Energy

NOV 12 1976

November 1, 1976

COPY

Ms. Susan Conway
Governor's Energy Advisory Council
7703 North Lamar
Austin, Texas 78761

Gov. B.

Dear Susan,

I have just completed reading the Energy Policy Monitor for October 22 and two questions come to mind. One relates to Del Fowler requesting the governors to designate which agency is to receive weatherization funds under the Energy Conservation and Production Act. Will you please let me know which agency he designates? I presume there is some sort of deadline--I would appreciate knowing what that is.

The second item relates to the electricity study done by the Center for Energy Studies. Will you please send me a copy?

That's all for right this minute! Except that I would like to know who Mac Holder is. Apparently he is with the State Building Commission in some capacity. If you know of him, would you give me a call?

Many thanks.

Sincerely,

Laura Keever

bcc: Titus, SO

Energy

NOV 12 1976

September 13, 1976

The Honorable Dolph Briscoe
State Capitol
Austin, Texas 78711

Dear Governor Briscoe:

The League of Women Voters of Texas has been active in the field of energy conservation for the past two years. We are convinced that energy conservation should be an essential element of any national and/or state energy policy. To that end, we are supportive of the state of Texas participating in the FEA energy conservation program under the Energy Policy and Conservation Act of 1975. We have studied the proposed State Energy Conservation Plan and Feasibility Report Guidelines as published in the Federal Register of June 16, 1976 and offered suggestions for revision to FEA. (A copy of the League's comments is attached.)

The League therefore urges you to apply for the planning funds which are available under this Act. A state energy conservation plan will take us one step closer to realizing significant energy conservation in the state of Texas.

Sincerely,

LK

Betty Anderson,
President

Encl.

bcc: Anderson, Titus, Higgins, Moon, Headrick, Davies, SO

COPY

Energy

NOV 4 1976

1 November 1976

To: Laura cc: Meg, SO
From: Betty A.
Re: Possible sponsorship of workshop with FEA
co

I think it would be in order to ~~xx~~-sponsor a workshop on the state energy conservation plan for Texas, lending our name and your expertise. If ~~xxxx~~ we were asked to sponsor, I think arrangements would have to be worked out carefully about expenses for mailings, arrangements, etc. If you are looking for LL involvement, we would also need to consider the calendar.

This would seem a logical first step, and I would think the League would want to be involved.

BA

COPY

S.O. NOV 1 1976

October 28, 1976

Mr. Delbert Fowler
Regional Administrator
Federal Energy Administration
2626 W. Mockingbird Lane
Dallas, Texas 75235

Dear Del,

I have been concerned about the best way of involving interested individuals and groups in developing the state energy conservation plan for Texas. It seems to me that one initial step might be for FEA to sponsor a workshop on the regulations and implementation of the regulations once these items are finalized. To be effective in involving various interest groups in developing the plan, such a workshop would have to be held early in the five-month period after the regulations are published. Does your office have any plans for such an information-giving process?

It also seemed to me that the Governor's Energy Advisory Council (or whatever agency is chosen to develop the plan in Texas) might participate in such an endeavor by pointing out the various responses Texas might take in each of the conservation areas.

Would you please let me know if such an approach is already part of your planning and, if not, how we might work together to assure adequate and informed public participation in developing the state energy conservation plan for Texas.

Sincerely,

LK

Laura Keever,
Energy Chairperson

cc: Joe Ventura
Dan Deaton

bcc: Anderson, Titus, Higgins, Moon, Headrick, Davies, SO

Betty and Meg: I think something like this is essential. If FEA asks us to sponsor such an undertaking (or cosponsor) is that all right? Assuming we spend no money, of course! Could you call or write me fairly soon about this?

L.

COPY

Energy

bcc: Anderson, Titus, Higgins, Moon, Headrick, SO

NOV 1 1976

October 28, 1976

Mr. Joe Ventura
Governor's Energy Advisory Council
7703 North Lamar
Austin, Texas 78761

Dear Joe,

Thank you for calling last night. I am, as always, impressed with the devotion you have for solving the energy problems of Texas.

Enclosed is a copy of the letter I have written to Del Fowler concerning public participation in the development of the state energy conservation plan. I will keep you informed of progress in this area.

