MINUTES

SPECIAL COMMITTEE ON ENERGY

July 11-12, 1977

Members Present

Representative Donald E. Mainey, Chairman
Senator Arnold Berman
Senator Bill Morris
Representative August Bogina
Representative Tim Holt
Representative J. Littlejohn
Representative Robert H. Miller
Representative Charles J. Schwartz

Staff Present

Ramon Powers, Kansas Legislative Research Department
Mary Torrence, Revisor of Statutes Office

Conferees Present

Lyle Goltz, Kansas Energy Office
Janice L. Johnson, Kansas Energy Office
Jim Cobler, Department of Administration
Senator John M. Simpson
Richard Snyder, Kansas Corporation Commission
J. E. Meyers, Energy Coordinator, Wichita Energy Resources Office
Jim Pearson, Topeka-Shawnee County Metropolitan Planning Commission
Bill Ward, Windustries
Diane Tegtmeier, Mid-America Coilition for Energy Alternatives
Maxine Hansen, President, League of Women Voters of Kansas
Michael Martin, Kansas Chapter Sierra Club
Fred Bentley, Kansas Organic Producers, Inc.
Dr. Robert J. Robel, Chairman, Kansas Energy Advisory Council and Acting Director, Kansas Energy Office
Tom Dean, K.U. School of Architecture
Ross Martin, Kansas Society of Architects
Hal Hudson, Director of Public Affairs, Kansas Power and Light Company
James Daniel, Topeka Metropolitan Transit Authority
Arthur E. Mahoney, Executive Vice President, Wichita Home Builders Association
Dick Hayter, Energy Management and Control Corporation of Miller, Sommers, and Wallace, PA, Topeka, Kansas
James Mendenhall, Solar Assist Corporation, Lawrence, Kansas

July 11, 1977

Chairman Mainey called the meeting of July 11 to order, and presented a brief introduction to Proposal No. 19 - Energy Conservation. Committee members were furnished with copies of the revised agenda for the meeting.

Chairman Mainey introduced Lyle Goltz, Assistant Director of the Kansas Energy Office, for the presentation of the State Energy Conservation Plan. Mr. Goltz then introduced Mr. C. Y. Thomas representing the Kansas Energy Advisory Council and Dr. Dean Eckhoff, head of the Department of Nuclear Energy at Kansas State University, who were also attending the meeting.

Mr. Goltz presented a overview of the Kansas Energy Conservation Plan, a copy of which is attached. (Attachment 1.) He reviewed the background of the plan, noting that the Kansas Energy Office had engaged the College of Engineering, Kansas State University, to develop a plan providing the methodology for progressing from a feasibility report to a final State Conservation Plan. The Plan was developed under guidelines established in the federal Energy Conservation and Production Act (ECPA of 1975.) This study was begun in August of 1976, and completed in March, 1977. A supplemental plan under the ECPA was drafted by the Development Planning and Research Associates, Manhattan, Kansas, during June of 1977. The Kansas Energy Conservation Plan was developed by the Kansas Energy Office and is a refinement of the developmental report provided by Kansas State. It was imperative that the Plan be a workable, practical and enforceable one, Goltz stated. He noted that a reduction of 6.9 percent of the total projected energy consumption is anticipated by 1980 under the Plan, and an additional 2.2 percent reduction appears feasable through three program measures of the supplemental plan. Implementation of the Plan will include procedures for a monitoring and assessment system under a Kansas Energy Office program coordinator.

Following his presentation, Mr. Goltz and Dr. Eckhoff answered questions raised by Committee members. When questioned as to the effectiveness of the Kasnas Corporation Commission (KCC) order in implementation of the Plan, it was pointed out that since the order only effected new construction in areas served by utilities under KCC jurisdiction, it would not satisfy mandatory standards required under the Plan. A Committee member asked whether educational programs and voluntary participation were the basis of the major projected conservation savings under the Plan. Mr. Goltz replied in the affirmative. The question was then raised as to whether there has ever been a single instance where educational voluntarism has led to a reduction in the use of natural resources. Dr. Eckhoff stated that voluntarism has worked well in agricultural areas as well as in the area of utilities. Mr. Goltz said that the philsophy of the plan was to educate people that the cheap energy era is at an end, and to avoid beating them into submission.

When asked why stronger mandatory measures were not recommended, Dr. Eckhoff told Committee members that Kansas State had suggested a ten cent per gallon gasoline tax be used in the program, but that this proposal had been turned down. He noted that the largest savings is projected from savings by industry. There would be no major savings from implementing the KCC order or from appliance efficiency ratings, he added. A Committee member noted that a Rand Corporation study projected savings of 10 to 15 percent from installation of automotic pilot lights. The question was also posed as to the savings that would occur by changing the rate structure of utilities.

On the question of the problem of the many Kansas homes heated with natural gas, the conferees stated that there were plans to confer with and educate home owners on insulation and energy use, with educational emphasis on heat pumps, and automatic igniters for pilot lights.

The subject of carpools, vanpools and public transportation arose with the suggestion that state parking permits be allowed only for those who carpooled through cutting back on the number of state parking stalls. Mr. Goltz pointed out the unavailability of public transportation in many areas as a problem and the hardship of such plan could work on many if it were mandated. However, Mr. Goltz agreed that such a proposal merited consideration.

When asked about legislation needed to implement the Plan, Mr. Goltz said the Kansas Energy Office will be working with the Division of Planning and Research to recommend a legislative package. A Committee member asked if the Legislature had a role in the development of the Plan; he noted that state government has a moral obligation to lead the way.

Mr. Goltz told the Committee that approval of the Plan will be made by the regional office of the Federal Energy Administration (FEA) and then the central office of FEA, and certain changes will probably be suggested. Funding will probably be available in late August or September, Mr. Goltz stated.

Chairman Mainey thanked the conferees representing the Kansas Energy Office for their presentation and announced a short recess.

Following the recess, Chairman Mainey introduced Lon Stanton of Kansas Power and Light Company, who provided the Committee with the movie, "The Arkansas Story", an Owens/Corning production on new construction methods. The movie emphasized energy conservation methods developed in home construction in Arkansas. The movie illustrated construction methods of an energy saving home heavily insulated and stresses the theme "Insulation is cheaper than oil." Committee members were supplied with fact sheets on the construction method and the Owens/Corning Fiberglass booklet "Energy Saving Homes". Copies of the booklet are available in the Legislative Research Department.

Chairman Mainey introduced Jan Johnson of the Kansas Energy Office who presented a summary of the proposal for a Kansas Energy Extension Service. Miss Johnson's statement is attached. (Attachment 2.) The proposal is for participation in a service pilot program to test effective means of delivering energy conservation information to small energy consumers. The proposal has been submitted to the Energy Research and Development Administration (ERDA), which will select a maximum of ten states for participation.

Miss Johnson reported that the proposed target areas in the proposal include farmers engaged in agriculture, residential and small business consumers in rural areas and in communities of under 10,000 population, and certain professional groups. Selection of participants by ERDA will be made by August, 1977, and funding is not a certainty. She reported that a Kansas Energy Extension Service would rely on the three major state universities for their energy expertise in the three areas.

When asked how the target areas were selected, Miss Johnson explained that the agricultural area was chosen because of its two problems - the reliance on a diminishing supply of water and natural gas for irrigation; and that rural residential and small business sectors were chosen because it was believed that information would not be easily available to these consumers from other sources. She said that these areas included about 48 percent of the population of the State of Kansas.

When questioned about financing the program, and if it would be a matching/funded program, Miss Johnson explained the program would be totally federally funded.

After thanking Jan Johnson for her presentation for the Committee, Chairman Mainey introduced Jim Cobler of the Division of Purchases of the Kansas State Department of Administration. Mr. Cobler reviewed the Department's procurement practices as they relate to the purchase of automobiles for the state motor pool. He reported that their experience since 1975 in the investigation, purchase and maintenance of compact cars for the state motor pool has had favorable results; the maintenance on compact cars has been better than anticipated. Seventy-nine compact cars were purchased in 1975, and in 1976 purchase of more compacts brought the number to a total of 180. The state intends to continue to increase the purchase of compacts. He stated that maintenance is a problem with the use of sub-compacts. He also explained that some larger vehicles are needed in instances where a vehicle is used frequently for trips made by several persons together.

When asked about instances of state vehicles being driven in excess of 55 m.p.h., Mr. Cobler said that in any arrest cases, a letter is sent to the administrator of the agency which employs the driver, and that the same procedure is followed when state vehicles are reported at locations which are unrelated to state business. It was pointed out that state government should lead the way in conservation if the public is to become interested and Mr. Cobler said that the Department of Administration actually has no authority for action in the cases of offenses connected with state vehicles.

The question of state owned cars which were not included in the state car pool was discussed. Mr. Cobler said there were approximately 1,500 cars and station wagons owned by the state but that only 803 are included in the motor pool. He expressed the opinion that if all of these vehicles were brought under central motor pool control for maintenance, substantial savings would result.

The purchase of sub-compacts was questioned again and Mr. Cobler stated that the Division of Purchases is concerned with the resale value of sub-compacts, and has met with some disinterest from certain car dealers in supplying sub-compacts for state purchase since the dealers have no problem selling all of the sub-compacts they can get at full retail prices. The Division is, however, in the process of investigating the purchase of sub-compacts from other dealers.

Committee members expressed concern again regarding the large number of state-owned vehicles not included in the motor pool. Mr. Cobler noted that many states have had problems with motor pools, but that the Kansas motor pool has worked well and that there have been no complaints as to maintenance. It was suggested that legislation may be needed in this area and that investigation into cars used in universities might be worthwhile.

Committee members reiterated the fact that state government has a fiscal and moral obligation to take the lead in energy conservation.

Chairman Mainey thanked Mr. Cobler for appearing before the Committee. The Committee recessed for lunch.

Afternoon Session

The Committee reconvened at 1:30 p.m. After calling the meeting to order, Chairman Mainey recognized C. Y. Thomas, who had requested to make a brief statement. Mr. Thomas said he was one of the eleven members of the Governor's Energy Advisory Council and wished to explain that some of the delay in preparation of the State Energy Conservation Plan was the result of a shortage of help in that office. When questioned concerning the status of the appointment of a new director for that office, he reported that three names suggested for the position were on the Governor's desk at this time and that the director should be appointed in the immediate future.

Chairman Mainey then introduced Senator John Simpson who wished to make a few comments to the Committee. Senator Simpson expressed his concern that the Committee give serious consideration to the making of capital available for the installation of solar systems. He noted the favorable comment Kansas has received for its

innovative steps in the area of tax credits for solar energy systems but urged that the state take further steps to make solar energy available on a statewide basis to rich and poor alike. He proposed making low interest loans available either through the state underwriting loans or subsidizing part of the interest, or public utilities making capital available and placing the cost into their rate base. Committee members briefly discussed whether solar system installed at this time will become obsolete in a short period of time. Chairman Mainey expressed his appreciation for Senator Simpson's remarks to the Committee.

Richard Snyder, legal counsel of the Kansas Corporation Commission, was introduced by Chairman Mainey. Mr. Snyder reported to the Committee the favorable comments the KCC has received regarding their recent insulation order. (He noted that the insulation standard in the order is equivalent to the standard which has been promulgated in California.) He discussed the problem of sanctions available in cases of noncompliance with the order. He suggested that action could be taken against utilities by imposing fines and against home owners by requiring utilities to terminate service. A consequence of the insulation order is to limit the need for larger utility generating capacity in the future. When asked how much would be saved in an average home under the KCC order, Mr. Synder stated that he did not have any figure. He did state that a number of air conditioning manufacturers meet the Energy Efficiency Ratio (EER) set forth in the order.

Mr. Synder also discussed the KCC curtailment plan, which gives high priority to residential consumers, schools, and agricultural areas while placing large industrial and commerical users in the lowest priority categories because they are in the best position to convert to other fuels.

Mr. Snyder expressed his personal opinion that voluntary conservation will not work since the general public does not go along with such appeals until there is a crisis. He also reported that present rate structures are being studied by the KCC under HCR 5031, and said that reversal of rate structures (the less you use, the less the cost per unit) is being studied by the KCC and their consulting design engineers. Mr. Snyder also suggested that time-of-day pricing will be studied. At present the KCC is not in a position to make recommendations.

During discussion which followed Mr. Synder's statement, a Committee member stated that the manner in which the KCC had addressed itself to energy conservation and utility costs is impressive.

Chairman Mainey then introduced Jim Meyers, Energy Coordinator of the Wichita Energy Resources Office, who presented testimony on energy conservation in Wichita. A copy of Mr. Meyers' statement is attachment. (Attachment 3.) Mr. Meyers' statement included a description of the successes and failures Wichita has encountered in their program of energy conservation which began in 1973. He emphasized the difficulty of gaining public attention and cooperation, the essential factor and various means of public education used, and the weakness of voluntary programs. He reported the adoption by the City of Wichita of a uniform building code (Chapter 53 of the 1977 Uniform Building Code Supplement) which will go into effect October 1, 1977, and the plans to address in the near future the problem of existing structures in Wichita and their retrofitting for energy conservation.

Mr. Meyers reported on the success of no interest, full payback loans for attic insulation of owner-occupied residences, and the energy conservation test facility which is open to the public and which demonstrates various energy efficiencies and conservation developments. Mr. Meyers explained that 1 to 2 percent of Community Development Block Grant monies were used to fund the Wichita insulation program; payback on loans follows federal guidelines and is dependent on amount of income.

Following Mr. Meyers' testimony, the Committee discussed the value of educational programs and their lack of effectiveness when a crisis situation does not exist. When questioned regarding success of vanpooling programs, Mr. Meyers stated that such programs may not be too effective until gas prices have raised considerably, or until cars are prohibited in selected areas, or when parking preferences are given van or car pool vehicles.

Chairman Mainey introduced Jim Pearson of the Topeka-Shawnee County Metropolitan Planning Commission. Mr. Pearson described the Commission's past activities in attempting to encourage carpooling in his statement. (Attachment 4.) He presented data on the 1974 computerized carpool project conducted in Shawnee County. The Commission is also studying a variety of land use policies for energy conservation, Mr. Pearson noted. Mr. Pearson reaffirmed the view that without actual shortages and cost increases, the public will not respond to appeals for voluntary energy conservation. He expressed the opinion that an effective conservation measure would be for the state to provide for staggered work hours for state employees.

When asked if restrictions on parking for state employees except carpool or vanpool vehicles would be an effective conservation measure, Mr. Pearson answered that he felt such restrictions would be most effective.

Chairman Mainey then introduced Bill Ward of Great Plains Windustries, who furnished Committee members with copies of the publication "Not Man Apart". A copy of this publication is on file in the Legislative Research Department. Mr. Ward expressed the view that the fundamental problem is not an energy crisis but a capital crisis. Large expenditures of capital to bring energy from inaccessable places is creating intense competition for available capital. Enery conservation is essential to preserve the viability of capitalism. We must make wise use of available

capital. Low technological and less capital intensive energy systems are necessary. Cogeneration should be widely pursued in Kansas. Mr. Ward stated that utility companies attempt to get out of free enterprise system, and with only responsibility to KCC and their stockholders these companies are given licenses to squander capital. He directed the Committee's attention to the problem of industries' making profit on crises. A question was asked whether any major energy project has been hampered by lack of capital. Mr. Ward noted that without construction-work-in-progress (CWIP) in the rate base many utility projects would be cancelled; he noted that in recent years many nuclear plants have been cancelled.

Chairman Mainey introduced Diane Tegtmeier, who, in the absence of Ann Bueker, presented Miss Bueker's statement for the Mid-America Coalition for Energy Alternatives (MACEA). Commending the legislators on measures already enacted in the area of energy conservation, Miss Tegtmeier stated that MACEA encourages the legislature to consider action in the areas of solar, recycling, rate reform, and energy forecasting. Miss Tegtmeier made a few comments and raised some question about the State Energy Conservation Plan. On the subject of severance tax, Miss Tegtmeier called the attention of members of the Committee to Montana's program and to South Dakota's proposed plan wherein the tax is used for development of alternative energy sources. A copy of the statement is attached (Attachment 5.)

Chairman Mainey adjourned the meeting for a short recess. Following the recess, Chairman Mainey introduced Maxine Hansen, President of the Kansas League of Women Voters. Mrs. Hansen expressed the support of the League for enactment of laws mandating significant energy conservation measures, for the enactment of a state building code with thermal and lighting efficiency standards, use of infrared photography techniques to identify buildings needing insulation, wiser management of solid waste, enforcement of the 55 m.p.h. speed limit, establishment of major appliance efficiency standards, utility rate changes designed to encourage energy efficiency, auto efficiency labeling, disconnecting of decorative gas lamps, and use of tax incentives as a tool for energy conservation. The League believes wasteful energy habits must be curtailed through strict conservation measures, according to Mrs. Hansen. (Attachment 5a.)

The suggestion was made by a Committee member that the League make available a detailed listing of their positions on pertinent energy issues in time for the 1978 Session of the Legislature.

Mike Martin, representing the Kansas Chapter of the Sierra Club, was then introduced by Chairman Mainey. Mr. Martin's testimony dealt with the Club's support of a Kansas "Bottle Bill", and he noted the Oregon Bottle Bill's effect on energy, jobs, litter, and the economy. Mr. Martin summarized the conclusions of a study of these effects of the Oregon bill which was enacted October 1, 1972 and emphasized the energy savings which have resulted. Mr. Martin encouraged legislators to use the Oregon law as a guide for similar legislation for Kansas. A copy of Mr. Martin's statement is attached.(Attachment 6.)

During Committee discussion following Mr. Martin's testimony, it was pointed out that the Bottle Bill considered by the Legislature during the 1977 Session was not acceptable to some of the legislators because the method of collection proposed in that bill was considered to be a health hazard. It was suggested that if this part of the bill could be improved, the bill would be acceptable to more of the legislators.

When asked if the Sierra Club had taken a position on the variance granted by the Division of the Environment for the Riverton plant of Empire District Electric Company, Mr. Martin responded that the air pollution should be well monitored to see that the air quality is not degraded and that there are controls for the public's protection.

Chairman Mainey then introduced Fred Bentley of Kansas Organic Products, Inc., of Whiting, Kansas. Mr. Bentley's testimony is attached. (Attachment 7.) Mr. Bentley addressed the dangers, expense, and energy waste of chemical farming, and he encouraged legislators to consider offering incentives to organic farming. He also noted the lack of recent information on organic farming from Kansas State University, but he felt that this situation would be rectified soon since pressure is being brought on the University to supply organic farming material. He suggested that legislators visit organic farms to see first hand their production capacities.

Senator Morris made a motion that the minutes of the June meeting of the Special Committee on Energy be approved. The motion was seconded by Representative Schwartz and was voted upon favorably.

After Chairman Mainey thanked all conferees of the first day for their attendance, the meeting was adjourned for the day.

July 12, 1977

Chairman Mainey called the meeting of July 12, 1977, to order at 9:00 a.m., and introduced Dr. Robert Robel, Chairman of the Kansas Energy Advisory Council and Acting Director of the Kansas Energy Office. Dr. Robel addressed the Committee on the national energy situation and the President's National Energy Plan. Dr. Robel furnished Committee members with copies of his statement together with a copy of a projected Balance Sheet of Carter's Energy Plan and a section from a bill for implementing a part of the Carter Plan.(Attachments 8, 9 and 10.)

Reviewing the national energy situation, Dr. Robel described the worsening of the situation during the 70's and stated that the energy issues cannot be avoided any longer. He stated that Kansans appear oblivious to the seriousness of the situation. Kansans' beliefs, based on emotionalism and heresay, that federal actions will not effect the midwest, that shortages of natural gas will effect other states but not Kansas, and that there is no need to take action now, are delaying solutions to our energy problems.

Dr. Robel presented data on the rapid decline of domestic oil and gas production and the alarming rate of growth of U.S. dependence on costly imported oil. He reported that gas and oil now provide 74 percent of U.S. energy base and will remain the nations most important fuels during the next decade. The remainder of the U.S. energy base is provided by coal (19 percent), nuclear (3 percent), and hydropower (4 percent). Shifting from oil and gas to a coal energy based economy will be a long ordeal, Robel stated.

Dr. Robel used slides to graphically show the projection of domestic oil and gas production for the next 20 years; one slide showed U.S. supplies of crude oil nearly depleted by 1985, unless exploration and development of this resource is promoted beyond projections made at this time. Dr. Robel demonstrated by a second graph that, with optimistic assumptions, including Arctic fields production of natural gas, there will be a decline to the point that by 1985 no natural gas will be available for utilities or industrial customers. He stated that only very aggressive production programs will supply natural gas for residential and small commercial users by 1985.

Reviewing the proposed National Energy Plan, Dr. Robel declared that a primary reason for slow progress made in the area of energy is because it has been used in party politics. He reviewed the basic policy objectives of the proposed Energy Plan, the four primary goals, and summarized the eight main points of the President's Energy policy.

He pointed out that the Plan essentially relies on conservation to solve the energy problem. He also said that he doubted if more than one-half of the plan will survive Congressional action unaltered, but that if the entire plan is adopted and implemented, the energy problem will not be solved because of two missing elements: (1) reliance on basic market force supply and demand principles, and (2) incentives to increase energy production.

Dr. Robel then turned to a discussion of the regional impact of the Carter Plan on Kansas. He explained that the proposed tax on gasoline and crude oil will be collected on each gallon of gas but rebated on a per capita basis. Therefore, midwestern rural consumers relying more on gasoline for necessary travel will pay a much larger proportion of the gasoline tax but will not receive proportional tax rebates because of the sparce population of the midwestern rural states. He pointed out that low income, rural persons will be hit most heavily because of their need for more gasoline and because they tend to purchase used cars rather than new, energy efficient cars.

Dr. Robel described the state's role in the proposed Plan as "vague", with their responsibility being that of "enforcers". He also indicated that the Plan's proposal for federal control over rate design, over gas production and sales, and over the siting of energy facilities, would be disadvantageous to gas producing states like Kansas and could put the state at great economic disadvantage.

In summary Dr. Robel stated that the National Energy Plan is too weak to solve the critical energy problems confronting the nation because of the lack of emphasis on increasing domestic energy production. Dr. Robel then asked for questions from Committee members on his remarks.

When asked if solar-heated homes had been included in his projections of production, consumption, and shortages by 1985, Dr. Robel answered that a projected 2½ million solar-heated homes were included in the projections.

