially, the commercial banking system recycled funds to such deficit nations as France and Italy. The OPEC nations would deposit petrodollars in short-term accounts, and banks would lend those funds medium or long-term to countries with balance-of-payments deficits. Concern about unexpected withdrawals leading to financial strain later caused many banks to limit or refuse short-term petrodollar accounts. Many deficit nations grew increasingly hardpressed to find sources of capital needed to prevent bankruptcy. It became apparent that the private banking system was unable to cope with so enormous a recycling problem.

So far, two major international efforts to facilitate flows to deficit nations have been agreed upon:

■ International Monetary Fund (IMF) members have agreed to extend and expand the special "oil facility" (Witteveen Fund) set up for a two-year period in 1974 to borrow primarily from the oil producers and lend to countries with oil-related payments deficits. The \$3.6 billion facility was depleted in its first year with about 40 percent of its funds lent to developing nations. IMF members have agreed that it should be replenished by approximately \$6 billion.

To facilitate flows to the developing nations, a \$350 million special account has been proposed to subsidize interest rates on oil facility loans to the 30 or so countries designated by the United Nations to be the "most seriously affected" (MSA's). (It has been estimated that higher fuel and food costs alone have increased the total import bill of the developing nations by \$16 billion. Official development assistance in 1974 to the developing nations totaled \$11-12 billion from the industrialized nations and \$2.6 billion from OPEC nations, according to The Economist magazine.)

■ In November 1974, Henry Kissinger proposed that the Organization of Economic Cooperation and Development (OECD) set up a \$25 billion "Solidarity Fund." (OECD includes most of the Western industrialized countries, Japan and Australia.) The fund is theoretically a "safety net" to lend money to developed nations when they are unable to raise money on the private capital market and have exhausted IMF borrowing privileges. Only OECD members will lend to or borrow from the fund, and loans will be linked to energy conservation measures taken by the recipient state. OECD nations have approved the proposal in principle, pending approval by member nation parliaments. The U.S. share will be about \$6 billion.

Is The U.S. Up For Sale? A few highly publicized direct investments by OPEC nations, such as Iran's proposed purchase of Pan American World Airways stock, have stirred fears that the mounting accumulation of OPEC financial power could lead to foreign takeovers of U.S. companies.

According to U.S. government statistics, about \$11 billion of the \$60 billion of OPEC surplus oil revenues last year found its way to the United States. Approximately \$6 billion was spent to buy U.S. government securities, \$4 billion was deposited in U.S. banks, and \$1 billion was spent buying stock and other equity. OPEC investment in the U.S. is expected to increase, possibly double, in 1975 because of the OPEC nations' continuing surpluses and the attraction of the U.S. market.

The U.S. has few restrictions on incoming investment and, as the world's largest investor abroad, has always been the most enthusiastic proponent of investment liberalization in international financial circles. (Current U.S. restrictions include limits on foreign investment in certain industries such as airlines, banking, communications, nuclear energy, and defense contractors.) The Ford Administration opposes moves in Congress to tighten restrictions on foreign investment, arguing that more restrictive laws would invite retaliation against U.S. companies overseas. Government analysts say that the oil producers, well aware that heavy purchases of corporate holdings might stimulate rising protectionist sentiment, are willing to consult informally with the U.S. government before making large or sensitive investments. The new investors' interest in portfolio and government securities holdings and direct investment in industries unrelated to national security benefits the U.S. economy, according to U.S. Treasury officials. The Administration has proposed that a new executive branch office be established to monitor investments and coordinate laws that apply to foreign investors.

The Treasury and Commerce Departments are now conducting studies of foreign portfolio investment (purchase of stocks, bonds, etc., not leading to participation in management) and direct investment (usually defined as foreign ownership totaling 25 percent or more of a particular company). When completed by autumn 1975, the studies should present the clearest picture so far of foreign holdings in the U.S.

The Threat To Monetary Stability If war breaks out again in the Middle East, some observers believe the Arab members of OPEC could well threaten to use their new petrodollar weapon as well as their tried-and-true oil embargo weapon. So far, they have shown no reluctance to use their new economic strength for political ends, as seen in their boycott of financial institutions and companies viewed as pro-Israel. By shifting enormous amounts of funds from one currency to another, they could undoubtedly cause confusion in foreign exchange markets. But at least two factors reduce the likelihood of such shifts. First, the industrialized nations' central banks have inter-bank swap agreements to offset the destabilizing nature of large movements of capital. Also, in moving rapidly from one currency to another, the Arabs themselves would take heavy exchange rate losses.

F.Y.I.

"Will Araby Bankrupt the World?" Saturday Review. January 25, 1975. pp. 10-28.

Farmanfarmaian, Khodadad et al. "How Can The World Afford OPEC Oil?" Foreign Affairs. January 1975. pp. 201-222.

CITIZENS & ENERGY: the national issues

... the United States has entered a new age of energy, and we have not yet adjusted our habits, expectations, and national policies to the new age. The Arab oil embargo, while it lasted, made us keenly aware that in twentieth century America, a fourth essential has been added to the age-old necessities of life. Besides food, clothing, and shelter, we must have energy. It is an integral part of the nation's life support system. And we can no longer expect to get it with so little trouble and expense as we did in the recent past.

A Time To Choose Energy Policy Project

Energy is all-pervasive in our society today. Events of the last year have sharply demonstrated this to Americans. Newspapers, radio and television daily report declining U.S. oil production, natural gas shortages and many other problems—oil spills, soaring electricity rates, balance of payments, offshore oil drilling, dangers from nuclear wastes and the need to develop clean sources of energy.

The fact is that our energy demand has far outstripped domestic supplies in recent years. While demand grew four to five percent each year, domestic energy production grew only one to two percent: since 1968 Americans have been consuming natural gas faster than new supplies have been developed, domestic oil production leveled off in 1970 and as a result we have relied increasingly on oil imports to make up the difference between U.S. production and consumption. By 1973, the United States was importing 38 percent of its total oil supply. The Arab oil embargo highlighted the danger of our growing reliance on imports and the urgent need to reduce this dependence.

In response to the energy crisis, the American public is being inundated with a staggering—often conflicting—succession of statistics, regulations and policy choices. What is needed is a reassessment of our country's pattern of energy growth and a reexamination of our basic values.

The challenge to citizens is to sort through the vast array of information and rhetoric, to make judgments on both the short- and long-range energy issues and to participate actively in the decisions that will govern the future use of our national energy resources. The challenge to community leaders is to stimulate citizens to make fundamental changes in their lifestyles and to look beyond their own household and local problems to those of the nation.

No easy choices lie ahead as the country attempts to fashion an energy policy. In the pro-

cess of making energy decisions, difficult trade-offs will have to be made and conflicting public goals must be reconciled. The energy debate between the Administration and Congress—indeed throughout the nation—underlines this fact. It also reveals basic disagreements over the solutions to our complex energy problem, even over *how* to do the conserving that almost everyone agrees needs to be done, and how much of it to do.

This *community guide* suggests how individuals and groups can organize to inform themselves and others about our national energy problem and about the need for the people of the United States to develop an "energy conservation ethic." It includes an outline for an overview of energy issues that can be used as the basis for one meeting, a series of meetings, a speech, a conference or a workshop. It suggests agenda for a variety of programs: a ninety-minute discussion on "Future Energy Alternatives for the U.S." and a similar format for discussing "Energy and the Environment;" a day-long conference on energy conservation and a two-hour community program on energy conservation in the home and office. It tells how to research the subjects, plan and publicize the meetings, and prepare participants with advance background information. It also includes a list of selected energy books and articles and other resources and suggestions for cooperating with local industry and community organizations in organizing a meeting or in launching other community education projects.

Getting started

Begin by forming a committee within your own organization or in cooperation with other groups interested in energy. It should include persons who will do research and prepare materials, some who will make the arrangements for the meetings and see to the nuts and bolts, some who are good at strategy and community contacts. Plan your overall strategy to stimulate community interest in energy. Decide whether you will look at the broad range of energy issues or focus more sharply on a topic such as energy conservation. Decide what form your exploration should take—one meeting or a series of discussions, a conference or a shorter evening community meeting or a mix. In scheduling your meetings, be realistic about the calendar and about your resources. Careful preparation is essential to the success of any program. Below are some steps that will help you have a successful discussion meeting or conference.

community guide



**League of Women Voters
Education Fund**

1730 M Street, NW,
Washington, D. C. 20036

1. The committee should begin by reading for general background on energy. Read, clip and circulate current newspaper and magazine articles. Reviewing books at committee meetings is a good way to share information.

2. Study the outline and tailor it to your organization's particular interests. Try to include background on current proposals of the Administration and Congress as well as information of special interest to your locality. If you live in a coastal state, you may want to emphasize the potential impact of offshore oil and gas drilling. Nuclear power may be a key issue if you live in an area proposed as a site for a nuclear plant. Or you may want to emphasize the potential conflict between food-raising and energy supply. Bring out the fact that every region has special energy problems and that ultimately they must all be viewed from the point of overall national energy policy.

Two suggested agenda for ninety-minute discussion meetings based on the overall outline.

Future Energy Alternatives for the U. S.

(Sections I, III and IV)

- Current patterns of energy consumption in the United States
- America's energy alternatives—a review and discussion of the three energy studies
- National energy policy: What is your view?

Energy and the Environment

(Sections I, II-B and II-E)

- U. S. energy in perspective
- Energy vs. the environment
Discussion of the central environmental issues: air pollution, demand for water, nuclear power risks and land use
- Energy sources (existing and new)
An examination of energy sources and their risks and benefits from an environmental point of view

3. Talk with local government and industry officials. Does your city have an energy conservation program underway? What are the energy problems of your local utility and industry?

4. Use your organization's newsletter to provide background information for members. Here are some ideas:

- Publish a glossary of energy terms or a fact sheet on energy sources. Print extra copies to distribute at your discussion meeting.
- Include a book review or information on the national and international energy agencies.
- Insert an ENERGY brief in an issue of your newsletter. These are published periodically by the League of Women Voters Education Fund (see Sources and Resources).
- Encourage your organization's members to read a book or magazine article by listing a short energy bibliography in your newsletter.

5. Plan to use visual aids in your discussion. There are excellent graphs and charts in many of the books and articles cited in this guide.

6. Ideally, a team of two of three committee members will present the information and guide the discussion. Take a few minutes at the beginning to explain the purpose and scope of the meeting. Emphasize that comments and questions are welcomed throughout the program. The give and take will keep the meeting lively and hold the group's interest.

Outline for tackling the subject

The outline has four sections:

- The Energy Crisis—Where We Are
- Energy—Problems, Concerns and Limits
- Energy Alternatives—A Long-term Perspective
- National Energy Policy—What Is Your View?

It is designed to give an overview of our national energy problems and provide a framework within which individual organizations can study topics of particular interest to their region. It uses the comprehensive energy reports published in late 1974 by the Ford Foundation, the Federal Energy Administration and the Committee for Economic Development (see box for details). Although starting from different perspectives and based on research pursued independently of each other, the studies reveal considerable agreement in their analyses and conclusions. Each section lists a number of subjects and questions for discussion. It is up to you to decide how you wish to handle the material, depending on the time and interests of your group.

The Committee for Economic Development is an independent research and educational organization of two hundred business executives and educators. CED is nonprofit, nonpartisan and nonpolitical. *Achieving Energy Independence*, published in December 1974, sets forth CED's program to meet the nation's energy needs most effectively without compromising basic objectives for national security, a sound economy, the balance of payments and the environment.

The Energy Policy Project (EPP) was established and financed by the Ford Foundation to make a comprehensive study of national energy issues and choices. It was carried out over a two year period (1972-74) by an independent staff of economists, engineers, scientists, writers and lawyers and resulted in the publication of two reports: *Exploring Energy Choices: A Preliminary Report* (March 1974) and *A Time To Choose: America's Energy Future* (October 1974). Besides their own research and analysis, the staff drew on some two dozen specially commissioned studies and the advice of a twenty member advisory board of leaders from business, citizen groups and the academic world.

Project Independence was initiated in March 1974 to evaluate the nation's energy problems and to provide a framework for developing a national energy policy. The result of an interagency effort led by the Federal Energy Administration and involving over five hundred professionals, *Project Independence Blueprint (PIB)* represents the most comprehensive analysis of energy options ever undertaken by the federal government.

I. The Energy Crisis—Where We Are

No single villain brought us to this point and no simple action will get us out.

Exploring Energy Choices Energy Policy Project

Focus of Discussion

- How did America's high energy civilization come about?
- What are the patterns and percentages of U.S. energy consumption in the four major sectors—residential, commercial, industrial and transportation?
- What practices led to the rapid growth in our energy consumption?
- Identify national policies and actions that brought about a decrease in domestic production of energy supplies.
- Compare U.S. per capita energy consumption with that in other countries.

(You can use graphs and charts effectively to present information clearly and concisely.)

II. Energy—Problems, Concerns and Limits

A. Energy and U. S. foreign policy

Focus of Discussion

- Weigh the implications for U. S. foreign policy of the current energy situation—U. S. vulnerability to politically motivated oil cutoffs, potential international economic disorder, relations with our trading partners, and the worsening economic situation in many developing countries.
- How much dependence on foreign oil is too much? Should we differentiate between reliable and unreliable foreign suppliers?
- In what cases is it in our national interest to enlarge our direct aid to the developing countries so that they are able to buy the oil, food and fertilizer they need?
- How would a program of U. S. domestic energy self-sufficiency affect our trading partners?
- Will the inflow of producing nations' so-called "petrodollars" (i.e. foreign exchange earned from the sale of oil) be a stabilizing or destabilizing factor in the economies of oil-consuming nations?
- What are the costs to the domestic economy of trying to reduce U. S. dependence on foreign oil during a period of severe inflation and recession? Do the costs outweigh the foreign policy benefits?
- Would development of high-cost domestic energy sources require protection from foreign imports in the form of quotas, tariffs or subsidies to industry? Will U. S. consumers have to pay higher-than-necessary prices for oil produced domestically?

B. Energy and the environment

Focus of Discussion

Energy use poses an inevitable energy-environment conflict. Consider these major environmental issues: air pollution, demand for water, nuclear power risks and land use.

- Do you think we shall have to lower standards of environmental protection to meet our energy needs? If forced to

choose, would you favor lowering standards or decreasing energy consumption?

- What kinds of environmental problems are posed by the development of oil shale and coal in the West? Offshore oil and gas on the Atlantic and Pacific Coasts? Nuclear power?
- What environmental risks do we as a society feel we can live with?

- How can we agree on the point up to which we are willing to trade environmental quality for additional or lower-cost energy?

- Where should nuclear power plants be sited?
- Is it equitable to "export" our pollution to other countries (i.e. import oil already refined to avoid building domestic refineries)? Is it fair for one region of the United States to block development of local energy sources while relying on others to fill its energy needs?

- What energy sources, growth policies and environmental protection strategies are likely to be most effective in avoiding unacceptable risks?

- To what extent should today's population husband its natural resources in the interests of tomorrow, which has no say in the decisions?

C. The price of energy

Focus of Discussion

- Patterns of energy consumption among different income groups and the effect of higher prices on consumers—small and large, rich, middle income and poor.
- Utility rate structure, including the pros and cons of peak load pricing.
- Does society have an obligation to protect those who have been hurt by shortages and price increases? to what extent? if yes, by what mechanism?

D. Adequate supply—the role of industry and government

Focus of Discussion

- How do we strike a balance between the roles of market forces and of government in assuring an adequate supply of energy? In encouraging energy conservation?
- Should energy industry tax benefits be eliminated or modified, or are they essential to increase output?
- What about price controls on natural gas? Have they in effect produced a shortage, by stimulating demand while reducing the incentive to look for new supplies?
- What should be the thrust of the research and development program of the federal government?
- Examine government policies on the sale and lease of publicly owned energy resources—coal, oil and gas lands, etc.—and whether they are appropriate today.

E. Future energy supply—how long will solutions take?

Focus of Discussion

Examine briefly the outlook for expanding energy supplies and developing new sources in the short term (next two to four years), medium term (through 1985) and long term.

III. Energy Alternatives

To our minds the most fundamental choice is a sense of direction about growth in energy consumption.

Exploring Energy Choices

Focus of Discussion

Energy alternatives described in the Ford Foundation Energy Policy Project's (EPP) *A Time To Choose* and *Project Independence Blueprint* (PIB). Visual aids could be effectively used in this section.

1. In *Continuation of Past Energy Growth Rate* (PIB's Base Case and EPP's Historical Growth Scenario), what actions and policies are required if energy consumption continues to grow as rapidly as in the last decade? Is this a feasible or desirable choice? Where would the energy supplies come from to fuel this alternative?

2. In *Energy Conservation Approach* (EPP's Technical Fix Scenario and PIB's Conserving and Managing Demand Strategy), what is the projected energy growth rate per year for these alternatives? What kinds of flexibility does this approach offer in terms of energy supply? Can energy growth be reduced while economic activity continues to grow at historical rates?

3. How does the Committee for Economic Development's (CED) program compare to the EPP/PIB (annual energy growth rate, role of energy conservation, oil import levels etc.)? Compare the conclusions and recommendations of the EPP study and the CED study.

IV. National Energy Policy—What Is Your View?

The United States faces an extensive adjustment to living under circumstances in which energy is expensive and some forms are in short supply. The manner in which government, industry, academia, and the public cope with this adjustment will determine much of the shape of future society.

Energy: Use, Conservation and Supply,

American Association for the Advancement of Science, 1974

Focus of Discussion

This section should bring out individual views on the substance of a national energy policy.

• What are our short-term energy problems? balance of payments? high demand based on cheap prices? vulnerability to politically motivated oil cutoffs? impact of quadrupled price of oil on our domestic economy?

• If energy conservation is part of the solution—where? by whom? and how?

• What are our long-term energy problems: depletion of finite resources, especially oil and natural gas? environmental degradation? others?

• What are the long-term solutions? Developing additional sources of energy, including new sources? reducing energy consumption further by developing energy-saving technologies? making a basic change in our attitudes and lifestyles?

Planning a conference or workshop on energy conservation

If your organization or sponsoring group decides to hold a conference on energy conservation, how do you proceed? The League of Women Voters Education Fund publication

How to Plan an Environmental Conference provides detailed information on how to initiate, plan and hold a conference. Many of these suggestions and sample formats are applicable to any workshop or general community program. This handbook (Publication No. 695) is available free on request from the League of Women Voters of the United States, 1730 M Street, N.W., Washington, D. C. 20036.

Brief Checklist for Conference Committee

✓ Plan your program carefully to fit the available time. Allow ample opportunity for questions.

✓ Choose a convenient location for your conference.

✓ Invite speakers well in advance. When issuing your invitation, outline the purpose, include content of an agenda and specify allotted speaking time.

✓ Advance publicity is essential for a good turnout. Arrange for articles on energy conservation as well as announcements of your conference in your local papers, radio and TV stations and your organization(s)' bulletins.

✓ Displays and publications on energy conservation will add to the effectiveness of your conference.

A. Day-long Conference on Energy Conservation

Title: The Why and How of Energy Conservation for Citizens

Content:

The charge: why energy conservation is necessary

The possibilities for energy conservation by individuals, corporations, communities, governments

- in space heating and cooling
- in industrial and commercial management
- in transportation
- in construction
- in recycling (reuse, reduction of waste at source, incineration)
- in agriculture

The steps that can be taken by individuals, communities, governments, industry. A panel discussion (The above program can be adapted to your organization's particular interests and available time. If your committee has decided to hold a two-hour program on energy conservation, you will probably want to concentrate on one aspect of energy conservation.)

B. Suggested Format for a Two-hour Program

Title: Why Energy Conservation is Important and Necessary

Content:

Energy Conservation in our Homes and Offices
A panel discussion, including some of the following:

- architect, builder or engineer
- gas or electric utility representative
- city/county building inspector
- individual citizen
- banker or savings & loan association executive

Question Period

Opportunities for citizen action—reaching out in the community

This community guide has emphasized the importance of choosing a national energy policy direction and the importance of energy conservation in balancing our energy budget. In forming policy and saving energy the informed citizen is essential, particularly in these times of skepticism and conflicting information. Once you are familiar with the subject, keep current by reading your newspaper and periodicals and by following closely what is happening both in Congress and in the Administration. Make your voice heard by writing your representatives and senators, speaking before your local city or county council and communicating with your state leaders. Make appointments for interviews with your congressmen and legislators, when they are home, to explain your interests and viewpoint.