I would like to reiterate to you my suggestion of a steering committee (larger than the Conservation Advisory Subcommittee) to work with whatever group is designated to develop the plan. I think the steering committee approach has worked well for development of the coastal management program, and while there will not be time to do all the things they have done, I think a similar approach would be valuable. Can part of the planning funds be used to fund such an endeavor?

I was, of course, interested in some of the studies you are doing concerning energy and the environment. Are these studies taking into account health and property damage costs of relaxed environmental standards? EPA has begun to develop the predictive capacity to estimate these costs, and I hope they are not being overlooked.

I am also concerned about the way that conservation is being considered in your forecasts. Is it through a cost relationship only? Are any efforts being made to estimate energy savings as well as cost savings of the various energy conservation approaches being considered by my conservation subcommittee, for example?

I think perhaps it would be best for me to sit down with you and Milton and try to achieve a better understanding of what you are doing. Would you be free to meet with me for an hour or two on November 9 or 10? Perhaps around 11:00 a.m.?

I look forward to hearing from you soon.

Sincerely,

LK

Laura Keever,
Energy Chairperson

COPY

Energy

NOV 1 1976

October 26, 1976

COPY

Mr. Joe Ventura
Governor's Energy Advisory Council
7703 North Lamar
Austin, Texas 78761

Dear Joe,

I have just looked over "A Model Used Oil Recycling Act" by William A. Irwin of the Environmental Law Institute. Has anyone at GEAC looked into the matter of recycling of oil for Texas? If so, would you please tell me the conclusions? Needless to say, it looks promising to me.

Now for some non-essentials. On your letterhead, the zip code is indicated to be 78761. However, the Energy Policy Monitor reflects a zip of 78752. Both state a 7703 North Lamar address. Will you dispel my quandry and tell me which it is?

Did you receive a certain news clipping from me from the New York Times? You can comment if you like!

You may write me a non-essential answer except for the first paragraph.

Sincerely,

LK

Laura Keever
Energy Chairperson

bcc: Anderson, Titus, SO

~~St. Program~~
~~S.O.~~
Energy
OCT 27 1976

October 26, 1976

MEMORANDUM

To: Meg

From: Laura

Re: Amplification of Position

I find in looking through my files that I no longer have a copy of "And Now Action". Also I am confused as to whether we are updating "And Now Action" or "State Program - A Historical Perspective". In any event, this is an initial try--please feel free to change the format, etc. to coincide with whatever you are trying to do. I am not sure that I mentioned at state board ~~and~~ that I wished to have the life of the GEAC extended to 10 years instead of 2. (Having this repassed each session is ridiculous. Energy is not a short term problem.) Anyway, I'm sending a copy of this to Betty and Barbara N. for any comments they may have. I know that adding some of the Guidelines is making this longer than you may want; however, I'm not sure local leagues can easily lay their hands on these guidelines, and I would like to include them if possible.

* * *

While energy conservation is a part of our LWV-T natural resources position, essentially the energy conservation action taken on the state level is an example of action taken under vertical program, i.e., we are acting under our national energy position adopted in May, 1975 following the guidelines issued by the LWV-US board (see the January, 1976 National Board Report.) Those guidelines that have had particular application to Texas include:

- Energy conservation should be the keystone of government energy policies and citizen responses. A national energy policy should aim at more efficient use of energy in order to reduce per capita and per household consumption. The burden of energy conservation measures should be distributed as fairly as possible among all categories of energy users--residentail, commercial, industrial and transportation--and with special concern for people of low-income level.

- Government policy at every level should provide, as part of the public education process (including public school curricula), a basic understanding of what energy is, what it does, and its costs, i.e. social, economic and environmental.

- Federal, state, regional and local funding for public transportation (private as well as publicly owned) should support energy-efficient, suburban and urban demonstration transportation projects such as light rail transit, buses and van pooling, etc. States should be encouraged to allocate highway funds for mass transit

COPY

facilities. Disincentives (such as higher parking charges and the elimination of subsidized parking for all employees) should be enacted to discourage the use of private automobiles (except for carpooling) for commuting where alternative public transportation exists.

- Solid waste management policies should be revised to maximize energy conservation. Both waste reduction and resource recovery should be encouraged. Production of unnecessary waste such as nonreturnable beverage containers and excess packaging should be curbed. The nonreducible portion of the waste stream should be recovered whenever possible for materials and energy.

- Energy systems in the industrial sector should be designed to utilize waste heat.