A question arose as to what parts of the Plan Dr. Robel expected to be enacted or rejected, and Dr. Robel replied that he would expect only part of the gas-guzzler tax will be enacted, and that the tax on gasoline will probably not be enacted. He also stated that he felt there is a question about whether the natural gas price for new discoveries being set equal to BTU equivalent oil price, and the granting of insulation tax credits will be enacted. He also said he believed only a part of the rate structure changes will be adopted.

When a question was posed regarding state tax rebates, Dr. Robel said these rebates go into general coffers, not into energy development. He said his opinion was that it is not good tax policy to mix energy policy with tax policy, or to mix welfare policy with tax policy.

Dr. Robel was asked if he foresees a huge Manhattan project to solve the energy problems. He replied in the negative stating that he could see no breakthrough; he believes that the U.S. must put as much energy into production as into conservation. Off-shore oil development must be pursued. When asked if federal agencies were engaged in energy conservation, Dr. Robel explained that only the Department of Defense has such a program. He stated that state government must do more in energy conservation. People do not take energy conservation seriously, Dr. Robel noted.

Dr. Robel stated that the Legislature must pass a building code; it should have passed one in 1973. Dr. Robel was asked where the figures on "Balance Sheet" come from. He stated that the figures were projections from the Office of Technology Assessment of the U.S. Congress. Dr. Robel was asked why he and the Governor have been critical of the

Carter Plan and if the international oil producers were operating under free market forces. Dr. Robel replied that it is a mistake for the U.S. to rely on external sources. He argued that the U.S. should be looking to internal energy supplies through encouraging private investment through incentives. Dr. Robel suggested that less red tape in the mining of coal, rapid development of oil production on the outer continental shelf, and deregulation of interstate natural gas prices would greatly increase resources. He was then asked if capital shortfall has inhibited development of new sources, i.e., lack of investment. There has a lack of capital for North Sea development, Dr. Robel replied. If incentives were provided, it will relieve the situation but only during the transition to alternate fuels, Dr. Robel stated. Dr. Robel was asked if Kansas gas drilling is inhibited by lack of incentives. Incentives would do little to increase gas supply in Kansas, he replied; intrastate market prices are enough incentive.

Dr. Robel also expressed concern about federal preemption in power plant siting. He argued for leaving regulation of siting with the Kansas Corporation Commission. When asked about legislative approval of a nuclear power plant, Dr. Robel expressed the view that KCC approval was sufficient. As for nuclear wastes, Dr. Robel agreed that because of their potential hazard, state government and the people should make the decision. Finally, Dr. Robel suggested that state legislators need to look more seriously at national energy issues than they have in the past.

Chairman Mainey expressed his appreciation to Dr. Robel for his presentation. He then introduced Tom Dean of the K.U. School of Architecture. Dr. Dean stressed his belief that heat pumps (particularly solar assisted heat pumps) are an important energy conservation tool. He also stated that the energy conservation problems are solved best at the lowest level with individuals responding at a personal level, followed by local energy policies, then state policies, and finally national policies. He reported that the average family spends 10 percent of its income on energy, and that as energy bills quadruple in amount, as expected, the result has to be an erosion in the standard of living. Energy must be used more thoughtfully, Dr. Dean argued, and he expressed the view that our goal should be "quality of life" for the people. Dr. Dean asked that the Committee consider action in two areas: (1) the introduction of a statewide building code, and (2) the introduction of some kind of regulation of energy equipment sold and installed in Kansas.

Dr. Dean stated that he did not want the federal government to engage in a massive Manhattan project to solve the energy problem. In fact, he concluded that the time for a solution may have passed, and he noted that some writers are picturing a gloomy prospect for the U.S. in the future as energy supplies run out.

Ross Martin, representing the Kansas Society of Architects was introduced by Chairman Mainey. He furnished copies of "Hold Onto Your Heat (and Keep Your Cool)" and "Saving Energy in the Built Environment" to members of the Committee. A copy of these publications is on file in the Legislative Research Department. Mr. Martin reported that the Society of Architects, in support of the national energy program, offers programs in solar energy for their members. He offered the cooperation of the Association to the Committee. When asked an opinion on the Arkansas Plan for new construction Mr. Martin stated it was difficult to promote, and that there was no consensus of opinion on the Plan. He said that a new uniform building code for the state would be a very good step.

It was suggested that one problem that confronts the Legislature in the matter of a statewide building code is the question of where to place enforcement power, and that the same problem exists with the KCC order. It was suggested that municipal utilities be placed under the jurisdiction of the KCC to make the KCC order apply to new homes built in those municipalities.

Chairman Mainey then introduced Hal Hudson of Kansas Power and Light Company. A copy of Mr. Hudson's statement is attached. (Attachment 11.) A copy of KP&L publication "Stop the Energy Thief", which was also furnished to Committee members is on file in the Legislative Research Department.

Mr. Hudson described the efforts of KP&L in the area of the conservation of energy for which the company has recently been recognized by the Federal Energy Administration. He described the attic insulation program, energy audits for commerical and industrial customers, KP&L's assistance on energy planning in new governmental buildings and energy education programs by means of group meetings and communications media conducted by the Company. He also reported KP&L's efforts to reduce their own energy consumption, and he stated that there has been a 32.5 percent reduction of BTU's of fuel consumed per KWH of electricity produced.

Following his presentation, Mr. Hudson was asked if newspaper reports of insulation shortages were realistic. He said that he did not think the shortage was critical at this time, but that with mandatory programs on insulation, the situation could become worse.

Chairman Mainey introduced James Daniel, representing the Topeka Metropolitan Transit Authority. Mr. Daniel described the problem for transit systems of peak loads at certain hours with the high concentration of employees in a small area such as exists in Topeka. He advocated flexible work hours and directed Committee members' attention to S.B. 95 (Attachment 12) which was killed with the adjournment of the 1977 Session of the Legislature. He also suggested to Committee members that bussing and carpooling were the best means of achieving energy conservation.

Arthur Mahoney was introduced by Chairman Mainey. Mr. Mahoney represented the Wichita Area Builders Association which is composed of 600 members, who, he reported, are well aware of the impending and worsening energy

crisis. He described builders as men who are interested in energy conservation because it is an important factor in selling homes today. He emphasized the need for incentives rather than threats, telling truths that lay persons can comprehend, and accepting the premise that people will react positively when the problems are properly presented if we want real volunteer efforts in energy conservation.

Mr. Mahoney made available to Committee members several copies of "Parade of Homes" (Wichita). A copy on file in the Legislative Research Department.

Mr. Mahoney discussed the costs of energy conservation, and the rise in costs of insulation. He requested that, if the state mandates building thermal standards in the area of residential building, the act not require the builder to show the time of compliance, that the act not be contradictory to other codes accomplishing the same thing, and that local municipalities who presently satisfy the same thermal standards be allowed to continue under their own standards. He expressed opposition to the Kansas Corporation Commission dictating an insulation standard through utility companies to the residential construction industry because the KCC does not have enough expertise in this area.

Mr. Mahoney summarized his association's feeling in the request that care be exercised in establishing conservation measures to obviate unnecessary costs for homebuilders.

Chairman Mainey expressed his thanks for all the conferees' presentations, and announced a recess for lunch.

Afternoon Session

Chairman Mainey called the afternoon meeting to order at 1:30 p.m. He introduced Dick Hayter of Energy Management and Control Corporation of Miller, Sommers and Wallace, PA. Dr. Hayter addressed the subject of energy conservation building codes. He pointed out the problem of enforcement. He expressed preference for prescriptive codes which are easier to enforce, rather than performance codes. Dr. Hayter stated that codes for existing buildings should be entirely separate from codes for new construction. He also suggested that the Legislature's appropriations to universities for energy conservation measures not be made on a piecemeal basis, but after an in-depth study by a state agency from which a state plan could be evolved. He recommended a long term plan for energy conservation in state buildings. (Attachment 13.)

In answer to questioning, Mr. Hayter said he believed that municipalities should be allowed to have their own energy conservation building code if their codes met the minimal standards set forth in a statewide code.

Chairman Mainey then introduced James Mendenhall of Solar Assist Corporation. Mr. Mendenhall called on legislators to give energy conservation the highest priority. He cited the need to protect ourselves from another oil embargo crisis. He stressed the need for the State Energy Office to serve Kansans by making available extensive conservation information. (Attachment 14.)

Chairman Mainey expressed his appreciation to Dr. Hayter and Mr. Mendenhall for their time and presentations.

The Chairman asked for Committee discussion as to the direction the Committee wished to take in its study of Proposal No. 19 - Energy Conservation. He said that the Committee had heard broad and diversified testimony and needed to decide what recommendations it wanted to make in this area.

It was suggested that the Committee should see other states' legislation (including the Minnesota law). It was requested that this information be mailed to Committee members.

The members discussed the role of the Committee in regard to the Kansas Energy Conservation Plan, and it was noted that the Kansas Energy Office was planning to make specific recommendations to the Governor as to legislation needed to implement the Plan. The Committee might study, prepare, and introduce its own legislation to implement parts of the Plan, it was suggested. Discussion followed as to whether the Plan (or parts of it) was acceptable to the Committee, and what alternatives would be available if and when the federal government accepts the Plan. Ramon Powers stated that the Plan is not mandatory for the state, and that funding is given for implementation of the mandatory points of the Plan. Chairman Mainey expressed the opinion that little of the plan actually requires legislation, and he questioned proceeding with Committee action prior to approval of the Plan by the federal government.

Senator Berman made a motion that the staff prepare a letter to the Kansas Energy Office expressing the Committee's appreciation for their presentation and information, and stating that the Committee neither approves nor disapproves the Plan at this time. Representative Littlejohn seconded the motion. He agreed that the Committee did not want to leave the impression at this time that they endorsed the Plan but should consider it and any alternatives.

Representative Bogina asked Committee members if it was necessary to write any letter at this time. Representative Miller made the substitute motion that the Committee take no action at this time to express approval or disapproval of the plan but wait to consider the matter further after the federal government has taken action before expressing the Committee's opinion. Representative Miller's motion was seconded and approved.

Chairman Mainey suggested that, before discussing the adoption of a statewide building code, the Committee study other states' legislation in this area.

Representative Miller asked the status of the insulation standards bill which had been studied by an interim Committee. Committee members who had served on that interim Committee explained the nature and fate of the bill recommended by the Committee.

Representative Bogina pointed out the problem with the KCC insulation order was that a utility can shift responsibility back to the builder and the unsuspecting home buyers. He said that one main problem is lax inspections and building codes which are not strict enough. Representative Holt said he saw no reason why builders cannot sign an affidavit that the house complied with thermal standards at time of transfer of title. It was noted that the KCC order contained no such provision.

Representative Bogina said that there are three major types of building codes used in Kansas to cover the major part of construction in the state and that adopting the same code across the state would be a step in the right direction. His opinion was that the Committee should take that direction.

Representative Miller made the motion that the staff draft a bill that would apply the thermal standards and the EER for air conditioning of the KCC order statewide for all new construction. The motion was seconded and passed.

Representative Holt made the motion that the staff prepare a draft of a bill having the transfer of title of homes dependent on the home being brought up to insulation standards before transfer could be finalized. This motion was seconded and voted upon favorably.

Representative Littlejohn suggested that Ramon Powers check on the Pierce area of Highland to find out if homes sold there must be brought up to some standard before they are sold.

Senator Berman made a motion that a bill be drafted by the staff to base the cost of vehicle registration fees on engine horsepower and individual vehicle weight. Representative Miller seconded Senator Berman's motion. Motion carried. It was stated that perhaps California has such legislation.

Senator Berman then made a motion that the staff look into and gather information on the placing of all state passenger vehicles under the motor pool, and draft legislation, if necessary, to accomplish that end. Representative Bogina seconded the motion. Motion passed.

It was also requested that the staff prepare background information and data on cutting back state parking stalls and requiring that parking permits be allowed only for vehicles used in carpooling or vanpooling.

Representative Miller stated that one of the first actions taken by the new Governor of Oklahoma was to cut out appropriations to build two state parking lots. He inquired as to what had happened to the flexible hours bill which had been under legislative study. Miller also suggested that the staff look into the matter of mini-parking lots in which riders could park and join carpools to get to downtown Topeka. Miller asked how the Committee felt regarding tax incentives for solar energy and also if the solar energy legislation would cover heat pumps.

Representative Miller then made a motion to have a bill drafted by the staff requiring the Department of Administration to implement flexible work hours for state employees. Senator Berman seconded the motion, which then passed.

Representative Miller made a motion that the staff draft a bill incorporating heat pumps into the solar income tax incentive legislation passed in 1976. This motion was seconded by Representative Littlejohn and was voted upon. The motion carried.

Representative Mainey said that a large part of the population was being overlooked in the insulation tax deduction bill passed in the 1977 Session because older persons, who do not file income tax forms, cannot benefit from the incentive. Senator Berman said that he had a bill in preparation which would place a severance tax on gas and oil. Revenue from such a tax could perhaps be used to fund a energy stamp program for senior citizens or a low interest loan fund for insulating homes.

Representative Holt requested that the staff secure information regarding the Davis, California building code and he suggested the Committee study the possibility of prohibiting any new gas hook-ups.

Representative Holt also stated that he would be in favor of outlawing gas pilot lights for hot water heaters. Senator Berman suggested that perhaps KCC should be asked if they are considering or have considered banning gas pilot lights and decorative lights, and requiring efficiency standards for electrical appliances. He suggested that the Committee might consider calling Dr. Hayter back for further testimony.

Committee members' discussion turned to plans for the August meeting. It was decided that the planned tour to Lawrence could be better spent in Committee hearings.

Mr. Powers asked the Committee what they wished to consider under Proposal No. 21 - Energy Research and Production. Senator Berman stated that he felt that proposal would require legislation and that he would like to hear testimony presented by the Division of Environment of the State Department of Health and the Environment. It was the consensus of the Committee members that they would like to hear testimony on gasahol.

Chairman Mainey asked if Committee members would like to hear testimony on solar equipment and performance standards. It was agreed to have testimony on the subject. Senator Berman suggested that the August meeting was the logical time to take up S.B. 420 concerning unitization of oil and gas leases.

Chairman Mainey suggested that decisions by the Committee for additional meeting dates should be made at the August meeting.

A motion to adjourn was made and seconded and the Committee voted to adjourn.

Prepared by Ramon Powers

Approved by Committee on:

Aug. 23, 1977
(Date)

Kansas Legislative Research Department June 30, 1977

TENTATIVE AGENDA

SPECIAL COMMITTEE ON ENERGY

July 11 and 12, 1977
Room 532-N, State House

July 11

9:30 a.m. - Introduction to Proposal No. 19 - Energy Conservation by Chairman Don Mainey

9:35 a.m. - Presentation of the State Energy Conservation Plan by Lyle Goltz, Kansas Energy Office

10.35 a.m. - "The Arkansas Story" Movie on new construction methods

11:10 a.m. - Staff briefing on Energy Conservation Activities in other states

11:20 a.m. - Jan Johnson, Presentation on Proposal for Kansas Energy Extension Service

11:30 a.m. - Presentation by Jim Cobler of the Department of Administration concerning state procurement practices

12:00 noon - Lunch

Hearings on Proposal No. 19 - Energy Conservation

1:30 p.m. Senator John Simpson

1:35 p.m. - Staff member of the Kansas Corporation Commission Richard Snyder

1:45 p.m. - Jim Meyers - Wichita Energy Resources Office

2:00 p.m. - Jim Pearson - Topeka-Shawnee County Metropolitan Planning Commission

2:15 p.m. - Bill Ward - Windustries

2:30 p.m. - ~~Ann Bucker~~ Diane Teatmeier - Mid American Coalition for Energy Alternatives

2:45 p.m. - ~~Enoll Foerster~~ Maxine Hansen - Kansas League of Women Voters

3:00 p.m. - Mike Martin - Sierra Club

3:15 p.m. - Fred Bentley - Kansas Organic Producers, Inc.

July 12

9:00 a.m. - Dr. Robert Robel, Chairman, Kansas Energy Advisory Council and Acting Director, Kansas Energy Office, presentation on the National Energy Plan

Hearings on Proposal No. 19 - Energy Conservation

10:00 a.m. - Tom Dean - K.U. School of Architecture

10:15 a.m. - Ross Martin- Kansas Society of Architects

10:30 a.m. - Hal Hudson - Kansas Power and Light Company

10:45 a.m. - James Daniel - Topeka Metropolitan Transit Authority

11:00 a.m. - Art Mahoney - Wichita Home Builders Association

11:15 a.m. Dick Hayter- Energy Management and Control Corporation of Miller, Sommers & Wallace, P.A.

12:00 noon - Lunch

1:30 p.m. - Committee discussion on Proposal No. 19 - Energy Conservation

James Mendenhall, Solar Assist Corporation, Lawrence, Kansas

Attachment 1

I. OVERVIEW OF THE KANSAS SUPPLEMENTAL ENERGY CONSERVATION PLAN

Background

In December, 1975, more than two years after the Arab oil embargo, the Energy Policy and Conservation ACT (EPCA), which provided an opportunity for each state to develop it's own plan for conserving energy and receive federal financial assistance for implementing conservation programs, was enacted into law. EPCA established as a common goal for each of the participating states an energy savings of at least 5% of the projected energy consumption for 1980. Also Congress enacted into law the second significant legislation dealing with energy conservation, the Energy Conservation and Production Act (ECPA).

Kansas, after considering that the 5% goal was feasible, entered into agreement with the Federal Energy Administration (FEA) to develop a plan for energy conservation in Kansas. Federal financial assistance was obtained for the specific purpose of developing a state plan. Supplemental to this plan, the ECPA contained provisions which allows each state to develop another energy conservation plan, based upon three program measures: 1) a public education effort, 2) an intergovernmental coordination program, and 3) an energy audit program.

Plan Development

The scope of a state conservation plan (under ECPA) and the relatively short time for preparation allowed by the Federal Guidelines, the Kansas Energy Office (KEO) engaged the College of Engineering, Kansas State University, to develop a plan which would provide the methodology for progressing from a feasibility report to a final energy conservation plan. KSU was directed to amass the data, calculate the energy savings projections, and provide the technical assessments and detailed analyses which would support the selection of target areas and a variety of implementation strategies. The KSU study was performed without specific policy or cost restraints in order that the greatest range of program measures and the most innovative alternatives might be developed for consideration and inclusion in the final plan. The KSU study was initiated in September 1976, and the final report was completed March 15, 1977.

The supplemental plan (under ECPA) was developed during the month of June, 1977 by contract with Development Planning and Research Associates (DPRA), Manhattan, Kansas. The final report was submitted July 8, 1977.

The Kansas Energy Office undertook to develop the final state energy conservation plan based upon the KSU developmental report. The final energy conservation plan represents a refinement of the developmental report and reflects the realistic limits of funding and policy bounds which will influence its implementation. The supplemental plan, being primarily one in which the program measures of the original plan were to be promoted, was based upon the contents of that original plan.

The Kansas plan was founded on the belief that it should be comprehensive involving all sectors of Kansas and touch on as many activities as feasible. A basic premise was that conservation

should be practiced as universally as possible. The fact that Kansas could not achieve the stated goal of 5% energy savings by limiting its plan to the (5) five mandatory measures, dictated that the scope be greatly expanded.

The Kansas plan attempts to focus on those measures which are cost effective but recognizes also, in the interest of encouraging a "conservation ethic", some elements which have a high degree of visibility must be promoted for their long term value.

Finally the approach involved full adherence to meeting minimum criteria for the mandatory measures except where special Kansas circumstances precludes compliance. In such circumstances, the plan evidences good faith and intent to accomplish whatever may be wanting, and shows alternative ways of accomplishing the desired results.

In developing the supplemental plan, the approach taken was to be as comprehensive as possible and to take advantage, as much as possible, of existing organizations and programs. Both public and private sectors are to be used in supporting the three program measures of the supplemental plan.

Monitoring and Evaluation

Each program measure of the original plan contained a system as an integral part for measuring results. Incorporated within the implementation plan for each program measure was a monitoring and assessment system which was to be a function of the KEO staff program coordinator. The supplemental plan will make use of this same monitoring and evaluation system.

Energy Conservation Goal

A reduction of 6.9% in the total amount of energy consumed in Kansas for 1980 as projected by FEA was deemed feasible in the original plan. An additional 2.2% reduction appears to be feasible through incorporation of three program measures of the supplemental plan. Thus a 9.1% reduction in the projected energy to be consumed in Kansas during 1980 was established as the energy conservation goal for Kansas. From these studies it was concluded that the greatest potential energy savings can be achieved in the industrial, manufacturing, residential, and transportation categories.

APPENDIX A

LISTING OF PROGRAM MEASURES OF ORIGINAL
KANSAS ENERGY CONSERVATION PLAN

1. Illumination Efficiency Standards
2. Carpool, Vanpool, and Public Transportation
3. Government Procurement Practices Improvement
4. Building Thermal Efficiency Standards
5. Right Turn on Red Light
6. Residential
   a) Homeowners retrofit actions
   b) Pilot light turn-off and relight
   c) Public information
   d) Loan program
   e) Night time change in thermostat settings
   f) The Arkansas plan for home construction
   g) Emphasis on heat pumps
7. Commercial
   a) Encouragement of retrofit actions
   b) Night time thermostat changes and reduction of operating hours
   c) Emphasis of heat pumps
   d) Public information
   e) Loan program
8. Industrial Manufacturing
   a) Energy seminars and courses for technology transfer
   b) Preparation of energy conservation material
   c) Technical assistance
   d) Government regulations and incentives
9. Electric and Gas Utilities
   a) Voltage reduction
   b) Gas utility energy savings techniques
10. Transportation
   a) Annual tune-up of automobiles
   b) Vehicle registration fee
   c) Increased parking costs
   d) Subsidize improvements in inter-city bus and rail systems
   e) Encourage pedestrian zones and auto-free commercial areas
   f) Improve signalization and general traffic control
   g) Substitute tele-communications for travel
   h) Promote bike-ways and bicycle parking racks
   i) Improve auto efficiency
   j) Enforce the 55 mph speed limit
   k) Driver education for energy conservation
   l) Conversion of Highway Patrol automobiles to diesel engines
11. Agriculture
   a) Gear-up and throttle-down of tractors
   b) Reduce tillage
   c) Proper signing of tractor ballast and proper tractor tire size selection
   d) Better maintenance of equipment for forage harvesting
   e) Minimize grain drying

f) Minimize energy use in feed processing

g) Use low pressure center pivot irrigation systems

h) Proper adjustment of irrigation pumps

i) Improve irrigation scheduling

j) Replace inefficient irrigation pumping plants

k) Reclaim used motor oil

l) Store fuel to minimize evaporation

m) Convert to more efficient power plants

12. Government operations

13. Alternate energy sources

14. Recycling possibilities

Attachment 2.