When your organization has reached some conclusions after its study, develop a plan to inform and interest others. The ways are countless. Here is a sampling.

Use your libraries. Ask your librarian to set up a display of current books and materials on energy and energy conservation. Better still, present your local library with a selection of books, periodicals and pamphlets which you have found particularly good.

Get energy conservation and energy education into the classroom. Possibilities:

The Bolton Institute, 1835 K Street, N.W., Washington, D. C. 20006, has designed a program to interest elementary and secondary school students in energy-saving activities at home and in the community. This energy education program was tested in a number of schools in the six New England states. Contact the Bolton Institute if you are interested in developing a similar project in your state or community.

The American Association for Health, Physical Education and Recreation has produced two filmstrips and a teacher's guide on "The Energy Crisis: What We Can Do," Grade level: elementary through secondary. Filmstrip and record \$18.50; Stock No. 246-25692. Filmstrip and cassette \$20.50; Stock No. 246-25694. Postage and handling included. Order from AAHPER, 1201 16th Street, N.W., Washington, D. C. 20036.

The National Science Teacher's Association has developed comprehensive curriculum materials on energy, environment and energy conservation which will be published in three volumes in June 1975. Grade level: K-12. The Federal Energy Administration plans to distribute this material to key school administrators and teachers throughout the United States.

The National Education Association, 1201 16th Street, N.W., Washington, D. C. 20036, is a source of information on energy curriculum guides.

Work with the media. Try to interest your newspaper in doing a weekly column on energy-saving tips or in publishing your state energy profile or in doing a story on a local industry that has undertaken a program of energy conservation. Perhaps your radio or TV station would arrange a panel discussion on the national energy problem or on a specific energy problem of interest to your locality or state.

Enlist local industries in your energy conservation program. Find out what they are doing. Many already have instituted effective energy saving programs. Let them know that people understand how important a role industry has in conserving energy. Arrange a tour of a plant or your electric power company.

A joint business/government program aimed at conserving energy at the local level with which you might cooperate was launched in the fall of 1974 by the Home Improvement Time (HIT) organization with the support of the Federal Energy Administration. HIT is made up of representatives of seven trade associations, electric and gas utilities and national manufacturers. HIT's promotion for a fall 1975 conservation program is now underway, with FEA contacting governors and mayors while HIT is informing local newspapers, utilities and businessmen. For additional information and materials, contact James A. Stewart, Sr., Program Administrator, HIT—Energy Management Is a Family Affair, P.O. Box 102, Carnegie, Pennsylvania 15706.

Speak before the city council or county board and urge them to adopt an energy saving program. For examples of what other cities, counties and states have done and to obtain publications designed for city and county or state use, write to the following organizations. All have energy projects.

Council of State Governments	(606) 252-2291
Iron Works Pike	Lexington, Kentucky 40505
The National Association of Counties	(202) 785-9577
1735 New York Avenue, N.W.	Washington, D. C. 20006
National Governors' Conference	(202) 785-8840
1150 Seventeenth Street, N.W.	Washington, D. C. 20036

The National League of Cities	(202) 293-7800
and U. S. Conference of Mayors	Washington, D. C. 20036
1620 Eye Street, N.W.	

Work with other organizations, such as environmental and consumer groups, labor unions and the chamber of commerce, who share your interest in energy and energy conservation. Get together with them to organize a public meeting or a community workshop, persuade the newspaper to publish regularly a question and answer column on energy or an editorial on a hot energy issue. Contact the local chapter of the American Association for University Women, whose program topic for 1975-77 is "Economic Facts of Life: Living With Less." Or you may want to get in touch with two citizen energy action groups recently formed. They are:

Citizens Action Committee, P.O. Box 19188, Washington, D. C. 20036, (202) 456-6466. Chairpersons have been named in the 40 largest U. S. cities to mobilize community support of energy conservation projects.

Citizens for a Strong Energy Program, 1 William Street, New York, N.Y. 10004. A group of over 100 prominent civic, business leaders representing a broad spectrum of American society organized to support a tough, comprehensive energy program.

Outline for a State Profile of Energy

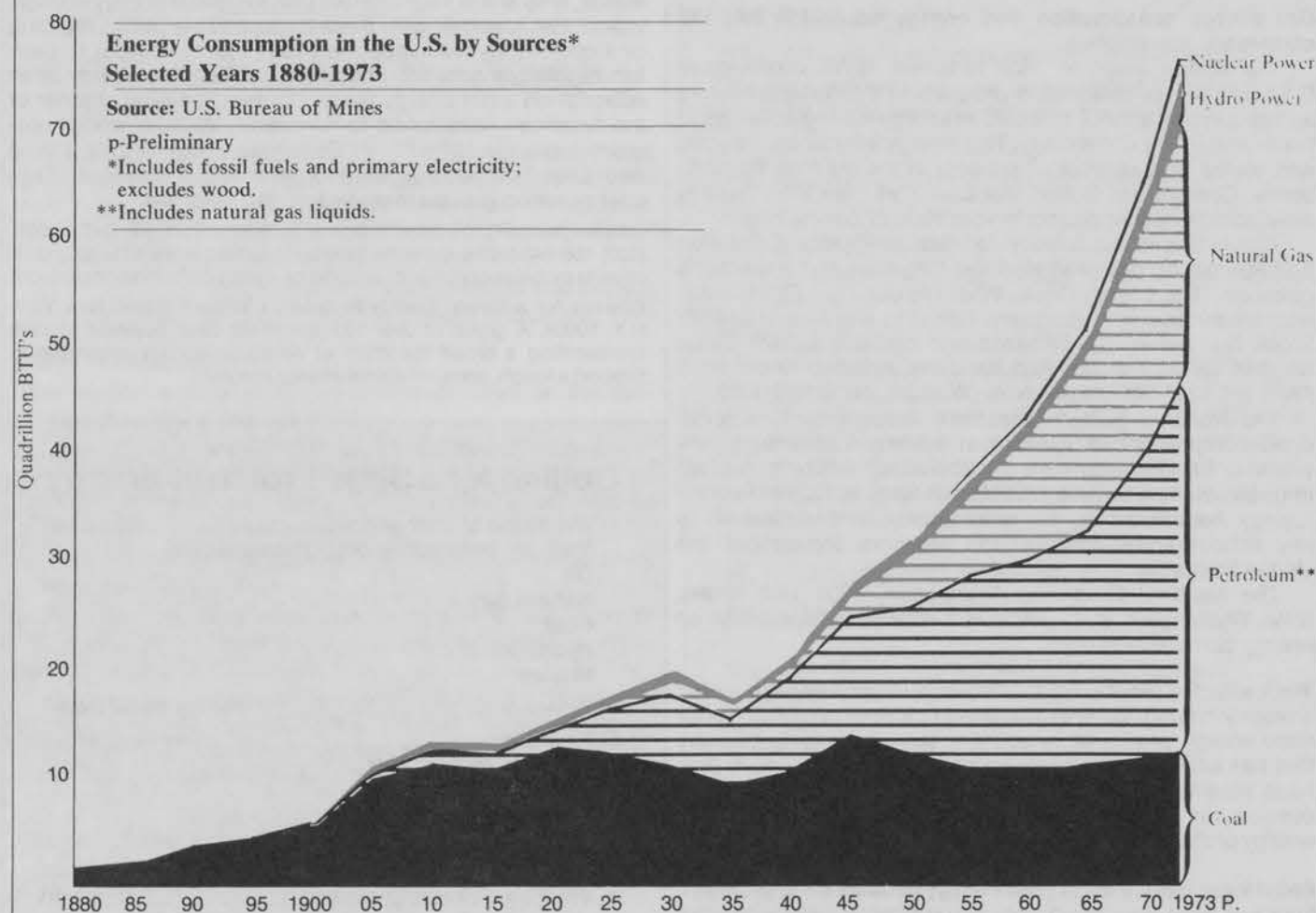
- 1) What kind of energy does _____ use?
(indicate percentage of total energy use)
Oil
Natural Gas
Coal
Hydro power
Nuclear
- 2) Where does _____ energy come from?
- 3) How does _____ use its energy?
(indicate percentages)
Industrial
Commercial
Transportation
Residential
- 4) What kind of energy does _____ supply to other areas?
- 5) What kind of energy organization structure does _____ have?

Arrange a Conference On a State Energy Issue

The League of Women Voters of Illinois organized this program in March 1975.

Coal and the Illinois environment

9:30-10:00 a.m. Registration A film on coal production in Southern Illinois will be shown and coal displays will be available for viewing.	12:00-12:45 p.m. Lunch
10:00-10:30 a.m. "Illinois Coal: Quantity and Quality." Dr. M. E. Hopkins, Geologist and Head, Coal Section, Illinois State Geological Survey, Urbana	12:45- 1:30 p.m. "Federal Regulation of Coal." Louise C. Dunlap, Coordinator, COALition Against Strip Mining, Environmental Policy Center, Washington, D. C.
10:30-11:00 a.m. "Coal and the Illinois Economy." Joseph Pisciotte, director, Department of Business and Economic Development, State of Illinois	1:45- 3:15 p.m. "Alternative Technologies for the Use of Illinois Coals." A Panel Discussion Coal Gasification—Jack R. Lofstrom Institute of Gas Technology; SO ₂ Stack Emission Control—John Hoglund, Staff Engineer, Division of Air and Hazardous Materials, EPA, Region V Fluidized Bed Combustion—Dr. John Gabor, Chemical Engineer, Argonne National Laboratory
11:00-11:45 a.m. "Restoration of Strip-Mined Lands—Can It Be Done?" Dr. James A. Nowlan, assistant professor, Knox College and public affairs consultant	



Sources and resources

Books and reports

Abelson, Philip H., ed. *Energy: Use, Conservation and Supply*. American Association for the Advancement of Science, 1515 Massachusetts Avenue, N.W., Washington, D. C. 20005. 1974. \$4.95 (paper).

American Enterprise Institute for Public Policy Research, 1150 17th Street, N.W., Washington, D. C. 20036, has published the following reports under its National Energy Project:

U. S. Energy Policy: A Primer. National Energy Study 1. 1974. \$3.00 (paper).

Natural Gas Regulation. National Energy Study 2. 1974. \$3.00 (paper).

Energy Self-Sufficiency: An Economic Evaluation. National Energy Study 3. 1974. \$3.00 (paper).

The Energy Crisis. 1974. \$2.00 (paper).

Dialogue on World Oil: Proceedings of a Conference on World Oil. 1974. \$3.00 (paper).

Clark, Wilson. *Energy for Survival—The Alternative to Extinction*. 1974. \$12.50. Anchor Press/Doubleday, New York, N.Y.

Committee for Economic Development. *Achieving Energy Independence*. 1974. \$2.00 (paper). Order from CED, 477 Madison Avenue, New York, N.Y. 10022.

Connery, Robert H. and Gilmour, Robert S. *The National Energy Problem*. 1974. Proceedings of the Academy of Political Science, 2852 Broadway, New York, N.Y. 10025.

Diamond, Robert A., ed. *Energy Crisis in America*. 1973. \$4.50 (paper). Congressional Quarterly. Also, *Continuing Energy Crisis in America*, January 1975. \$4.95 (paper). Order from Congressional Quarterly, 1414 22nd St., N.W., Washington, D. C. 20037.

Ford Foundation Energy Policy Project. *A Time to Choose: America's Energy Future*. 1974. \$4.95 (paper). Ballinger Publishing Company, Cambridge, Mass. 02138.

Ford Foundation Energy Policy Project. *Exploring Energy Choices*. 1974. \$7.50 (paper). Order from Ford Foundation, P.O. Box 1919, New York, N.Y. 10001.

Freeman, S. David. *Energy: The New Era*. 1974. \$2.45 (paper). Vintage Books, Random House.

Fritsch, Albert J. *The Contrasmers: A Citizen's Guide to Resource Conservation*. 1974. \$7.95 (cloth). Praeger Publishers, Inc., 111 Fourth Avenue, New York, N.Y. 10003.

Goodwin, Irwin, ed. *Energy and the Environment: A Collision of Crises*. 1974. \$14.95. Publishing Sciences Group, Inc., 411 Massachusetts Ave., Acton, Massachusetts 01720.

Hammond, Allen L., Metz, William and Maugh, Thomas H. II. *Energy and the Future*. 1973. \$4.95 (paper). American Association for the Advancement of Science.

National Academy of Sciences. *Mineral Resources and the Environment*. 1975. \$4.95 (paper). Order from Printing and Publishing Office, NAS, 2101 Constitution Avenue, N.W., Washington, D. C. 20418.

Rocks, Lawrence and Runyon, Richard P. *The Energy Crisis*. 1972. \$5.95. Crown Publishers, Inc., New York, N.Y.

Schmalz, Anton B., ed. *Energy: Today's Choices, Tomorrow's Opportunities*. 1974. \$6.00 (paper). World Future Society, 4916 St. Elmo Ave. (Bethesda), Washington, D. C. 20014.

Schurr, Sam H., ed. *Energy, Economic Growth and Environment*. 1972. \$10.00. Johns Hopkins University Press.

Udall, Stewart, Conconi, Charles and Osterhout, David. *The Energy Balloon*. 1974. \$7.95 (cloth). McGraw-Hill Book Company.

Special reports of the Ford Foundation energy policy project

Write to the Ballinger Publishing Company, 17 Dunster Street, Cambridge, Mass. 02138 for all books in this series.

Nuclear Theft: Risks and Safeguards, by Mason Willrich and Theodore B. Taylor. 1974. \$13.50 (cloth); \$4.95 (paper).

Rehabilitation Potential of Western Coal Lands, by the National Academy of Sciences/National Academy of Engineering. 1974. \$8.50 (cloth); \$2.95 (paper).

Oil Spills and the Marine Environment, by Donald F. Boesch, Carl H. Hershner and Jerome Milgram. 1974. \$7.00 (cloth); \$2.50 (paper).

Energy Prices, 1960-1973, by Foster Associates. 1974. \$13.50 (cloth); \$2.95 (paper).

Energy Taxes and Subsidies, Gerard M. Brannon. 1974. \$8.50 (cloth); \$2.95 (paper).

Financing the Energy Industry, by Jerome E. Hass, Edward J. Mitchell and Bernell K. Stone. 1974. \$8.50 (cloth); \$2.95 (paper).

Potential Fuel Effectiveness in Industry, by Elias P. Gyftopoulos, Lazaros J. Lazaridis and Thomas F. Widmer. 1974. \$7.00 (cloth); \$2.50 (paper).

Perspective on Power, by Edward Berlin, Charles J. Cicchetti and William J. Gillen. 1974. \$8.50 (cloth); \$2.95 (paper).

Energy Consumption in Manufacturing, by the Conference Board. 1974. \$20.00 (cloth); \$9.95 (paper).

Energy and U. S. Foreign Policy, by Joseph A. Yager and Eleanor B. Steinberg et. al. of the Brookings Institution. 1975. \$15.00 (cloth); and \$6.95 (paper).

Energy Policy: Industry Perspectives, by John Gray. 1975. \$8.50 (cloth); \$2.95 (paper).

Studies in Electric Utilities Regulation, ed. by Charles J. Cicchetti and John Jurewitz. 1975. \$14.00 (cloth).

Studies in Energy Tax Policy, ed. by Gerard M. Brannon. 1975. \$15.00 (cloth).

Competition in the U. S. Energy Industry, by Thomas Duchesneau. 1975. \$17.50 (cloth); \$8.50 (paper).

New Energy Technologies for Buildings, by Richard Schoen, Alan Hirshberg, and Jerome Weingart. 1975.

Energy Research and Development, by J. Herbert Holloman et. al. and Michel Grenon. 1975.

The Energy Conservation Papers, ed. by Robert H. Williams. 1975.

The American Energy Consumer, by Dorothy K. Newman and Dawn Day Wachtel. 1975.

Energy and Agriculture in the Third World, by Arjun Makhijani in collaboration with Alan Poole. 1975.

Periodicals

Culhane, Charles. "Energy Related Job Losses Pose New Kind of Challenge." *National Journal Reports*. February 16, 1974.

"The Economic Consequences of the Energy Crisis." *Foreign Affairs*. April 1974.

"Energy." *Science*. April 19, 1974. Entire issue.

"Energy Alternatives." *Environmental Action*. February 2, 1974. \$10.00 for one-year subscription. Order from Environmental Action, Inc., Suite 731, 1346 Connecticut Avenue, N.W., Washington, D. C. 20036.

"Energy and Lifestyle." *Science*. November 15, 1974.

"The Energy Crisis." *Today's Education*. January/February 1974.

"Energy Conservation and Economic Growth: Are They Incompatible?" *Conference Board Record*. February 1975. Order reprints (\$1.00) from Conference Board, 845 Third Avenue, New York, N.Y. 10022.

"The Energy Disease." *Harper's*. February 1975.

"Energy for America's Third Century." *Mosaic*. Spring 1974. Entire issue. Published by National Science Foundation. One year subscription is \$4.50. Order from Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

"Energy Policy in the U. S." *Scientific American*. January 1974.

"Finding a New Approach to Energetics—Fast." *Saturday Review/World*. December 14, 1974.

Johnson, William A. "Solving the Energy Problem: An Analysis of the Issues." *Conference Board Record*. April 1974.

"President Ford's Hard Choices on Energy." *Fortune*. January 1975.

"The Rasmussen Report." *Environmental Action*. October 12, 1974.

"Short-Circuiting the Cheap Power Fantasy." *Natural History*. October 1974.

"Solar and Geothermal Energy: New Competition for the Atoms." *Science*, November 29, 1974.

"A Teacher's Guide to the Energy Crisis." *Today's Education*, January/February 1975.

"Utilities: Weak Point in the Energy Future." *Business Week*, January 20, 1975.

Materials from corporations, organizations and unions

"AFL-CIO Executive Council Statements on Energy"; also "AFL-CIO Energy Policy Committee Background Report on The Energy Emergency," February 1975. Available from AFL-CIO, 815 16th Street, N.W., Washington, D. C. 20005. Free.

The Battelle Energy Program publishes "Energy Perspectives" each month. Available from Battelle Memorial Institute, 505 King Avenue, Columbus, Ohio 43201. Free.

Dupont publishes a quarterly magazine, *Context*. Available from Public Affairs Dept. D-8111, E. E. DuPont de Nemours & Company, 10007 Market St., Wilmington, Del. 19898. The issue No. 2/1974 Vol. 3 is entirely on energy. Free.

Exxon publishes a quarterly magazine *Exxon USA*. Available from Public Affairs Dept., Exxon Co. U.S.A., P.O. Box 2180, Houston, Texas 77001. Issue for First Quarter, 1974 has several energy articles. Free. International Union, United Auto Workers. "A National Energy Program." February 1974. Order from Publications Department, International Union, UAW, 8000 East Jefferson Avenue, Detroit, Michigan 48214. Free.

The League of Women Voters Education Fund, 1730 M St., N.W., Washington, D. C. 20036. *Energy 1-17*. Fact sheets issued periodically. Available for 15¢ per copy, 25/\$1.00. Kit of 17—\$1.00.

Mobil Oil Corporation, 150 East 42nd Street, New York, N.Y. 10017 has published a pamphlet on National Energy Policy. Free.

The National Petroleum Council, an Industrial Advisory Council to the Department of the Interior, has published a number of energy reports. Write NPC, 1625 K Street, N.W., Washington, D. C. 20006 for a list.

Shell Oil Company, Public Affairs, Room 1535, P.O. Box 2463, Houston, Texas 77001 has issued a series of reports on energy topics. It also publishes *Ecolibrium*, a quarterly magazine. Free.

Government publications

Materials listed in this section can be ordered by writing to: Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

Citizens' Advisory Committee on Environmental Quality. *Citizen Action Guide to Energy Conservation*. 1973. 62 pp. \$1.75 (paper). Stock No. 4000-00300.

Federal Energy Administration. *Project Independence: A Summary*. 1974. 65 pp. plus 50 pp. of appendices. \$2.00 (paper). Stock No. 4118-00028. Complete report—800 pp. \$8.35. Stock No. 4118-00029.

U. S. Congress. House Committee on Science and Astronautics. *Conservation and Efficient Use of Energy*. 1974. House Report No. 93-1634. \$2.50 (paper).

U. S. Congress. Joint Economic Committee. *A Reappraisal of U. S. Energy Policy*. 1974. Stock No. 5270-02243. \$.60 (paper).