- Energy efficiency in cooling and heating should be an integral part of building design. Federal funds should be made available to carry out programs to insulate the homes of low-income persons and families. National thermal standards for buildings should be developed.

- Utility rate structures should be designed to encourage energy conservation, to be equitable, as well as to reflect the actual cost of service and provision for future needs. Conservation-oriented options should be utilized.

- Government plicy should encourage community development patterns that promote efficient energy use.

This past year's action has taken the form of monitoring the conservation efforts of the Governor's Energy Advisory Council (GEAC); chairing the Conservation Advisory Subcommittee to the GEAC; monitoring the conservation efforts of the Texas Public Utility Commission, specifically pursuing efforts to see that conservation was included as a factor in determining rates under the PUC-T regulations; and efforts through the Governor's office and the GEAC to see that Texas participated in the state energy conservation program provided for under the federal Energy Policy and Conservation Act. We have also cosponsored with the Texas Environmental Coalition a series of smeinars on energy conservation in buildings, utility rate structures, and government procurement practices.

The legislative initiatives which will be taken by the 65th legislative session relating to energy conservation are not yet completely apparent. As the legislation establishing the Governor's Energy Advisory Council expires in September of 1977, we plan to support extending that authority, hopefully for 10 years instead of 2. We will also be supporting funding for the conservation efforts of the GEAC.

While the final guidelines of the Federal Energy Administration have not yet been published relating to state energy conservation plans, it is probable that some legislation will be required to implement those guidelines, particularly in the area of government procurement practices. We will work to see that any such required enabling legislation be passed.

In the area of utility rate structures, we will monitor the bills intorduced and consider support of any of those which meet our guidelines as stated above.

COPY

Energy
OCT 27 1976

October 18, 1976

COPY

Mr. Delbert Fowler
Regional Administrator
Federal Energy Administration
2626 W. Mockingbird Lane
Dallas, Texas 75235

Dear Del,

Would you send me a copy of the environmental impact statement of the proposed underground petroleum reserve at Bryan Mound Salt Dome near Freeport? Will there be a hearing on this proposal? If so, I would appreciate being advised of the time and place.

I have missed seeing you the past several months. Are there any conferences, etc. that I should be attending in the near future?

I look forward to hearing from you soon.

Sincerely,

LK

Laura Keever,
Energy Chairperson

bcc: Anderson, Titus, Moon, Headrick, SO

NOV 16 1976

League of Women Voters of the United States • 1730 M Street, N.W., Washington, D. C. 20036 Tel. (202) 296-1770

Natl. Public

memorandum

This is going on DPM

October 1976

TO: State and Local League Presidents

FROM: Betty N. MacDonald, Chairman, Energy Committee

RE: Energy COMMITTEE GUIDE

This memorandum brings you the new COMMITTEE GUIDE, Examining Energy Sources and Issues, which is designed to help your League prepare for the energy study adopted by the 1976 national convention. This COMMITTEE GUIDE discusses the background and scope of the energy study; includes a suggested outline for study and discussion that can be adapted to your League's needs and interests; highlights local, state and regional League activities in a catalog of energy ideas; includes examples of League energy action at all levels and a selected list of sources for further information.

Of the many books listed in this COMMITTEE GUIDE and earlier national League energy publications, I particularly want to bring to your attention the Energy-Environment Source Book by John M. Fowler, National Science Teachers Association. The national energy committee, staff and I agreed that this book is an ideal background source for League energy resource committees. It does an excellent job of presenting information on present and alternative energy sources in a factual, balanced, readable manner. For this reason, we have purchased and are mailing under separate cover, two copies of this book to each state League, the District of Columbia, Puerto Rico and the Virgin Islands. In the meantime, we recommend that local Leagues purchase at least one copy for resource committee use. The charge is $4.00 and the book can be ordered directly from the National Science Teachers Association, 1742 Connecticut Avenue, N.W., Washington, D.C. 20009 (see COMMITTEE GUIDE, pg. 8).

I also wish to remind you that the following national League energy publications have already been sent to every state and local League: the COMMUNITY GUIDE and kit of energy materials (June 10, 1975); one copy of the Ford Foundation Energy Policy Project's final report, A Time To Choose (October 1974), ENERGY BRIEFS 1-20 (mailed from time to time) and The Onshore Impact of Offshore Oil (March 1976). If any of these publications are still in your files, be sure to pass them on to your Energy Chairman.