SUMMARY OF THE PROPOSAL FOR A
KANSAS ENERGY EXTENSION SERVICE

Kansas has submitted a proposal to the Energy Research and Development Administration for participation in the national energy extension service pilot program. The purpose of the pilot program is to test the effectiveness of different means of delivering practical energy conservation information to small energy consumers. A maximum of ten states will be selected by ERDA to participate in the pilot phase of the energy extension service program. Nationwide implementation of the EES will begin in the Spring of 1979.

The proposed Kansas Energy Extension Service (KEES) relies heavily on the energy expertise at the three major state universities and the information delivery expertise of the Kansas Cooperative Extension Service (KCES). For purposes of the pilot, the groups targeted to receive assistance from the KEES are farmers engaged in irrigation agriculture; residential and small business consumers located in rural areas and in communities under 10,000 population; and certain professional groups.

If the Kansas proposal is accepted, the KEES will be administered by the Kansas Energy Office. The technical support requirements of the program will be provided by the three major state universities, with KU being responsible for the residential sector, WSU for the small business sector, and KSU for the agricultural sector. The actual provision of services will be performed by six delivery teams, five to provide information and assistance to the residential and small business targets and one to provide service specifically to the irrigation agriculture target. A team will be stationed in each of the five area offices of the KCES, located in Colby, Hutchinson, Garden City, Manhattan and Chanute. The Garden City office will also house the agricultural team. The teams will provide information on energy conservation and alternate energy sources by means of public meetings, workshops, technical bulletins, on-site energy audits, and response to individual requests for information and assistance.

The funding request for the Kansas program is $1,073,815 for a 19-month period. The ERDA announcement of grant awards is expected to occur in mid-August.

Legislative Research Committee by
J. E. Myers, Energy Coordin[illegible],
City of Wichita, July 11, 1977

Attachment 3.

ENERGY CONSERVATION IN THE WICHITA METROPOLITAN AREA

MR. CHAIRMAN, LEGISLATIVE RESEARCH COMMITTEE MEMBERS AND GUESTS. THE CITY OF WICHITA WISHES TO THANK YOU FOR THE OPPORTUNITY OF PERMITTING US TO APPEAR BEFORE YOU TO COMMENT ON THE PROPOSED STATE ENERGY CONSERVATION PLAN, AS WELL AS FURNISHING YOU WITH INFORMATION ON WICHITA'S CONSERVATION EFFORTS. WE NOTE FROM THE WICHITA EAGLE, THURSDAY, JUNE 30, 1977, THAT DR. ROBERT ROBEL, ACTING DIRECTOR OF THE KANSAS ENERGY OFFICE, HAS SUBMITTED TO ERDA AN APPLICATION FOR A PILOT PROGRAM FOR ENERGY EXTENSION SERVICE DESIGNED TO ENCOURAGE CONSERVATION OF ENERGY AS THE "IMPLEMENTATION PHASE" OF YOUR CONSERVATION REPORT. WE SINCERELY ENCOURAGE SUCH EFFORTS SINCE WE TOO, FIRMLY BELIEVE IN ADVISING ALL KANSAS CITIZENS ON ALL MATTERS OF ENERGY AS THEY RELATE TO THEIR FUTURE ENERGY WELL-BEING. THE CITY OF WICHITA HAS FOLLOWED THE DEVELOPMENT OF YOUR STATE CONSERVATION PLAN FROM ITS INCEPTION AND CONGRATULATES YOU ON THE WORK THAT HAS BEEN DONE. AS YOU KNOW, WICHITA HAS BEEN ENGAGED IN ENERGY CONSERVATION AND ALTERNATE ENERGY STUDIES AND PLANS SINCE THE FALL OF 1973. WE HAVE BEEN TRYING TO FIND SOME LOCAL SOLUTIONS TO THIS EVER-EXPANDING ENERGY DILEMMA. AT TIMES, OUR PROPOSED SOLUTIONS MAY APPEAR (EVEN TO US) TO BE SOMEWHAT NAIVE OR EVEN PAROCHIAL IN SCOPE. WE ARE ENGAGING IN THE EXPERIMENTAL PHASES SO AS TO PROTECT OUR LOCAL POSITION AND THE WELFARE OF THE PUBLIC IN PREPARATION FOR MORE SERIOUS ENERGY SHORTAGES THAT WE PREDICT WILL OCCUR IN THE VERY NEAR FUTURE. DURING SOME OF OUR EARLY PLANNING, WE BECAME INCREASINGLY CONCERNED

T ADEQUATE SOLUTIONS TO THIS EVER-EXPANDING DILEMMA MAY BE M E DIFFICULT AND LESS ALTERABLE AS TIME PROGRESSES. OUR LOCAL PROBLEMS, OF COURSE, ARE MINOR TO THE MAGNITUDE OF THOSE THAT YOU FACE ON A STATEWIDE BASIS; WHILE FEDERAL SOLUTIONS APPROACH THE ALMOST INSURMOUNTABLE: THOSE TASKS OF DEALING WITH THE ENTIRE NATION'S DEMANDS, NEEDS AND SUPPLIES. I HAVE FURNISHED YOU WITH THREE FACT SHEETS WHICH ARE RESUMES OF SOME OF THE MEASURES AND THE WAYS AND MEANS BY WHICH WE ARE ACHIEVING THESE ENERGY GOALS FOR YOUR OWN FURTHER STUDY AND COMMENT. WE BELIEVE THAT YOUR STATE CONSERVATION PLAN IS AN EXCELLENT ONE AND WE ARE PERSONALLY ACQUAINTED WITH DR. DEAN ECKHOFF, KANSAS STATE UNIVERSITY, AND HAVE MONITORED HIS PROGRESS IN THE DEVELOPMENT OF THE FINAL DRAFT. DURING HEARINGS IN WICHITA LAST OCTOBER, WE SUBMITTED OUR COMMENTS WHICH BECAME PART OF ONE OF YOUR INTERIM REPORTS. JUST WHAT SPECIFIC THINGS ARE WE DOING IN WICHITA THAT MAY BE OF HELP TO YOU IN THE DEVELOPMENT AND IMPLEMENTATION OF YOUR STATE PLAN? ON OUR LOCAL SCENE AND, IN RETROSPECT (AFTER SOME THREE AND ONE-HALF YEARS), WE ARE STARTING TO ASSESS THE IMPACT OF ALL OF OUR PAST CONSERVATION EFFORTS AND RE-EXAMINE OUR FUTURE PLANS AND GOALS. WE HAVE FOUND THAT THE SINGLE MOST IMPORTANT ASPECT OF ENERGY PLANNING, POLICY DECISION, MANDATORY OR VOLUNTARY PROGRAMS, LIES IN GAINING THE ATTENTION, THE INTEREST, AND CONTINUED RESPECT OF THE PUBLIC AND NEWS MEDIA ON ALL MATTERS PERTAINING TO ENERGY. WITHOUT THIS FIRM BACKING, EVEN THE MOST CONSCIENTIOUS AND SOUND CONSERVATION MEASURES MAY END UP AS TOTALLY IMPRACTICAL OR VIRTUALLY IMPOSSIBLE TO INITIATE. PUBLIC AWARENESS AND EDUCATION HAS, AND STILL REMAINS, ONE OF THE MOST IMPORTANT CONCEPTS WHICH MUST BE DEVELOPED VERY CAREFULLY AND VERY SLOWLY PRIOR TO ANY PROGRAM. I WOULD LIKE TO CITE AS ONE NEGATIVE

EXAMPLE OF WHAT NOT TO DO AND THEN GIVE YOU THE PROCEDURE ON HOW WE ARE ATTEMPTING TO RECTIFY OUR OWN ERRORS. WE ARE THE FIRST TO ADMIT THAT IN THE FIELD OF ENERGY CONSERVATION MANY MISTAKES WILL BE MADE, SINCE NONE OF US HERE IN THE UNITED STATES HAVE ANY LONG HISTORY OF CONFORMING TO OLD WORLD RESOURCE CONSERVATION MEASURES; ESPECIALLY SINCE WE HAVE BEEN LULLED FOR 200 YEARS INTO THE BELIEF THAT THE CORNUCOPIA OF OUR NATION'S RESOURCES WAS VIRTUALLY UNLIMITED. IN DECEMBER 1975, WE SENT UP A TRIAL BALLOON THROUGH THE ACTIONS TAKEN BY ONE OF OUR CITIZEN COMMITTEES CONCERNED WITH BUILDING AND HOUSING CODES. IT WAS PROPOSED AT THAT TIME THAT A CALENDAR DEADLINE BE SET BY WHICH ALL EXISTING RESIDENTIAL STRUCTURES SHOULD BE BROUGHT UP TO A MINIMUM OF ATTIC INSULATION, PRIOR TO OR AT THE TIME OF THE SALE OF THE STRUCTURE OR TRANSFER OF TITLE. I AM SURE YOU CAN VISUALIZE THE REPERCUSSIONS SUFFERED BY THE COMMITTEE AND THE CITY'S ENERGY OFFICE WHEN THE PUBLIC LEARNED OF THIS POSSIBILITY AND THE INFRINGEMENTS ON WHAT THEY CONSIDERED THEIR PERSONAL LIFE-STYLE. IT DIDN'T TAKE US LONG TO REALIZE THAT A GROSS ERROR HAD BEEN COMMITTED FOR A NUMBER OF REASONS, SOME OF WHICH INCLUDE THE FOLLOWING: (1) THE NEWS MEDIA WERE NOT PROPERLY ACQUAINTED WITH THE REASONS BEHIND SUCH A PROPOSAL AND REACTED NEGATIVELY; (2) WE HAD YET TO ADDRESS ALL FORMS OF CONSTRUCTION FOR ALL SEGMENTS OF THE COMMUNITY IN FORMULATING STANDARDS FOR ENERGY CONSERVATION, INCLUDING RESIDENCES, BUSINESSES, INDUSTRIES AND INSTITUTIONS; (3) WE MAY HAVE STRETCHED SOMEWHAT THE PRINCIPLE THAT BUILDING CODES MUST ADDRESS HEALTH, WELFARE AND SAFETY OF THE GENERAL PUBLIC.

; OUTCOME WAS THAT WE QUICKLY BACKED OFF FROM THIS STAND AN[illegible] PROCEEDED WITH AN ALTERNATE APPROACH WHICH SHOULD EVENTUALLY BRING US TO OUR SAME GOALS, HOWEVER NOBLE THEY MAY BE, IN THE CONSERVATION OF ENERGY. AFTER 20 MONTHS OF ALMOST WEEKLY DISCUSSION BY TECHNICAL COMMITTEES, THE CITY HAS ADOPTED CHAPTER 53 OF THE 1977 UNIFORM BUILDING CODE SUPPLEMENT, ALMOST IDENTICAL TO ASHRAE 90-75. THIS CODE WILL GO INTO EFFECT OCTOBER 1, 1977 FOR ALL STRUCTURES FOR HUMAN OCCUPANCY INVOLVING HEATING AND COOLING. THIS SUMMER WE ARE HOLDING WEEKLY SEMINARS FOR ALL PERSONS IN THE BUILDING INDUSTRY, INCLUDING ARCHITECTS, ENGINEERS, BUILDING INSPECTORS, THE BUILDING TRADES, PLUMBING, ELECTRICAL, MECHANICAL, CONTRACTORS, REALTORS, LENDING AGENCIES AND WHOEVER DESIRES, TO EXPLAIN IN GREAT DETAIL HOW THEY CAN ADAPT TO THE NEW CODE REGULATIONS. DURING THE 20 MONTHS OF DISCUSSION ON CHAPTER 53 WE ENLISTED THE INPUT AND SOLICITED THE APPROVAL OF ALL SUCH PERSONS WHOM WE FELT NEEDED TO ADDRESS THE CONCEPT OF A MANDATORY ENERGY CONSERVATION MEASURE. IT WAS NOT AN EASY TASK, BUT IN SO DOING WE KEPT THE PUBLIC INFORMED OF THE PROGRESS. THE LOCAL NEWS MEDIA WERE QUITE COOPERATIVE THIS SECOND TIME AROUND. WE HAD, IN THIS PERIOD, IMPROVED OUR OWN IMAGE AND THE GENERAL STATURE OF A PUBLIC BODY TO MAKE AVAILABLE AND PUBLICLY ACCEPTABLE SOUND, TECHNICAL AND SOCIETAL REASONS FOR EVERGY CONSERVATION. WITH THIS SUCCESS, WE HOPE TO, AT SOME EARLY FUTURE DATE, TO AGAIN ADDRESS THE TENS OF THOUSANDS OF EXISTING STRUCTURES WITHIN WICHITA (NOT JUST EXCLUSIVELY RESIDENTIAL) WHICH MUST NOW BE ENCOURAGED TO ENGAGE IN RETROFITTING AND UPGRADING AS IT CONCERNS ENERGY CONSERVATION. THIS TIME WE THINK WE MAY HAVE MORE SUCCESS. IF WE FEEL THAT WE HAVE DIFFICULTY IN WICHITA IN DEVELOPING ENERGY

CONSERVATION MEASURES, BELIEVE ME, WE SYMPATHIZE WITH YOU IN YO EFFORTS TO DEVELOP A STATEWIDE CONSERVATION PROGRAM. WE HAD A VEHICLE, ALREADY EXISTING, TO MONITOR, TO EVALUATE AND TO INSPECT CONSERVATION MEASURES WITHIN THE CITY THROUGH OUR CENTRAL INSPECTION DEPARTMENT. WE SYMPATHIZE WITH YOU IN YOUR EFFORTS TO EXTRAPOLATE WHAT WICHITA IS NOW DOING TO OTHER METROPOLITAN AREAS, TO SMALLER CITIES AND TOWNS, AND INTO THE THOUSANDS OF SITUATIONS WHERE NO SUCH MONITORING MAY NOW EXIST. DURING THIS SAME INTERVAL OF TIME, WHEN WE HAD TO WITHDRAW OUR EARLY PROPOSAL, WE HAVE UTILIZED THE OTHER ACTIVITIES OF THE ENERGY OFFICE TO KEEP THE PUBLIC UP-TO-DATE AND AWARE OF WHAT MEASURES THEY MAY TAKE ON THEIR OWN. THE FACT SHEETS ATTACHED ADDRESS THESE ITEMS. FOR INSTANCE: WE HAVE A NO-INTEREST, FULL-PAY BACK LOAN WHEREIN THE CITY, USING PRIVATE CONTRACTORS, INSULATES ATTICS OF OWNER-OCCUPIED, LOCAL RESIDENCES. IT HAS BEEN A GRATIFYING SUCCESS TO US TO NOTE THAT WE HAVE ACHIEVED A SIGNIFICANT REDUCTION IN THE USE OF ELECTRICAL AND GAS ENERGIES SINCE THE PROGRAM WAS FIRST STARTED. AGAIN, THIS BECAME A MATTER OF PUBLIC AWARENESS, DEMONSTRATIONS, SHOW AND TELL, AND ANY AND ALL MEANS TO GAIN THE PUBLIC'S ATTENTION, APPRECIATION AND ACCEPTANCE OF THE LOCAL ENERGY DILEMMA. AT THE SAME TIME, WE ARE CONDUCTING OUR OWN EXPERIMENTS IN COMPILING LOCAL INFORMATION TO DEMONSTRATE TO OUR CITIZENS THE VALUE FOR ENERGY CONSERVATION. WE HAVE AN ENERGY CONSERVATION TEST FACILITY THAT THE PUBLIC CAN VISIT WHICH SHOWS WAYS BY WHICH THEY CAN REDUCE THEIR OWN UTILITY BILLS AND THE VARIOUS MEANS BY WHICH THEY CAN INTRODUCE ALTERNATE ENERGIES SUCH AS SOLAR AND WIND, AS WELL AS UTILIZING LOCAL NATURAL RESOURCES,

H AS THE UNDERFLOW OF THE ARKANSAS RIVER FOR COOLING PURPOSE AND NO INFORMATION IS WITHHELD, EVEN IF IT IS NEGATIVE RATHER THAN POSITIVE, IN OUR FINAL ANALYSES. WE ARE PROUD TO REPORT THAT ERDA HAS CHOSEN THIS FACILITY TO BE IN VOLUME III OF THEIR "ENERGY TRAILS" REGIONAL PUBLICATION AS A SITE TO VISIT IN THE MIDWEST, DEALING WITH ENERGY PRODUCTION AND CONSERVATION. VOLUME III IS DUE FOR PUBLICATION IN JULY. SHOULD YOU HAVE AN OPPORTUNITY TO VISIT WICHITA, WE EXTEND TO YOU A CORDIAL INVITATION TO EXPLORE THE TEST FACILITY AT 1602 SOUTH McLEAN BLVD. IT IS OPEN FROM 8:00 A.M. TO 5:00 P.M. MONDAY THROUGH FRIDAY. IT NOW HOUSES FIVE ENERGY RESOURCE PERSONS SINCE OUR OFFICE IS CONTINUING TO EXPLORE ANY AND ALL MEANS BY WHICH WE CAN COMBAT ENERGY PROBLEMS IN A LOCAL MANNER. WE IN WICHITA SINCERELY BELIEVE THAT THE TIME TO IMPLEMENT ENERGY CONSERVATION PLANS IS NOW, AND THAT, WE MUST PLAN FOR MORE CRITICAL TIMES AND ENERGY SHORTAGES, NOT FIVE YEARS, TEN OR EVEN FIFTEEN YEARS AWAY, BUT FOR THE INEVITABLE DECREASE IN OUR STATE RESOURCES AND THOSE OF OUR SISTER STATES, AS WELL AS THE NATION, WHICH SHOULD CONFRONT US IN A LOCAL MANNER SOME TIME IN THE EARLY 1980'S. IN SOME RESPECTS, WE APPEAR TO BE FEELING OUR WAY. THIS KIND OF APPROACH IS A HEALTHY ONE. WE HOPE THAT WE ARE CONTINUALLY ATTUNED TO PUBLIC REACTION AND MAKE EVERY EFFORT TO RESPOND AS QUICKLY AS POSSIBLE TO THEIR REQUESTS. WE ALL LOVE OUR CITY--WE THINK IT'S A GREAT PLACE. WE WOULD LIKE TO KEEP IT THAT WAY. WE ALSO WANT TO ENSURE THAT ANY EFFORTS ON ALTERNATE ENERGY ARE ENVIRONMENTALLY COMPATIBLE WITH OUR PRESENT EXISTENCE. WE ENJOY OUR WAY OF LIFE--WE WANT TO TAKE EVERY EFFORT TO MAINTAIN THIS WHILE WE STILL ADDRESS THE INEVITABLE SHORTAGES IN LOCAL ENERGY. THE NATION'S, THE STATE'S AND THE CITY'S VARIOUS QUESTS FOR ALTERNATES MUST INEVITABLY BE INSERTED TO FILL THE GAPS MADE BY THE PREDICTORS AND WHICH INDICATE

T . MORE SERIOUS, MORE SOBER, AND MUCH MORE DIFFICULT DAYS OF E RGY SHORTAGES ARE JUST AHEAD. AND AS AN ASIDE, I WOULD LIKE TO STATE A SIMPLIFIED OBSERVATION ON MANDATORY AND VOLUNTARY CONSERVATION PROGRAMS. MANDATORY PROGRAMS OR BUILDING CODE MODIFICATIONS OR MUNICIPAL RESTRICTIONS -- UNLESS EACH IS CAREFULLY ASSESSED BEFOREHAND AND PROPERLY AND SLOWLY AND VERY CAREFULLY IMPOSED AS A REGULATION ON OUR PUBLIC, CAN SOMETIMES BE PURPOSE DEFEATING, OR EVEN BORDER ON THE DISASTROUS. DEPENDING UPON THE SEVERITY OF THE IMPOSED REDUCTION OR OF THE CONTEMPLATED CHANGES, MANDATORY PROGRAMS CAN BE VERY DIFFICULT TO ADOPT TO IMPOSE, TO REGULATE AND THEN TO ENFORCE. THEY ALSO REQUIRE SERIOUS VALUE JUDGMENTS BY THE REGULATORY AGENCY OF PERSONAL AND SOCIAL MORES, WHICH INVARIABLY ARE AFFECTED BY EACH AND EVERY ONE OF THESE RULES. THEREFORE, ADEQUATE PUBLIC EDUCATION IS POSITIVELY ESSENTIAL. IT IS TANTAMOUNT TO ENERGY CONSERVATION PROGRAMS, EITHER MANDATORY OR VOLUNTARY IN NATURE, ON NATIONAL, STATE AND LOCAL LEVELS. THE MOST EASILY ADOPTED PRACTICES, THE SIMPLIER WAYS AND THE BASIC METHODS BY WHICH WE ALL CAN CONSERVE ENERGY ARE THOSE THAT ARE USUALLY ALWAYS NEGLECTED, MERELY FROM THE LACK OF AWARENESS AND OVERSIGHT BY THE PUBLIC. WE FIRMLY BELIEVE IN THIS STRATEGY OF BASIC CONSERVATION PRACTICES AND HAVE INITIATED OUR OWN STRONG ENERGY AWARENESS PROGRAM FOR BOTH SUMMER AND WINTER. THE PROGRAM HAS BEEN FURTHER REINFORCED BY INCREASING ENERGY COSTS OVER THE LAST THREE YEARS, AND HAS STIMULATED REDUCED ENERGY CONSUMPTION WITH LITTLE OR NO MAJOR INCONVENIENCE TO OUR ULTIMATE CONSUMERS. ALTHOUGH THEY ARE MUCH HARDER TO PREPARE AND IMPLEMENT, SATISFACTORY VOLUNTARY PROGRAMS, WHICH ARE ACCEPTABLE TO MOST OF THE PUBLIC, AND STILL MUCH MORE DIFFICULT TO KEEP THE BASIC

FACTS BEFORE OUR CITIZENS, THE VOLUNTARY METHODS ALLOW MAXIMUM PUBLIC PARTICIPATION AND THE GREATEST FEEDBACK. BUT CONVERSELY, VOLUNTARY PROGRAMS ARE EXCEEDINGLY WEAK AND VERY DISAPPOINTING, ESPECIALLY IN TIMES WHERE THERE IS NO VISIBLE CRISIS OR THE HARD SHEEL OF PUBLIC APATHY PREVENTS OUR MESSAGES, OUR RECOMMENDATIONS AND OUR URGINGS FROM GETTING THROUGH TO THOSE PEOPLE THAT NEED IT MOST -- THE FIXED AND LOW-INCOME, THE MARGINAL BUSINESSES AND PUBLIC GOVERNMENT BODIES. THANK YOU SO MUCH. IF YOU HAVE ANY QUESTIONS, I WILL BE HAPPY TO ANSWER THEM.