Researched and written by Isabelle Weber for the Energy Task Force, Gwen C. Murphree, Chairman

Films, slide shows, audiotapes

Energy: A Dialogue. 1973. \$49.95. AAAS member price, prepaid: \$39.95. American Association for the Advancement of Science, Dept. EM, 515 Massachusetts Ave., N.W., Washington, D. C. 20005. A series of six audiocassettes (12 half-hour segments) that explore various facets of the energy problem, ranging from energy economics to the prospects for fusion power.

Energy Conservation—in the Home, the Office, the Marketplace and on the Road. A four-part 50-minute slide show produced by Federal Energy Administration. Available on loan from Community Affairs, Office of Communications and Public Affairs, FEA, Old Post Office Bldg., Washington, D. C. 20461.

Energy—Critical Choices Ahead. A 16mm. color film available on loan free of charge in 27-minute edition (includes energy flow charts through year 2000) and 18-minute general edition (technical charts not included). Contact Office of Energy Programs, U. S. Department of Commerce, Washington, D. C. 20230. Telephone: (202) 967-3040.

Energy-Saving Homes—For Profit and Comfort. This 30-minute slide show with taped narration was prepared by the U. S. League of Savings Associations. Contact your neighborhood savings and loan which can borrow a copy at no cost. Available directly from the U. S. League, 111 East Wacker Drive, Chicago, Illinois 60601 for \$20.00 rental fee. Can be shown with standard 35 mm. projector with cassette tape recorder.

Fuel for Food. A 15-minute slide show or filmstrip which explains farmers' critical fuel needs. Set of slides and cassette can be purchased for \$25.00 from Photography Division, Office of Communication, U. S. Dept. of Agriculture, Washington, D. C. 20250. Filmstrip available for \$11.50 from Photo Lab Inc., 3825 Georgia Ave., N.W., Washington, D. C. 20011.

Saving Energy at Home. A 13-minute 16mm. color film which cleverly pinpoints major sources of energy waste around the house and gives tips on how to cut down on home energy consumption. Rental (1-3 days) \$17; Weekly rental—\$30. Purchase—\$180.00. Ramsgate Films, 704 Santa Monica Blvd., Santa Monica, CA 90401. (213) 394-8819.

When the Circuit Breaks. A new FEA 28-minute color film which explains the national energy problem, the need to develop domestic energy sources and investigates geothermal, solar and nuclear fusion as future energy sources. Prints may be borrowed free from Modern Talking Picture Service Inc., 2000 L Street, N.W., Washington, D. C. 20036.

Energy games and quizzes

Energy Quotient Index. 1975. A short energy conservation test published by Honeywell. Order from Inquiries (G2118), Honeywell Inc., Honeywell Plaza, Minneapolis, Minnesota 55408. Free.

The Household Energy Game. 1974. A 20-page booklet designed to give you an idea of how much energy your household uses and how you can modify your energy budget to conserve energy and save money in the process. Order from The University of Wisconsin, Sea Grant College Program, 1800 University Avenue, Madison, WI 53706. 10¢.

The Lifestyle Index tells how individuals can calculate their personal energy expenditures and compare them with the energy and materials consumed by the average citizen in other countries. Published in 1974, it can be ordered for \$1.50 (prepaid) from the Center for Science in the Public Interest, 1779 Church Street, N.W., Washington, D. C. 20036. (A shorter version is published in Fritsch's *The Consumers*—see Sources and Resources.)

Order from **League of Women Voters of the United States** •
1730 M Street, N.W., Washington, D. C. 20036 •
Pub No. 575—50¢

ENERGY 18

THE ENERGY DEBATE--A STAND-OFF

In short: Where is U. S. energy policy?

The complex cluster of issues that come under the heading of energy policy continues to elude the decision makers on both ends of Pennsylvania Avenue. Though the Administration and Congress agree on the short-term goals of U.S. energy policy--to reduce energy consumption and expand domestic production, thus lessening the nation's dependence on foreign imports--they disagree over how to achieve these goals. The result has been a series of confrontations, climaxing in a midsummer deadlock over the oil price decontrol issue. During the two weeks before recessing for their August vacation, Congress rejected two presidential "compromise" proposals for gradual decontrol of oil prices, considered several alternatives of its own, then approved a 6-month extension of the existing price control authority that President Ford said he would veto.

Price controls expired August 31, but Congress and the Administration have agreed to make another effort to work out a compromise plan for gradual price decontrol. As the *Christian Science Monitor* put it, "Are the chances for congressional-presidential compromise on the domestic oil-price issue any better today than they were six months ago? Given the growing realization of the costs of inaction in terms political and economic, as well as the knowledge that reliance on foreign oil must somehow be reduced, probably so."

Background

The immediate and visible energy crisis caused by the 1973-74 Arab oil embargo on oil shipments to the U.S. has passed, but the long-range, invisible energy problem persists. Domestic production of oil and natural gas, which account for 75% of the nation's energy consumption, continues to decline (the 1974 production rate of both was down 5% from 1973). The percentage of imported oil has crept up to 40% of all U.S. oil consumption and the share which comes from Arab wells has risen to roughly 25%, leaving the U.S. even more vulnerable to another sudden oil cutoff. Despite rising costs and increasing environmental damage due to energy production or consumption, we continue to use energy in wasteful and inefficient ways.

The differences between the Administration and Congress on energy policy are fundamental. The Administration's program relies on increasing prices as the principal means of cutting energy demand and maximizing supplies. To offset the effects of the higher energy prices on the economy, they propose a series of tax actions (rebates, windfall profits tax, income tax reductions). Congressional Democrats believe that economic recovery should have priority over energy conservation and that higher prices would initiate another inflationary spiral and retard recovery. They call for a more gradual, less severe cut in energy demand to be achieved through import quotas, allocations and a series of energy conservation measures while new energy supplies are obtained.

On January 31st, President Ford submitted an omnibus energy bill to Congress--the Energy Independence Act of 1975--a thirteen part program which has three time-phased goals.

1. Near-Term (1975-1977): Reduce oil imports by 1 million barrels per day by the end of 1975 and 2 million barrels by the end of 1977. (The U.S. currently imports 6.5 million b/day.)
2. Mid-Term (1975-1985): 1985 imports of 3-5 million barrels of oil per day, all of which can be replaced immediately from a strategic storage system and managed with emergency measures.
3. Long-Term (1985 and beyond): Accelerated development of new energy technology and resources so that the U.S. can supply significant share of free world's energy needs by the end of this century.

Ford outlined the foundations of his proposed program: "No. 1, conservation by the price mechanism; No. 2, added supply by stimulating exploration and development; No. 3, equity in the return of tax money to people, to business, to states; and No. 4, security."

Congressional Democrats, rejecting the President's approach to the national energy problem, developed several alternatives.

The House Ways and Means Committee, using energy plans drawn up by eight task forces, developed a proposal based on import quotas and a substantial gasoline tax to induce consumers to use less gasoline. It also included taxes on inefficient automobiles and on industrial use of oil and natural gas and provided various tax incentives for energy saving investments as well as establishing a trust fund to finance energy conservation and conversion projects.

The Democratic Task Force proposal, a product of the House and Senate task forces headed by Representative Jim Wright (D.-TX) and Senator John Pastore (D.-RI), recommended import quotas and a 5¢ per gallon retail gas tax, decontrol of oil recovered by secondary and tertiary methods, repeal of the depletion allowance (except for small independents) and a windfall profits tax to fund energy research.

Both plans rely on:

- a moderate but steady reduction of oil imports through quotas,
- gradual increases in gasoline taxes and excise taxes on gas guzzlers (Ways and Means plan) and
- use of the tax proceeds for energy conservation and development of substitute energy supplies.

Issues and choices

A basic disagreement over solutions to the energy problem is not the only source of the deadlock between the Administration and Congress, as well as within Congress itself--though it is the chief one. Energy is a new issue, on which a national consensus has not yet been formed. Moreover, the choices are tough, complex and *interrelated*. They are also costly, disruptive and frequently uneven in their impact. In short, they are painful and divisive. Solutions to the problems of one region inevitably impose hardships on another region. States on the two ocean coasts resist offshore drilling, but inland states want the oil. Western states view strip-mining with apprehension while energy-hungry urbanized states see coal as their salvation. Michigan, dependent on the auto industry, prefers to save oil anywhere but on the highway. Auto unions and industry argue that increased gasoline taxes would only stimulate imports of fuel-efficient cars. It is not surprising, therefore, that, of the nearly 1,000 energy bills so far introduced, very few have been enacted.

The House has passed one energy tax bill (Energy Conservation and Conversion Act--HR 6860) that set import quotas on oil and mandated auto fuel economy standards but rejected any increase in gasoline taxes. Both houses have passed different bills to open up the Navy's oil reserves to production, but that move will produce only a small fraction of the 6.5 million barrels in imports that the Administration wants to reduce. The Senate has passed long-range legislation setting new policies for the development of oil and gas on the Outer Continental Shelf (S 521) and another bill (S 586) to provide federal compensation to coastal states adversely affected by OCS development. None has become law; none is likely to until some hard choices are made.

First is the resolution of the impasse over the decontrol of oil prices. Second is the difficult question of environmental standards for automobile emissions. Should the standards be relaxed in order to achieve better fuel economy (and at the same time ease one pressure on a beleaguered auto industry), or can the auto industry, as environmentalists argue, meet both the tougher auto emission standards and improved fuel efficiency standards?

Still another difficult problem is the deregulation of natural gas prices. At issue is the effect of prices on supplies. Too little natural gas is being produced to meet demand, although U.S. deposits are reported as substantial. One side argues that the Federal Power Commission has kept the prices it allows producers to charge so low that they don't encourage enough exploration and production. Others maintain that expectations of continually higher prices (from first the FPC and now Congress) have led companies that found new gas to sit on it in hopes of higher future returns. Impending shortages of natural gas this winter could force many factories to close and throw thousands of Americans out of work. President Ford met August 28 to discuss solutions with governors of sixteen states facing serious shortages. All but one called for removal of price controls on new natural gas.

As winter approaches, there promises to be more heat generated on Capitol Hill and less fuel to warm our homes or run our factories. And beyond lie the long-term energy problems--depletion of the world's finite resources, especially oil and gas, major energy-environmental issues including air pollution, nuclear power risks and competing demand for water and land--and the urgent need to reduce our consumption of energy.

October 1975

ENERGY ACTIVITIES -- STATE AND LOCAL LEAGUES AND ILOs

Attached is a digest of information on League energy activities. It is grouped under the following topics: (1) Conferences (State and Regional); (2) Publications; (3) State-wide Energy Program Items and Positions; (4) Nuclear Energy and Transportation; (5) Miscellaneous. This compilation does not include statistics or details about unit discussions and local League general meetings but many of these have taken place and many more are planned for this year.

The data on the kinds of energy projects in which Leagues are involved shows a wide variety of efforts, ranging from unit discussions (on the general energy problem and also on specific topics such as nuclear power) to community meetings, state-wide and regional conferences, publications and local demonstration projects to two Leagues that are acting as intervenors--one in a power plant siting hearing and the other in a hearing on a utility's application for increased electricity rates.

From the organizational point of view, in most instances it was the EQ chairman (state or local) who first assumed the responsibility for energy. During the past year, many Leagues have added an energy portfolio (on or off Board position). Formal Energy Task Forces on a state-wide basis have been established in three instances. The West Virginia state League set up at its 1975 convention "an ETF to consist of state chairmen of the affected program areas plus interested local Leagues"; the South Carolina LWV delegated an ETF portfolio to Columbia-based committee involved in nuclear energy study (committee will act as resource bank for State LWV); the Vermont LWV named an ETF coordinator.

A number of Leagues had worked on energy or some related aspect as an outgrowth of their environmental concerns, long before the national Energy Task Force was established by the May 1974 national convention. For example, transportation has been a major concern of many Leagues and ILOs over a period of several years. The Oregon League conducted an extensive power study in 1971-72 and developed a series of positions as a result. Several Leagues in the Long Island, N.Y. environs concentrated on the problems related to the siting of nuclear power plants in that area. Leagues along the two ocean coasts have focused on offshore oil drilling or deepwater ports and the potential impact of these facilities on their coastal areas. The Illinois League organized a state-wide conference this year on "Coal and the Illinois Environment." The Western Leagues, understandably, are apprehensive about strip-mining, oil shale development and the competition for scarce water resources (energy vs. food) in their area. This has led to the formation of a coalition of six state Leagues (Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming) into the Mountain Plains Coalition. The "6 for VIII" are developing common positions on energy vs. the quality of the environment.

In summary, League interests reflect those of their region. Leagues are concerned about the national energy problem but they have focused on regional or state or even local concerns and their selection of topics reflects the energy problems (energy park site, nuclear power plant site, strip-mining) which pose an environmental threat to their state or community.

ENERGY CONFERENCES*

STATE	TOPIC	DATE	COMMENTS
DELAWARE River Basin Inter-League Council	Water and Power and the Future	March 1970	Co-sponsored conference with the Tri-State Metropolitan LWV
LWV of ILLINOIS	Coal and the Illi- nois Environment	March 1975	One-day state-wide con- ference; Attendance--250
LWV of INDIANA	Citizens' Energy Conference	May 31- June 1 1975	LWV was one of spon- soring organizations. Attendance--400 Coalition formed; foun- ding convention in fall
LWV of KANSAS	Energy--A Look At Values and Chang- ing Lifestyles	November 15 1975	State-wide conference. Funded by \$11,635 grant from Kansas Committee for Humanities
LWV of MINNESOTA	Energy Conservation	April 18, 19 1975	LWV prepared short use- ful digest of speeches and discussions follow- ing conference
LWV of MISSOURI	Energy and the Envi- ronment	November 1973	LWV was co-sponsor with Univ. of Mo. & EPA
LWV of MONTANA/LWV of NORTH DAKOTA	The Critical Years: Alternative Futures for the Northern Plains	February 1975	Leagues were co-spon- sors with Tri-State Humanities Committees (Montana, No. Dakota and Wyoming). Produced film--"Western Coal: An American Dilemma"
LWV of NEVADA	Nuclear Energy and Its Role in Nevada	Fall 1975	Co-sponsor of confer- ence (funded by Humani- ties grant)
LWV of NEW HAMPSHIRE	Energy Conservation	January 10 1976	
LWV of OKLAHOMA	Energy, the Economy and Citizen Values	June 25 1975	Funded by Oklahoma Hu- manities Committee and National Endowment for Humanities
*This listing does not include energy conferences organized by local Leagues.			

PUBLICATIONS

Arizona

LWV of Arizona. Nuclear Power in Arizona--Basic Need? or Unwarranted Risk? Energy Series No. 1. 6 pp. Sept. 1975

Illinois

LWV of Highland Park. The Little Golden Book of Energy. 13 pp. 1975.

Indiana

LWV of Indiana. The Big Squeeze. 10 pp. 1974.

Iowa

LWV of Metropolitan Des Moines.

Energy--Part I: Sources. (7 pp. outline)

January,

Energy--Part II: Uses. (8 pp. outline)

February 1975.

Michigan

LWV of Midland. Nuclear Energy as It Relates to the Environment--A Source of Power for the Midland Area (Pro and Con arguments)

New York

LWV of Riverhead-Southold. Second Thoughts on Nuclear Fission Power Plants. March 1974. 25¢

Ohio

LWV of Stow. The Nuclear Power Industry in the United States. 44 pp. January 1972.

Oregon

LWV of Oregon. Power to The People, Part One. 34 pp. 1972.

Power to The People, Part Two. 105 pp. 1972.

LWV of Oregon and Portland. Power--Where It Comes From and Where It Goes. 28 pp. May 1972. Power--Old and New Technologies--How Clean, How Costly? 20 pp. January 1973.

Utah

LWV of Utah. Oil-Shale Development. 13 pp. + 6 pp. appendices. Nov. 1974.

Virginia

LWV of Fairfax. The Energy Picture--Realities. 17 pp. September 1975. (Units' discussion material)

LWV of Williamsburg prepared (June 1974) general energy material, Toward a More Responsible Energy Policy.

STATE LEAGUES
Energy Program Items and Positions
(other than transportation)

District of Columbia

Position reached on energy conservation at April 1975 units that supports
(1) the restructuring of electric rates to promote energy conservation and
(2) D.C. government's development and implementation of a comprehensive program in the use of energy by the government, its citizens, businesses, and institutions.

New Hampshire

LWV of New Hampshire--"Study to investigate alternate sources of energy including feasibility of state's present commitment to nuclear power." (May 1975 state convention)

New Mexico

"The role of state government in the regulation of the natural resources in New Mexico." (April 1975 state LWV convention)

New York

LWV of New York, at 1975 state convention, decided to study alternate sources of energy other than nuclear power under national EQ position.

Oregon

LWV of Oregon published 2 reports in 1972--Power To The People, Part One (34 pp.) and Part Two (105 pp.) and issued position on power in April 1973.

South Carolina

LWV of South Carolina adopted nuclear energy study item at 1975 convention.

Washington

LWV of Washington adopted energy study item at 1975 convention. Focus: Assessment of energy needs, Ramification of alternatives, Decision-making structure. Emphasis on economic, social and environmental concerns. Committee plans to write a two-volume study of energy in Washington.

Wyoming

LWV of Wyoming--Concurrence on energy vs. quality of environment, a position shared by Leagues in Mountain Plains Coalition (Montana, Colorado, Wyoming, Utah, North and South Dakota).

NUCLEAR ENERGY

League interest in this topic is high. A variety of activities dating back to 1969 have been undertaken by Leagues in response to the nuclear power issue.

Arizona

LWV of Arizona published a Facts and Issues on Nuclear Power (see Publications) as background for fall 1975 public hearing on the construction of Arizona's first nuclear power plant.

Nuclear Energy (cont'd)

Arizona (cont'd)

LWV of Tucson held a nuclear energy workshop in July 1975 for members of the League and the public.

Arkansas

The LWVs of Garland County and Pulaski County have been active in hearings on the siting of nuclear power plants.

Connecticut

The LWV of Connecticut co-sponsored a July 16, 1975 meeting, "Nuclear Energy on Trial"--a pro and con presentation.

Connecticut River Basin Inter-League Committee has a position on the threat to river basin quality from thermal and radioactive effluent.

Kansas

LWV of Wichita is preparing a compendium of information on the pros and cons of nuclear energy (June 1975).

Missouri

LWV of Missouri is currently considering whether to actively support the Nuclear Safeguards Initiative Drive there. The Oklahoma League decided against this while Oregon (see next page) is supporting the petition drive. The California LWV plans to prepare a pro and con background (similar to Arizona Facts and Issues) in connection with the Nuclear Safeguards Initiative campaign in that state.

Nevada

LWV of Nevada made a statement in November 1974 before the Atomic Energy Commission re the storage of radioactive wastes at the Nevada test site.

New York

Many local Leagues have been active in response to the siting and construction of nuclear power plants in or near their communities.

LWV of Clarkstown-Orangetown--April 1971 position on nuclear power calls for strict standards and government regulation, as well as monitoring by government and public representatives.

LWV of North Brookhaven--did a nuclear power plant study in February 1971.

LWV of Putnam County co-sponsored with AAUW on October 10, 1975 a public meeting on "Nuclear Energy and Its Alternatives" (guest speakers were Hamilton Fish, Congressman and Prof. William Heronemus, Univ. of Mass. School of Engineering).

LWV of Southold, Long Island, published a pamphlet, Second Thoughts on Nuclear Fission Power Plants, March 1974.

LWV of Suffolk, Long Island, is acting as an intervenor in hearings on a power plant siting application. Also is an official intervenor before Nuclear Regulatory Commission.

Nuclear Energy (cont'd)

Ohio

Lake County Leagues (Mentor, Painesville, Wickliffe and Willoughby) made statement before Nuclear Regulatory Commission in 1975 on questions they believe should be asked about Perry Nuclear Power Plant--e.g. need? --safety?

Oregon

LWV of Oregon (see state energy program listing and also publications for background) Voted at 1975 state convention to support the Oregon Nuclear Safeguards Initiative proposal.

LWV of Albany-Lebanon Area gave series of talks on nuclear power to community groups; also served on Steering Committee to plan several programs on nuclear power in February, March, and April 1975.

Pennsylvania

Several local Leagues (State College, Danville, Harrisburg) are concerned about nuclear power because Pennsylvania is under consideration as an Energy Park Site.

LWV of Danville Area co-sponsored a series of five meetings in May and June 1975 on "Energy Parks--Good or Bad?"

South Carolina

LWV of South Carolina adopted a nuclear energy item at spring 1975 convention.