We hope that this COMMITTEE GUIDE will answer many of your questions and will provide the common focus needed as Leagues undertake this study to "evaluate energy sources and the government's role in meeting future needs." Please feel free to contact us if you have any questions. Best wishes on your study!

Attachment

TEXAS ENVIRONMENTAL COALITION ENERGY CONSERVATION SEMINAR SERIES

Final Recommendations

Following are final recommendations developed during and through a series of seminars held in Texas during 1976 and early 1977 by the Texas Environmental Coalition under the direction of Ms. Char White with support from The Energy Institute of the University of Houston, the Governor's Energy Advisory Council and the League of Women Voters. Participating in the seminars were representatives of numerous organizations in Texas with interest in energy conservation and a number of experts in various fields such as architects, builders, utility executives, and others.

A. It is recommended that the State of Texas develop a State Energy Conservation Plan in accordance with the Energy Policy and Conservation Act, (PL 94-163); and the Energy Conservation and Production Act, (PL 94-385).

Regulatory Strategies

B. It is also recommended that uniform and enforceable energy efficiency standards applicable to all buildings to be constructed in the State of Texas be promulgated along the lines of those now being planned by the Advisory Committees to the State Building Commission. Such standards should make provision for:

1. local option of uniform building codes and local enforcement;
2. certification of design by registered professional architects and engineers;
3. a uniform statewide data system for analysis and reference, to be available for modeling and projection purposes;
4. incentives and credits for passive and renewable resource energy systems;
5. climatic variation within the state.

C. It is recommended that there be established mandatory training and certification of building inspectors at the state level.

D. It is also recommended that the Texas Mobile Homes Standards Act (52-21F) be amended to include energy efficiency standards for mobile homes.

Education and Motivation

E. It is further recommended that, as an integral part of the state building program, life cycle costing and other such techniques and procedures which consider the downstream costs of energy be developed and utilized for financing and constructing public buildings.

F. The Texas Municipal Finance Officers' Association is encouraged to establish standard procedures for operational energy audits within city government and require its members to follow such procedures.

G. The Texas Municipal League is encouraged to adopt energy conservation in Texas cities as a major priority program, thus assisting those cities in lessening the impact of increases in energy costs and reducing city outlays. A task force of mayors and city managers should be appointed by the League to solidify and pursue such a priority commitment to energy conservation.

H. The Southwest Regional Energy Council is urged to develop a clear position and policy concerning energy conservation.

I. It is suggested that the Texas Education Association and the State School Superintendents' Association assist local school systems in adopting energy efficient building practices and operating procedures and conservation oriented curriculae.

J. We, and other interested and qualified parties wish to assist the Texas Municipal Employees' Association and the associations of building maintenance engineers and operators in educating their members in the rationale and technique of energy efficiency.

K. We wish to state that we consider it the proper function of the State Government, among other functions, to conduct educational and informational programs in energy conservation.

Tax Reform and Governmental Subsidies

L. It is recommended that gross receipts from the sale, installation, and use of wind and renewable resource energy systems be exempted from sales taxes in the State of Texas.

M. The State of Texas is urged to subsidize or otherwise encourage the construction of prototypical buildings and energy efficient facilities for demonstration purposes.

Technical Innovations and Improvements

N. We support amendment of the current property tax reform legislation to encourage and permit property tax exemption or reduction for energy saving or renewable resource improvements to residential property.

O. The State of Texas should encourage and assist state universities and colleges to develop, test, and report to the public on new technical innovations which achieve energy conservation.

P. State colleges and universities are encouraged to provide refresher courses of study for architects, engineers, and builders in energy efficiency.

Q. We urge the Texas Banking Association and the Texas Savings and Loan League to conduct educational programs for member lending institutions which instill the inherent sound investment of energy efficient new buildings and retrofit or efficiency improvement in existing buildings.

R. Builders are encouraged to install connections for solar hot water heating in new residential development.

Administrative and Utility Programs

We recommend:

A. The increased flow of information between state agencies and consumers in order to more effectively:

1. educate the public and

2. collect data relating to consumer attitudes.

B. That the Railroad Commission study energy-conserving rate structures for natural gas.

Consumer Programs

We recommend:

A. That the Legislature appropriate funds for experimental studies of alternate rate structures, e.g., peak load pricing and time-of-day rates, considering both marginal and average costs, which will encourage energy conservation.