City of Wichita, Kansas
HOME INSULATION PROGRAM

Background

The Wichita economy is almost entirely dependent upon natural gas as a heating and process fuel. A long history of increasing curtailments in the industrial sector coupled with escalating heating and cooling bills, prompted the City to initiate activities designed to reduce the energy consumption in residential units. A continuously-monitored testing program on ten typical Wichita residents, during the winter heating season of 1974-1975, determined that attic insulation was the most effective method to reduce the required amount of energies to heat and coal a house. An on-going Public Awareness Program was established to acquaint Wichita homeowners with conservation measures and retro-fitting procedures in an effort to reduce the natural gas consumption and check increasing utility costs. Attic insulation has been identified as the single most important factor in reducing heating and cooling costs. An insulation program was conceived to demonstrate the effectiveness of that insulation and to assist Wichita homeowners in conservation practices.

General Description

The Wichita Home Insulation Program is a no-interest loan, with full pay-back, monitored and managed by the Department of Economic Development and designed to retrofit homes with attic insulation. All Wichita homeowners are eligible with the rate of pay-back commensurate with their 1976 income. It has been estimated that a minimum of 70,000 Wichita homes are inadequately insulated, according to present technical standards. Blown insulation is added to the homeowner's attic to bring the total effective thickness and weight to a factor of R-19. All administration costs are borne by the program and are independent of the homeowner's costs.

Funding

Monies obtained through a Community Development Block Grant were allocated by the Board of City Commissioners as part of the energy planning monies for the 1976-1977 Grant. Time limits on homeowners pay-back range from six months to sixty months. These returned funds will be utilized to continue the Insulation Program for additional homes.

Response

This project was proven to be a reliable, efficient program vehicle in the first year. Approximately 1800 Wichita homeowners have insulated their attics under the City's program to date. Approximately 800 additional homeowners who applied to the City decided to have their homes insulated without requiring a loan.

Contact

For further information and details regarding this program, you are requested to contact the City of Wichita, Department of Economic Development, City Hall, 11th Floor East, 455 North Main Street, Wichita, Kansas 67202. Attention: Jack McKinney, Industrial Analyst, (316) 268-4696.

Fact Sheet #2

February 1976
Revised May 1977

City of Wichita
ENERGY PLANNING PROGRAMS
1976-1977

Background: Specific energy planning programs were developed during 1975 for the City of Wichita to provide for research regarding future energy needs and sources for the City of Wichita, as well as providing information for sound energy planning and management in the future. These activities were mandated by the need to prepare a comprehensive community development plan and policy management capacity to determine needs, set long and short term goals and to devise similar applicable programs to meet these goals. Four such interim programs have been clearly delineated in this juncture. These interim programs were deemed necessary to properly assess locally available alternate energies, to evaluate local energy demands and capabilities and were requisite to the preparation of a master program for the eventual transition of the regional economy to a different energy base. The problems associated with energy shortages in Wichita involve parallel technical, economic, regulatory and environmental considerations.

Current Programs: Four unit projects were designed to address the initial phase of the Energy Planning Program Objectives. These are: Unit I, Home Insulation Project, (See Fact Sheet #1, February 1976). This program has been proven to be a reliable vehicle to properly prepare the community for a more critical energy structure and has received complete public acceptance. Unit II, Public Awareness Program, has received the highest distribution and the greatest reception since it has provided vehicles to acquaint Wichita citizens with specific methods of low cost, retrofitting and energy conservation in local dwelling units. Through this the City has developed all-media news releases of informational services on energy conservation. Two energy-tip pamphlets were distributed to all Wichita households. Unit III, City Test Facility. A standard Wichita residence has been secured to evaluate energy-saving devices and determine the effectiveness of various retrofitting measures and collection of data to substantiate and/or refute certain claims for materials and devices now available to the Wichita public. Also, to provide homeowners with viable data concerning the reliability of selected procedures and/or innovative changes or additions which may be made concerning energy consumption and losses associated with furnaces and air conditioners. Unit IV. The Alternate Energy Investigations has evaluated which avenues of alternate fuels should be taken to preserve the industrial and economic integrity of Wichita. Previous studies have indicated that our present energy base of natural gas will not be available in adequate quantities to serve the community within ten years.

Timing: The importance of proper timing to acquaint local industries, businesses and residences of the energy goals requires the continued development of a comprehensive approach, and includes (1) achieve the highest levels of local efficient energy application from the available natural gas over the next critical ten year span (Unit IV), (2) identify, initiate and implement those conservation ethics which are most logically and economically adaptable to regional benefits (Units I and II), (3) provide a reliable program vehicle which can be applied to any similar regional entity to solve related energy problems (Units I, II, III and IV) and (4) prepare this community for the eventual transfer, replacement and adaptation of existing energy facilities by implementing the above-stated goals and objectives of the Energy Planning Programs in orderly manner (Units I, II and III).

Progress: To date, Unit I, the Home Insulation Program, issued approximately 1800 zero interest loans for attic insulation. (See Fact Sheet #1). Unit II is successfully educating Wichita residents on energy conservation measures. In December, 1975 and June, 1976 over 190,000 pamphlets on residential heating and residential cooling were mailed to Wichita homeowners. Unit III is an on-going program determining the value of weatherization measured and alternate energy products commercially available to Wichita homeowners. Unit IV, The Alternate Energy Study, was completed in February, 1977. The consultants recommended converting to Coal Gasification with heavy emphasis on conservation.

Contact: For further information and details regarding these programs, you are requested to contact the City of Wichita, Department of Economic Development, Energy Planning Division, City Hall, Eleventh Floor East, 455 North Main Street, Wichita, Kansas 67202. Attention: Dr. J. E. Myers, Energy Coordinator. Phone: (316) 268-4696, 268-4436.

Fact Sheet #3 City of Wichita, Kansas

ENERGY CONSERVATION TEST FACILITY 1975 TO 1977

Background: The City's Energy Office has been operating a typical city residence at 1602 South McLean Blvd. as an experimental facility in various test modes. The residence is a one-story frame, two-bedroom home, approximately 1200 square feet, no basement, that has been retro-fitted to make the unit as energy-efficient as possible. Attic, walls, and floors are fully insulated and other winterizing features have been added (such as storm windows, caulking and sealing as well as fully insulating the garage floors, walls, and doors). For summer cooling, kool shade window screens are attached with two types of attic power vents and one turbine exhaust vent. Thermistor sensors and automatic recording devices are installed so that twenty-seven different stations, both inside and outside the residence are continuously monitored. Meteorological data are constantly being recorded; wind direction, wind velocity, solar radiation phenomena, so that the exact position of this residence can be provided with current and continuous data on external weather conditions.

Details: Most common electrical and gas appliances are also being checked for both efficiency and waste heat generation in the unit to provide the Wichita public with local data for their personal energy evaluation. Three spearate electrical systems are used in the test residence for easy identification of either heating or cooling demands, appliance requirements and the electrical load for the monitoring equipment. Individual meters for both gas and electrical appliances are also utilized in addition to the standard, external meter readings. The heating and cooling systems being studied involve both gas and electric furnaces, standard air conditioning and a water well system for a finned-coil cooling system to supplement the cooling requirements. All duct work is interconnected for both monitoring and variations in each system. Forced air velocities, duct temperatures and relative humidities are also being recorded.

Substitute Energy: Alternative energy devices installed outside the test residence include a solar furnace with rock storage, a hot water closed-system, heating complex, and a domestic hot water pre-heating device, using solar energy. In addition, photovaltaic cells and a wind generator are also being evaluated. Since the garage is a separate room unit from the residence, it is being treated as a test chamber, utilizing the alternate energies.

Impact: The entire project is open for inspection on regularly scheduled tours at 10:00 A.M. and 2:30 P.M., Monday through Friday or by appointment. The preliminary results have been made available to the Wichita area in two brochures concerning heating and cooling conservation methods distributed to 100,000 homes in the Wichita area. The test facility is the culmination of preliminary investigations conducted by the City's Energy Office on eleven similar residences in another part of the city. These were tested for heating and thermal efficiencies throughout the winter season of 1974-75. To create further interest in the development and potentialities of solar energy, the City's Energy Office has sponsored a number of activities including "Solargenics", a short course conducted by Dr. Eric Farber, an Energy Fair, solar slide presentations.

Future Plans and Funding: It is anticipated that various other documents and compilations of data will be generated in the near future for distribution to south central Kansas citizens.

Contact: For further information and details regarding the City's Energy Test Facility, you are requested to contact the City of Wichita Dept. of Economic Development, Energy Planning Division, City Hall, 11th Floor, east, 455 N. Main, Wichita, Kansas 67202, attention, Dr. J. E. Myers, Energy Coordinator A/C 316 268-4696 or 4436.

Remarks Delivered to
THE SPECIAL COMMITTEE ON ENERGY
on July 11, 1977

TOPEKA-SHAWNEE COUNTY METROPOLITAN PLANNING COMMISSION
820 SE. QUINCY, SUITE 312 • 913/295-3969 • TOPEKA, KANSAS 66612

We have been conducting an active energy conservation program in this area since December of 1973. Our primary concern in the beginning was to obtain enough motor fuel to operate city and county vehicles. Our scope of activity has expanded greatly since that original concern. In March of 1974 we conducted a computerized carpool project for all persons working in Shawnee County. This project was carried on with the assistance of DOT, FHWA, KDOT and the Greater Topeka Chamber of Commerce. We distributed 38,000 carpool questionnaires which also included questions on mass transit operations and the need for bikeways. We received 14,000 completed questionnaires; 4,000 persons indicated interest in joining a carpool. The computer was able to provide matches for 2,600 persons and we manually matched 650 persons with non-Topeka addresses. We were unable to determine how many carpools were formed but traffic counts at identical locations during work travel hours indicate that person occupancy per vehicle has increased from 1.27 in 1973 to 1.37 in 1976 and there has been a 66% increase in transit ridership during the same period. We are still conducting informal ridesharing promotional programs. One of our goals has been to establish a Youth Energy Corps that would be encouraged to develop innovative energy conservation programs and carry them out.

Our Energy Planner serves as a clearinghouse for the city and county officials. He passes on to the appropriate officials information on energy conservation for public buildings, vehicle fleet maintenance and other relevant material. He has also worked with the Instruction Specialists in the urban school district to develop courses of study which will heighten energy consciousness in students. The faculty members have been extremely cooperative in this area. We have been studying land use policies as they relate to energy usage. Because of the variety of such energy efficient land use policies in effect throughout the country the Energy Planner has recommended that a Citizens Advisory Council be appointed by the governing bodies.

We submitted recommendations for the National Energy Plan as requested by Dr. James Schlesinger (copy attached). We also submitted recommendations at the Public Hearing on formulation of the Kansas Energy Plan. We served as a pilot city for FEA's "Project Conserve" and the response of the public to installing adequate insulation and retrofitting their homes was so favorable that FEA launched the project nationwide.

We maintain close liason with the Kansas Energy Office, KDOT, FHWA, UMTA, FEA and other Federal agencies on all facets of energy conservation. We firmly feel the need for intergovernmental coordination in this vital area.

There are three attachments to this paper. The National Energy Policy Recommendations have direct bearings on activities at state level.

Mr. Chairman and members of the committee, I wish to thank you for the opportunity to address this committee.

Respectfully submitted,

James F. Pearson

James F. Pearson
Energy Conservation Planner

TOPEKA-SHAWNEE COUNTY METROPOLITAN PLANNING COMMISSION
820 SE. QUINCY, SUITE 512 • 913/295-3969 • TOPEKA, KANSAS 66612

March 17, 1977

Mr. James R. Schlesinger
Assistant to the President
The White House
Washington, D.C.

Re: National Energy Policy Recommendations

Dear Mr. Schlesinger:

I am in charge of Energy Conservation Planning for the Topeka-Shawnee County Metropolitan Planning Commission and have been since December of 1973. Our metro area has approximately 173,000 persons with a market area of 200,000 persons. I shall comment on the categories as requested in your letter of March 3, 1977 where I feel qualified to do so.

Conservation

Voluntary Means

Our participation as a pilot city in the FEA "Project Conserve" indicated a very favorable response from homeowners. They were provided with the expected savings in utility bills and the actual cost of additional insulation. The home building supply stores reported a sizeable increase in orders for the above type of work. This project overlaps into financial incentives.

We conducted a computerized carpool project for all persons working in Shawnee County. The rate of response ran from a 90%+ return of questionnaires for local government and V.A. Hospital employees to a low of .1% from a moderate size private employer who had been very cooperative in working with us. We started the project in March of 1974 in compliance with a DOT request. We insisted on a rapid return of questionnaires from governmental employees but the return from private employees was not as rapid and during that period Richard Nixon announced that the energy crisis was over. We experienced a rapid decline in the return of questionnaires after that remark. I feel that in the beginning a sense of patriotic duty and the difficulty in purchasing gasoline were the prime factors in persons joining carpools. In the last year, traffic counts in the city during morning and evening rush hours indicate that person occupancy

per vehicle has increased while at the same time mass transit ridership continues to increase. I feel that both of these circumstances are a direct result of the soaring cost of private passenger vehicle operation. I will sum up Voluntary Means by saying that they do not seem to be effective unless accompanied by extremely short supplies or very high prices.

Financial Incentives

I believe that tax subsidies for retrofitting costs as well as installation of solar heat collectors holds promise. I would like to point out that after discussing the subject of large federal taxes on motor gasoline with our City Street Commissioner some very grave problems arise. An increased federal tax of sufficient size to provide a real disincentive would, if effective, substantially reduce motor fuel tax revenues. The city and county would then receive a reduced share of that state tax revenue for maintenance of city and county streets and roads. Please keep in mind that a federal tax would have to be channeled back to local governments to make up for the loss in state revenues. As a leading agricultural state in the nation increased motor fuel taxes could play havoc with food prices.

Mandatory Standards

This is not an area in which I have sufficient expertise to comment effectively.

Imported Energy

I commented earlier on voluntary measures during a crisis and I refer you to the attached statements by then Governor of Kansas, Robert Docking, dated September, 1974 and October, 1974. Unfortunately the FEA by certain actions widened the credibility gap concerning supplies of fossil fuels and the actions of and statements by certain multi-national petroleum companies increased that credibility gap. The weather in January, 1977 brought about voluntary conservation due to fear of complete supply breakdown and the problem of unusually high utility bills.

Supply Department

I feel that solar power and wind power technology should receive very high priorities. Nuclear fusion would appear to be the answer to a great many of the world's energy problems and should receive very high research considerations. The increased use of coal should be considered as a stop gap measure utilizing techniques to control the release of noxious gases and particulates into the atmosphere. Solar sea gradient power plants appear to hold great possibilities. Topeka has been using methane gas produced by anaerobic decomposition for many years to operate machinery at the municipal sanitation facility. The University of Kansas has been conducting feasibility studies on the construction of a solid waste fired electric generating plant

to operate university facilities. This procedure has the added advantage of reducing the land mass needed for sanitary land fills by very sizable amounts. Geothermal power raises many problems including those of possible seismic change. The least desirable energy source has to be nuclear fission. The problems of storing atomic wastes and the land and water pollution possibilities as those waste storage tanks age can cause this nation to live chained in fear for generations. I have been asked by the Planning Director of our Metro Airport Authority and the Commissioner of Parks and Public Buildings to express their desire to see more federal grants available for solar heating systems and insulation materials on new or renovated public buildings on a local governmental level. The Airport Authority Planning Director also suggested in the interest of fuel conservation a CAB review of route structures in order to utilize smaller aircraft at some small airports where only one or two boardings or deplanings a day are generated.

I believe that the role of the Federal Government should be significant in promoting and financing energy research and development.

Environment

It is very evident that we cannot afford to impact our water resources in any way. Complete reclamation of land masses should be carried out where strip mining takes place. There is a possibility that some concessions could be made in environmental quality in order to develop new energy resources dependent on the reward vs. the sacrifice.

Federal Regulation

This section is extremely difficult to comment on. Looking back on the problems which we faced in obtaining petroleum based products in December of 1973 and the spring of 1974 in order to operate our city and county vehicles, I cannot help but continue to favor fuel allocations. We have managed to use less than our allocations but are faced with severe problems of being over our budget and striving to not increase taxes as a result of increasing prices on petroleum based products.

Intergovernmental Relationships

Local governments certainly can develop and implement energy policies particularly in the field of energy conservation. I would like to see some type of Federal funding come down to the local government units to aid those units in providing continuity of planning and implementation of programs rather than intermittent crash programs that demand priority on top of normal work loads. I do not know what to recommend as to division of responsibilities on state and Federal levels but certainly hope for a well coordinated system.

Citizen Participation

In the past we have been ably assisted by the Greater Topeka Chamber of Commerce in carrying out our Carpool Project. The utility companies and home building suppliers were very helpful during Project Conserve. The local CAP agency is carrying out the Home Winterization Program for low-income homeowners. The League of Women Voters have expressed an interest in assisting with a project. The local news media have cooperated with our projects to the fullest. The manager of our local transit authority is sending mass transit considerations both from a local standpoint and as a director of APTA under separate cover.

Hardships

The economically disadvantaged must have some type of assistance with utility bills with severe weather and higher prices.

Education

I am convinced that long range educational programs are necessary to initiate attitudinal changes in our citizenry regarding the entire concept of energy. The process should be initiated on two levels, one through programs to be presented to clubs and civic groups. With the older group the end product would be to lessen their resistance to mass transit, carpools, vanpools, encouraging reduction of electrical usage during peak periods and that type of activity. I feel that the real hope for attitudinal changes can take place in our schools. Many feel as I do that students can be encouraged to develop good energy conservation attitudes before poor ones develop and take hold. I am currently working with the Instruction Specialists in our urban school districts and most of the work has commenced with the 8th grade level. The Instruction Specialists have been very enthusiastic about the concept. The science classes have always been involved in energy sources and supplies. One class built mini-solar collectors and are deeply involved in their projects. Proper engine tune-ups will be prompted in shop classes. Art classes are planning to work with recycled materials. Social studies are covering a great many areas and economic classes will be going into balance of trade problems brought on by our dependence on imported petroleum and critical metals. As the programs develop and work up to the senior level and down into the elementary levels I want to involve our rural school districts and parochial schools. The FEA, Region VII, Director of Educational Activities advised me that FEA had teaching aids reaching from K to 12 levels. However, at that time (December, 1976) a freeze had been put on those supplies until after the change in administration. I very strongly urge you to continue this program. While local school people are very enthusiastic about this concept they have no funds budgeted for a program of this type and do not always have the expertise to develop such teaching programs. I would also

like to implement a Youth Energy Council to assist in energy conservation projects.

I am attaching statements prepared by then Governor of Kansas, Robert Docking for Project Independence in September and October of 1974. He presented the Kansas picture at that time in relation to the United States and world position. I am sorry to relate that we have regressed instead of progressed. Most of the Governor's comments are still pertinent today.

I hope that some of my comments will be of assistance to President Carter, to yourself and to the National Energy Policy Committee. If I can be of any further assistance to you, please feel free to call upon me.

Respectfully submitted,

Jim Pearson

James F. Pearson
Energy Conservation Planner

JFP:pe

Attachments

EXPANDED SUMMARY OF TOPEKA-SHAWNEE COUNTY
AREAWIDE COMPUTERIZED CARPOOL PROJECT

I feel that the continuation of some form of carpool matching program should be continued in this area. In this area we are fortunate not to be afflicted with abnormal traffic congestion or air pollution. We are, however, faced with ever increasing gasoline costs and are contributing to the apparent dwindling of the world's fossil fuels. Carpooling is an excellent method for the motorist to reduce expenses and to help conserve energy. I believe that the average motorist is going to be more receptive to carpooling than in the past due to increased costs of fuel.

There has been an increased interest in carpool programs on the federal level. President Ford has expressed a strong desire to see such programs either instituted or continued. In January, 1975, both Senator Pearson and Senator Dole wrote to the Topeka-Shawnee County Metropolitan Planning Commission endorsing our program and stated that they had strongly supported the Federal Highway Act of 1974 which contained a measure to continue funding of Carpooling Demonstration Programs until December 31, 1975.

There are two options to choose from for a continued program and these must be discussed with the local, state and federal agencies involved. First, a much simplified questionnaire form can be used. A local governmental body would continue to be the lead agency.

The second option is for large employers to handle their own projects in-house. This option would probably not be successful based on our experience as only two or three employers showed any interest in conducting their own programs.

It appears that we should go to a different time table for processing forms. Rather than setting a city-wide deadline for all forms to be returned, we should set up a monthly schedule and all forms on hand at a certain date each month would go through processing so that keypunch time and computer time could be prearranged.

One unfortunate event occurred which may render the update material put into the base data bank unusable. The questionnaire forms were sorted by department number before being sent to the State to be keypunched. Apparently, the program was modified and when approximately 2,000 printouts were returned to us they were not in sequential order by department number. Since several hundred department numbers were involved we did not have space or personnel to manually separate and sort the printouts and they were not usable.

Our 10% return of questionnaire forms was consistent with the national average. Our 65% match-up of potential car-poolers was excellent judging from reports from other areas. It would be hoped that that percentage would be even higher considering our extra efforts to assist the 650 non-matched returnees from surrounding towns.

With the simplification of forms it would be hoped that the 10% return rate could be increased and the program should be simpler to administer.

The local transit company was able to provide more adequate service to its patrons as a result of our project and was partly responsible for a significant increase in transit ridership. Another result was increased transit service for the elderly. The city planner working on development of bike routes was also able to utilize information furnished to him from our questionnaires on the interest in bicycling both as a means of transportation and for recreation in this area.

The Topeka Department of Traffic Engineering furnished vehicle/occupancy counts for eight heavily travelled intersections in the area. The count was made during 7:00-8:00 a.m. and 4:30-5:30 p.m. period and for one day in either 1973 or 1974 and a comparable day one year later. Actual traffic counts were not readily available on an occupancy basis for the period because counts were not made on that basis except for special requests. The traffic counters did comment that they noted a slight increase in vehicle occupancy during the actual gasoline shortage. They also noted that as the gasoline shortage abated the vehicle occupancy declined. The following chart indicates the change in driving habits for the specified periods.