Susquehanna Inter-League Council (local Leagues and state Leagues of New Jersey, New York and Pennsylvania)--October 29-30, 1975 meeting on Energy Parks--the siting of nuclear power plants and the relative merits of conventional and nuclear power.

Virginia

LWV of Williamsburg prepared 11 pp. on nuclear power in January 1975.

Wisconsin

The LWV of Wisconsin included background information on nuclear fission in its March 28 FORWARD. May 1975 state convention adopted position (expanding 1971 power plant position) "to oppose further licensing and construction of nuclear fission reactors until scientific questions regarding their effects upon public health and safety can be resolved."

TRANSPORTATION

This has been an important area of concern to many Leagues, particularly ILOs. The list below does not include every local League that has worked on transportation, but rather includes those state and local Leagues and ILOs that have devoted considerable time and effort to action in this area.

California

LWV of the Bay Area (21 local Leagues in the Bay Area) is currently working on Transportation Alternatives Project and publishing The Monitor on monthly basis (beginning spring 1975).

Transportation (cont'd)

California (cont'd)

LWV of Los Angeles County

Colorado

League of Women Voters of Metropolitan Denver, ILO

Connecticut

LWV of Connecticut

LWV of Guilford held September 1975 public meeting on the railroad crisis; local committee studying U.S.R.A. and Con Rail

See also LWV of the Tri-State Metropolitan Region, ILO

District of Columbia

LWV of the National Capital Area (8 local Leagues in metropolitan Wash., D.C.)

Florida

LWV of Metropolitan Dade County

Massachusetts

LWV of Massachusetts and a number of local Leagues have studied transportation and developed positions.

Minnesota

LWV of Minnesota and the Council of Metropolitan Area Leagues (CMAL represents 35 Leagues in the seven county metropolitan area)

New Jersey

LWV of New Jersey adopted 1975-77 program item, "Work for a master plan for mass transportation in New Jersey incorporating positions already developed under HR, EQ, and LU, with emphasis on methods of financing, energy conservation, and housing/job relationships."

See also LWV of Tri-State Metropolitan Region, ILO

Texas

LWV of Texas adopted transportation item at 1975 convention as an addition to EQ position to include "action to support development of public transportation in Texas."

LWVs of Austin, Dallas, and Houston are also active in this field.

LWV of the Tri-State Metropolitan Region, ILO

168 Leagues of the Connecticut, New Jersey and New York Metropolitan Region.

Utah

LWV of Utah in 1975-77 program item: "Study and action in the area of planning, financing and management of all aspects of transportation."

Washington

League of Women Voters of Puget Sound

MISCELLANEOUS LEAGUE ACTIVITIES

I. DEEPWATER PORTS, SUPERTANKERS AND OIL REFINERIES

The LWV of Connecticut concurred in the LWV of New London's position on oil refineries and supertankers in Long Island Sound.

The LWV of Bellingham-Whalcom County, Washington, has a position on deepwater ports and transportation of oil to Puget Sound.

The LWV of Galveston, Texas, included articles in a recent Voter on "Superports-- Onshore vs. Offshore; Public vs. Private."

The LWV of Monmouth County, N.J., developed a position on deepwater ports in 1973-74 as part of an overall study of energy and the marine environment.

Miscellaneous (cont'd)

II. OFFSHORE OIL DRILLING

Four state Leagues--California, Delaware, Florida and New Jersey (and also local Leagues within those states)--have participated in public hearings on offshore oil drilling. The Florida LWV is the only state League that has a position on this topic. It states that "offshore oil drilling may be necessary, but should not be undertaken until further study about environmental risks is undertaken." The Inter-League Committee on the Delaware River Basin held a workshop in April 1974 on Offshore Drilling and Deepwater Ports and the Implications for the Delaware River Basin.

III. ENERGY CONSERVATION ACTIVITIES (other than transportation)

LWV of the District of Columbia--Under its position (April 1975) supporting the restructuring of electricity rates to promote energy conservation, the D.C. League is acting as an intervenor in the D.C. hearing re PEPCO's application for increased electricity rates.

LWV of Tucson, Arizona, is preparing "How To" booklets.

LWV of Richmond, Indiana, participated in a joint program to insulate the homes of low income families. The Community Resource Center (local voluntary action agency) provided central administration for the project. League members contacted the families to assess their ability to participate and their need.

IV. "ENERGY" COLUMNS have become a regular feature of many local and some state League bulletins. The LWV of Texas began a series of papers on energy for Texas in the spring of 1975 while the Wichita, Kansas League initiated its "Fireside Chats" on energy in June 1975. Many state and local Leagues have published in their bulletins the energy profiles prepared for the National Energy Conservation Conference.

V. SERVING ON ENERGY-RELATED COMMISSIONS is also becoming a way of life for League members. A former Nevada state League Environmental Quality Chairman was appointed by the Governor to a commission to study the feasibility of Nevada's being used as a nuclear waste storage site. A member of the ETF Circle 3 has been appointed to the San Diego Regional Coastal Zone Conservation Commission in California, while another Circle 3 member from Minnesota was appointed to the Governor's Task Force on Energy Policy. The former Oregon state Environmental Quality Chairman has been appointed chairman of the Governor's Energy Advisory Committee. A Circle 3 member served on the Coastal Waters Task Force of the Governor's Advisory Committee on Power Plant Siting in Texas. A LWV of Berkeley member is serving on the board of the East Bay Municipal Utilities District.

VI. TESTIFYING on energy problems is rapidly becoming routine following the FEA regional hearing experience in Aug.-Oct. 1974. Utility rate structures, power plant siting, offshore drilling, oil shale development, mass transit, rehabilitation of railroads are some of the substantive energy problems now being addressed in such testimony. The Wisconsin League in July 1975 urged the state Senate to reinstate the emergency energy provisions enacted in 1973 legislation.

VII. THE MEDIA, too, is being used by local Leagues to develop an energy conservation ethic, e.g., the Austin, Texas League is working with the Austin School District and the Urban Transportation Dept. to produce a 30-minute multi-media presentation on energy and conservation directed toward 6th graders and up. It will be followed by a field trip on a regularly scheduled bus, to demonstrate how children can ride the bus to places they need or want to reach. The Delaware State League has organized a panel discussion on energy conservation on WPVI-TV (Channel 6, Philadelphia). This will be one of a series conducted by area Leagues two or three times a month.



League of Women Voters Education Fund

memorandum

8 December 1975

This is going on DPM

TO: State and Local League, and ILO Presidents
FROM: Gwen Murphree, Chairman, Energy Task Force
RE: Energy Task Force--A Progress Report

During the last week of October, Circles 1, 2 and 3 of the Energy Task Force met in New Orleans. Our purpose was 1) to review and set new directions for the League energy education programs, 2) to consider opportunities for action under the League's energy conservation position, 3) to evaluate the series of seven energy conservation conferences sponsored by the League of Women Voters Education Fund and the Office of Consumer Affairs, Department of Health, Education and Welfare, and 4) to consider ETF's organization and its communications needs.

The New Orleans location allowed Circles 1 and 2 and staff to accept the American Petroleum Institute's invitation to tour off-shore drilling installations in the Gulf of Mexico. Our all-day trip by helicopter included visits to:

- 1) Clean Gulf Associates headquarters at Grand Isle, La.--a consortium of 42 energy companies cooperating in oil containment and clean-up operations in the Gulf;
- 2) Conoco Grand Isle Bloc 43 AA Facility, located in 110 feet of water, 22 miles south of Grand Isle--a five-platform central process facility that handles oil and gas production from 29 surrounding producing platforms. It processes some 70,000 barrels of oil and 250-325 million cubic feet of gas daily;
- 3) Shell Bay Marchand "E" structure, where development drilling operations are underway for 21 wells to depths of 15,000 feet or more.

While in New Orleans, the ETF met informally with New Orleans and Louisiana Leaguers and board members for lunch. The ETF Chairman also participated in a panel discussion at a general energy meeting of the New Orleans League.

8 December 1975

LWVEF Energy Education Directions

During the New Orleans discussions, ETF committee members agreed that the educational role of the Energy Task Force should be to present a broad, balanced view on energy--to raise questions, to identify problems, to present pros and cons--rather than to try to provide specific answers to specific questions or to attempt to reach agreement on narrow issues before there is full consideration of the overall energy picture.

In line with the thrust of taking a balanced and broad view, the task force will proceed with publication (as funding allows) of a series of four booklets on the overall theme "Energy: The Invisible Crisis." These will provide a basic and objective pulling together of current energy information, and flesh out the Energy Briefs, using a supply and demand approach. The first, using the above title, will provide a citizen's overview of the energy situation, and the second, "Producing More," will deal with supply alternatives, the options and consequences of each.

As quickly as possible, additional Energy Briefs (considered to be "winners") will be published on alternative energy supplies (a companion precis to "Producing More"), opportunities for conservation, and other energy topics.

ETF's major fundraising efforts will be directed toward pass-through funds for local energy projects, even if on a limited pilot project basis. At the moment, there is a strong possibility of obtaining funds for a national conference on the overall energy situation and for follow-up state/regional workshops or projects.

Energy Conservation Position

The task force developed a list of guidelines for use by Leagues at all levels to implement the energy conservation position and to provide a more explicit framework for such action. These guidelines, still in draft form, will be submitted to the national board for consideration at its January 13-15 board meeting. The Energy Task Force is also attempting to develop a list of future League energy objectives.

The current status of major energy bills in general and energy conservation legislation in particular was reviewed (see July/August and September Report From the Hill). Energy Brief #18 which describes the national energy situation is still very current though Senate and House conferees have now reached agreement on an omnibus energy bill (S. 622) that would roll back oil prices during 1976 and then allow prices to increase and controls to terminate by 1979. It also includes energy conservation programs, embargo contingency measures and authority for a strategic oil reserve.

The task force reaffirmed a continued League focus on support for transportation measures to conserve energy and reduce pollution.

8 December 1975

In addition, they suggested that the LWVEF consider seeking funding to undertake an analysis of the reports and legislative proposals under consideration by Congress on railroad reorganization and national transportation policy.

ETF also discussed the issue of mandatory vs. voluntary thermal standards for the construction of new buildings. The Administration proposed that the federal government develop mandatory thermal performance standards (i.e. strong sanctions would be imposed against states or localities that do not adopt stringent energy conservation standards for new buildings.) This legislation is being considered by Congress. The task force favors the development of thermal performance standards by the federal government but questions the advisability of imposing sanctions. As a first step, ETF believes that all newly constructed buildings used by the federal government should be required to meet the federally developed thermal performance standards.

Nuclear Safeguards Initiative Drive

The task force noted the increasing number of states in which a Nuclear Safeguards Initiative Drive is underway: Oregon, California, Arizona, Oklahoma and Missouri to name a few. Petitions in some states have received enough signatures to be on the ballot in those states.

As you are aware, the LWVUS has no position on nuclear power. In many states, this is a hot issue and League support for or against nuclear power is sought by a variety of groups. Action by Leagues on the nuclear power issue has varied. Some state Leagues are preparing publications on the pros and cons of nuclear power. (Arizona has published a good facts and issues on the subject, and California expects to prepare one also.) The Oregon League is supporting the initiative proposal, and the LWV of Wisconsin, at its 1975 state convention, decided to oppose further licensing and construction of nuclear fission reactors until scientific questions regarding their effects upon public health and safety can be resolved. Please keep us advised of any such efforts in your state and of your League's activities on the nuclear power question.

LWVEF-OCA Energy Conservation Conferences

"Did the conferences (held in Santa Monica, Atlanta, Issaquah, Washington, Lake Bluff, Illinois, Wethersfield, Connecticut, Dallas, and Boulder) help to move along, or contribute to, a change in citizen attitudes on energy use?" The task force agreed that an important beginning had been made but that minimal change in energy lifestyles was effected by the conferences. Follow-up is essential since attitudinal change in people and institutions is a slow, slow process. After a year of providing citizens with information about the need for immediate and concerted energy conservation, the task force is under no illusions that the message has been received, let alone heard or heeded. Much more needs to be done in terms of follow-up projects, citizen education and information on the need for conservation strategies.

8 December 1975

[Note: Many League members will be invited to participate in the Conservation Foundation's FEA-funded energy conservation conferences to be held in the ten standard federal regions. As a member of CF's National Advisory Committee for these conferences, your chairman attended the first, which took place in Region 3 and was directed by Marilyn Reeves of ETF Circle 3.]

ETF Organization

The task force decided to reorganize on the basis of the ten standard federal regions rather than on the seven-region basis set up for the OCA energy conservation conferences. The major changes come in the northeast and the mid-continent states. New Circle membership includes: Nan Waterman, National Human Resources Chairman, Circle 1; Region 7; Mary Dawson of Mass., Circle 3, Region 1; Blanche Rubin of Ohio, Circle 3, Region 5; and Pat White of New Mexico, Circle 3, Region 6.

ETF also discussed the use of the task force concept in dealing with energy; i.e., has it made a difference in League members' understanding of energy, has it made a difference to the community? The task force took note of the increased and increasing energy activity and interest in state, local Leagues and ILOs. Some task force members felt that the lack of a formal structure for the League's energy work had permitted innovative and varied approaches to energy activities. Another view was that the task force structure and approach conveyed to the public the fact that the League felt a sense of urgency about the energy situation. In sum, it was agreed that the task force concept allows for diversity in organization for Leagues, in focus of action and specific aspects of interest to a particular League, a variety of interrelationships, and finally, it freed Leagues and members to develop and pursue energy activities at a pace timed to member interests.

Inter-League Energy Communications

Reflecting a keen desire to improve and increase intra-task force communications as well as inter-League communication on energy matters, the task force agreed to ask the Leagues to participate in a communications network. The information obtained through this communication system will be used by the staff to compile, probably twice a year, a report similar to the one attached to this memorandum. (Energy Activities--State and Local Leagues and ILOs). Future reports will, of course, be shared with all Leagues. We hope you will cooperate in the proposed gathering process as follows:

1. Each state board should designate someone (either on or off-board) to receive bulletins from all local Leagues and ILOs within the state. State Leagues should send us the name and address of the person so designated.

2. Each local League would add this state person's name to its bulletin mailing list.
3. Each month, this state energy information reporter would then mail to the ETF Circle member (designated on the attached standard federal regions list) only those local League bulletins that contain any kind of energy information.
4. The ETF Circle member would then screen these and pass them along to the national office for its records on local, state and ILO energy activities. Examples of information not to be forwarded are: unit meeting notices, energy-saving tips, reprints of national League publications and general energy statistics.
5. The ETF would still want local and state Leagues and ILOs to send copies of their energy publications, special reports and testimony directly to the national office.

Energy Activities--State and Local Leagues and ILOs

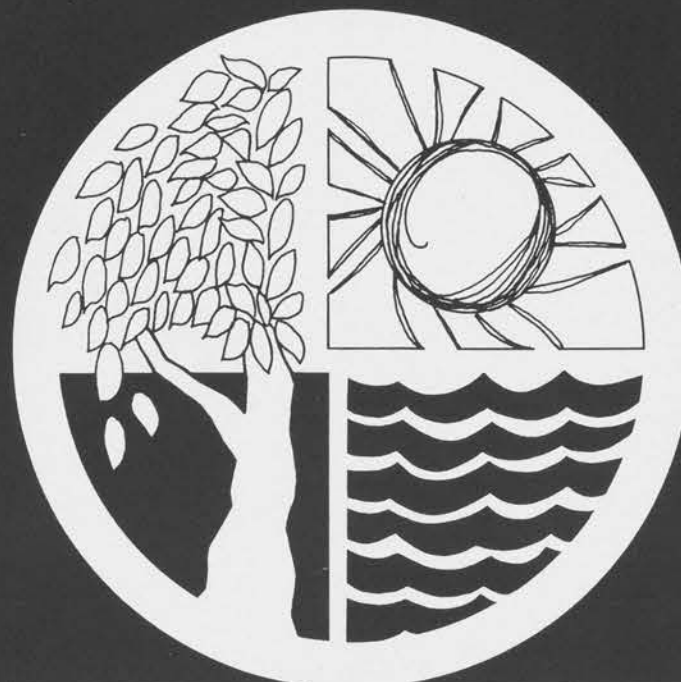
The attached report of League energy activities should prove useful as you explore ways to keep your members and your communities current in the energy field. This compilation was culled from League bulletins and letters and is by no means all inclusive. We think the new communications system will bring more of your energy activities to our attention much faster.

As you continue to develop energy awareness in your communities in whatever way suits the needs and interests of your "constituency," we encourage you to make use of ETF Circle members in your region. They are a very good resource for energy information, organizational advice, action opportunities, energy "expertise." In addition, do continue your inquiries and communication with me and the staff.

Attachments: League Energy Activities Report
League Energy Communications List



Max Ottedal
Chairman
 Minnesota Solar Energy Task Force
 7124 James Avenue South
 Minneapolis, Minnesota 55423

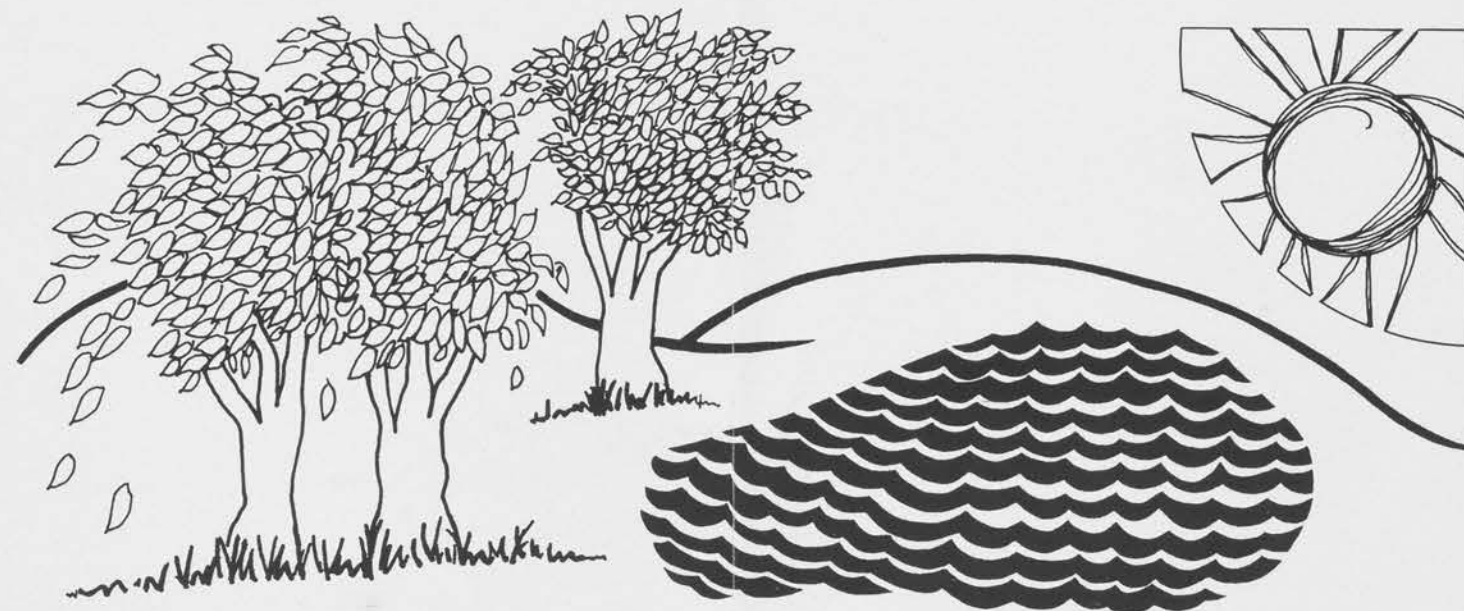


Update on **Alternative Energy Sources**

**Technology and Applications
 for Minnesota**

April 27-28, 1976

Howard Johnson's Motor Lodge
 Airport-Stadium
 8401 Cedar Avenue South
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 Minnesota Department of Agriculture
 Minnesota Educational Association
 Minnesota State Planning Agency
 Minnesota Association of Electrical Cooperatives
 Minnesota Department of Natural Resources
 Council of Metropolitan Area League of Women Voters
 Democratic Farmer Labor Party of Minnesota
 Downtown Council of Minneapolis
 Ellerbe, Inc.
 Environmental Balance Association
 General Mills, Inc.
 Honeywell
 Independent-Republicans of Minnesota
 Inter-City Gas Limited, Inc.
 Izaak Walton League of America, Minnesota Division
 Land O'Lakes, Inc.
 League of Women Voters of Minnesota
 Richard H. Magnuson
 Metro Clean Air Committee
 Metropolitan Council
 Minnesota Gas Company
 Minnesota Mining & Manufacturing
 Northern States Power Company
 North Central Public Service Co., Division of Donovan
 Companies, Inc.
 Ottertail Power Company
 Pillsbury
 Superwood Corporation
 University of Minnesota
 United States Environmental Protection Agency
 Youth Action Board for Environmental Preservation

Objective:

If you are an educator, legislator, scientist, engineer, architect, or a concerned citizen of Minnesota interested in the current state of alternative energies, this conference is designed to meet your needs.