Vehicle-Occupancy Traffic Counts

7:00-8:00 a.m.			
	Vehicles	Occupancy	%
1st Count	8,660	11,059	1.28
2nd Count	8,362	10,568	1.27

4:30-5:30 p.m.			
1st Count	11,944	15,465	1.29
2nd Count	10,684	14,214	1.33

The number of vehicles is down significantly and the vehicle-occupancy ratio shows little change in the A.M. and a slight increase in the P.M. It appears that a number of people are able to share rides in the P.M. who do not or are not able to do so in the A.M. A number of working couples have stated that one member takes the bus in the morning with the spouse driving but they are able to ride home together.

The traffic counts tally with the increase in mass transit ridership. The most significant change was in vehicles from north to Lyman Road and N. Topeka Avenue decreasing (A.M.) from 922 to 767 (8-1-73/6-11-74). It has been noted that a significant number of drivers are now using several shopping centers as informal "Park-n-Ride" stations particularly on this bus route. One intersection in an area where mass transit service was discontinued showed a vehicle-occupancy percent increase (A.M. 1.12 to 1.49 P.M. 1.18-1.46) for vehicles apparently going to American Yearbook. Another discontinued bus route area showed a decrease in vehicles but apparently not enough to support bus service (Burlingame Road and S.W. 37th Street). The location at S.E. Branner and S.E. 6th Street does not indicate any significant change except for A.M. vehicles from west and the large increase in that count may indicate an increase in overnight tourists heading for the turnpike. The comparison periods for the location were June 6, 1974 and June 19, 1975 and no doubt reflects the increase in tourist traffic which occurred after the gasoline shortage ended. The vehicle-occupancy ratio remained almost constant ranging from 1.11% to 1.53%. The check point at U.S. 24 and N.W. Tyler receives flow from areas with no transit service. Both comparison counts were done after the carpool lists were distributed and the evidence of long distance commuters is reflected in vehicle-occupancy ratio of 1.57%, 1,42% and 1.50%. The interesection of S.E. California and S.E. 10th Street indicates a lower vehicle count after the transit company provided expanded routes and increased frequency of service. The vehicle-occupancy ratio remained almost the same (1.27% to 1.46%) except for one ratio which dropped from 1.27% to 1.09%. This type of reduction could indicate that one person per vehicle drivers have irregular schedules, isolated work destinations or just don't want to bother with ride sharing. The area serviced by the check point at S.W. 37th Street and S.W. Topeka Avenue had no change in transit service. The number of vehicles dropped in all but one case and the vehicle-occupancy ratio increased in all cases. It would appear that persons in this area not only made considerable use of ride sharing, but also the mass transit system may have picked up riders. The data from this location is particularly significant as the 1st count was done prior to distribution of the computerized carpool printouts. The area served by the checkpoint at Fairlawn Road and S.W. 29th Street generally shows a reduction in number of vehicles but very little increase in vehicle-occupancy ratio. At least three factors affect this area and render the data invalid. One, 29th Street from Wanamaker Road to I-470 was closed during the 2nd count. Two, the transit company improved time schedules and routes for the area and was highly used. Three, a large new addition to an apartment complex was opened in the area.

The large public awareness campaign carried out during our demonstration project, the continuing advertising by the Intra-City Transit and the continuing public service announcements on TV have all served to reduce the resistance of the public to either ride sharing or utilization of mass transit systems.

A consulting firm in California has been retained by the Federal Government (their words) to design a new Carpool and Transit Information System. The design of the new system has been completed. The computer programming and demonstration project are

being worked on now and the new system should be completed by May of 1976. It will be furnished free of charge to requesting agencies and companies. We completed a questionnaire for them earlier this year and just recently received a summary of results. The summary indicated that many of the 66 participants shared the same problems and all had a few unique problems of their own. We will continue to cooperate with them and participate in their program.

The Executive Summary of the 1974 Carpool Seminar was received by us on August 23, 1975. FHWA is sponsoring a National Workshop for Areawide Carpool Coordinators to be held in Houston, December 8-10, 1975. We have been asked to send our Coordinator and in view of the new Carpool and Transit Information System being prepared, we feel that it would be expedient to do so as this will be a topic of importance at the Seminar. We have indicated our desire to participate contingent upon State funding. We hope that at the Seminar our Coordinator will be able to determine what type of program will best serve this area.

November 1,1975

CALIFORNIA
RIDESHARING NEWS
Published by the Caltrans Ridesharing Office 1120 N Street, Sacramento CA 95814
DIAL 916-445-POOL
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Clean Air Award to Sacramento Ridesharing Office

On Friday, May 6, 1977, Adriana Gianturco, Director of Transportation, accepted the Sacramento Valley Lung Association's Clean Air Award for the Caltrans Ridesharing Office's contributions to improving air quality. In recognizing the department's achievements, Jane Hagedorn, Executive Director for the Association, pointed out that during the first 33 months of operation, the Sacramento project has reduced travel by some 20 million vehicle miles, which translates to conservation of 1,300,000 gallons of fuel and elimination of 720 tons of pollutants from the atmosphere.

Statewide Summary

The Caltrans Ridesharing Program now includes offices providing areawide services in nine metropolitan regions, and to date, has resulted in the placement of over 24,000 persons in carpools and vanpools. Travel is being reduced by an average of 78 million vehicle miles per year. The program represents a cooperative effort by Caltrans, cities, counties, planning organizations, nonprofit corporations, the Federal government and the private sector.

Second Interim Evaluation Report of Sacramento Project Released

The Second Interim Evaluation Report of the Sacramento Ridesharing Project was received from the printers during April and is available to all interested parties by writing or telephoning the Ridesharing Office in Sacramento. The report, which covers the period from July 1, 1974 to December 31, 1977, indicates that the project is highly successful. Some of the more interesting findings are noted below:

• Persons applying for assistance	16,940
• Persons placed in pools	3,750
• Vehicle miles of travel reduced	17,400,000
• Fuel conserved (gallons)	1,120,000
• Pollutants reduced (lbs.)	1,250,000
• User cost reduced (dollars)	$2,470,000
• Project cost to date	$172,970

Of the first 372 persons placed in carpools through the project, 76% were still in carpools at the end of 2½ years. The Sacramento Office, in cooperation with other regional carpool programs, is attempting to establish longevity curves indicating the lifespan of an average carpool. Current costs to place a person in a carpool run about $45. If the benefits continue with no additional cost for an average of 5 years, the ratio between costs and user savings for the program will be one of the highest within the transportation field.

On March 1, 1977, the first Caltrans vehicle used for fully reimbursed carpooling was placed in service between Sacramento and Stockton. By using state vehicles for the dual purpose of regular business during the day and carpooling at night, this program contributes to the goals of clean air, energy conservation, and reduced need for employee parking spaces. As of this writing, Caltrans has approximately 15 reimbursed carpools in service; the Department of Water Resources has 20; and numerous other state agencies are starting to phase into the new program.

Vanpool Progress

Commuter Computer of Los Angeles currently has 68 vanpools in operation. Fifteen more vanpools are organized and will be placed in operation as soon as the vans are delivered. An additional 124 vans have been ordered for the Los Angeles Area.

In Sacramento, Caltrans has eight vansin service, three additional on order, and has sponsored one private vanpool. In San Francisco, Caltrans currently has three vans in operation and five on order. San Bernardino has one private van in operation and is on the verge of signing several more.

In addition, many large employers throughout California are starting to organize their own vanpool projects with assistance from the Ridesharing Program. Each van annually saves about 100,000 miles of travel, conserves about 6,500 gallons of fuel and eliminates 5,600 pounds of pollutants.

Insurance for Vanpools

Tremendous progress has been made in the field of insurance for vanpools. Copies of a report on the subject by Dr. Frank Davis, an authority on vanpooling, and new guidelines recommended by the Insurance Services Office are available upon request from the Sacramento Ridesharing Office.

Federal Energy Administration & Caltrans Sponsor Vanpool Workshops

During April, the Federal Energy Administration and Caltrans cosponsored three vanpool workshops in California. Two of these were followed by implementation workshops to assist major organizations in developing in-house projects. Mr. Stan Stokey of the Tennessee Valley Authority and President of the National Association of Vanpool Operators along with Mr. Frank Harris of Skidmore, Owings and Merrill were the principal speakers at the implementation workshops. Representatives from major Federal work centers such as Beal, Mather, McClellan, Norton and March Air Force Bases were in attendance.

MID-AMERICA COALITION FOR ENERGY ALTERNATIVES
5130 MISSION ROAD SHAWNEE MISSION KS 66205 (913) 362-5932

TO: KANSAS LEGISLATIVE INTERIM COMMITTEE ON ENERGY

SUBJECT: PROPOSAL #19, ENERGY CONSERVATION

DATE: JULY 11, 1977

I am Ann Bueker, from Lawrence, and I am representing the Mid America Coalition for Energy Alternatives (MACEA), a non-profit, citizens' group that is supported by volunteers concerned about our energy future.

I want to take this opportunity to thank you and the entire Legislature for your recent actions in the areas of energy conservation and alternative energy sources. In particular, we applaud the tax deduction for insulation expenses, the solar tax credit, the partial property tax refund for solar homes, and the concern and commitment of the Legislature as expressed in HCR 5031 and SCR 1601 adopted last session.

As a state, we can be proud of the measures already taken--we are amongst those taking the initiative in the area of conservation, instead of sitting back and waiting to see what will happen at the federal level before acting. At the same time, however, we must and do realize that we still have far to go, as evidenced by the two resolutions just referred to.

STATE ENERGY CONSERVATION PLAN

It is apparent from our State Energy Plan that there are innumerable ways for us to cut our energy consumption, if we but choose to do so. Clearly, some of the methods will be easier than others; and some will be more effective than others. The ideal situation would find them matched up, of course. The temptation may be to concentrate on public education and information exchange because of the short-term nature of the Plan. As vital as that approach is, it should not prevent us from also undertaking positive action programs that may take longer to implement, but may also have far-reaching impacts.

We have a few comments and questions on the Plan as presented:

--It would be helpful to know what kinds of energy are being saved in each category..

--What kinds of actions by homeowners are presumed to be generated by Measure 1 of the Optional Residential Program? How does it differ from from Measure 3, the Public Information Program?

--Optional Residential Measure 4: Loans for Energy Conservation--We generally approve the idea but question whether it is attractive enough to have an impact. Loans at the "going" rate are not likely to bring more into an insulation program than would do it anyway...How to reach homeowner's in the lower economic bracket? How effective is the weatherization programs of CSA and HUD, for example? do we need to supplement it?

--Is there any correlation to the Federal Plan of identifying energy wasteful industries and targeting them for up-grading? This idea might be coupled with the suggestion for tax incentives or loans, where appropriate..

--on the Public Information Program of the KEO: We would hope for greater use of the media--especially radio and TV--in alerting Kansans to what information is available and where from, as well as on some basic facts of conservation savings to be had from certain actions. We suggest an agressive Public Service Announcement campaign, with the thought that you probably get more for the money spent than you do on workshops and seminars.

We would also like to see the KEO create a travelling exhibit on alternative energy systems and to monitor the various solar and wind projects going on in the state. We heartily endorse their plan to vigorously promote recent solar legislation and encourage alternative energy systems.

Going beyond the State Plan, we would encourage the Legislature to consider action in four areas that we feel are basic to the conservation effort: solar, recycling, rate reform, energy forecasting.

SOLAR

It is hard to separate the development of renewable energy sources from the issue of conservation; since the greater the shift to these technologies, the longer we can stretch out our dwindling fossil fuel supplies. And inherent in the conservation ethic is our obligation to pass on some of the earth's riches to those who come after us.

As a follow-up to the Legislature's recognition of the potential of solar energy, we would suggest a Solar Technician Training Program. As the use of solar energy grows, so will the demand for experienced technicians to build, install, and repair solar systems. The opportunity here for the creation of a new industry for the state, possibly in connection with the vocational training schools or prisoner rehabilitation programs, make the idea an exciting one from several different angles.

California started such a program last fall as a part of its

Office of Appropriate Technology, using federal and state funds for a 20-week course. The "Solar Technician Training Project" ches theory, design, and the development of plumbing and carpentry skills, culminating in the building and installation of hot water systems in state buildings. The program is so successful that plans are to expand it this year to include space heating.

Such an idea would lend itself well to the implementation of the demonstration projects as recommended by the Legislature in SCR 1601.

RECYCLING: "Bottle Bill"

Secondly, we would direct Legislative attention toward the consideration of a mandatory deposit on beverage containers (similar to provisions of SB 147, introduced last year by Senator Paul Hess.) If you doubt the energy savings possible in this area, consider the fact that 1% of our total national energy budget is used solely for the packaging of "leisure beverages". Clearly, throw-away cans and bottles are an energy luxury we can no longer afford.

The energy savings to be realized from the use of returnables vs. non-returnables can be viewed as "icing on the cake" when added to the other benefits of resources and money saved, waste reduction, need for fewer disposal sites, and litter reduction. A recent FEA report estimates that a return rate of 90% for cans and 10 refills for bottles would yield energy savings equivalent to 70,000 barrels of oil a day (in addition to annual consumer savings of $1.8 billion and a net increase of 118,000 jobs.) John Sawhill, former head of the FEA, has said "there are few other instances...where energy savings of this magnitude could be achieved as easily in terms of required capital investment and employment dislocations..."

Five states have already enacted legislation to discourage the use of throw-away containers: Oregon, Vermont, S. Dakota, Michigan, and Maine. The results of Oregon's four-year experience are impressive: a can return of 80% and 15 bottle refills have produced an estimated energy savings equivalent to the gas used for home heating by approximately 50,000 Oregonians annually.

RATE REFORM

We are pleased that the Legislature has recognized the ambivalence attached to conservation efforts made under existing utility rate structures. Everyone remembers the outrage of utility customers who, during the first crisis of 1973-74, conscientiously responded to the plea for reduced consumption only to find themselves rewarded by a higher rate! It is obvious that, if we are serious about our commitment to conservation, one of the first steps needed is the elimination of the declining-block rate structure.

Volume discounts on energy are no longer justifiable--if they ever were. We have grown more aware of the external costs of energy production that have never been reflected in the price of that energy--the social, environmental, and health costs. These "public" costs do not respond to the economies of scale that affect other production costs; instead, they tend to increase with increased production. A realistic pricing structure of the future should take this into account.

We look forward, therefore, to the results of the KCC report on alternate rate structures that was requested by the Legislature in HCR 5031. Early measures to revise rate structures are essential if people are going to respond to our exhortations to conserve.

Along these same lines, we recommend the continued prohibition of construction-work-in-progress (CWIP) in the rate base. All other considerations aside, the allowance of CWIP in the rate base would act as a disincentive to conservation:
--The guaranteeing of costs "up front" can act as encouragement to over-estimating future demand and to over-building of capacity in order to expand the rate base, all before any proof of need for the facility has been demonstrated.
--It would also discourage investigation into and investment in conservation alternatives by the utilities (e.g., smaller plants, conversion of existing facilities, "conservation gas and electricity" options, improving efficiency, rate reform, load management, etc.)

ENERGY FORECASTING

The state would do well to consider doing its own forecasting of energy needs, independently of utility forecasting. Oregon and California have started doing this in recognition of the relationship between projected needs for electricity, the growth of the power industry, and eventual projected consumption patterns. For example, Oregon's Dept. of Energy will estimate energy demand, the impacts of conservation, new technology, increased efficiency, and construction of new facilities on energy availability in the state.

Keep in mind that the energy sector is also one of the biggest users of energy--since it take energy to make energy--and that, in the past, utility forecasts have tended to be self-fulfilling prophecies. Their record isn't very good in predicting the impact of either higher prices or conservation efforts on reducing demand. An independent forecast could be based on consumer, environmental, and new technological trends, and on natural resource depletion--rather than on historical patterns of doing business.

Naturally, if such a responsibility were assigned to the KCC, for example, it would necessitate an increase in staff and budget. As was pointed out to you last month, the KCC has neither its own economist nor statistician on staff, a lamentable situation considering the increasing responsibility for energy research and planning being given to that agency.

I want to conclude with a few words about the controversial idea of a severance or resource tax as a conservation tool. I know the suggestion will stir up a hornet's nest; but if we are to start talking in terms of a conservation "ethic", it is hard to ignore the subject...

There are at least two ways of looking at a resource tax: as a source of revenue, especially for the development of alnative energy sources to take the place of those we depend on ; and 2) as a means of pacing production in order to stretch ut the limited supply of the resource. Both ideas have strong conservation implications, in that they acknowledge an ethical responsibility to provide a viable legacy to the generations who come after us.

Opposition to resource taxes generally is based on the argument that they discourage production by increasing prices, but not profits. I am suspicious of those who claim that all we have to do is produce our way out of the energy crisis and that higher prices are what is needed to do it. Such all-out production denies any claim of the future upon our depletable resources. And the response that the future will find alternatives is presumtuous and not supported by the facts: almost all of the substitutes developed so far are also derived from depletable materials, mostly fossil-fuels.

If, however, we insist on claiming our non-renewable resources for this point in history, and no other, then we had better do something to insure that the substitutes are developed in a timely way. This is where the use of a tax for the development of alternative energy sources gathers its support. There is a kind of poetic justice in the idea that use of a non-renewable resource should help to develop a renewable substitute. Montana has included this concept in its program, and S. Dakota in its proposed plan for a severance tax on coal.

In his impressive argument for a resource tax, Paul Howells (author of "The Taming of the Dragon") summarizes the impacts of conservation upon our life-style:

> "Reducing waste does not require high technology--just the new approach of designing elegant systems to serve the national need with a decent respect for the earth and the future that will inherit it. Conversion of our shoddily-insulated homes to snug shelters; of our wasteful, polluting urban autos to small, elegant vehicles..; of our polluting sewage and trash to valuable fertilizer and recycled materials, not only can be done but it can be funded from the large savings realized. We need sacrifice nothing in a rational standard of living; all we renounce is our affluent life style, the essence of which is waste."

Attachment 5a

league of women voters of kansas

Special Committee on Energy
July 11, 1977

I am Maxine Hansen, President of the League of Women Voters of Kansas. The League of Women Voters of Kansas has over 1400 members in 17 communities across the state. The League appreciates the opportunity to give you our views on energy conservation measures for Kansas.

Our Leagues believe that energy conservation is the cornerstone upon which any energy policy should be built. We believe that there are a number of energy conservation steps which can be taken without reducing our quality of life, damaging our environment or diminishing the number of jobs available. We feel that a wiser use of our resources will buy time to decide on other long range energy-related policies and programs.

The League supported those segments of the Energy Policy and Conservation Act of 1975 which encouraged states to prepare energy conservation plans. Our members in Kansas have been concerned that a Kansas Plan has been so long in coming and that copies of the Plan are so hard to obtain. We have not been able to obtain a copy of the revised Plan. However, we would like to make the following remarks concerning the earlier Summary which we have seen.

Basically, we support measures to improve lighting efficiency standards, promote vanpools and mass transit, and improve state procurement practices. Voluntary energy saving measures play an important role in any energy plan. The League has made serious efforts to educate our members and our communities regarding voluntary energy measures since we adopted our positions in 1974. However, during this time the use of energy has continued to rise. We feel that the time has come to face the issue squarely and enact laws mandating significant energy conservation measures.

The League of Women Voters of Kansas supports a uniform building code for Kansas, which includes thermal and lighting efficiency standards. In the absence of a state code, we applauded the Kansas Corporation Commission for their February order that no new hook-up be allowed for new homes and commercial institutions served by utilities under the Commission's jurisdiction unless such homes are adequately insulated. However, we feel that the orderly way to deal with this statewide would be the enactment of a state building code.

We support thermal standards for buildings which will improve energy efficiency in cooling and heating. We support performance standards rather than proscriptive standards and urge that the total yearly energy needs of a structure be considered. For

league of women voters of kansas

example, a sealed structure that requires little energy for heating may be more energy expensive than a building that has natural ventilation in mild weather. Laws should encourage rather than prevent innovative approaches to design. If a state building code cannot be passed in the next legislature, than at least state building energy regulations should be established.

We hope that discussions will continue in the next session regarding the use of infrared photography techniques to reveal the energy efficiency of structures. We feel this is an important conservation tool and would support measures to encourage its use.

Wiser management of our solid waste can play an important role also. The League considers nonreturnable beverage containers and excess packaging an unnecessary extravagance. We would support state laws curbing these wasteful practices.

Strict enforcement of the 55 mile per hour speed limit is an effective way to conserve energy and we urge the state to improve enforcement procedures.

The League believes that efficiency standards should be established for major appliances. Appliances should be clearly labeled so that consumers may be aware of the differences in energy consumption.

Utility rate structures should be designed to encourage energy conservation. We urge you to consider changes in rate structures which will improve peak load management and provide conservation incentives.

We would support auto efficiency labeling which would require that gasoline mileage information be posted on the price sticker of each new passenger automobile.

We would also support HB 2225 which would require gas utilities to disconnect all gas lines from decorative gas lamps by July 1, 1978.

We think tax incentives are a good tool for encouraging conservation.

Our present wasteful energy habits must be curtailed through strict conservation measures. Voluntary efforts and floods of citizen education programs have not reduced energy consumption. We urge the Kansas Legislature to take serious steps to deal with this national problem.

Thank you for the opportunity to express our views.

Attachment 6

To: Special Committee on Energy

From: Michael Martin, Kansas Chapter Sierra Club

Subject: Bottle Bill Legislation and its Relationship to Energy Conservation

A Kansas Bottle Bill enacted into law would result in a net energy savings and increased employment for Kansans. This can be demonstrated by the analysis of the effect of Oregon Bottle Bill. Two other states, Maine and Michigan, have also passed bottle bills and bottle bill legislation is pending in several other states. At this time the Oregon Bottle Bill is the most important because it has been in effect since October 1, 1972 and a detailed study has been made on its effect on energy, jobs, litter and the economy. It is of additional importance to Kansas in that Kansas and Oregon have similar size populations.

The following four titled sections are taken from a study on the effect of the Oregon Bottle Bill.

PROVISIONS OF THE LAW

The Act covers all beer and carbonated soft drink beverage containers sold at retail after October 1, 1972. It requires that a refund be paid to any person presenting empty soft drink or beer bottles or cans for refund. A minimum five cent refund is required except for certified standard reusable (refillable) containers where the minimum refund is two cents. The pull tab can is prohibited. It

should be noted that the law did not ban cans nor did it require deposits. It does have the effect, however, of encouraging reusable containers and in fact, deposits have been charged on all beer and soft drinks.

SUMMARY OF CONCLUSIONS

The major conclusions of this report have been summarized as follows:

1. Roadside litter was reduced overall 26% on a piece count basis and 35% on a volume basis the first year after the Bill went into effect. During the second year, the reduction increased to 39% overall by piece count and 47% by volume.
2. Beer and soft drink beverage container litter was reduced by 72% during the first year and by 83% during the second year following the Act's October 1, 1972 effective date.
3. No increase in enforcement activities was ovserved which would affect littering rates.
4. No changes in litter pickup expenditures were observed.
5. For beer, returnable bottles captured 96% of the market after the Act was implemented compared to 36% before. Nonreturnable bottles, which had held 31% of the market previously, were eliminated and can sales dropped from 33% to 4%.
6. For soft drinks, returnable bottles moved from 53% of the market before October 1, 1972 to 88% the year following and 91% two years after. Non-returnable bottles, which had held 7 % of the market were removed from the market. Cans

moved from 40% to 12% one year later and 9% of sales two years later.

7. A "Littering Index" which shows the relative littering rate for deposit beverage containers shows that beer cans have 16 times the chance of being littered as does a soft drink returnable bottle.

8. . . . trippages for beer and soft drink refillables are 15 and 24 respectively.

9. Beer sales continue on historical growth trends following the first year adjustment which occured due to the move from larger cans and bottles to the eleven ounce "stubby".

12. Employment has been increased as a result of the Act. An approximate net increase of 55 to 365 full-time jobs have been created.

13. The economic effect on industry has been small. Other factors not related to the bottle bill have been far more important. Direct consequences of the Act have been estimated to have caused an operating income change ranging between a negative 6.8% to a positive 3.1% based on total sales at retail.

14. Energy savings as a result of a move from 43% refillables to 94% are significant. 1.4 trillion BTU's are being saved annually, enough to provide the home heating needs for 50,000 Oregonians or to generate 130 million Kilowatt hours of electricity worth $2,800,000 a nnually.

ENERGY SAVINGS

Refillable containers are somewhat bulkier than single use containers. Consequently, more labor is needed to handle them. In addition, the extra sorting, handling and cleaning steps involved in the return to the bottler or brewery for reuse also require additional labor. By comparison, the single use container requires more energy in mining, transportation, molding, reduction, smelting and metal forming processes required for each use. Thus, the refillable system is a labor intensive one while the single use system is energy intensive.

Refillable containers have grown from approximately 43% of the soft drink and beer market to approximately 94% during the second year after the Act went into effect. Based upon a recent EPA report "Resources and Environmental Profile Analysis of Nine Beverage Container Alternatives" using Oregon container mix changes, return rates and recycling experience, energy savings have been computed. This analysis shows that approximately 1,400 Billion BTU's are being saved each year as a result of the Bottle Bill.

This is equivalent to the average Oregon home heating needs of 12,000 units that heat with natural gas or the population of a residential community of approximately 50,000 people. Alternatively, if this energy were converted to electricity, then the annual savings would total approximately 130 million kilowatt hours. If electricity rates were at the approximate average national rate of 2.2 cents per kilowatt hour, this

would then total $2,800,000 savings annually.

CONCLUSION

This combination of decreased consumption of energy plus increased employment as a result of the "return to the returnable" is very significant. One characteristic of convenience packaging is that it often causes energy intensive alternatives to be substituted for those which are labor intensive. Thus, energy requirements are increased, while at the same time, jobs are elminated.

It is regrettable but true that many existing jobs and very large corporate investments are dependent upon the continuation of the wasteful practices of the "no-deposit - no return" concept. More new jobs bould be created by a return to refillables than would be lost. However, this fact does not soften the impact upon the specific individual who must abandon old skills and perhaps move to a new community and a new job. This is a general problem which is as yet unsolved but which must be dealt with as our society abandons the wasteful patterns of recent years.

It is perhaps ironic that the highly visible consequences of the "throwaway" being literally thrown away on our roadsides has prompted a new awareness of the more general problems which are caused by the acceptance of the "throw-away ethic". The focus of the debate will likely shift over time from

litter reduction to energy conservation and source reduction and the attendant employment increases.

Now that the results of the "Oregon Experiment" are in it is hoped that they will be used by other lawmakers as a guide to enactment of similar legislation. As a nation we are becoming increasingly aware that our resources are finite not unlimited. Concepts such as container refund legislation can play an important role in the much needed effort to reestablish an equilibrium with our environment as well as prevent the further erosion of our employment base.

This type of legislation is a first step towards the reuse of many other resources which would result in even greater energy savings.

(Copies of this study -"Oregon's Bottle Bill - Two Years Later" can be ordered from Oregon Environmental Council
2637 SW Water Avenue
Portland, Oregon 97201
for $2.50 for a single copy.)

Kansas Organic Producers, Inc. is a young and growing organization and we would like to offer our input into the realm of energy conservation. We believe chemical farming is dangerous, expensive and needlessly wasteful of energy.

About 90% of all nitrogen fertilizers used in the U.S. are made from natural gas. It provides the hydrogen in ammonia and the energy to make it. This country uses over 9 million tons of actual nitrogen each year requiring over 360 billion cubic feet of natural gas to make it, enough to heat over 4 million homes. About 90% of all pesticides are made from petroleum or other petrochemicals, in addition to what is used as diluents and in applications to crops. This petro-based kind of pest control requires at least 735 million gallons of petroleum each year. As we all know, the supplies of gas and oil are becoming short and the costs are going up. Natural gas for making nitrogen fertilizers rose from 15¢ to 80¢ per 1,000 cubic feet during 1971-1976, a 500% increase, and will rise further to about $2.00 per 1,000 cubic feet by 1980. Petroleum is rising in a similar trend.

Our organization believes this committee should give careful consideration towards offering farmers incentives to quit the chemical habit. It is an agricultural speed trip that has no end.

The soil is full of bacteria and the air is loaded with nitrogen. We need to restore nature's nitrogen cycle as a primary source of energy. Many farmers do this by practising a sound system of crop rotation. Alfalfa or clover is planted with a cover crop of oats and after 2 or 3 years the field is switched to corn for a year. Soybeans and wheat can be planted after corn with the cycle ending by returning to alfalfa or clover. This cycle takes 6 or 7 years and raises the humus level in the soil. The build up of organic matter makes the soil more workable and helps it absorb moisture better. The yields may be somewhat lower in some instances, particularly if a farmer is changing from chemical farming to non chemical farming, but the production costs are much lower and the financial return per acre is just as good if not better.

There is also a tremendous amount of nitrogen in farm and city wastes, such as sewage sludge, feedlot manures, poultry wastes, fish dressing wastes and organic wastes from canneries and freezing plants. Non chemical farmers, in addition to the above, and depending upon their personal philosophy, are using liquid fertilizers for foliar feeding of crops, biological methods, such as use of the lady bug, and seaweed for pest control and mineral fertilizers to balance the soil, all at a cost which is greatly below the cost of using energy squandering chemicals. We believe these sources should be utilized to the fullest extent and urge this committee to give serious consideration towards implementing these energy conserving options, with appropriate incentives.

We believe this to be a sound system of soil management which is efficient, energy conserving and much less expensive than chemical farming. It produces clean food and builds healthy bodies. This is a system that can put people back on the land where they belong and relieve the crushing burden of the cities and the accompanying plight of the unemployed. This is a system which will insure the well being of all Americans.

We have a number of successful organic farmers in this state and their operations would be even better and their numbers greater if our land grant universities would balance their research and provide these farmers with their tax dollar's worth in information. We are receiving virtually no help from these universities. For instance, the most recent published information on organic farming we could find at K-State was published around 1908. This is a situation which must be rectified and I think it will be.

The entire realm of farming, farming techniques and the use of energy laps over into other committees and I think it would be wise for members of the legislature to visit some of these organic farms to dispell the doubts being bandied about in some quarters as to the capability of organic farming and small farming to supply our nation with an adequate supply of food. Of course there are other problems involved with this, not directly related to the techniques of farming, but when one considers the poor nutritional value of present market foods it is difficult to think that the present system is something we would want to perpetuate.

STATE OF KANSAS
ENERGY ADVISORY COUNCIL
ROBERT F. BENNETT
Governor

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U.S. BALANCE SHEET OF
CARTER'S ENERGY PLAN

Objectives:

1. Limit growth of energy consumption to 2% per year.
2. Increase coal production 400 million tons per year by 1985.
3. Reduce oil imports to 6 million barrels per day by 1985.
4. Speed up the nuclear licensing process.

All figures below are in barrels of oil equivalents (millions of barrels per day).

Energy Availability (MMB/D)

	1977	1985
Domestic Oil (includes NGL)	9.8	7.2
Natural Gas	9.6 (19.5 TCF)	6.9 (14 TCF)
Coal	7.7 (646 million tons)	12.9 (1046 million tons)
Hydro	1.4	1.4
Nuclear	.9	1.8
Imported Oil	8.9	6.0
	38.3	36.2

Energy Consumption (MMB/D)

	38.3	43.9 (2% increase/year; 1977-1985)

"Bottom Line"

	Balanced	-7.7

Conclusion:

The Carter plan will result in a 7.7 million barrel per day short fall in U.S. energy supplies by 1985. Unless aggressive action is taken to increase oil and natural gas production, this nation will experience an acute shortage of energy by 1985, or will be needing to import 13.7 million barrels of oil per day (6.0 + 7.7) to meet our projected needs.

R. J. Robel, Chairman
28 April 1977

THE NATIONAL ENERGY SITUATION

AND THE PRESIDENT'S NATIONAL ENERGY PLAN [1]

R. J. Robel, Chairman
Kansas Energy Advisory Council

Mr. Chairman and members of the Special Interim Committee on Energy, thank you for inviting me to appear before you this morning. Although your invitation requested that I focus on the President's National Energy Plan, I believe we need to review the current situation before we talk about the proposed solutions. Therefore, I intend to briefly review the current energy situation from a national perspective, then focus on the proposed National Energy Plan. As you recall, Mr. Chairman, I addressed a joint Senate-House Energy and Natural Resources Committee meeting on 13 January 1977 and provided background and an overview of the energy situation at that time. Because Representative Miller is the only one who was not on the Energy and Natural Resources Committee during this past legislative session, I will not repeat the bulk of what was presented to you on 13 January 1977 (Representative Miller will be provided a copy of that material).

Gentlemen, we cannot avoid the issue any longer. The national energy situation is worse today than it was prior to the Arab oil embargo of 1973-74; it is worse today than it was when I addressed the Kansas Legislative Committees in 1974, 1975, 1976, and for that matter, when I addressed the Senate-House Committees last January.

1/ Address presented 12 July 1977 to the Special Interim Committee on Energy in the State Capitol, Topeka, Kansas.

For the most part, Kansas citizens are oblivious to the seriousness of the energy situation. Through my contacts in the Federal Power Commission, the American Petroleum Institute, U.S. Geological Survey, American Gas Association, the Congressional Office of Technology Assessment, plus scores of independent geologists, economists, and engineers, I have access to data not normally presented to the general public--not that the data are secret or proprietary, rather, most of the public would rather avoid facts and decide issues on hearsay and emotionalism. Factual data do not carry the same impact in the mass media as does emotionalism. Essentially, we have convinced ourselves that (1) the energy problem will probably affect them, not us, (2) there will be shortages of natural gas in Ohio, Michigan, and New Jersey, but surely not in Kansas, (3) energy shortages will most likely effect consuming states, but not producing states, (4) our energy shortage is short-lived, therefore, there is no need to take action now, and (5) action at the federal level will have little impact on us here in the midwest. Those types of beliefs are causing me great concern and are seriously delaying attempts to solve our energy problem.

Rather than spend too much time on general topics, I want to present some specific data for your consideration.

The Energy Situation: PETROLEUM

Contrary to what some people believe, this country is becoming more and more dependent on expensive imported crude oil and refined products to make up the difference between our domestic production and domestic consumption. The present crude oil production in the United States is the lowest it has been in the last

le. At our current import rate and foreign oil prices, $47 ...ion will leave this country this year in exchange for foreign oil (that is 70 times the value of the 1977 Kansas wheat crop). The cost of foreign oil is a major component of our international balance of payments deficit, and a major result of more cash flowing out of a country than coming back into a country is inflation. Let me review with you our nation's oil production and import figures for the last six years (we currently consume about 17 million barrels of oil per day in the United States).

	Crude Oil (millions of barrels/day)		
	Domestic Production	Imports	Percent Imports
June 1972	9.466	4.741	33.4
June 1973	9.367	5.707	37.9
June 1974	8.988	6.826	43.2
June 1975	8.368	5.513	39.7
June 1976	8.274	6.875	45.4
June 1977	8.036	8.969	52.7

Some people believe that when the Alaskan pipeline is fully operational, this nation will no longer need to import oil. Let us look more closely at the realities of Alaskan oil:

- We discovered the Prudhoe Bay fields in 1968.
- Construction of the pipeline began in 1974.
- Oil started flowing south in June 1977 and is expected to provide 1.2 million bbl/day to this nation later this year.
- Production should reach 2 million barrels per day by 1980-81; and,
- The field will reach maximum production and begin to decline by 1985.

We, of course, are optimistically looking towards the Outer Continental Shelf for oil reserves, but lease sales on the east coast are tied up in litigation, and plans to offer OCS tracts for bidding on the west coast were suspended early this year. Congressional amendments to the Coastal Zone Management Act and amendments to the OCS Act will delay by 3 to 6 years the start of any new oil production from the OCS frontier areas.

How about our petroleum reserves? What is the situation there?

Petroleum: Proved Reserves (U.S. including Alaska)

Year	Millions of barrels at year end	Annual Change	
1970	39,001	---	We consume 6,000 million barrels per year.
1971	38,063	-2.4%	
1972	36,339	-4.5%	
1973	35,299	-2.9%	
1974	34,250	-3.0%	
1975	32,682	-4.6%	
1976	30,941	-5.4%	

Facts:

- Reserves of petroleum are declining by 3.8% annually.
- Domestic petroleum production is decreasing by 4.0% annually.
- Consumption of petroleum in the U.S. during the first four months of 1977 was 8.5% greater than the similar period of 1976. Petroleum consumption during May 1977 was 6.7% greater than in May 1976.
- In 1976, consumption of motor fuels in Kansas was 6.4% above 1975. (Iowa +7.8%, Nebraska +6.7%, etc.)
- In spite of higher fuel costs, the 1976 consumption of gasoline was the highest on record--110 billion gallons (7.1 million barrels/day).

Energy Situation: NATURAL GAS

Natural gas is an extremely important fuel in Kansas. Natural gas is used in many industrial processes, it is used to operate our industries, to manufacture anhydrous ammonia fertilizers, to fuel our irrigation pumps, to move fuels through our pipelines, to heat homes, and to produce electricity. Federal price controls have discouraged natural gas exploration and production, and those controls have discouraged conservation of natural gas. In 1974, much of the natural gas in Kansas sold for $.15 to $.25 per 1000 cubic feet (MCF), that equates to oil at $.87 to $1.45 per barrel. Here are some pertinent price comparisons:

Natural Gas (cost/MCF)		Equivalent price of crude oil (cost/barrel)
$ .52	(Previous FPC ceiling for new gas)	$ 3.02
1.46	(Current FPC ceiling for new gas)	8.47
1.75	(Carter's proposed ceiling for new gas)	10.15
2.26	(Price of gas from Canada)	13.11
2.39	(Intrastate gas in Texas)	13.86
3.34	(LNG from Nigeria)	19.37
5.00	(Coal gasification)	29.00

If natural gas were priced equivalent to imported oil ($14.32/bbl), it would cost $2.47/MCF.

Reserves of natural gas have declined steadily during recent years. The cause of this decline is simple; we are consuming more natural gas each year than we are discovering.

Natural Gas: Proved Reserves (U.S. including Alaska)

Year	Trillions of Cubic Feet at year's end	Annual Change
1970	290.7	---
1971	278.8	-4.1%
1972	266.1	-4.6%
1973	249.9	-6.1%
1974	237.1	-5.1%
1975	228.2	-3.8%
1976	216.0	-5.3%

We consume about 20 TCF each year.

As you know, the word curtailment is almost a synonym for natural gas. A review of past interstate natural gas curtailments in the United States is a fairly good way to predict future trends.

Year	Natural Gas Production (TCF)	Curtailment (TCF) of Firm Customers	Percent of Curtailment
1970	22.0	0.02	0.1
1971	22.1	0.29	1.3
1972	22.5	0.65	2.9
1973	22.6	1.13	5.0
1974	21.3	1.68	7.9
1975	19.7	2.64	13.4
1976	19.5	4.03	20.7

Of course, curtailments during the season of peak demand are greater than reflected by the annual figures above. In the 20 percent colder than normal winter of 1976-77, actual curtailments approached 30 percent of firm needs; FPC estimates that curtailments will exceed the 30 percent level during the 1977-78 heating season, even if the winter is normal.

Of interest to each of you and the citizens of this state should be the change in price of electricity, partially a result of

ural gas curtailments. For example, over 85 percent of the electricity generated in Kansas in 1972 was generated from natural gas; during the last 12 months, only 51 percent of the energy used to generate our electricity was natural gas. That switch from natural gas to oil and coal was necessitated by the natural gas shortage; i.e., natural gas supplies for power plants were curtailed so that homes and other priority consumers could be supplied.

Electricity generated from price controlled natural gas is cheap; it costs more to generate electricity from coal, and much more to generate electricity using oil. Here are the prices of fuels used to generate electricity in Kansas during the past 12 months:

	Natural Gas		Coal	Oil
	1974	1977	1977	1977
Price per 1,000,000 BTU's	$.26	$.70	$.74	$1.71

When utilities (or any industry) are forced to switch from natural gas to oil, each and every one of us feels the economic impact of the natural gas shortage.

Facts:

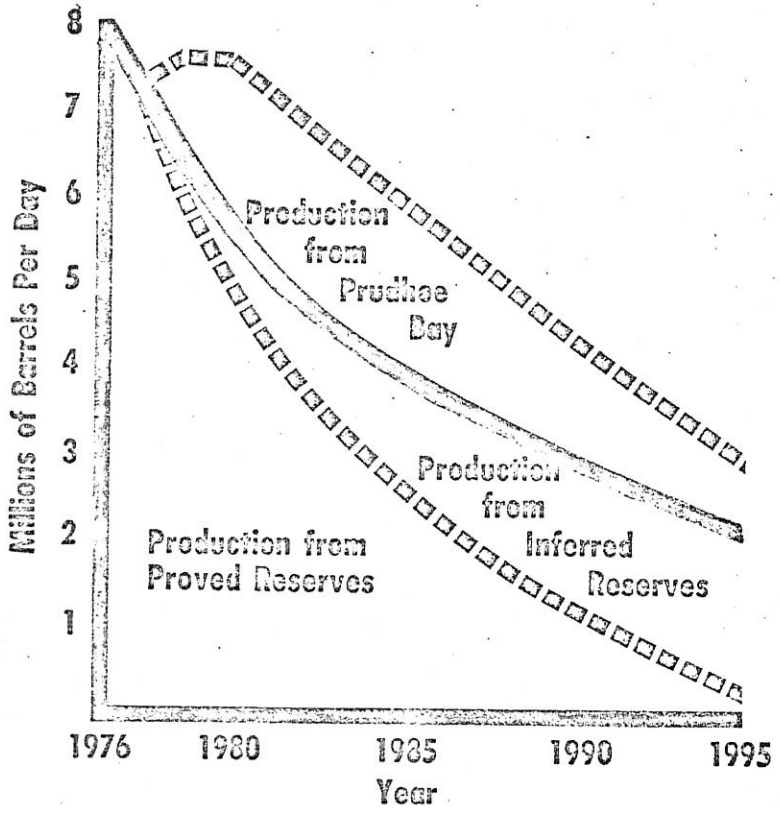
- Reserves of natural gas have declined by 4.9% annually.
- Since 1973 production of natural gas has declined by 5.0% annually.
- Shortages of natural gas exceed 20% of firm needs.
- Shortages of natural gas during this coming heating season will be felt by residential and small commercial users as well as large industrial consumers.

I dwelt on the oil and natural gas situation before discussing the proposed National Energy Plan because oil and gas currently provide 74 percent of the U.S. energy base and will be the two most important fuels for this nation during the next decade. Coal provides 19 percent of our energy base and nuclear 3 percent, while hydropower makes up the remaining 4 percent. A shift from an oil-gas driven economy to a coal-driven economy will be a long tough ordeal. Figures 1 and 2 graphically project domestic oil and gas production data for the next couple of decades. Unless we get busy with exploration and development soon, this nation's supply of crude oil is going to be zilch within a very few years. The natural gas decline curve assumes that we will discover natural gas at the same rate as we have in the past 8 years, and that a pipeline will be built by 1981-82 to move gas from the Arctic fields to the lower 48 (both are optimistic assumptions). Essentially, by 1985 there will be no natural gas for utilities and industrial consumers. Only by means of aggressive programs will we even have enough natural gas in 1985 for our existing high priority users--residential, process, and small commercial customers.