The conference will explore the potential of Alternative Energy Supplies for Minnesota. These supplies include the sun, wind, agricultural and timber residues, peat, urban wastes, district heating, animal wastes, and energy efficient technology.

This conference will provide the participant with a realistic assessment of both the potential and the problems of each of these energy sources for Minnesota.

Conference Chairman
 —Richard C. Jordan, Ph.D.



April 27, 1976

8:-8:30 a.m.

Registration

8:30 a.m.

Minnesota's Energy Future

John Millhone, Director
Minnesota Energy Agency

Minnesota's Alternative Energy Resources

Dr. Perry L. Blackshear, Jr., Director
Center for Studies of the Physical Environment
University of Minnesota

9:15 a.m.

Solar and Wind Energy in Minnesota

Dr. Richard C. Jordan, P.E., Professor and Head
School of Engineering and Aerospace Engineering; and
Head, Dept. of Mechanical Engineering
University of Minnesota

Dr. Donald G. Baker, Professor
Department of Soil Science
University of Minnesota

10:45 a.m.

Coffee Time

11:00-12:30 p.m.

Dr. James W. Ramsey, Asst. Professor
Department of Mechanical Engineering
University of Minnesota

Roger Schmidt, Technical Manager
Solar Pilot Plant
Honeywell

O. H. Lindquist
Senior Staff Engineer
Honeywell

12:30-1:30 p.m.

Lunch

1:30-3:30 p.m.

Peat Resources and Energy Potential in Minnesota

Dr. Rouse S. Farnham, Professor
Department of Soil Science
University of Minnesota

Program

Update on Alternative Energy Sources Technology and Applications

Mr. A. M. Rader, Asst. Vice-President
Research Division
Minnesota Gas Company

Robert L. Herbst, Commissioner
Department of Natural Resources
State of Minnesota

Roy Larson, Manager, Engineering and Analysis
North Star Division
Midwest Research Institute
Minneapolis, Minnesota

3:30 p.m.

Coffee Time

3:45-5:00 p.m.

Agricultural Wastes, a Renewable Energy Source

Dr. James A. Moore, Professor
Department of Agricultural Engineering
University of Minnesota

Dr. Walter J. Maier, Professor
Department of Civil Engineering
University of Minnesota

7:00-9:30 p.m.

**Breeder Reactor, Energy from Space, Fusion,
Fuel Cells, and Multiple Integrated Utility Systems**

(Speakers to be announced)

April 28, 1976

8:30-10:00 a.m.

Agricultural Residue, Energy Recovery Systems

Dr. Dale N. Moss, Professor
Department of Agronomy and Plant Genetics
University of Minnesota

Dr. Patrick J. Starr, Asst. Professor
Department of Mechanical Engineering
University of Minnesota

Dr. David P. Kittelson, Asst. Professor
Department of Mechanical Engineering
University of Minnesota

10:00-10:15 a.m.

Coffee Time

10:15-11:00 a.m.

**Energy from Agricultural Products: Nebraska
Gasohol Program**

Dr. William A. Scheller, Professor and Chairman
Department of Chemical Engineering
University of Nebraska-Lincoln

11:00 - 12:00 p.m.

Energy from Minnesota's Forests

Prof. Dietmar Rose, Asst. Professor
Department of Forestry Services
University of Minnesota

Prof. Rodney Sando, Instructor
College of Forestry
University of Minnesota

12:00 - 1:00 p.m.

Lunch

1:00-1:45 p.m.

**Solid Waste as an Energy Resource
in Minnesota**

Luther D. Nelson, P.E. Chief
Environmental Division
Hennepin County

Irving M. Stern
Phoenix Industries

1:45-2:15 p.m.

Conservation as an Energy Source

Sam Stewart, P.E.
Minnesota Energy Agency

2:15-2:45 p.m.

Alternatives in Design

Underground Structures for Minnesota

Dr. Thomas P. Bligh, Asst. Professor
Department of Civil Engineering
University of Minnesota

2:45-3:00 p.m.

Coffee Time

3:00-3:30 p.m.

**Alternative Uses of Hot Water Discharged from
Electric Power Plants**

Gary Ashley, Research Engineer
Northern States Power Company

Dr. James E. Carter, Director
Research Division
Minnesota Energy Agency

3:30-3:45 p.m.

**Environmental Side Effects of Alternative
Energy Sources**

David Fradin, Executive Vice President
Environmental Balance Association

3:45-5:30 p.m.

Minnesota's Energy Future

John P. Millhone, Director
Minnesota Energy Agency
Representative Willard Munger, Chairman
House Committee on Environment and Natural Resources
Senator Winston Borden

Author
Minnesota Solar Energy Bill

Richard C. Jordan, Ph.D.
University of Minnesota

Donald E. Anderson, Ph.D.
Sheldahl Company

Perry Blackshear, Jr., Ph.D.
University of Minnesota



CONFERENCE ON ALTERNATIVE ENERGY April 27-28, 1976

Name _____

Position _____

Organization _____

Address _____

City _____ State _____ Zip _____

☐ \$15.00 Pre-registration (Includes 2 Lunches)

☐ \$20.00 Registration after April 15, 1976

Please send your registration to:

Max Oftedal

Chairman

Minnesota Solar Energy Task Force

7124 James Avenue South

Minneapolis, Minnesota 55423

Make checks payable to:

Minnesota Solar Energy Task Force



RAMSEY ACTION PROGRAMS, INC. ENERGY CONSERVATION

RAMSEY ACTION ENERGY CONSERVATION PROGRAM

Chairperson Executive Director
William M. Mahlum Edith Lallier

The focus of the Energy Conservation Program will be to provide assistance and education to Ramsey County residents on various energy conservation techniques, with hopes of alleviating many of the discomforts brought to bear on low-income residents.

Child Development Programs

Head Start
Kiddie Kollege

Education

Emergency Food

Employment Center

Target Area "A"

Health Clinics

Housing

Senior Opportunities Services

Senior Congregate Dining

Service Center Locations

Dayton's Bluff
East Area
Jackson-Wheelock
Mt. Airy-North End
West Side
West Seventh

Other Supportive Services

Specifically, the Ramsey Action Energy Conservation Program will conduct several informational seminars and How-To-Do-It Workshops. These activities will be held throughout the Greater Saint Paul, Ramsey County area. Our endeavors will focus on the necessity for low-income consumers to wisely utilize energy.

Home Winterization/Weatherization will also fall within our immediate scope of services. Home insulation, retrofitting, caulking, et cetera. Approximately 100 - 150 homes within the Ramsey County area will be winterized by the Energy Conservation Home Winterization Component.

Emergency Assistance and Aid will also be made available to eligible persons within the Ramsey County area. This component will provide Emergency Assistance and Counselling/Referral sessions to renters threatened with utility termination and other emergency situations that may develop or pose a detriment to safety or health.

Employment and Training of all staff members relevant to Energy Conservation Techniques, will also be implemented as well.

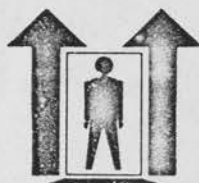
For further information contact:

ENERGY CONSERVATION PROGRAM
630 Laurel Avenue
Saint Paul, Minnesota 55104
Telephone: 227-7717

"Another Service of Ramsey Action Programs, Inc."

3/17/76

630 LAUREL AVENUE, SAINT PAUL, MINNESOTA 55104 • (612) 227-7717



- 05-10-76-12B Husband (31) is seasonal construction worker; there are 2 children, ages 6 and 7. Income is approximately \$3600 per year. The home is over 50 years old, is 2 stories high and has no insulation. There is a lot of draft in the house from door, walls and windows. Bills are not large, running around \$30 per month.
- 05-10-76-13B Husband (53) unemployed, they have 17 year old son living at home. Cannot receive public assistance; too much equity in home. 2 daughters (27 & 23) are supporting them. Home is 1½ stories, is over 60 years old. There is 3½ inches of batting insulation put in upside down. Combined utility bills average about \$80 per month in cold months. Oil is used as heating fuel.
- 05-12-76-14B A three person household, the father (58) is unemployed. There is one seventeen year old dependent. The father is undergoing treatment for cancer. The home is 25 years old, is one story and there is approximately 2 inches of insulation (batting type). The income is between \$4,000 and \$5,000 and NSP bills are \$57 a month budget plan.
- 05-12-76-16B A family of four with \$461 per month income. The house is 72 years old, has no insulation and has leakage around doors and windows, several broken storms. NSP bills are running 100 a month in cold months. House is a duplex and \$140 rental is added to public assistance for the combined income.
- 05-10-76-17B An eight member UF-AFDC household, the income is \$6,792 annually. Children are 14, 15 and 13 year old twins. Husband 51, wife is 43. The house is 76 years old, is 2 stories and has about half of the storm windows. It is a brick house and bills are \$65 per month on NSP budget plan. There are broken windows, the aide could see daylight around the kitchen floor and there are several cracks in walls.
- 05-10-76-18B The husband (28) works as a janitor and there are five children aged 11, 8, 3½, 2½ and 9 months. The house is 89 years old and the windows are in bad repair. Husband attempting to fix. There is 2 inches insulation in attic. Income is \$7,200 per year and NSP bills are \$44 per month budget plan.

Wood

- 05-12-76-19B Temporarily separated from husband, (county workhouse), the wife (34) has children 5, 10, 16, 8, 14 and twins 12. One child is mentally retarded. Home is 75 years old, just had major rehab. in spring. There is about 3 inches loose mineral wane in attic, where floorboards are in bad shape. Bills are unusually high; NSP investigator has been called. February bill was \$172.07. Income is \$526 per month from A.F.D.C.
- 05-17-76-20B Husband is contractor (39). Children are 16, 15, 12, 9. Mother runs day care center. House is 3 stories, 60 years old. Oil heat running (90 per month. NSP bill about \$50. The attic is finished off; aide could not determine insulation. No storm door on back or patio. Need 6 storms. Stated income: \$450 per month.
- 05-17-76-21B Husband (23) is forklift operator; children are 2 and 1. Husband unemployed for 9 months last year; 75 tax return income \$4326.25. House is approximately 60 years old, is 1½ stories. Windows are broken on both storm doors. Insulation couldn't be determined as flooring in attic is secure. Have wood stove in basement they use to cut casts. Windows and doors need weatherstripping. Bills are approximately \$60 per month in winter- \$38 in summer.
- 05-18-76-22B Husband (27) employed, earning \$457 monthly. They have one child 4 years old. It is a multi-unit dwelling. There are drafts around doors & windows. There are many broken windows in attic and basement; There is no insulation. The house is 2 stories and 75 years old. Oil heating runs \$70 per month, gas & electric \$15.
- 05-19-76-23B UF-AFDC income is \$526 per month for family of seven. Children's ages are 11, 9, 8, 6, and 3. Father (29) has done as much as he can with funds and materials available. Attic has no insulation, used as a bedroom for 3 children in summer-in winter, they sleep in small paneled room in basement. Storm doors need repair. Storms are loose and leak air. Home 54 years old and has oil heat. Bills in cold months for oil alone are over \$100.
- 05-19-76-24B No dependents, husband and wife (20) live in mobile home. Heat pipes are outside, lose heat before entering home. Water pipes freeze in winter; there is a hole in the floor and they need skirting around trailer. Requested materials to do the work himself. Unemployed, income is \$231 per month. NSP bills are average \$60 per month in cold months.

- 05-24-76-25B Single woman (58) living on savings. No dependents. Home is 50 years old, has no insulation. Bills average \$68 per month in winter, windows & doors need weatherstripping.
- 05-25-76-26B Husband (35) unemployed, receiving public assistance amounting to \$5648 annually for family of six. Children range in age from 14 to 10. Home is 6 years old, is one story with about 6 inches insulation. Doors & windows leaking badly. Bills run \$85 per month during cold months.
- 06-09-76-27B Single woman, income \$2,688 annually. Home is 30 years old, needs weatherstripping in front & back door. Has 2 inches insulation. Bills are approximately \$60 per month.
- 06-08-76-28B Public assistance of \$4263 supports family of 4; children are 5 & 3. A 2 story home about 45 years old, it has no insulation and daylight can be seen through cracks in attic. Bills average \$90 per month during winter.
- 06-11-76-29B Home is 3 stories, 65 years old. Owned by single woman in joint tenancy with 3 adults who are sharing home. They are rehabilitating house themselves, have put up over $\frac{1}{2}$ of attic insulation (batting type) have no funds to complete. There are about 6 missing storms, need storm door repair. Bills are \$120 per month budget plan, run as high as \$300 in winter. No one in the house is working full time; odd jobs produce about \$3,000 annually.
- 06-14-76-30B Employed father (46) earned \$9,000 last year; was laid off 2 months this year. There are 7 children, aged 10 to 4. They have one handicapped child. Husband keeps home in good repair, but they need weatherstripping & caulking. No insulation; house is 65 years old and bills are averaging \$80 per month in cold months.
- 06-14-76-31B Seasonally employed, the father earned \$4657 in 1975. There are 2 children, wife is expecting another baby. House is approximately 75 years old, 2 stories. Daylight seen in attic, frost builds up on NW walls in winter. Attic paneled by previous owner, not used but aide could not determine insulation. Aide did report attic extremely hot & doubts there is any insulation. Winter NSP bills running \$105-\$150 per month.
- 06-15-76-32B Husband unemployed, wife works 3 days a week. There are 2 children. Income (including rent from upstairs) is about \$5,000 per year. Storms replaced 4 years ago, house has $1\frac{1}{2}$ inches insulation. NSP bills are about \$60 per month in winter for both units.

ENERGY 19

SUGGESTED ENERGY READING: 1976

Point of Departure. There's a publishing explosion in the energy field. This selection emphasizes primary sources of energy and developing technologies. It deliberately offers a variety of opinions and sources (as did Energy 11, Pub.#525, and Energy 12, Pub.#528). Although it is divided into topical groupings, there is considerable overlap among the categories. For the reader who wishes to delve further, many of the sources include comprehensive bibliographies.

GENERAL

AMERICA'S ENERGY. Ralph Lapp. Fact Systems, Inc., 537 Steamboat Road, Greenwich, CT 06830. 1976. 97 pp. Paper. Examines the energy growth issue; assesses domestic energy resources and how these can be converted into practical power sources; concludes that nuclear power, including the breeder reactor, is the best hope for closing the energy gap in this century. Includes bibliography, glossary and graphs.

AN ANALYSIS OF THE ERDA PLAN AND PROGRAM. Office of Technology Assessment, U.S. Congress, Washington, DC 20510. October 1975. 318 pp. Order from USGPO, Washington, DC 20402. Stock No. 052-010-00457-3. Paper, \$3.95. Analyzes ERDA's first energy development plan (ERDA 48, no longer in print); charges that ERDA is still pursuing a "narrow, hardware-oriented approach" and ignoring nontechnological issues such as incentives for individual energy-saving initiatives. It says ERDA's proposed plan overemphasizes development of complex technological supply options and underplays conservation. OTA's second report, COMPARATIVE ANALYSIS OF THE 1976 ERDA PLAN AND PROGRAM, issued in May 1976, compares the 1976 plan to issues identified in above report. Order from USGPO, \$2.80. Stock No. 052-070-03404-1.

ENERGY FOR SURVIVAL: THE ALTERNATIVE TO EXTINCTION. Wilson Clark. Anchor Books, Anchor Press/Doubleday, Garden City, NY. 1975. Paper, \$4.95. Unusually comprehensive treatment of energy issues. Clark's message: our way of life is extremely vulnerable to energy disruptions and must be changed in order to survive. He believes the answer lies in conservation and energy from the sun rather than in fossil fuels and nuclear power.

ENERGY: THE NEW ERA. S. David Freeman. Vintage Books, NYC. 1974. 386 pp. Paper, \$2.95. Former director of Ford Foundation's Energy Policy Project analyzes where the U.S. stands on energy: 1) a historical perspective; 2) problems posed by our high use of energy to environment, foreign policy, the economy; 3) pathways to solution--ways to save energy, ways to use existing supplies more efficiently, and alternative sources; 4) incentives and regulations to achieve a conservation policy and to perfect technology to develop new, cleaner sources.

EXPLAINING ENERGY: A MANUAL OF NON-STYLE FOR THE ENERGY OUTSIDER WHO WANTS IN! Lee Schipper. 1976. 72 pp. Paper, \$6.00. Order from National Technical Information Service, U.S. Dep't. of Commerce, 5285 Port Royal Road, Springfield, VA 22161. This unusual and clever guide discusses energy basics and how to organize a talk or program on wide variety of energy issues. Packed with novel ideas, good questions, suggestions for further reading.

A NATIONAL PLAN FOR ENERGY RESEARCH, DEVELOPMENT & DEMONSTRATION: CREATING ENERGY CHOICES FOR THE FUTURE. ERDA Report 76-1, Vol. 1. U.S. Energy Research and Development Administration (ERDA), Washington, DC 20545. April 1976. 122 pp. Single copies free from the Technical Information Center, ERDA, P.O. Box 62, Oak Ridge, TN 37830. Or order from USGPO, Washington, DC 20402. Stock No. 052-010-00478-6. Paper, \$2.00. ERDA's updated plan singles out conservation for "increased attention," ranking it with new energy supplies as "being of the highest priority for national action."

THE POVERTY OF POWER: ENERGY AND THE ECONOMIC CRISIS. Barry Commoner. Alfred Knopf, NYC. 1976. 314 pp. \$10.00. A detailed look at the "three-fold crisis" facing the United States: environmental survival, energy shortage, and economic decline. Provides an excellent nontechnical exposition of the first and second Laws of Thermodynamics to buttress argument that we are trying to obey the wrong Law. Examines present energy sources and the huge but still largely unused source--the sun; looks at the uses and enormous waste of energy in our production system. Views our energy and environmental problems as symptoms of more profound deficiencies in our economic system. A lucid, well-written book that will provoke debate. Excerpts in *The New Yorker*, Feb 2,9,16, '76.

A TIME TO CHOOSE: AMERICA'S ENERGY FUTURE. Ford Foundation Energy Policy Project. Ballinger Publishing Co., 17 Dunster St., Cambridge, MA 02138. 1974. 511 pp. Paper, \$4.95. Examines three scenarios of possible U.S. energy futures through the year 2000. Conclusions: by cutting in half the growth in its use of energy, the U.S. can balance its energy budget, safeguard the environment, and protect the independence of its foreign policy; more efficient use of energy is the key.

CONSERVATION

ENERGY: THE CASE FOR CONSERVATION. Denis Hayes. Worldwatch Institute, 1776 Massachusetts Ave., NW, Washington,

League of Women Voters Education Fund • 1730 M Street, N.W., Washington, D. C. 20036

DC 20036. January 1976. 77 pp. Paper, \$2.00. Reports that over half the energy the U.S. consumes is wasted. Details conservation opportunities in transportation, food, heating and lighting of buildings, and waste disposal. Outlines conservation techniques that can be effective without radical changes in lifestyles. Concludes U.S. could meet all its new energy needs for next 25 years by improving efficiency of present uses.

COAL

"OIL AND GAS FROM COAL." Scientific American. May 1976. Describes the four tested conversion processes; points out that present efforts are to develop a large-scale system at reasonable cost.

"THE STRIP-MINING OF WESTERN COAL." Scientific American. December 1975. The U.S. will almost certainly be taking huge amounts of coal from the shallow deposits of the western states. The author asks: Can the land be restored to its original capacity? If it can be, at what cost? Gives facts and figures on current production of Western coal, the strip-mining process, reclamation potential, and the special problems posed by the arid and semi-arid areas in the west.

NUCLEAR POWER

COUNTDOWN TO A NUCLEAR MORATORIUM. Richard Munson, editor. Environmental Action Foundation, 724 Dupont Circle Building, Washington, DC 20036. 1976. 200 pp. Paper, \$2.00. The title conveys the theme. These 15 articles examine issues of safety, economics, civil liberties, conservation, alternative energy sources and present the case for a nuclear moratorium. Authors include Senator Mike Gravel and Daniel Ford. Bibliography, source list.