THE PROPOSED NATIONAL ENERGY PLAN

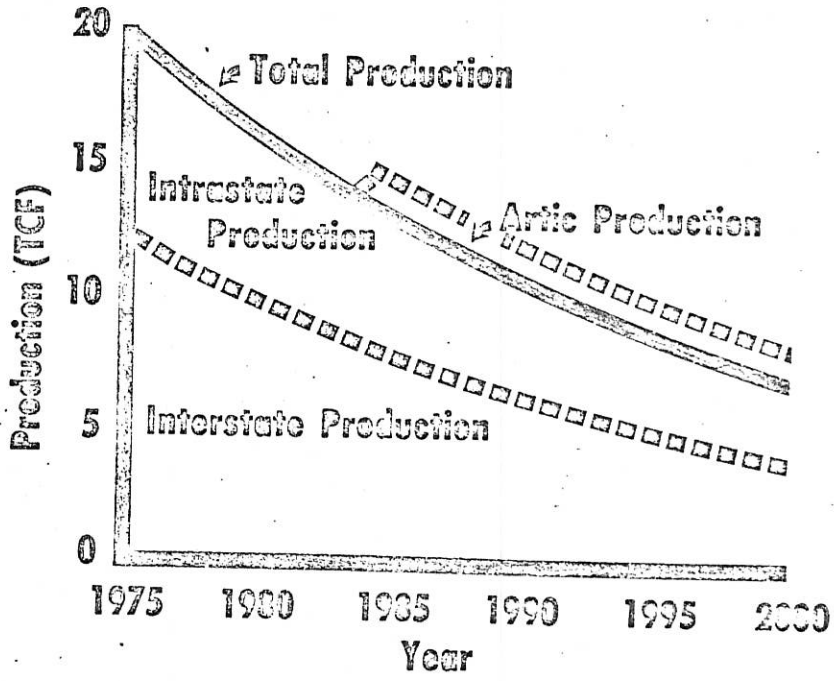
Before discussing the proposed National Energy Plan, I want to provide you with some personal background. Basically I am a scientist, with fairly extensive experience in the energy area, i.e., hydro electric plants, oil and gas production, nuclear plants, North Sea oil, strip mining of coal, energy conservation programs, and so on. In 1973, Governor Robert Docking appointed me as

FIGURE 1



Projected Oil Production by Conventional Methods From Known U.S. Reservoirs, 1976-1995

FIGURE 2



Projected U.S. Natural Gas Production, 1975-2000 (assuming 8.0 TCF reserve additions per year)

man of the Governor's Advisory Council on Energy and Natural ...rces. In late 1975, Governor Robert Bennett selected me to chair the State Energy Advisory Council, which was created by legislative action during the 1975 session. During this past year, I have spent much of my time in Washington, D.C., as Leader of an Enhanced Oil and Gas Recovery Project being conducted in the Energy Programs section of the Congressional Office of Technology Assessment. OTA is a non-partisian research arm of Congress under a 12-member politically balanced Assessment Board, chaired in 1976 by Congressman Teague (D-Texas), and in 1977 by Senator Kennedy (D-Massachusetts). With that as background, I would like to discuss various aspects of the proposed National Energy Plan. My assessment of the proposed National Energy Plan is non-political--one of the primary reasons why little progress is being made in the energy area is because people are playing party politics with energy; energy problems are too purvasive to be tugged back and forth between the Legislative and Executive branches of government, or between Republicans and Democrats. Progress will result from cooperation, not confrontation.

I received an early briefing on the proposed National Energy Plan from The White House in late March 1977, and a review copy of the plan a week or so before it was formally released by the President on 20 April 1977. Last Friday and Saturday I had the opportunity to discuss various aspects of the plan with President Carter, Dr. Schlesinger, and David Freeman. OTA has conducted an in-depth assessment of the proposed National Energy Plan and some of my remarks today originate from that analysis. Thus, I

feel fairly well versed on various aspects of the National Energy Plan.

The two basic policy objectives of the proposed National Energy Plan are (1) reduction of the level of energy imports, and (2) distributional equity. As you are aware, the four primary goals of the proposed National Energy Plan are commendable:

1. Limit growth of energy consumption to 2% per year.
2. Increase coal production by 400 million tons per year by 1985.
3. Reduce oil imports to 6 million barrels per day by 1985.
4. Speed up the nuclear plant licensing process.

To meet these four goals, the proposed National Energy Plan includes a series of taxes, tax incentives, and tax rebates on energy production and consumption. On 29 April 1977, the President delivered his legislative package, the NATIONAL ENERGY ACT, to both houses of Congress and requested immediate action. I have included in the written text of this talk copies of two pages from the 283-page NATIONAL ENERGY ACT which should be of interest to you. The attached pages are the first two pages of Part C dealing with Business Energy Tax Credits.

I trust you can appreciate the difficulty of analyzing the proposed National Energy Plan. Only after careful legal review of various Federal Acts, amendments thereto, and legal interpretations by the Internal Revenue Service, is one able to analyze the potential of the proposed National Energy Plan.

R D Rahe

95th Congress, 1st Session - - - - - - House Document No. 95-138

NATIONAL ENERGY ACT

COMMUNICATION

FROM

THE PRESIDENT OF THE UNITED STATES

TRANSMITTING

A DRAFT OF PROPOSED LEGISLATION TO ESTABLISH A COMPREHENSIVE NATIONAL ENERGY POLICY

APRIL 29, 1977.—Referred to the ad hoc Committee on Energy and ordered to be printed

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PART C - BUSINESS ENERGY TAX CREDIT

SEC. 1301. BUSINESS ENERGY CREDIT

(a) Allowance of Credit.--Section 46 (a) (2) (relating to amount of investment credit for the current taxable year) is amended as follows:

(1) Subparagraph (A) is amended by striking out "subparagraph (B)" and inserting in lieu thereof "subparagraphs (B), (E), and (F)".

(2) Subparagraph (B) is amended by striking out "the amount of the credit" and inserting in lieu thereof "except as otherwise provided in subparagraphs (E) and (F) the amount of the credit".

(3) Subparagraph (C) is amended by striking out "In the case of property" and inserting in lieu thereof "Except as otherwise provided in subparagraphs (E) and (F), in the case of property".

(4) New subparagraphs (E), (F), and (G) are added to read as follows:

"(E) Business Energy Property. - In the case of a property that is business energy property (as defined in section 48 (l) (1)), other than special business energy property, the amount of credit determined under this paragraph for the taxable year shall be the amount equal to--

"(i) except as provided in clause (ii), in the case of such property described in subparagraph (D), 20 percent of the qualified investment (as determined under subsections (c) and (d));

"(ii) in the case of property described in subparagraph (D) and a corporation to which subparagraph (B) applies, the amount which would be determined under subparagraph (B) with respect to qualified investment in such property (except that the figure "21 percent" shall be substituted for "11 percent" in applying subparagraph (B)(i)); and

"(iii) in the case of property not described in subparagraph (D), an amount equal to 17 percent of the qualified investment (as determined under subsections (c) and (d)).

In the case of cogeneration property (as defined in section 48 (ℓ) (4) or alternative energy property (as defined in section 48 (ℓ) (5)) to which this subparagraph applies, the figure "20 percent" shall be substituted for "17 percent" in applying clause (iii).

"(F) Special Business Energy Property - Except as otherwise provided in this subparagraph, in the case of

At this point it may be useful to summarize the main points of the President's energy policy:

1. A "gas-guzzler" tax would be imposed on new cars not meeting the Federal mileage standards, and rebates would be offered for cars exceeding the standards.
2. Gasoline taxes would increase by five cents per gallon per year beginning in 1979 for each year that Federal gasoline consumption targets are not met. The maximum tax would be fifty cents per gallon.
3. Price controls would be continued on most oil production. "Old oil" would be taxed to bring its market price up to the world price by 1980. New oil price would increase to the 1977 world oil price over a three year period. Enhanced oil recovery and stripper oil production would be free of price controls.
4. Natural gas price for new discoveries would be set equal to the BTU equivalent oil price (currently $1.75 per Mcf). The interstate-intrastate distinction on gas would disappear.
5. Utility rate structures would be changed to eliminate volume discounts and encourage usage during off peak times.
6. Industries which had not converted to coal from oil and natural gas would be taxed for consumption of these fuels beginning in 1979. Utilities, likewise, would be taxed beginning in 1983.
7. Insulation tax credits would be granted to homeowners equal to 25 percent of the first $800 spent and 15 percent

of the next $1400. Business would receive a 10 percent investment tax credit.

8. Tax credits would also be granted to homeowners who install solar heating equipment. The credit would amount to 40 percent of the first $1000 spent and 25 percent of the next $6400 for a maximum credit of $2000. The credit would decline between 1977 and 1985.

In addition to these major features, the proposal also contains a large number of regulatory and administrative features to supplement the major provisions.

Essentially the proposed National Energy Plan relies on conservation to solve this country's energy problem. I doubt if much more than half of the proposed National Energy Plan will survive Congressional action, but if the entire package receives Congressional approval and all objectives are met, our energy problem will not be resolved.

To provide you a simplified over view of this nation's energy situation, I have converted the forms of energy we currently consume into equivalent barrels of oil. To make the numbers more meaningful, the rates of production and consumption are presented in millions of barrels of oil equivalents per day. A quick review of the attached balance sheet will show you why I am concerned. The 7.7 million barrels of oil per day short fall in 1985 is very optimistic; it assumes all of the objectives of the proposed National Energy Plan are adopted, implemented by 1 January 1978, and are successful. Some of my colleagues in the Office of Technology Assessment in Washington predict a short fall of 10.1 million barrels of oil

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Energy Consumption (MMB/D)

	38.3	43.9 (2% increase/year; 1977-1985)

"Bottom Line"

	Balanced	-7.7

Conclusion:

The Carter plan will result in a 7.7 million barrel per day short fall in U.S. energy supplies by 1985. Unless aggressive action is taken to increase oil and natural gas production, this nation will experience an acute shortage of energy by 1985, or will be needing to import 13.7 million barrels of oil per day (6.0 + 7.7) to meet our projected needs.

R. J. Robel, Chairman
28 April 1977

per day by 1985. Basically, the proposed National Energy Plan is weak. My fear is that if all provisions in the proposed National Energy Plan are adopted and implemented, the citizens of this country are going to expect our energy problem to be cured. It won't be. Two vital elements appear to be lacking in the President's plan: (1) reliance on basic market force supply and demand principles, and (2) incentives to increase energy production.

Turning to a more parochial viewpoint, I would like to conclude by addressing two issues in the proposed National Energy Plan of concern to me as a Kansas citizen. I am sure the same issues will be of interest to you as representatives of the citizens of this state.

Regional Impacts

The proposed tax on gasoline and crude oil will impact rural families more than urban families because of a rural family's greater reliance on gasoline for necessary travel. Proposed taxes will be collected on each gallon of gasoline purchased, but rebated nationally on a per capita basis. Residents of the midwest (North Dakota-Montana to Texas-New Mexico-Nevada) are large consumers of gasoline on which taxes are proposed to be levied; rebates of gasoline taxes will be made nationwide on a per capita basis. Regions that suffer the greatest tax bite will not receive a proportional return of those taxes. Example: an average Kansan uses 605 gallons of gasoline annually, a New Yorker uses 316. If the tax on gasoline were $.50/gallon, a Kansan would pay $303/year, and the New Yorker $158/year. Under the proposed National Energy Plan, both would receive an identical rebate if they are in the same

income bracket and had the same number of dependents. The low income rural population will be hit most heavily by the proposed tax plan because they spend a larger share of their income on gasoline and secondly, they tend to be purchasers of used cars rather than more energy efficient new cars.

State Responsibilities

The proposed National Energy Plan is vague on the role of states, except that states are to be the "enforcers of federal laws and standards," responsible for channeling rebates to consumers, enforcing mandatory energy efficiency standards for new buildings and home appliances, and gathering pertinent data for the proposed energy information program. States will be responsible for delivering energy programs to the people.

Proposed federal control over rate design and monitoring could usurp powers of state regulatory commissions. There is little flexibility in the proposed rate designs to account for regional differences in demand and consumption patterns.

Encroachement of federal control of gas production and sales in the intrastate market will be a disadvantage to gas producing states. Proposed price control levels are lower than the market price of natural gas in the intrastate system of many states.

Federal control over siting of energy facilities and energy development could put less populated states at a great economic disadvantage. Essentially, economic development of a state or region could be dictated by a federal agency, with little chance for state input.

Mr. Chairman, I could continue, but I believe we could accomplish more in a question-answer exchange. In summary, the proposed National Energy Plan is a move in the right direction, it does set some very good goals, but in general, it is too weak to really solve this nation's energy problem. As I have said in the past, to solve our national energy problem we must decrease energy consumption and increase domestic energy production. To neglect either side of the energy equation is shortsightedness, which will result in devastating consequences for this nation within the next decade.

Thank you.

Attachment 10

TITLE I - PRICING, REGULATORY AND OTHER NON-TAX PROVISIONS

PART A--ENERGY CONSERVATION PROGRAMS FOR EXISTING RESIDENTIAL BUILDINGS

Subpart 1 - Utility Program

Definitions

Sec. 101. As used in this subpart:

(1) The term "Administrator" means the Administrator of the Federal Energy Administration.

(2) The term "Commission" means the Federal Power Commission.

(3) The term "natural gas" means natural gas as that term is defined in the Natural Gas Act.

(4) The term "non-regulated utility" means a public utility which is not a regulated utility.

(5) The term "public utility" means any person or State agency which is engaged in the business of selling natural gas or electric energy for purposes other than resale; except that such term shall be deemed not to include any such person or agency in any calendar year unless during the second preceding calendar year either (A) sales of natural gas by such person or agency exceeded 10 billion cubic feet, or (B) sales of electric energy by such person or agency exceeded 750 million kilowatt-hours.

(6) The term "rate" means any price, rate, charge, or classification made, demanded, observed, or received with respect to sales of electric energy or natural gas, any rule, regulation, or practice respecting any such rate, charge, or classification, and any contract pertaining to the sale of electric energy or natural gas.

(7) The term "ratemaking authority" means authority to fix, modify, approve or disapprove rates.

(8) The term "regulated utility" means a public utility with respect to whose rates a State regulatory authority exercises ratemaking authority.

(9) The term "residential building" means any building developed for residential occupancy, the construction of which commenced prior to one year after the date of enactment of this subpart, which has a mechanical or electrical system for heating or cooling, or both, and which contains no more than two dwelling units.

(10) The term "residential customer" means any person to whom a public utility sells natural gas or electric energy for consumption in a residential building.

(11) The term "residential energy conservation measure" means --

(A) caulking and weatherstripping of all exterior doors and windows;

(B) furnace efficiency modifications limited to--

(i) replacement burners designed to reduce the firing rate or to achieve a reduction in the amount of fuel consumed as a result of increased combustion efficiency,

(ii) devices for modifying flue openings which will increase the efficiency of the heating system, and

(iii) electrical or mechanical furnace ignition systems which replace standing gas pilot lights;

(C) clock thermostats;

(D) ceiling, attic, wall, and floor insulation;

(E) hot water heater insulation; and

(F) storm windows.

(12) The term "residential energy conservation plan" means a plan approved by the Administrator pursuant to section 102(c) which is developed by a State regulatory authority or by a non-regulated utility.

(13) The term "State" means a State, the District of Columbia, Puerto Rico, and, at the discretion of the Administrator, any territory or possession of the United States.

(14) The term "State regulatory authority" means any State agency which has ratemaking authority with respect to the sale of electric energy or natural gas by any public utility (other than by such State agency).

(15) The term "suggested measures" means, with respect to a particular residential building, the residential energy conservation measures which the Administrator, in the rules prescribed pursuant to section 102(a), determines to be appropriate for the location and the category of residential buildings which includes such building.

(16) The term "utility program" means a program meeting the requirements of section 103 carried out by --

(A) a regulated utility pursuant to a residential energy conservation plan developed by a State regulatory authority;

(B) a non-regulated utility pursuant to a residential energy conservation plan developed by such utility; or

(C) a regulated or non-regulated utility pursuant to an order of the Administrator issued pursuant to section 105.

Residential Energy Conservation Plans

Sec. 102. (a) The Administrator shall, not later than 120 days after enactment of this subpart and after consultation with the Secretary of Housing and Urban Development and the heads of such other agencies as he deems appropriate, promulgate rules for the content and implementation of residential energy conservation plans.

(b) The rules prescribed pursuant to subsection (a) --

(1) shall identify the suggested measures for residential buildings, by climatic region and by categories determined by the Administrator on the basis of type of construction or any other factors which the Administrator may deem appropriate; and.

(2) may include --

(A) standards for general safety and effectiveness of any suggested measure;

(B) standards for installation of any residential energy conservation measure; and

(C) such other requirements as the Administrator may determine to be necessary to carry out this subpart.

(c) Not later than 180 days after promulgation of the rules described in subsection (a), each State regulatory authority may submit, and each non-regulated utility shall submit a proposed residential energy conservation plan to the Administrator. The Administrator may, upon request of a State regulatory authority or non-regulated utility, extend the time period for submission of a plan by such authority or utility. Each such plan shall be reviewed and approved or disapproved by the Administrator not later than 90 days after submission. If the Administrator disapproves a plan, the State regulatory authority or non-regulated utility may submit a new or amended plan not later than 60 days after the date of such disapproval, or such longer period as the Administrator may, for good cause, allow. The Administrator shall review and approve or disapprove any such new or amended plan not later than 90 days after submission. After approval of a plan, a State regulatory authority or non-regulated utility may submit an amended plan with the consent of the Administrator.

88-554 O - 77 - 3

(d) No residential energy conservation plan submitted by a State regulatory authority shall be approved by the Administrator unless such plan --

(1) requires each regulated utility over which such State regulatory authority exercises ratemaking authority to implement a utility program described in section 103;

(2) contains an adequate program for preventing unfair, deceptive, or anticompetitive acts or practices affecting commerce which relate to the implementation of utility programs within such State;

(3) contains adequate procedures to assure that each regulated utility will carry out a utility program;

(4) contains adequate procedures to assure that each regulated utility will charge fair and reasonable prices and rates of interest to its residential customers in connection with the installation of residential energy conservation measures; and

(5) meets such other requirements as may be prescribed in the rules promulgated pursuant to subsection (a).

(d) No residential energy conservation plan proposed by a non-regulated utility shall be approved by the Administrator unless such plan --

(1) provides for the implementation by such utility of a utility program described in section 103;

(2) contains procedures pursuant to which such utility will submit a written report to the Administrator, not later than one year after approval of such plan and biennially thereafter, regarding the implementation of such utility program and containing such information as may be prescribed by the Administrator in the rules promulgated pursuant to subsection (a); and

(3) meets such other requirements as may be prescribed in the rules promulgated pursuant to subsection (a).

Utility Programs

Sec. 103. (a) Except as provided in subsections (b) and (c), each utility program shall include --

(1) procedures designed to inform, no later than January 1, 1980, each of its residential customers who owns or occupies a residential building in which the suggested measures have not been installed, of --

(A) the suggested measures for the category of buildings which includes such residential building;

(B) the savings in costs of home heating and cooling that are likely to result from installation of the suggested measures in typical residential buildings in such category; and

(C) the availability of the arrangements described in paragraph (2) of this subsection;

(2) procedures whereby the public utility, no later than January 1, 1980, will offer each such residential customer the opportunity to enter into arrangements with the public utility under which the public utility, directly or through one or more contractors will --

(A) inspect the residential building to determine and apprise the residential customer of the estimated cost of purchasing and installing each suggested measure;

(B) offer to have the suggested measures installed;

(C) make, or arrange for another lender to make, a loan to such residential customer to finance the purchase and installation costs of suggested measures purchased from and installed by any of the following persons--

(i) the public utility, or

(ii) the public utility and one or more contractors, or

(iii) one or more contractors,

subject to such reasonable requirements as to creditworthiness as may be permitted by the applicable residential energy conservation plan and to the right of the public utility to inspect the residential building to confirm the installation of suggested measures;

(D) permit the residential customer to repay the principal of and interest on any loan made

pursuant to subparagraph (C), over a period of not less than 3 years, as a part of his periodic bill except that a lump sum payment of outstanding principal and interest may be required upon default in payment by the residential customer;

(3) procedures whereby the public utility prepares and sends to each of its residential customers a list of suppliers and contractors in its service area who sell and install residential energy conservation measures which list is designed to encourage participation by such contractors and suppliers in a non-discriminatory manner; and

(4) procedures whereby the public utility prepares and sends to each of its residential customers a list of banks, savings and loan associations, credit unions and other public and private lending institutions in its service area which offer loans for the purchase and installation of residential energy conservation measures.

(b) The Administrator may, upon petition of a public utility, supported in the case of a regulated utility by the appropriate State regulatory authority, waive in whole or in part the requirements of paragraphs (1)(C) and (2)

of subsection (a) with respect to the utility program of such utility if such utility demonstrates to the satisfaction of the Administrator that, despite good faith efforts on its part, it is unable to meet the requirements of paragraph (2) of subsection (a) because it both lacks the financial capability to extend loans in accordance with such paragraph and is unable to arrange with any other suitable financial institution for the making of such loans, except that no public utility may be granted a waiver under this section unless such utility demonstrates to the satisfaction of the Administrator that it has dedicated all capital reasonably available to it towards meeting the requirements of paragraph 2 of subsection (a).

Alternative Programs

Sec. 104.(a) A State regulatory authority or a public utility (supported in the case of a regulated utility by the appropriate State regulatory authority) may apply for an exemption from the requirements of section 103 at any time prior to one year after enactment of this Act. The Administrator shall grant such an exemption if such authority or utility demonstrates to the

satisfaction of the Administrator that it has implemented or will implement an alternative program providing for the installation of residential conservation measures in the homes of its residential customers which program meets the requirements of this subsection. No exemption shall be granted by the Administrator unless the alternative program of such authority or utility includes the following:

(1) procedures whereby the utility informs each of its residential customers who owns or occupies a residential building in which the suggested measures have not be installed, of--

(A) the suggested measures for the category of residential buildings which includes such building;

(B) the savings in costs of home heating and cooling that are likely to result from installation of the suggested measures in typical residential buildings in such category; and

(C) the availability of arrangements for purchase and installation of such measures;

(2) procedures whereby arrangements are offered for the installation of the suggested measures to such residential customers; and

(3) such other requirements as the Administrator determines.

(b) Any application for exemption pursuant to subsection (A) shall contain such information as the Administrator may by rule require.

(c) No application pursuant to subsection (a) shall be approved by the Administrator unless he determines that the alternative program is likely to result in the installation of suggested measures in as large a number of residential buildings as would have been installed had such utility submitted a program which meets the requirements of section 103.

(d) Any State regulatory authority or public utility may apply for a temporary exemption prior to the promulgation of guidelines pursuant to section 102. A temporary exemption may be granted from the requirements of section 103 for a period not to exceed two years after the date of enactment of this Act, if such authority or utility demonstrates to the satisfaction of the Administrator

that it has implemented or proposes to implement an energy conservation program for residential customers which is likely to result in the installation of suggested measures in a substantial proportion of residential buildings.

Federal Standby Authority

Sec. 105. (a) If a State regulatory authority has not had a plan approved under section 102(c) within 270 days after promulgation of rules under section 102(a), or within such additional period as the Administrator may allow pursuant to section 102(c)(1), or if the Administrator determines that such State regulatory authority has not adequately implemented an approved plan, the Administrator shall, by order, require each public utility in the State to offer to its residential customers a utility program prescribed in such order which meets the requirements specified in subsection (a) of section 103.