IS NUCLEAR POWER SAFE? American Enterprise Institute, 1150 Seventeenth St., NW, Washington, DC 20036. 1975. 44 pp. Paper, \$2.00. Edited proceedings of two discussions featuring outspoken advocates of different views on nuclear power safety.

"THE NECESSITY OF FISSION POWER." Hans Bethe. Scientific American. January 1976. Argues that nuclear fission is the only major nonfossil fuel source that can make a major contribution to U.S. energy needs between now and the year 2000. Examines objections and points out that other power sources, notably coal, also pose hazards.

"NUCLEAR POWER STRUGGLE HITS CRITICAL STAGE." Conservation Foundation Letter, March-April 1976. The Conservation Foundation, 1717 Massachusetts Ave., NW, Washington, DC 20036. 15 pp. Single issue, \$1.00. Discusses current controversy in the U.S. over nuclear power and presents a variety of opinions from both experts and citizens on key issues. Outlook for halting international nuclear proliferation is viewed as dismal.

NUCLEAR POWER: HOPE FOR THE FUTURE--OR AWESOME RISK? LWV of California, 942 Market St., Suite 505, San Francisco, CA 94102. 1976. 8 pp. Pub. No. P763/1. Paper, 40¢. Concise pro and con views on nuclear power issues.

"WHY ATOMIC POWER DIMS TODAY." Business Week. November 17, 1975, pp. 98-106. An up-to-date report on the problems, including the rapidly escalating costs, facing nuclear power today.

OFFSHORE OIL

ENERGY UNDER THE OCEANS, A Technology Assessment of Outer Continental Shelf Oil and Gas Operations. Don E. Kash & others. University of Oklahoma Press, Norman, OK 73069. 1973. 378 pp. Paper, \$4.95. Outlines development of OCS oil and gas resources and how policies are currently established. Examines adequacy of present technologies, government management, question of jurisdiction--federal and state. Includes recommendations on government policy and administration, industry management, and technologies that will contribute to optimum resource development and still respond to social concerns. Good, basic source.

THE ONSHORE IMPACT OF OFFSHORE OIL. LWVEF, 1730 M St., NW, Washington, DC 20036. 1976. 6 pp. 40¢. Pub. No. 661. Surveys onshore problems arising from offshore development. Examines proposed changes in OCS leasing process, new mechanisms to plan for onshore development. Outlines proposed bills. Includes suggested reading.

ONSHORE PLANNING FOR OFFSHORE OIL: LESSONS FROM SCOTLAND. Pamela L. Baldwin & Malcolm F. Baldwin. Conservation Foundation, address above. 1975. 183 pp. Paper, \$5.00. Prospective U.S. OCS petroleum development makes it prudent to plan for social, environmental, and economic onshore impacts. Drawing on Britain's North Sea oil experience, the authors suggest guidelines to minimize disruption.

OFFSHORE OIL: COSTS AND BENEFITS. American Enterprise Institute, address above. 47 pp. Paper, \$2.00. Four differing views are aired in this AEI Round Table Discussion on the need for offshore oil drilling & its impact.

SUN, WIND AND SEA

"CAN WE HARNESS THE WIND?" National Geographic. December 1975. An up-to-date look at past and present uses of wind power and its possibilities as an energy source. Reviews research projects being funded by the federal government as well as the kinds of problems (economic and technological) presented by wind power.

"PLUGGING IN THE OCEANS FOR FUTURE ENERGY NEEDS." Audubon. September 1975. Examines energy resources of the sea from ocean thermal gradients to bioconversion, current research and future prospects for their use.

SOLAR ENERGY TECHNOLOGY AND APPLICATIONS. J. Richard Williams. Ann Arbor Science Publishers, P.O. Box 1425, Ann Arbor, MI 48106. 1974. 120 pp. A professor of mechanical engineering discusses techniques, equipment, practicality, comparative costs of solar energy for a variety of applications including generating power, heating and cooling. Rather technical, but a good, up-to-date source. Includes glossary, numerous illustrations.

"SOLAR ENERGY, THE ULTIMATE POWERHOUSE." National Geographic. March 1976, pp. 380-397. A brief, well-illustrated article that covers both the history and the potential of solar energy.

"SOLAR HEATING AND COOLING." Science. January 16, 1976, pp. 143-149. Solar energy for buildings is developing rapidly in the United States and can make a significant contribution to the national energy economy in the next decade. Political decisions, not technology, will determine whether or not the U.S. uses this resource.

ENERGY 20

FORECASTING ENERGY DEMAND: ELECTRICITY DEMAND AS A CASE IN POINT IN SHORT

Forecasts of future energy demand have been used for decades as tools for planning and evaluating energy development programs. Lead times of from five to ten years are frequently required to find and to develop new supplies of traditional fuels or to build energy processing facilities or power plants. Decisions made now about developing energy sources will affect the amount and kinds of energy available years hence. But a forecast is not a prediction or a prophecy; at best it is an estimate of what future energy demand will be if certain conditions obtain.

BACKGROUND

The hazards of projecting energy demand are nowhere more evident than in recent debates over proposed expansions of electric generation capacity. Between 1961 and 1971 demand for electricity doubled. In the early 1970s providers of electricity planned to double generating capacity again by 1980. Because fuel is a major input in generating electricity, the increases in the costs of oil and other fuels that followed in the wake of the 1973-74 oil embargo resulted in higher electric rates in many parts of the country. These increased electric rates, together with conservation efforts and the recession, cut the demand for electricity. The drop in demand, plus the high cost of capital and uncertainties about government requirements for construction related to air and water quality, led many electric utilities to delay constructing new plants.

Now critics of various stripes are challenging previously planned expansion of generating capacity as excessive. Some groups point to the recent drop in demand, which they interpret as price motivated, as evidence that many of the new plants on the drawing board will not be needed. Certain groups even contend that if conservation were encouraged, few new plants would be needed. Environmentalists argue that new construction would entail needless environmental costs. Many economists argue that the necessary capital cannot be raised without detracting from other important projects. Utilities, attempting to boost their profits in order to attract the capital investment needed to finance the planned new construction, have sought rate increases from the regulatory commissions. These moves have evoked opposition from consumer groups who claim that consumers are being asked to pay for expansion they believe is neither needed nor wanted. But as the nation pulls out of the recession, providers of electricity expect that demand for electricity will resume growing at its pre-1970 rate. Electric utilities point out that the long lead times involved in increasing generating capacity make it disastrous to underestimate future demand. They emphasize that future shortages could mean higher prices or rationing; shortages might also affect economic growth or employment.

The arguments on both sides of the debate give cause for concern: most of us would prefer to steer a course between the costs of an excessive electricity supply and the costs of an insufficient one. The question then arises: "How accurately can future energy demand be estimated?"

DEMAND FORECASTING TECHNIQUES

Two techniques for forecasting future energy demand are currently in wide use: (1) extrapolation of past trends and (2) econometric modeling.

EXTRAPOLATING PAST TRENDS

Until the early 1970s most popular forecasts of energy use were extrapolations of past trends. Energy trend forecasts can be done for the country as a whole, or a national forecast can be aggregated from forecasts of energy use in the states, in geographic regions, or in sectors of the economy. This kind of forecasting assumes that energy use will grow at a specified rate, usually at the same rate as in the preceding 10 to 15 years. Sometimes the rate of growth may be modified in a best-guess attempt to take account of economic, technological, demographic, political, or social changes that the forecaster thinks might influence energy consumption. Generally trend forecasts take only a few variables into account and in a very simplistic way. But no matter how many factors are considered, extrapolating, as a way of estimating future demand, oversimplifies the dynamics of energy use by assuming that all factors (such as population, technology, size of GNP, or the prices of fuels and electricity) that affect the demand for energy will continue to relate to each other as they have in the past.

Trend forecasts done in the '50s and '60s for the '60s and early '70s proved to be fairly accurate. But their accuracy was attributable to the slow and more or less uniform rate at which factors affecting energy demand changed during that period. These stable conditions no longer exist. Recently the prices of fuels and capital have increased dramatically; much uncertainty exists about future energy supplies and the impact that conservation and higher prices will make on energy demand. In this climate, estimates of future energy demand based on extrapolations of past trends are open to serious question.

FORECASTING WITH ECONOMETRIC MODELS

Unlike trend analysis, econometric techniques isolate and examine the factors that cause energy demand to increase or to decline. In addition, econometric models provide a way of estimating the effects that these factors and the variable being forecast will have on each other. Using a variety of data, the econometrician tries to develop quantitative, mathematical expressions that accurately describe the historical relationship between energy demand and other variables. Assumptions about the ways in which the variables relate to each other are explicitly stated in an econometric model. If econometric models are used in conjunction with computers, complex relationships among many variables can be taken into account. Nevertheless, to be of value, even the most sophisticated econometric projection must be derived from high-quality data. Poor data is often a major impediment to accurate demand forecasting.

GETTING THE MAXIMUM USE OUT OF FORECASTING

To return to our example, much of the debate over the expansion of electric generating capacity has centered on different estimates of what future demand will be. In many cases, in the course of these debates, the public has not been provided with sets of assumptions about other variables related to energy use that are explicit or implicit in demand forecasts. Energy demand is but one aspect of the future. It affects and is affected by other factors that determine the quality of our lives. To plan our futures solely by preparing to meet a projected level of energy demand without knowledgeably examining the factors contributing to or affected by that level of demand could entail high risks. One advantage of econometric forecasting is that it provides a means for examining growth of energy demand in relation to a host of other factors. Because many of these factors, such as energy prices or environmental controls, can be influenced by public policy, econometric models--unlike trend projections--can be a useful tool to estimate the effects of policy options on a variety of important variables, one of which is energy demand. Moreover, if adequate data are available, econometric analysis permits the development of multiple scenarios of future energy demand.

The city of Seattle, Washington has used econometric forecasting models to estimate future demand for electricity and the effects that various ways of satisfying that demand might have on the quality of life in Seattle. Recently Seattle City Light [SCL]--which is municipally owned--had an opportunity to participate in the construction of two nuclear power plants. At public hearings on the issue, citizens raised a number of questions about the growth of Seattle's demand for electricity. In response to the public's questions and concerns, SCL hired outside consultants to study Seattle's future demand for energy as well as "load forecasting methodologies; rate policies; options for meeting future demand; and the social, economic, and environmental impact of the various options available." At SCL's suggestion, the city formed a citizens' committee to select the consultants and to oversee the study.

The Seattle study, published as Energy 1990, discusses SCL's trend forecast as well as a set of six econometric forecasts, each based on a different group of assumptions. These are used in conjunction with seven scenarios to examine the effects of various assumptions about rate structures, efficiency of electricity use, and kinds of generating facilities utilized (which affect the size and cost of available energy supply) on economic activity, employment, population, air and water quality, noise levels, land use, and relative uses of a variety of forms of energy. The study was submitted to the public, which, through hearings and the Citizens Overview Committee, made recommendations to the city council. In Seattle's debate over the growth of demand for electricity, unlike that in many other parts of the country, SCL, the Seattle City Council, and involved citizens have put to work, in a highly constructive way, the forecasting tools available to them. Rather than argue about the relative merits of conflicting projections of electricity demand, they used econometric models to look at a variety of energy futures for their city. In so doing they have found a useful way to enable citizens to better understand the alternatives and to make choices, then plan for an energy supply that will meet the needs of a city with the environment, economy, and patterns of living to which they aspire.

Trending and econometric forecasts have also been used to estimate future demand for oil, coal, solar energy, natural gas and other energy resources. Whatever the energy resource, the value of demand forecasts as planning tools will be multiplied many times if they are used in conjunction with a number of possible scenarios that relate energy demand to factors such as the health of the economy and environmental quality, both in the area where the energy will be used and in the area where it is produced.

FYI

Energy 1990: Initial Report, Vol. I, Summary and Overview. Available from Office of Environmental Affairs, Seattle City Light, 1015 Third Avenue, Seattle, WA 98104. Cost \$4.00 (checks should be payable to the Seattle City Treasurer.) A fine example of the use of econometric techniques in assessing a city's future energy needs and of citizen involvement in that process.

"Models: Finding Alternative Futures," chapter 4 of Resources and Decisions by the Leonardo Scholars, University of Wisconsin. North Scituate, Massachusetts: Duxbury Press, 1974.

EXAMINING ENERGY SOURCES & ISSUES

"Tomorrow's energy is no one's responsibility—unless it is ours. Who else will see to it that energy in the future will be available at a price our environment and pocketbook can afford? Who is there to decide how much energy we should conserve and how much we will use?"

Energy 1990 Study: A Program for Seattle's Electric Energy Future, February 1976.

In voting to "evaluate energy sources and the government's role in meeting future needs," delegates to the 1976 League national convention recognized that:

- energy plays a pervasive role in our high-powered economy and energy-intensive way of life;
- citizens urgently need to understand the characteristics of our present energy problem, how hard and how costly it will be to develop technological solutions and how much time solutions will require;
- the American people must face up to some difficult energy decisions: make some hard choices that inevitably mean change in our way of life and in our attitudes toward the use of energy;
- energy conservation is only one part of the solution to the energy problem and that alternative energy sources must be developed to supplement and/or replace the diminishing supply of two traditional fossil fuels, petroleum and natural gas;
- the energy issue is highly complicated, affects the often conflicting interests of a wide variety of groups, and is interrelated with every major issue facing our country today;
- energy decisions should be based not only on technological findings and solutions but on value judgments about the kind of society people want and the conditions under which they want to live.

This COMMITTEE GUIDE:

- ☐ discusses the background, scope and goal of the upcoming energy study;
- ☐ identifies key energy issues;
- ☐ includes a suggested outline for study and discussion;
- ☐ reviews national League publications already in print or forthcoming;
- ☐ highlights local, state and regional League energy activities in a catalog of energy ideas;
- ☐ includes examples of League energy action at all levels in all parts of the country;
- ☐ suggests sources for further information—books, magazines, reports, newsletters, slide shows and films.

Background, scope and goal of study

Over four years ago, before the Arab oil embargo, the League began looking at various facets of energy demand and supply. Our first work in the energy field

was a natural outgrowth of the League's long-time environmental interests—water and air quality, solid waste management, land use. We soon moved on from there to a recognition of the multidisciplinary nature of energy issues with the establishment by the 1974 national convention of the Energy Task Force, which brought together the League's human resources, international relations, environmental and land use concerns.

Initial League efforts concentrated on developing citizen awareness of the complexities of the energy problem and citizen understanding of the urgent need to conserve energy. The 1975 **COMMUNITY GUIDE, Citizens and Energy: The National Issues**, the popular **ENERGY BRIEFS**, and the national energy conservation campaign carried out through a series of conferences held in various parts of the United States are examples of citizen education projects. Local and state Leagues at the same time have sponsored a wide variety of conferences and discussions to further the public's understanding of the energy crisis.

The League's first energy position, adopted in May 1975, states that energy conservation should be "the keystone of government energy policies and citizen responses" and that "public understanding and cooperation are essential to the success of any program of energy conservation." The League believes that:

- ☐ national energy policy should aim at more efficient use of energy in order to reduce per capita and per household consumption;
- ☐ the burden of energy conservation measures should be distributed as fairly as possible among all categories of energy users—residential, commercial, industrial and transportation—and with special concern for people of low income levels;
- ☐ government policy at every level should provide as part of the public education process, a basic understanding of what energy is, what it does, and what are its true costs, e.g. social, economic and environmental.

See *Guidelines for Action on Energy Conservation, NATIONAL BOARD REPORT*, Jan. '76.

In short, the League is calling for basic changes in the use of energy—changes to begin a transition, slowly but surely, from over-consumptive energy habits based on the cheap, abundant energy of the past to energy-efficient habits geared to an energy supply no longer regarded as limitless. Conservation efforts that will effect changes in transportation, construction, space heating and cooling have become the League's focus for citizen education and action.

The League remains committed to the key role energy conservation can play in meeting the nation's energy needs and in providing the time to develop new sources in an orderly manner. But we are also aware that, whether energy growth is fast or slow, new sources must be developed and this process requires long lead times. The decision by League

Committee guide



League of Women Voters
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members to undertake a study of energy sources reflects an awareness that we must look at the supply side as well as the demand side of the energy equation.

The fact is that the energy problem is still very much with us and remains serious. In a country where oil and natural gas supply 75 percent of energy needs, the gap between domestic production and demand continues to increase. U.S. dependence on foreign oil has jumped from 35 percent in 1973 to 41 percent in mid-1976, and this figure grows daily. In mid-March of this year, U.S. oil imports exceeded production from domestic wells—an ominous first.

In the long term, we are going to run out of the nonrenewable energy resources, especially oil and natural gas, on which we now place so much reliance. We must begin taking steps to shift our dependence to other sources, especially renewable resources such as solar energy and fusion power. The decisions required to take these steps will be tough ones because energy is so intricately intertwined with every aspect of our lives. Providing benefits to some will exact costs from others. Jobs will be lost or changed. Costs will rise. Pollution will occur—the question is: how much and what kind? How do we decide the comparative risks and benefits of fueling our power plants with coal or uranium, for example? Can we resolve to the satisfaction of consumer and supplier alike the problems posed by nuclear energy and the increased use of coal?

The study is designed to provide members with the information needed to:

- understand our national energy problem—immediate and long term—and the relationship of local, state and regional problems;
- take stock of our existing energy sources and the alternatives;
- make a realistic assessment of when new sources and technologies can contribute to our energy supply;
- consider the environmental, health and safety problems associated with each energy source or technology;
- assess institutional, political, legal and sociological problems—domestic and international.

During the course of this program study, members will identify and discuss the key energy issues, the role that government at various levels and private business can/should play in meeting the country's energy needs. Finally we will attempt to reach agreement on some of the critical issues and on the energy supply mix we can support and under what conditions. *The deadline for member agreement/consensus is January 31, 1978.*

National League energy material for committees and members

Already published:

- COMMUNITY GUIDE, *Citizens and Energy: The National Issues* (Pub. #575, 50¢)
- ENERGY BRIEFS 1-20. These fact sheets explore energy topics such as offshore drilling, agribusiness and energy use, and petrodollars. (Pub. #522, \$1)
- VOTER. Energy articles have appeared in all VOTERS since 1974 convention. The Summer 1976 issue included a suggested energy reading list for members.
- CURRENT FOCUS, *The Onshore Impact of Offshore Oil* (Pub. #661, 40¢)

Forthcoming:

- Publications—Fall 1976-Summer 1977
 1. Energy Dilemmas—Provides an overview: historical perspective, the current situation and the key energy issues.
 2. Energy Sources—Discusses existing and potential sources and related government policies.
 3. Energy Policy Options and Decisions—A FACTS AND ISSUES
- COMMITTEE GUIDE No. 2—Consensus Instrument
- ENERGY BRIEFS—Will be published periodically with a focus on supply and conservation issues.

Suggested outline for study and discussion

Purpose of the Meeting

Review League Work and Positions in energy and in related natural resources program areas—land use, air and water quality, solid waste management.

Energy Issues

■ Where we are

How did America's high energy civilization come about?

How much energy do we use?

How do we use this energy—Patterns of energy consumption by major sector.

Where does the energy come from?

Identify public and private policies and actions that brought about a decrease in domestic production of energy supplies and increased use (e.g. regulation of natural gas, highway building, land use).

■ The energy issue is really a series of interrelated issues, each closely connected to the other and to society in general. Some of the issues are short term and some are long term. Consider:

The immediate energy supply issue:

reliance on oil and natural gas for 75 percent of our energy needs;

increasing dependence on imported oil and vulnerability to politically motivated oil cutoffs;

growing shortage of generating capacity and fuel for the production of electricity.

The long-range energy supply issue:

depletion of finite sources, especially oil and natural gas, development of essentially inexhaustible energy sources at reasonable financial cost, with minimum environmental damage.

The major environmental problems posed by the production and consumption of energy—air pollution, demand for water, nuclear power risks, land use and ocean spills:

How can we agree on the crossover point where environmental costs exceed the benefits of additional or lower cost energy?

How do we resolve the conflicts over resource use? For example, if coal lies under fertile wheat lands and is economically available only through stripmining, how are the relative values of coal and wheat to be weighed? Who makes the "economically available" decision?

How do we decide whether scarce water supplies should be used to produce food or to produce gas from coal?

How do we balance the conflict between increased oceanic transport of oil with its risk of spills and the continued healthy survival of marine fisheries?

Do the known benefits of nuclear fission outweigh the unknown costs?

The cost of energy:

How should the price of energy be determined (free market, regulation, a combination?) and what should it cover?

How should environment and health costs be distributed? By adding them to the price of energy so energy users pay them? By taxing energy production and use?

What about price controls on oil and natural gas? Have they, as some claim, produced a domestic shortage by stimulating demand while reducing the incentive to look for new supplies?

Should the poor be guaranteed a minimal supply of energy at low cost? Who will pay?

"The energy issue is a clinical case of interrelatedness ... bound up in the issues of: inflation, recession and unemployment; the Middle East; transportation; the balance of payments; housing; taxes; cities; economic concentration and anti-trust; regional differences within the United States; arms sales abroad; the environment; architecture; America's relations with its European allies and Japan; and relations between the wealthy and the poor nations of the world. ..."

Elizabeth Drew, *The New Yorker*, July 21, 1975

Energy and foreign policy:

What are the comparative costs and benefits for the United States, energy suppliers, industrialized states, and developing countries of U.S. energy dependence, independence, and interdependence?

Should U.S. energy decisions (on oil, nuclear proliferation, R and D, etc.) be made from a global perspective? What are the advantages? Disadvantages?

Energy, employment and the economy:

What is the relationship between increasing energy consumption and economic growth? Can we have one without the other?

Does energy conservation mean fewer or more jobs? What kinds of jobs might be affected, if any? Do increased supplies of energy mean more jobs?

Future energy demand—How much energy will we need?

■ Identify and discuss possible energy alternatives, e.g. energy scenarios described in the Ford Foundation Energy Policy Project's *A Time to Choose and Project Independence Blueprint*.

Should energy demand be reduced? By what mechanisms—price? rationing? taxes? voluntary?

Where will the energy come from and how long will solutions take?

■ Energy: What it is and what it does

■ Energy conservation: What contribution can conservation make? In what areas and in what time frame? What are the major limitations to achieving this potential?

■ Examine these sources and technologies using the suggested series of questions that follow to assess the costs and benefits of developing each source. Focus discussion around the timing of their impact. (Near term—now to 1985; Mid term—1985 to 2000; Long term—beyond 2000.) A chart or flip sheet will help to focus your discussion and clarify points.

Fossil Energy—coal (direct utilization, gaseous and liquid fuels); oil and gas (including enhanced recovery); oil shale; tar sands.

Geothermal Energy

Hydro

Nuclear Energy—fission; breeder reactors; fusion

Solar Energy—solar heating and cooling; solar thermal electric; solar photovoltaic; wind energy; ocean thermal energy; bioconversion.

Waste conversion to energy

Questions

How large is the resource in the United States? How are its benefits and costs likely to be distributed geographically? Does it have a particular regional impact?

How large are world energy supplies?

What is the state of the technology for producing, transport-

ing and using this resource? Are there any engineering problems?

Is it economical now? Can it ever be? How long will it take to make a reasonable impact?

What are the environmental, health and safety problems?

What are the institutional, legal, political and sociological problems? International implications?

Meeting the nation's energy needs

■ What is the federal government's current strategy in meeting our energy needs?

Review A National Plan for Energy Research, Development and Demonstration: Creating Energy Choices for the Future, 1976, Energy Research and Development Administration; Comparative Analysis of the 1976 ERDA Plan and Program, Office of Technology Assessment, May 1976 (See ENERGY 19); and The 1976 National Energy Outlook, Federal Energy Administration, March 1976.

■ Consider:

What should our national energy policy be?

What role can the citizen play in shaping this policy?

What should be the thrust of the research and development program of the federal government? How should it be decided?

What about the question of federal vs. state vs. local jurisdiction over the development of new energy sources? the siting of power plants? major energy industries? How can the interests of the producing states or regions and the users be reconciled?

In meeting future needs, what should be the balance between conservation options and options to increase supply? How should this balance be achieved?

■ Review and discuss the following government policy tools that are available to stimulate an increase in energy supplies:

Price policy

Tax policy

Provision of capital (subsidies, guarantees, etc.)

Construction of government facilities to accelerate the introduction of new technologies

Government support of R and D

Environmental, health and safety policy.

■ Evaluate the following energy policy actions that have as their primary purpose either decrease in demand or increase in production. Which do you favor and under what conditions?

Curbing demand—How much? by what means? rationing? pricing? regulation? selective use of taxing power? voluntary? education?

Increasing supply—What are the possible sources for the short term? for the long term? Which should be developed and under what conditions? What should be the roles of private industry and government in increasing supply? What national or local priorities should be considered in the development of a policy to encourage or constrain the development of various energy sources?

Getting your study underway

League board planning

Two League publications supply basic information on how to manage a study item and reach member agreement/consensus. They are: *In League: Guidelines for League Boards* (Pub. #275, \$2.00) and *Meaningful Meetings: The Role of the Resource Committee* (Pub. #319, 40¢). Of course, it is up to your League to decide the

number and types of meetings to schedule, the specific topics to cover, and the ways in which to determine your member agreement/consensus. This decision will hinge on whether your League has already held one or more energy meetings and what kind. Your annual reports and bulletins tell us that many Leagues have held unit discussions and/or general meetings and that these have frequently focused on an energy topic of local or state interest. You're off and running! The Catalog of Energy Ideas reports on many of those activities.

In order to deal with the various energy sources and options and the role of government in stimulating/insuring/developing an adequate supply, we recommend at least two meetings over the course of the next year and a half. In planning, consider a mix of unit meetings for discussion and/or consensus, a general or community meeting with a speaker or panel of speakers, or an all-day conference. Why not cosponsor a meeting with your local chamber of commerce, community college, local or state energy office, environmentalists, local utility, etc.? Share the work and attract a larger audience. This continues to be one of the most widely used League techniques. Numerous examples are included in the Catalog of Energy Ideas.

The suggested study and discussion outline in this guide is designed to help you plan a balanced and informative series of committee, unit, general and public meetings. Each League will want to adapt the outline to its own needs and interests, being certain that the material discussed is factual and covers a variety of viewpoints. COMMITTEE GUIDE #2 will contain the questions for determining member agreement. If you have questions or problems, remember you can contact your state energy chairman; the national energy chairman, Betty MacDonald, 1155 Edgewood Avenue, Madison, Wisconsin 53711; or the Energy Department, 1730 M Street, N.W., Washington, D.C. 20036.

The role of the resource committee

Many Leagues already have a chairman to head the study. Some combine energy with one or more of the other natural resource subjects—air, water, solid waste, land—or serve as natural resources coordinator. The May 1976 NATIONAL BOARD REPORT announced that the national energy, environmental quality and land use program areas are now grouped under the natural resources rubric. The coordinator is Betty MacDonald, who also chairs the energy committee. At least one League has recruited a husband-wife team to cochair its energy committee; others have enlisted college faculty members and directors of local and state energy offices to act as energy chairmen.

Must reading for the resource chairman as well as members of the committee is *Meaningful Meetings: The Role of the Resource Committee*. It contains invaluable suggestions that will not be repeated here for carrying out a program item. It will make the job easier, the results more successful.

The chairman deals with all phases of managing the study: setting meeting dates, drawing up agendas for meetings, helping prepare the discussion outlines, recruiting committee members. She/he is the liaison with the board to which progress reports are made and with which problem areas are discussed. The chairman should be familiar with the League's energy conservation position and action taken under it (see recent issues of REPORT FROM THE HILL and page ___ of this COMMITTEE GUIDE) and should keep up to date on the latest developments in this ever-evolving subject.

The first meeting of the resource committee is an important one. Topics and appropriate bibliographies should be assigned and a convenient schedule agreed upon for future meetings of the committee. Divide the work up according to the talents of the committee members and the time they can give. Be sure that each person knows when and what to report on as his assignment. Make the meetings learning opportunities. Vary the format. Invite a speaker or ask a member to review a book or magazine article. Arrange a go-see tour that is open to all members as well as the committee. Other committee meetings should be devoted to learning, analyzing and questioning substance as well as working on a discussion outline for the membership meetings. (See suggested study and

discussion outline, page 2.) Try to include background on current Administration and congressional proposals, as well as information of special interest to your locality. Bring out the fact that every region has special energy problems and that ultimately they must be viewed from the point of overall national energy policy.

League activities— a catalog of energy ideas

For several years now, Leagues have been working on energy as an outgrowth of their environmental concerns. Last December (12/8/75) we sent you an eight-page mimeographed report, *Energy Activities—State and Local Leagues and ILOs*, dated October 1975, describing many of these efforts. This COMMITTEE GUIDE includes ideas distilled from your recent annual reports, League bulletins, letters and conversations. They remind us that Leagues continue to be imaginative, creative, versatile and hardworking. They point up that energy is a topic of high interest in the League and that resources (people and materials) are available everywhere.

In the energy field, where facts and opinions often conflict, the League can play an important educational role by sponsoring **public forums** to air the issues. From your bulletins and reports we know that hundreds of such meetings, workshops and debates have been arranged by Leagues at all levels during the past year. A number of these are described below.

■ "Southwest Washington's Energetic Future" was the subject of an all-day workshop jointly sponsored by the Clark County League and the Clark County Development Council. Eleven spokesmen from industry and environmental groups discussed future energy needs of Washington and the measures to protect the area's natural resources as the needs are pursued. Featured speakers were Washington's secretary of commerce and the administrator of the Bonneville Power Administration.

■ The DeKalb County, Georgia League focused on how to conserve energy in the home at their meeting, "Getting Your Energy Money's Worth," while the Glenview, Illinois League's village-wide energy conservation meeting was titled "America, the Land of Plenty—Its Use and Abuse," a part of the American Issues Forum Bicentennial Program.

■ "Energy-Informa-Night," organized by the LWV of Irving, Texas included speakers on Texas energy resources and state legislation. A Texas Power and Light spokesman talked about "Two Sides of the Energy Coin" (the utility being one and the consumer being the other).

Leagues have quickly seen that they can be far more effective on many energy issues by joining forces. The leading example is "6 for VIII." From the LWV of Colorado VOTER:

'6 for VIII' Fills Regional Role

The League of Women Voters Mountain Plains Coalition, soon shortened to '6 for VIII,' was formed in October 1974 to address the impact of energy development on a regional basis. Since then this group has distributed information to the state Leagues and testified at regional hearings and conferences.

Besides Colorado, the states in the coalition are Utah, Montana, North Dakota, South Dakota, and Wyoming—the states in Federal Region VIII. Because New Mexico and Nebraska are concerned with similar problems, Leagues in these states are on 6 for VIII's mailing list.

The main concerns of 6 for VIII are the environmental and socioeconomic impacts of energy development. We have asked for reasonable energy development—based on the carrying capacity of the region—rather than massive coal mining, power plants, coal gasification, oil shale, and other mining occurring at the same time without regard for water supply, air quality, preservation of prime agricultural land, and recreational uses.

■ Energy alternatives, recycling and waste reduction, and transportation were the topics of three workshops in a conference titled "Energy Planning—A Time for Citizen Action" presented by the LWV of Greenwich, Connecticut last year.

■ The LWV of Livermore-Amador Valley, California organized a series of meetings, tours and film showings for its "Energy Week" in April 1976.

■ To help voters understand the nuclear power issues and Proposition 15, the nuclear power plants initiative appearing on the California ballot June 8, 1976, the LWV of California prepared an 8-page pro and con publication, *Nuclear Power: Hope for the Future—Or Awesome Risk?* with a special one-page insert explaining the measure and outlining pro and con views. In addition, many California local Leagues sponsored public meetings and debates to air both sides of the issue.

■ The LWV of Loveland, Colorado held discussion units on nuclear power this spring to provide background and explain Proposition One, the nuclear initiative that will appear on the Colorado ballot in November.

■ The impact of the Clinch River breeder reactor on the Oak Ridge area was the subject of the LWV of Oak Ridge, Tennessee annual meeting.

■ The construction of a nuclear fuel reprocessing plant at Barnessville spurred the South Carolina League to undertake a study of nuclear power.

Go-see tours, a popular League technique for learning the facts first hand, are tailor made for your energy study. A number of Leagues have toured nuclear power plants in their areas or have visited offshore drilling rigs.

■ The LWV of Washington, D.C. capitalized on its location to see and hear about new energy technologies (solar energy, heat pumps, insulation) at the National Bureau of Standards.

■ Leagues in the Pittsburgh, Pennsylvania area spent a day learning about coal conversion technologies at ERDA's Energy Research Center.

■ The LWV of Santa Fe, New Mexico combined an evening slide lecture and discussion on solar energy with a tour the following day to local homes and commercial buildings using solar energy.

The **media** is also being effectively used to spread the word.

■ The LWV of Wichita, Kansas Energy Task Force chairman chaired a 60-minute PBS television panel on "Energy Alternatives."

■ The need for citizens to use the inner city mass transit system to save energy and improve air quality was the thrust of the LWV of Louisville-Jefferson County, Kentucky television interview with three inner city officials.

■ Two of the weekly radio programs put on by the Massachusetts League were devoted to interviews with the director of the Massachusetts Energy Policy Office and the director of "Project Conserve" with which the League is working.

■ The LWV of Portland, Oregon produced a half-hour TV program on national, regional and state energy concerns and legislation.

Not unexpectedly, state and local Leagues have prepared some excellent **publications**. Many are listed in the Spring 1976 Catalog, Pub. #131.

■ *Energy, Part One—Its Use in Washington State* is the product of the LWV of Washington, currently in the midst of a two-part energy study. Part Two will deal with the supply side of the picture and will be in print this fall.

■ To get its state study on energy underway, the LWV of New Mexico developed a traveling state board team that visited six local Leagues and one member-at-large unit (the public was also invited). The team used the ERDA simulator to explain the finite nature of present energy sources and the trade-offs involved in various energy choices.

Doing a **state energy profile** is an excellent technique for committees to learn about local and state energy problems and make the subject come alive in their communities. The state energy

Outline for a state profile of energy

- 1) What kind of energy does _____ use?
(indicate percentage of total energy use)
Oil
Natural Gas
Coal
Hydro power
Nuclear
- 2) Where does _____ energy come from?
- 3) How does _____ use its energy?
(indicate percentages)
Industrial
Commercial
Transportation
Residential
- 4) What kind of energy does _____ supply to other areas?
- 5) What kind of energy organization structure does _____ have?

profile format that was included in the COMMUNITY GUIDE is reprinted on page 8.

■ The LWV of Dallas, Texas published a 16-page booklet, *Energy—The Widening Gap* that included a section on the Texas Energy Outlook. Similarly, *Facts and Issues* prepared by the LWV of Atlanta-Fulton County, Georgia and by the LWV of Hawaii County, Hawaii, included energy profiles of their states. The Ohio League published *An Energy Profile for Ohio*, that discussed legislation and administrative programs related to energy as well as the state's pattern of energy supply and consumption.

Skits and games can be effective tools to make your point.

■ The LWV of Williamsburg, Virginia developed a skit to dramatize the Ford Foundation Energy Policy Project's three energy growth scenarios, a technique also used by the LWV of Greeley, Colorado.

■ The LWV of Kalamazoo, Michigan energy committee made up a panel to enliven their discussion of energy growth alternatives; and several Leagues have used the ERDA Energy Simulator to spark discussion and emphasize the difficult energy choices that face us. The LWV of Wichita, Kansas developed its own simulation, *Precipice*.

The **public schools** were the focus of many League projects.

■ The LWV of Arlington, Massachusetts prepared a ten-minute slide cassette program, "Let's All Conserve Energy," and showed it to all fourth, fifth, and sixth graders (approximately 1800 students). Each student received FEA's "Tips for Energy Savers" plus a letter for their parents, with forms to return on their plans to implement the tips. Posters, displays and curriculum aids were provided for each of the eleven elementary schools.

■ The LWV of Escondido, California led energy discussions in local high schools, where energy is the debate topic this year, while the LWV of Juneau, Alaska cosponsored a one-unit course on energy this spring with the University of Alaska. Both the New York and New Jersey Leagues worked with their state energy offices to get the Bolton Institute's youth energy conservation program underway in their schools.

■ The Indiana energy chairman served on the Governor's Commission on Energy and Environmental Education that developed a curriculum for use in all grades of the public school system.

Action on energy On the national level

The January 1976 NATIONAL BOARD REPORT (Pub. #645, 50¢) listed twelve guidelines for the energy conservation position announced in May 1975. At the national level these have been the basis for:

■ February 5, 1976 Statement to the Committee on Nuclear Power and Alternative Energy Systems of the National Research Council at Denver, Colorado. The statement commented on the scope and breadth of NRC's planned energy study, and the importance of emphasizing the potential for energy conservation and increased efficiency in energy use.

■ June 24, 1976 letter from Ruth Clusen, president of the LWVUS, and Betty MacDonald, natural resources coordinator, to U.S. House and Senate conferees, supporting the Senate's conservation amendments to the extension of the Federal Energy Administration Act.

■ July 9, 1976 statement from Betty MacDonald to the Federal Energy Administration on the proposed state energy conservation plan guidelines. Many state Leagues made statements at their regional public hearings on these proposed state energy conservation guidelines. The Ohio, Missouri, Texas, Wyoming, Virginia and Massachusetts Leagues sent copies to the national office; if your League also prepared a statement, please send us a copy.

On the state and local level

Many of your annual reports this year asked for some guidance and examples of possible action at the local and state levels. The guidelines do offer many opportunities for action. Two basic points to keep in mind—local boards should, of course, be certain that such action reflects the thinking of their members and that they proceed with the knowledge and cooperation of the state League on issues that require action at the state level. The LWV of Connecticut prepared a very useful Energy Action Kit for its local Leagues. This included information on the League's national energy conservation position, a summary of proposed national, state and local action, a description of the new Connecticut Department of Planning and Energy Policy, and a one-and-a-half page energy bibliography.

Utility rate structure reform is a "high interest issue" throughout the League. The LWV of Hershey, Pa. included articles in a recent local *Voter* on rate design and the Pennsylvania Public Service Commission as part of its Consumer Protection Study. The LWV of Tucson, Arizona printed an article on the "lifeline" concept in a recent local *Voter* and urged the Tucson Gas and Electric Company to consider "lifeline" provisions in a statement made at a rate increase hearing. The LWV of Ohio will publish a *Facts and Issues* on utility rate structures this fall. The LWV of Wisconsin prepared a fact sheet on its Public Service Commission to distribute to local Leagues this spring. A number of state Leagues report that they are actively following, in some cases supporting, legislation involving changes in the design of rate structures.

The LWV of Greenwich, Connecticut and the YWCA joined forces to develop and put on a free *course in home insulation and energy conservation* for their community. The LWV of Delaware has joined forces with several participants in the Conservation Foundation's Energy Conservation Training Institute (held Nov. 19-22, 1975) to found "*Delawareans for Energy Conservation*," the purpose to implement energy conserving practices throughout the state of Delaware. Current activities include lobbying for energy conservation bills and for the establishment of a full-time state energy director and citizens advisory board, as well as presenting educational programs on energy conservation topics for adults and young people.

The LWV of Fairfax, Virginia urged the Reston, Va. Home Owners Association to consider eliminating or modifying its restrictions that preclude the use of outdoor clotheslines, thus giving residents an opportunity to save energy and dollars. A representative of the LWV of Santa Barbara, California serves on the city's energy conservation task force, the goal of which is to cut local energy consumption by 5 percent in its first year. And several Leagues (Burlington, Vermont; Western Springs, Illinois; and Des Moines, Iowa to name a few) have been instrumental in establishing centers to *recycle used motor oil*.

Several League members have served on the advisory committees planning for the *ERDA public meetings* being held in cities to gather comments on the ERDA plan. Leaguers in Florida, Massa-

Energy 1990—Citizen participation in energy planning and decisions

Should Seattle City Light participate in an agreement with the Washington Public Power Supply System to obtain a 10 percent share of power from two additional nuclear plants to be built in the state of Washington? To answer that question and the concerns of citizens and government officials, City Light developed "ENERGY 1990: A Program for Seattle's Electric Energy Future." Consultants prepared an independent assessment of Seattle's future energy demands; load forecasting methodologies; rate policies; options for meeting future demands and the social, economic and environmental impact of the various options available.