(b) If a non-regulated utility has not had a plan approved under section 102(c) within 270 days after promulgation of rules under section 102(a) or within such additional period as the Administrator may allow pursuant to section 102(c), or if the Administrator determines that

such non-regulated utility has not adequately implemented an approved plan, the Administrator shall, by order, require such non-regulated utility to offer its customers a utility program prescribed in such order which meets the requirements specified in subsection (a) of section 103.

(c) If the Administrator determines that any public utility to which an order has been issued pursuant to subsection (a) or (b) has failed to comply with such order, he may either order that such public utility may not increase any rate at which it sells natural gas or electric energy until such time as he determines that such utility has implemented a utility program meeting the requirements of the order issued pursuant to subsections (a) or (b), or petition the district courts of the United States to enjoin such utility from violating an order issued pursuant to this subsection.

(d) Any public utility which violates an order under subsection (b) shall be subject to a civil penalty of not more than $25,000 for each violation. Each day that such violation continues shall be considered a separate violation.

Relationship to Other Laws

Sec. 106. The Administrator may by order upon petition by a public utility and for good cause, supersede

any law or regulation of any State or political subdivision thereof, to the extent that such law or regulation prohibits a public utility from taking any action required to be taken under section 103 of this Act.

Contract Provisions

Sec. 107. No public utility shall be subject to any liability under any provision in any contract which restricts any public utility from lending, borrowing, or entering a new line of business, if such lending, borrowing, or entering a new line of business is required under section 103 of this Act.

Rules

Sec. 108. The Administrator is authorized to promulgate such rules as may be necessary to carry out this subpart.

Authorization of Appropriations

Sec. 109. There are hereby authorized to be appropriated to the Administrator such sums as may be necessary to carry out his responsibilities under this subpart.

Subpart 2 -- Financing Program

Amendments to National Housing Act

Sec. 110. Section 2(a) of the National Housing Act is amended by adding at the end of the first paragraph thereof the following sentence:

"For the purpose of this section, the terms 'financial institution' and 'lending institution' shall be deemed to include any public utility which is engaged in making loans or advancing credit for energy conserving improvements as defined in subparagraph (2) of the fourth paragraph of this section only for the purposes of such loans or advances of credit. The term 'public utility' means any person or State agency which is engaged in the business of selling natural gas or electric energy for purposes other than resale."

Sec. 111. Subparagraphs (2) and (3) of the fourth paragraph of Section 2(a) of the National Housing Act are amended to read as follows:

"(2) The term 'energy conserving improvements' means (i) energy conservation measures as defined in section 101 of the National Energy Act, or (ii) any addition, alteration, or improvement to an existing or new structure which is designed to reduce the total

energy requirements of that structure, and which is in conformity with such criteria and standards as shall be prescribed by the Secretary in consultation with the Administrator of the Federal Energy Administration and

"(3) the term 'solar energy system' means any addition, alteration, or improvement to an existing or new structure which is designed to utilize solar energy to reduce the energy requirements of that structure from other energy sources, and which is in conformity with such criteria and standards as shall be prescribed by the Secretary in consultation with the Administrator of the Federal Energy Administration."

Sec. 112. Section 2(f) of the National Housing Act is amended by adding the following at the end thereof:

"The Secretary shall conduct a study within two years after the enactment of the National Energy Act in order to determine an actuarially sound premium rate for loans for energy conserving improvements authorized under section 2(a) of this subchapter, and shall, based on

this study, no earlier than two years after date of enactment of the National Energy Act, set an actuarially sound premium rate for such loans, which rate may exceed the otherwise applicable 1 percentum limitation of this subsection."

Sec. 113. Section 302(h) of the Federal Home Loan Mortgage Corporation Act (12 U.S.C. 1451(h)) is amended by adding at the end thereof a new sentence, to read as follows:

"The term 'residential mortgage' is deemed to include a loan or advance of credit insured under Title I of the National Housing Act whose original proceeds are applied for in order to finance energy conserving improvements to residential real estate. The term 'residential mortgage' is also deemed to include a loan or advance of credit for such purposes not having the benefit of such insurance and to include loans made where the lender relies for purposes of repayment primarily on the borrower's general credit standing and forecast of income, with or without other security."

STATEMENT BEFORE THE
SPECIAL COMMITTEE ON ENERGY

By Hal Hudson
Director of Public Affairs
The Kansas Power and Light Company
July 12, 1977

Energy conservation or wise energy use -- terms that are interchangeable -- do not represent a new subject for us. Our Company has been engaged in energy conservation activities for many years.

In the marketing of the total electric concept, we always have recommended standards for insulation that are above the norm. Twenty years ago the relative prices of electricity and natural gas were such that the only way we could interest customers in electric heat was by encouraging design of homes that would use less energy.

I know that some of you are familiar with our "Stop The Energy Thief!" attic insulation inspection program. In the past eight months we have received over 7,000 requests from our customers to conduct attic inspections and we have influenced about 49% of them to insulate their attics to recommended standards. At the present time we have about 40 employees who are trained and qualified to make these inspections and we currently are receiving over 250 requests per week from our customers.

Just last Thursday, KPL's efforts in helping customers conserve energy was recognized by the Federal Energy Administration with the presentation of the Energy Conservation Regional Award of merit. A copy of the news release made by the FEA regional office is attached to your copy of this statement so you may read the remarks of Regional Administrator Newman.

In another area that may not be as well known to you, we are conducting energy audits for many larger customers, particularly large commercial and industrial users of energy. These audits include on-site observation of their operations seeking opportunities for heat reclaim to salvage wasted heat, and any other ways that these customers can reduce the energy consumption or increase utilization of the energy they do purchase from us.

One of our market service representatives, a specialist in heating and air conditioning, worked directly with the planners of the new Federal Building in Topeka. A number of his recommendations were incorporated into that building which has received national recognition for "wise use of energy". The same man has been working with designers of the new Kansas Supreme Court building.

Our market service representatives also have been involved with power factor corrections for large customers to improve utilization of electric energy they purchase. In the performance of this service, qualified KPL personnel make recommendations for changes in equipment or in the manner of using equipment owned by the customers to reduce the demand and the cost.

In the past year, our home service advisors have made over 40,000 direct contacts with customers through individual meetings or group programs on the wise use of residential energy. They also have reached several hundred thousand customers with wise energy use programs through radio, TV, and newspaper stories. They work directly with elderly customers and limited income groups to provide information and assistance on wise energy use and where they can get social assistance to pay utility bills.

Specially trained market service representatives act as energy and thermal consultants for residential and commercial customers advising

ose building or planning to build how to most effectively use energy and the best thermal treatment concepts. These representatives work directly with owners, builders, architects, and mechanical engineers in the design of heating and cooling systems and the selection of heating equipment.

The Company has conducted training sessions for builders and installers of insulation and new thermal treatment products, on heat pump applications, and on new building products and concepts.

Next month this committee has made plans to visit KPL's Sunpower House in Lawrence. Through this research project, we expect to find means for peak shaving by storing cooling for off peak use and to gain a better understanding of the benefits of solar assistance in space heating and water heating. We intend to serve as a resource for energy information on solar applications by openly sharing all that we learn from the Sunpower House research project.

In addition to these activities designed to help our customers reduce energy waste, KPL has been engaged in a number of other programs to reduce our own energy consumption and improve the energy efficiency of our own operations.

For a number of years we have had an ongoing effort at each of our power plants to improve thermal efficiency. The objective is to produce more kilowatt hours of electricity per unit of fuel going into that production. We have experienced some setbacks in reaching these goals as a result of the need to switch from natural gas to coal as the primary fuel

and the installation of pollution control facilities to clean up stack gases when coal is burned. On an overall average basis, however, in the past 30 years there have been improvements which have resulted in a 32.5% reduction of BTU's of fuel consumed per KWH of electricity produced.

All of our Company offices, warehouses and service centers built since the early 1960's have been designed and built for maximum energy utilization. Such things as heat recovery systems, thermal protection provided through adequate insulation and proper planning of window glass, have resulted in better BTU use in these facilities than is true for the average commercial building in Kansas. The KPL tower, for example, has been a showcase for proper thermal design and energy utilization since its completion in 1962. Occupants of the building work in comfort without supplemental heat when outside temperatures are at zero degrees or below. The heat recovery systems capture BTU's of heat from the lighting, workers bodies and office equipment and redistribute this energy throughout the building.

In our gas department, steps also are being taken to improve our operating efficiency to make more natural gas available to our customers. For a number of years, when additional compressor station horsepower has been required, we have installed supercharged vertical engines that require about one-third less energy input per horsepower than older model horizontal units. One of the newest compressor station installations is at McPherson, where a 3,000 H.P. unit is powered with electricity. This unit's heaviest use occurs in the winter when gas supply for home heating is critical, but electric supply is off-peak. This application also helps balance electric load and improve operating efficiency of our power plants.

For several years we also have had an aggressive program of preventive maintenance to reduce underground pipeline corrosion that results in leaks and line losses. This program not only conserves gas, but ultimately reduces pipeline maintenace costs.

Many of the things we have been doing make good sense from an economic point of view, and were undertaken before conservation of energy was the primary concern. Our street lighting modernization program is an example. Last September we concluded a 10-year program of replacing 29,000 inefficient incandescent lights with mercury vapor lamps. This program involved phasing out the old lighting systems in a total of over 250 communities, providing them with up to four times the lumens of light at street level for the same electric energy input.

All of these programs emphasize the point that energy conservation is not a new matter of concern at KPL. However, the critical national energy situation has provided additional stimulus, and you may be assured that our Company will continue looking for new ways to conserve energy.

CENTRAL CLIPPING FILE

NEWSPAPER: Journal

CITY: Topeka

DATE: 7-7-77

KPL insulation plan honored

The Federal Energy Administration and the Kansas Energy Office presented Kansas Power and Light Co. an Energy Conservation Regional Merit Award today for its Stop-the-Energy-Thief insulation program.

The FEA regional administrator, James R. Newman, presented the award to William E. Wall, KPL president, in Gov. Robert Bennett's office.

In its Stop-the-Energy-Thief program, KPL offers customers free attic inspections by energy consultants. The company will arrange to have insulation installed if needed and customers may finance the work with payments spread over 24 months on their energy bills. In the program's first eight months, more than 7,000 persons requested an attic inspection. Of these, 49 per cent chose to add insulation and nearly 34 per cent accepted KPL's offer to finance the work.

"KPL has been conscientious in providing its customers with an opportunity to participate in this excellent energy conservation program and this commitment places KPL as one of the top service-oriented utilities across the country," Newman said.

In addition to recognition for the home insulation program, the FEA award recognized KPL's efforts to help industrial and commercial customers conserve energy by conducting energy audits and training sessions. It also recognized the company's involvement in solar research, citing its Sunpower House in Lawrence.

Session of 1977

SENATE BILL No. 95

By Senator Hein

1-21

AN ACT directing the secretary of administration to conduct a study into the feasibility of adopting a system of flexible work hours and other variations in workday and workweek schedules for state employees.

Be it enacted by the Legislature of the State of Kansas:

Section 1. (a) The secretary of administration is hereby authorized and directed to study the feasibility of adopting a system of flexible work hours and other variations in workday and workweek schedules for state employees.

(b) The study of the feasibility of adopting such a system of flexible work hours and other variations in workday and workweek schedules shall include, but not be limited to: (1) An analysis of the impact of adopting such a system on the efficiency of government operation, service to the public, energy consumption and employment of personnel; (2) a review of past and present efforts in the public and private sectors of the economy to adopt such a system; (3) recommendations relating to which state agencies would be best suited to implement such a system and the method and means of implementation; and (4) an estimate of the cost to the state of implementing such a system based upon the recommendations for implementation made pursuant to clause (3) of this subsection.

(c) For the purpose of conducting such study, the secretary of administration is hereby authorized to employ such management, legal and financial experts, and such other employees and agents as the secretary deems necessary. Any expenditures for the salaries and other compensation of such experts or other employees or agents may be made during the period from the effective date of this act until December 31, 1977.

(d) The feasibility study required by this section shall be completed by December 31, 1977, and the secretary of administration shall submit a report of the findings and recommendations thereon to the governor and the 1978 session of the legislature.

Sec. 2. This act shall take effect and be in force from and after its publication in the statute book.

Changed from Senate Bill to Senate Concurrent Resolution and killed in Ways and Means when Session adjourned

Attachment 10

STATE ENERGY CONSERVATION PLAN

Testimony by:
Richard B. Hayter, Ph.D.
Energy Management and Control Corporation
Topeka, Kansas

July 12, 1977

Dr. Dean Eckhoff, Kansas State University, presented testimony yesterday, which stated that an effective conservation program could be established on a voluntary basis. I agree that such a program would be viable if supported by the proposed Energy Extension Service within the Kansas Energy Office. However, this would support only a portion of the total Kansas Energy Plan.

Since 1974, I have been working with various legislative committees on energy conserving building codes. One of the predominant problems in the passage of the legislation was the ultimate enforcement of the legislation. The Kansas Corporation Commission recently released a ruling on new construction as it relates to heat losses and air conditioning efficiencies. This is certainly a step in the right direction.

During the last legislative session, Representative Bogina pointed out that energy conservation building standards exist in many of the national codes which are used, in part, by communities in Kansas. However, unless the cities specifically adopt the newer supplements of the national codes, the energy standards will not apply in that community.

The State Energy Plan as described by Mr. Goltz, yesterday, included a section on Building Thermal Efficiency Standards. In preparing that section, I pointed out that adoption of a uniform energy conservation code would not only save substantial amounts of energy, but would be cost effective. Construction costs in all building types within the commercial and residential sectors would actually be reduced if energy conserving practices were used. However, design costs may be higher. Combining the two costs, the straight payback from energy saved would be realized in the first year of operation with the exception of the single family dwelling, which would recover its additional cost in three years.

I would ask that members of this committee allow those of us in the engineer/architect design profession to work with you to develop a code for new building construction. I would recommend that a second, and independent code be developed for existing building modification. Although less legislation has been enacted in the area of existing building modification, I feel the problem should be attacked.

Whatever the codes developed, I would suggest they have both a prescriptive section for those builders not retaining the services of a professional designer, and a performance section for those designers with the resources to use it. Cover sheets of various sample codes and state legislation are attached.

Aside from the building code, I offer the following comments relating to energy conservation in State owned buildings:

Funds were allocated in the past legislative session for the energy conservation modification of Regent's State institutions. We recently completed an in depth computer analysis of an older building at Kansas State University to determine what effect the funded modifications would have. They proved to be substantial. I would assume that additional funding will be released in the future for further energy conservation modifications.

I would suggest that the Board of Regents or State Architect be requested to develop an entire energy conservation long range plan for all the institutions (or other state agencies). This plan would assist in optimizing the expenditure of funds for energy conservations thus directing funds where they would be most effective.

90-75

ASHRAE STANDARD

ENERGY CONSERVATION IN NEW BUILDING DESIGN

Approved by ASHRAE 90-75 Project Committee by letter ballot July 23, 1975; by ASHRAE Standards Committee July 24, 1975; by ASHRAE Board of Directors by letter ballot August 11, 1975.

The American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

IES EMS 4.4

ASHRAE STANDARD

ENERGY CONSERVATION EXISTING BUILDINGS— INDUSTRIAL

DRAFT 1/24/77

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The American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

IES

ILLUMINATING ENGINEERING SOCIETY
OF NORTH AMERICA
345 East 47th Street, New York, New York 10017

ENERGY
CONSERVATION
PROGRAM

Model Code for Energy Conservation in New Building Construction

PRELIMINARY DRAFT
FOR REVIEW

JANUARY 1977

Richard B. Hayter

After two years

Fla.'s FLEET energy-efficiency program saves 55% in energy, yet bldg-energy budgets are lowered

TALLAHASSEE, Fla. — After two years of implementation, the Florida Life-Cycle Energy Evaluation Technique (FLEET) program has resulted in increased energy savings of 55% in state-owned and leased buildings.

Correspondingly, energy manuals, which dictate total energy budgets a building must meet, were revised downward in March and will be revised downward again before year's end, according to Thomas Sechler.

Sechler is engineering administrator, Bureau of Construction, Florida Department of General Services. He is in charge of FLEET.

Energy budgets place a ceiling on Btu consumption per year.

Several months after the FLEET program was put into effect, as mandated by Florida law, studies were undertaken on nine buildings (News, Feb. 2, 1976, p. 59).

Data put through FLEET's computer program projected the full cost of all proposed state buildings including lifetime operating costs and construction price. This information was used to evaluate the energy-efficiency of competing designs for new buildings and to evaluate energy consumption in existing state structures.

Energy savings at that time were put at 50%. Now, however, after analysis of 22 buildings on the part of Sechler, those savings have increased by 5% to an overall savings of 55%.

Over a 10-year period at a [illegible] energy escalation, [illegible] the News that the 55% savings figure will exceed [illegible]

He said the March [illegible] was taken for two [illegible] original energy budgets were found to be too liberal. [illegible] signs according to the energy guidelines were [illegible] lower than the manual's [illegible] energy budgets. So, [illegible] "we lowered our [illegible] with what was [illegible] sense, we made [illegible]"

As an example of [illegible] budget values, an [illegible] over three stories for [illegible] area previously had [illegible] budget — including [illegible] conditioning, heating, [illegible] contributing loads — of [illegible] Btu/ft²/year. Those values [illegible] now been lowered to [illegible] Btu/ft²/year.

In Jacksonville, which demands a larger heating load, the budget has been reduced to [illegible] Btu/ft²/year, from 65,000 Btu/ft²/year.

Sechler said [illegible] vised manuals [illegible] [illegible] will be out by [illegible]

[illegible]

May 30, 1977 23

Richard B. Hayter

California to develop insulation incentives

SAN FRANCISCO, Calif. — The California Public Utilities Commission will develop a program of proposed incentives for California homeowners to insulate their residences.

The commission ruled that any benefits or credits that may be determined will be made retroactive for work done on or after last April 26.

To substantiate future claims consumers must solicit at least two bids in writing from insulation firms and must present proof of payment for insulation showing the date of purchase was no earlier than April 26, with written certification from the installing company as to brand and type of insulation.

The insulation installed must be at an R-19 standard or greater, such as 6 in. of glass fiber in the attic.

Calif. [illegible] energy standard [illegible]

SACRAMENTO, Calif. — The California Energy Resources Conservation and Development Commission staff expects to have a set of performance standards for new nonresidential buildings completed and ready for commission hearings by May 27.

Don Watson, of the energy agency staff, said public hearings will be held June 15 and June 29 before the commission. The energy document will be turned over to the commission for adoption June 29. It is scheduled to become effective Jan. 1, 1978.

Following a lawsuit and a series of court decisions going all the way to the state Supreme Court, the commission staff was ordered to shelve the prescriptive standards it had developed until it established performance standards as well.

When the standards take effect, Watson said, a building owner or designer will have the option of using the performance criteria, and meeting a yet-to-be-designated Btu/h/ft² heat loss figure for the building envelope.

Or, one could use the prescriptive section of the document and meet the standard by using specified equipment and building practices. Watson believes either approach should provide a building with near equal energy use figures, though owners of smaller buildings probably will choose the easier prescriptive approach. Enforcement will be through building permits.

R. B. Hayter

ENERGY CONSERVATION IN BUILDINGS ACT

CHAPTER 89

S. B. No. 516

An Act relating to energy conservation in certain buildings and the responsibility and duties of the State Building Commission, the Governor's Energy Advisory Council, and other state agencies, commissions, and institutions; relating to energy conservation standards in buildings in home-rule cities; adding Subdivision 35 to Article 1175, Revised Civil Statutes of Texas, 1925, as amended; and declaring an emergency.

Be it enacted by the Legislature of the State of Texas:

Short title

Section 1.[60] This Act may be cited as the Energy Conservation in Buildings Act.

Purpose

Sec. 2.[61] The purpose of this Act is to provide for the development of improved design, lighting, insulation, and architectural standards to promote efficient energy use in state buildings including buildings of state-supported institutions of higher education, to reduce wasteful or uneconomic consumption of energy by balancing the cost of energy procurement against the cost of energy conserving building practices to achieve the minimum lifetime cost for all new state buildings, including new buildings of state-supported institutions of higher education, measured by combined construction and operating costs, and to provide information to the public relating to energy saving uses, designs, construction methods, and techniques for all new and existing buildings.

Adoption and promulgation of standards for state buildings

Sec. 3.[62] (a) Within one year after the effective date of this Act, the State Building Commission, after consultation with the Governor's Energy Advisory Council, shall adopt and publish energy conservation design standards that all new state buildings, including buildings of state-supported institutions of higher education, are required to meet. These standards shall include both performance and procedural standards for maximum energy conservation allowed by the latest and most effective technology consistent with the requirements of public health and safety regulations and economic considerations.

(b) The standards shall be promulgated in terms of energy consumption allotments and shall take into consideration the various classes of building uses. Performance standards shall allow for design flexibility since only the total allotment of energy is prescribed.

(c) Procedural standards shall be directed toward specific design and building practices that produce good thermal resistance and low air leakage and toward requiring practices in the design of mechanical and

60. Vernon's Ann.Civ.St. art. 6781, § 1.
61. Vernon's Ann.Civ.St. art. 6781, § 2.
62. Vernon's Ann.Civ.St. art. 6781, § 3.

State Capitol

Attachment 10
July 12, 1977

ES MENDENHALL
President

SOLAR ASSIST CORPORATION
ENERGY-CONSERVATION CONSULTANT

P. O. Box 979
LAWRENCE, KANSAS 66044

Special Committee on Energy

The discussion of energy shortages must not only encourage the development of new fuel supplies, but must place conservation as a major priority item with which to meet the demands due to cause the shortages.

Most people do not understand the complex structures related to energy supply. Most voters will react with emotion when comfronted by the need to conserve. This "lack of information" on the city official level has resulted in a proposed Departmental office of Energy Coordination at the Federal level.

Kansas needs this level of information gathering, if it is to adequately serve its citizens. The demand for conservation information, covers a range of subjects from Sod houses to vacationing in Kansas. Both save energy over similar situations.

Because of the diversity of the potentials available there should be established a task force to help handle the many questions people will be having concerning their future plans.

The lack of fuel is evident, but the efforts to save this Fuel is less evident and needs the help of an energy information coordinator.

Thank you
James Mendenhall