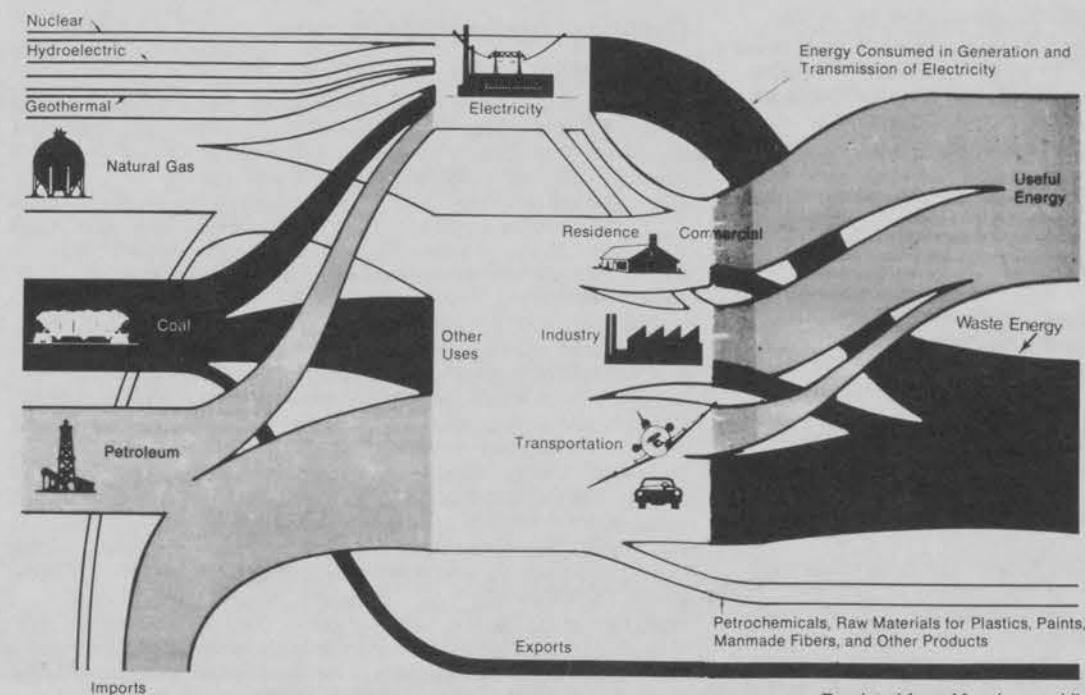
Citizens helped to set the scope of the studies and to select consultants; a broad-based citizen's committee (including a former League ETF member) monitored the study in progress. The Energy 1990 report was widely circulated for public comment and review before the Seattle City Council made its June 1976 decision not to participate in the two thermal plants. Instead they decided to initiate a conservation policy designed to use Seattle's available energy more wisely and efficiently.

chusetts and Missouri are working closely to help state energy offices draw up plans for their *state energy conservation programs* under the Energy Conservation and Policy Act. Other Leagues—Illinois and Nebraska, for example—have worked for the establishment of state energy offices.

On the *transportation front*, several New Jersey Leagues and the LWV of Williamsburg, Virginia are conducting transportation needs surveys as part of their action program to conserve energy and reduce air pollution. The Michigan League joined a coalition, "Michigan Citizens to Save Our Rails," and presented testimony on the Railroad Reorganization Act (after clearing with the LWVUS). The LWV of Austin, Texas is conducting a two-part transportation unit for sixth graders in the public schools. This includes films and a lecture incorporating the principles of the League's transportation position followed by a "how-to" use and ride the local bus system.

Aware that energy-efficient construction could significantly reduce energy use, Leagues in Davis, California and Tucson, Arizona spoke at local public hearings in support of *building codes designed to promote energy conservation*. The LWV of Colorado supported a bill that would: (1) require subdivisions to show that energy conservation had been considered in their planning; (2) establish state energy efficiency standards for residential and commercial buildings; (3) permit the use of sewage sludge in lieu of commercial fertilizer as a means of saving energy. The LWV of Durango, Colorado conducted a survey on energy use among homeowners, businesses and large employers and plans to include the results in a publication. The LWV of Fort Collins, Colorado urged local political parties to support an *energy conservation plank* in their party platforms.

An illustration of how the national energy position can be used to *reinforce and undergird other positions* is found in a recent statement by the LWV of Champaign County, Illinois before the Illinois Energy Resources Commission. The League urged the Commission to promote energy conservation as a way of dealing with the state's energy problems, commenting that while coal supply is clearly of great concern to the state, the League is also concerned about the destruction of agricultural land from stripmining and emissions from burning coal. The League recommended that the commission not only concern itself with energy supply problems but look for alternative solutions through (1) promoting energy conservation, (2) planning for transportation alternatives to the present highway-oriented transportation system, (3) funding experimental research for energy recovery from solid waste, and (4) encouraging the reduction of such waste.



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U.S. ENERGY: WHAT WE HAVE AND WHERE IT GOES

The energy system. Energy policy questions eventually come back to this chart. On the left are the energy supplies—predominantly coal, natural gas, and petroleum; in the center the ways we consume it; and on the right, perhaps most revealing of all, how much of it is wasted.

Sources and resources

The number of books, reports and articles published in the energy field grows daily. The sources listed in this COMMITTEE GUIDE add to but do not repeat materials suggested in ENERGY 11, 12, 19, the COMMUNITY GUIDE, and the Summer 1976 issue of the National VOTER. Because energy technologies are continually developing and energy policy is in a state of flux, much information can be gleaned from magazine articles and newspapers. The following are especially useful: *Bulletin of the Atomic Scientists*, *Christian Science Monitor*, *Congressional Quarterly*, *Environment*, *Foreign Affairs*, *National Journal*, *New York Times*, *Science*, *Scientific American*, *Technology Review*, and *Wall Street Journal*. The *Christian Science Monitor* published an excellent special ENERGY section in its June 25, 1976 edition. Reprints, at 60¢ each (quantity discounts available), can be purchased from: The Christian Science Monitor, P.O. Box 527, Back Bay Station, Boston, MA 02117.

Books and reports

THE AMERICAN ENERGY CONSUMER. Dorothy K. Newman and Dawn Day. The Ford Foundation Energy Policy Project. Ballinger Publishing Co., 17 Dunster St., Cambridge, MA 02138. 1975. 308 pp. Paper, \$7.95. Analysis of household energy use, steps to improve efficiency, consideration of urban poor.

CONSERVING ENERGY: PROSPECTS AND OPPORTUNITIES IN THE NEW YORK REGION. Joel Darmstadter. Johns Hopkins University Press (for Resources for the Future), Baltimore, MD. RFF, 1755 Mass. Ave., N.W., Wash., D.C. 20036. 112 pp. Paper, \$2.95. Current and projected energy consumption, effective conservation practices.

DIRECT USE OF THE SUN'S ENERGY. Farrington Daniels. Ballantine Books, 201 East 50th St., New York, N.Y. 10022. 1974. 271 pp. Paper, \$1.95. Originally printed in 1964, still an excellent introduction to solar energy; comprehensive bibliography.

ENERGY. John Holdren and Philip Herrera. Sierra Club Books. San Francisco, CA. 1971. Paper, \$2.75. A physicist and an environmental journalist review the basics of energy resources and consumption and discuss series of case studies of energy projects enmeshed in judicial and environmental controversy.

ENERGY AND POWER. A Scientific American Book. W. H. Freeman, 660 Market St., San Francisco, CA 94104. 1971. 144 pp. Paper, \$3.50. A reprint of eleven articles that appeared in the September 1971 issue of *Scientific American*. Emphasis is on technology, resource base and use patterns.

ENERGY AND THE BUILT ENVIRONMENT. American Institute of Architects, 1735 New York Ave., N.W., Wash., DC 20006. 1974. 18 pp. Free. Analyzes energy forms and systems; quantifies potential savings from energy efficient buildings. AIA's second report, A NATION OF ENERGY

EFFICIENT BUILDINGS BY 1990 (1974. 20 pp., also free), outlines a national program to achieve the potentials of energy efficient buildings—a program that is economically, financially, and administratively feasible.

ENERGY AND THE EARTH MACHINE. Donald E. Carr, W. W. Norton & Co., 500 Fifth Ave., New York, N.Y. 10036. Cloth, \$10.00. How we've used, misused and non-used what was available to us and where we should look in the future.

ENERGY AND THE ENVIRONMENT. John W. Fowler. McGraw Hill, New York. 1975. 496 pp. Paper, \$7.95. Examines interactions between continuing energy crisis and environmental problems. Discusses problems of shortage, supply and demand, pollution and land use conflicts.

ENERGY CONSERVATION: ITS NATURE, HIDDEN BENEFITS AND HIDDEN BARRIERS. Lee Schipper. Energy and Resources Group, Room 100, Building T-4, University of California, Berkeley, CA 94720. 1975. 91 pp. Paper, unpriced. Request directly from author. Defines energy conservation, discusses indirect effects of efficient utilization of energy. Extensive bibliography.

ENERGY-ENVIRONMENT SOURCE BOOK: VOLUME 1, ENERGY, SOCIETY, AND THE ENVIRONMENT; VOLUME 2, ENERGY, ITS EXTRACTION, CONVERSION, AND USE. John W. Fowler. National Science Teachers Association, 1742 Connecticut Ave., N.W., Wash., DC 20009. 1975. 279 pp. Paper, \$4.00. Stock No. 471-14692. Order from NSTA. Also available from NSTA, ENERGY-ENVIRONMENT MATERIALS GUIDE, a companion piece to SOURCE BOOK. 1975. Paper, \$2.00. Stock No. 471-14694. Readings and audio-visual materials for teachers and students.

ENERGY FACTS II. Subcommittee on Energy Research, Development, and Demonstration, Committee on Science and Technology, U.S. House of Representatives, 94th Congress. August 1975. 536 pp. Paper, \$4.55. Order from Sup't. of Documents, U.S. GPO, Wash., DC 20402. Stock No. 052-070-03030-5. Comprehensive selection of U.S. and foreign energy statistics, graphs and charts; includes glossary.

ENERGY 1990: INITIAL REPORT, Vol. 1, SUMMARY AND OVERVIEW. Office of Environmental Affairs, Seattle City Light, 1015 Third Ave., Seattle, WA 98104. February 1976. Paper, \$4.00. Example of use of econometric techniques in assessing a city's future energy needs and citizen involvement in that process.

ENERGY PERSPECTIVES. U.S. Dep't. of the Interior. February 1975. 207 pp. Paper, \$3.10. Order from Sup't. of Documents, U.S. GPO, Wash., DC 20402. Stock No. 024-000-00812-6. Extremely useful compendium of charts, figures and concise statements on energy in the aggregate and on each of the energy sources. A good way to absorb some basic information.

ENERGY: REGIONAL GOALS AND THE NATIONAL INTEREST. American Enterprise Institute for Public Policy Research, 1150 Seventeenth St., N.W., Wash., DC 20036. July 1976. 101 pp. Paper, \$3.50. Proceedings of an Oct. 1975 conference sponsored by AEI's National Energy Project.

FUELING THE FUTURE: AN ENVIRONMENTAL AND ENERGY PRIMER. Richard T. Sheahan. St. Martin's Press, Inc., 175 Fifth Ave., New York, N.Y. 10010. 1976. 127 pp. Cloth, \$7.95. Explains price to be paid to satisfy our energy needs and for nondependence on foreign resources, both in pollution and resource depletion, and possible solutions.

INTERNATIONAL ECONOMIC CONSEQUENCES OF HIGH-PRICED ENERGY. Committee for Economic Development, 477 Madison Ave., New York, N.Y. 10022. September 1975. 113 pp. Paper, \$2.50. Reviews origins and impact of international energy crisis and its domestic implications. Discusses its effects on international finance and trade policy and on economies of the developing nations.

IN THE BANK . . . OR UP THE CHIMNEY? A DOLLAR AND CENTS GUIDE TO ENERGY-SAVING HOME IMPROVEMENTS. Office of Policy Development and Research, Division of Energy, Building Technology and Standards, U.S. Dep't. of HUD. April 1975. 69 pp. Paper, \$1.70. Available from Sup't. of Documents, U.S. GPO, Wash., DC 20402. Stock No. 023-000-00297-3.

MAKING THE MOST OF YOUR ENERGY DOLLARS IN HOME HEATING AND COOLING. Madeleine Jacobs and Stephen R. Peterson. U.S. Dep't. of Commerce, Nat'l. Bureau of Standards, Wash., DC 20234. 1975. 16 pp. \$0.70. Available from Sup't. of Documents, U.S. GPO, Wash., DC 20402. Stock No. 003-003-01446-0.

1976 NATIONAL ENERGY OUTLOOK. Federal Energy Administration. 1976. Executive Summary. 14 pp. Order from Sup't. of Documents, U.S. GPO, Wash., DC 20402. Stock No. 041-018-00102-6. 60¢. Complete report, Stock No. 041-018-00097-6. \$7.30.

NON-NUCLEAR FUTURES: THE CASE FOR AN ETHICAL ENERGY STRATEGY. Amory B. Lovins and John H. Price. Ballinger (for Friends of the Earth), Cambridge, MA. 1975. Paper, \$5.95. Order from FOE, 528 Commercial St., San Francisco, CA 94111. Argument for slow energy growth tied to benign technologies.

NUCLEAR SAFETY. John Hamer. Editorial Research Reports (published by Congressional Quarterly, Inc.), 1414 22nd St., N.W., Wash., DC 20037. Vol. II, No. 7, Aug. 22, 1975. 24 pp. Paper, \$2.50. Summarizes national debate over nuclear power, rapid growth of nuclear programs, uncertain future of nuclear energy.

RAPID GROWTH FROM ENERGY PROJECTS: IDEAS FOR STATE AND LOCAL ACTION. Office of Community Planning and Development, U.S. Dept. of Housing and Urban Development. 1976. 59 pp. Single copy free. (Limited supply available from LWVEF, Energy, 1730 M St., N.W., Wash., DC 20036.) A program guide to assist officials, firms and private citizens to manage growth in areas affected by major energy projects. Draws on case studies.

RESOURCES AND DECISIONS. The Leonardo Scholars, University of Wisconsin. Duxbury Press, Wadsworth Publishing Co., Inc., Belmont, CA 94002. 1975. 162 pp. Paper, \$3.95. Scholars representing several disciplines analyze trends in resource supply and consumption in the U.S., the institutions generated to deal with these trends, and how resource policy might be realigned.

SELECTED TRANSPORTATION TOPICS: ENERGY PRIMER. U.S. Department of Transportation. 1975. 75 pp. Available from Mr. R. V. Giangrande, Office of Program Development, U.S. DOT, Transportation Systems Center, Kendall Sq., Code 151, Cambridge, MA 02142. Abstracts of ten reports on current and projected transportation energy situation; energy statistics, supply and utilization forecasts; evaluation of conservation alternatives.

THE SOLAR RESOURCE: 14 ARTICLES ON ENERGY FROM THE SUN. 106 pp. \$3.95. Order from Environmental Action Reprint Service (EARS), 2239 East Colfax Ave., Denver, CO 80206. Collection of articles on solar and wind power from various periodicals.

THE U.S. AND WORLD DEVELOPMENT, AGENDA FOR ACTION 1976. Chapter III, "Toward a Global Approach to the Energy Problem," James Howe. Roger D. Hansen and the staff of the Overseas Development Council. Praeger Publishers, 111 Fourth Ave., New York, N.Y. 10003. 1976. 222 pp. Paper, \$4.95.

TOWARD MORE BALANCED TRANSPORTATION: NEW INTERGOVERNMENTAL PROPOSALS. Advisory Commission on Intergovernmental Relations, Wash., DC 20575. 1975. 307 pp. Paper, \$3.75. Order from U.S. GPO, Wash., DC 20402. Stock No. 052-003-00106-3. Addresses regional transportation needs in metropolitan and nonmetropolitan areas.

"URBAN MASS TRANSIT." Suzanne de Lesseps. Editorial Research Reports, Vol. II, No. 14, Oct. 17, 1975. Published by Congressional Quarterly, Inc., 1414 22nd St., N.W., Wash., DC 20037. 20 pp. Paper, \$2.50. Current problems, transportation trends in U.S. cities, and plans for improving urban transport.

Energy newsletters and business publications

CRITICAL MASS. Critical Mass, The Citizens Movement to Stop Nuclear Power, P.O. Box 1538, Wash., DC 20013. \$7.50 per year, individuals; \$37.50 per year, business-professional-institutions. Articles on nuclear power and alternative sources, legislation, action, safety, etc.

ECP REPORT. Published monthly by the Energy Conservation Project (ECP), Environmental Law Institute, 1346 Connecticut Ave., N.W., Suite 620, Wash., DC 20036. Free. ECP studies "energy conservation laws and regulations at the state and local level to identify the most effective conservation policies and to assist in formulating . . . conservation strategies."

ENERGY REPORTER, FEA Citizen Newsletter. Available free from Energy Reporter—Office of Communications and Public Affairs, Federal Energy Administration, Wash., DC 20461. This monthly publication covers a variety of energy topics. Regular features include book and film reviews.

EPRI JOURNAL. Published monthly by the Electric Power Research Institute, 3412 Hillview Ave., Palo Alto, CA 94304. EPRI was founded in 1973 by the nation's utilities "to develop a coordinated technology program for improving electric power production, transmission, distribution and utilization in an environmentally acceptable manner."

INFORMATION FROM ERDA, Weekly Announcements. Free, available from U.S. Energy Research and Development Administration (ERDA), Wash., DC 20545.

NUCLEAR INFO. Atomic Industrial Forum, Inc., 7101 Wisconsin Ave., N.W., Wash., DC 20014. AIF is an international association "dedicated to the development of peaceful uses of nuclear energy." Monthly newsletter gives up-to-date information on nuclear issues. Free from AIF.

PETROLEUM TODAY. American Petroleum Institute, 2101 L St., N.W., Wash., DC 20037. A quarterly magazine available free from Petroleum Today, Circulation Dept., P.O. Box 441, Detroit, MI 48231.

THE POWER LINE. Published monthly by the Environmental Action Foundation, 724 Dupont Circle Building, Wash., DC 20036. Annual subscriptions, \$6.00. Up-to-date information on utility issues, emphasizes consumer viewpoint.

Films, miscellaneous

ENERGY—CRITICAL CHOICES AHEAD. 16 mm., color film available on loan, free of charge, in 27-minute edition (includes energy flow charts through year 2000) and 18-minute general edition (technical charts not included). Contact Office of Energy Programs, U.S. Dept. of Commerce, Wash., DC 20230.

ENERGY HISTORY OF THE UNITED STATES, 1776-1976. Colorful wall chart designed by the U.S. Energy Research and Development Administration for teachers; traces five generations of developments in energy technologies and stretches into a scenario for the year 2000. \$2.05. 4x5 ft. Order from the Supt. of Documents, U.S. GPO, Wash., DC 20402. Stock No. 052-010-00459-0.

ENERGY: THE DILEMMA; ENERGY: THE NUCLEAR ALTERNATIVE; ENERGY: NEW SOURCES; ENERGY: LESS IS MORE. 1974. A series of four films by Churchill Films, 662 North Robertson Blvd., Los Angeles, CA 90069. Color, sound, 16mm. each approximately 20 minutes. 3-day rental, \$21 each.

FAMILY ENERGY WATCH CALENDAR. Published by the Oregon Dept. of Energy for 1976; 1977 calendar due in October 1976. Jam-packed with practical tips to save energy in the home and thereby save on energy bills. Has introduction, twelve months devoted to a variety of energy topics, detailed charts, bibliography, places for keeping track of energy use, figuring costs, etc. Write Oregon Dept. of Energy, 528 Cottage St., N.E., Salem, OR 97310.

ONSHORE PLANNING FOR OFFSHORE OIL: VOICES FROM SCOTLAND. A 21-minute, 16 mm., color film, dramatizes onshore buildup accompanying offshore oil development and its effects on those who live and work along coast. Rental, \$25 per showing; sale, \$300. Slide-tape presentation of same is available at \$30 rental and \$350 sale. Write Conservation Foundation, 1717 Massachusetts Ave., N.W., Wash., DC 20036.

SAVING ENERGY AT HOME. 13-minute, 16 mm. color film which cleverly pinpoints major sources of energy waste around the house and gives tips on how to cut down on home energy consumption. Rental (1-3 days) \$17; weekly rental—\$30; sale—\$180. Ramsgate Films, 704 Santa Monica Blvd., Santa Monica, CA 90401.

SAVING ENERGY ON THE ROAD. 15-minute color film which illustrates a variety of ways to reduce driving costs and maintain safe driving habits. Rental (1-3 days) \$20; sale—\$225. Ramsgate Films, address above.