B. That the Public Utility Commission set and hear rate cases in local areas where the cases originate.

C. That utility efficiency studies and energy audits be required by the Public Utility Commission.

D. Petitioning the Railroad Commission and Public Utilities Commission to require utilities in Texas to display on each month's bill to consumers the comparitive usage in KWH and MCF for that month of the previous year.

Legislative Recommendations

We recommend:

A. A Legislative study for determining the most effective method for developing and implementing a comprehensive state energy policy.

B. Improved coordination of research efforts within the state and provision of specific funding for conservation programs as well as alternate energy resources research and development.

C. Tightening of the Railroad Commission's responsibilities in relationship to gas production, notably with regard to "take or pay" contracts.

TEXAS ENVIRONMENTAL COALITION ENERGY CONSERVATION SEMINAR SERIES

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C. Tightening of the Railroad Commission's responsibilities in relationship to gas production, notably with regard to "take or pay" contracts.

Energy

SEP 28 1976

September 23, 1976

Pat Oakes
[redacted]

Dear Pat,

Thank you for calling the Governor's office with regard to applying for the planning funds for a state energy conservation program. I'm a little confused as to who you talked to, however. Did you talk to Alvin Askew in addition to someone in the Governor's office or only to Al? Al is the Executive Director of the Governor's Energy Advisory Council. While the Governor chairs the Council, it is essentially a state agency separate from the Governor's office. You may not know yet that the Governor has applied for the planning funds, but they will be received by the Governor's Budget and Planning Office not the GEAC. The GEAC has not yet determined if it wants to be involved in the program; in fact, there are apparently some members of the Council who do not want it to be.

I hope I haven't confused the issue more. Most of all, however, I want to thank you for responding promptly to this Action Alert (and for returning the Local Action Report Form). The more calls we have going to the Governor's office, the happier I will be!

Thank you again for your response.

Sincerely,

LK

Laura Keever
Energy Chairperson

bcc: Anderson, Titus, SO

COPY

SEP 28 1976

Energy
SO

September 22, 1976

Senator Max Sherman
The Senate
Austin, Texas 78711

Dear Senator Sherman,

Thank you for meeting with the Energy Committee of the League of Women Voters of Texas yesterday and sharing your thoughts with us concerning energy legislation. You were very generous with your time and we are most appreciative. I think you are probably aware of the League's very real interest in energy, particularly energy conservation, and we certainly look forward to working with you to further this goal in the next legislative session.

Thank you again for joining us yesterday.

Sincerely,

LK

Laura Keever
Energy Chairperson

COPY

Energy

SEP 28 1976

September 22, 1976

Mr. Joe Ventura
Governor's Energy Advisory Council
7703 North Lamar
Austin, Texas 78761

Dear Joe,

Thank you for meeting with my energy committee yesterday and sharing your thoughts with us concerning the work of the GEAC. You were very generous with your time, and we are all most appreciative. I particularly enjoyed the opportunity of having you present in our discussions with Senator Sherman.

In case you haven't surmised, we are delighted Governor Briscoe is applying for the planning funds!

I predict lively discussions this weekend at Camp Allen. I look forward to seeing you then.

Sincerely,

LL

Laura Keever

cc: Susan Conway

bcc: Anderson, Titus, Higgins, Moon, Davies, SO

PLEASE NOTE THE SECOND PARAGRAPH!!!!!! I wish I could say this was a result of League letters and telegrams (and there were quite a number), but I think it had to do, in Susan Conway's words, with "the fact that 49 states and 5 territories" got their applications in on time. Even Briscoe realized what that would make Texas look like! Anyway, for the moment we are in. Maybe involvement in the program will produce its own momentum--or else create its own horrible disharmonies. Oh well, all of life is a risk. Thank you all for your efforts in this matter.

Laura

COPY

Energy

SEP 28 1976

September 22, 1976

COPY

Ms. Sue Bartow
Office of the Speaker
House of Representatives
Austin, Texas 78711

Dear Sue,

Thank you so much for joining the Energy Committee of the League of Women Voters of Texas yesterday. I regret that we did not have time to review the work of the interim committees, and I certainly appreciate your mailing the summary to the committee members. It was very valuable to us to have you join in our discussions with Senator Sherman and Joe--the committee gained valuable insights into the work and functioning of the GEAC.

Please let me know if the League can be helpful in pursuing any energy legislative goals of Speaker Clayton. He is certainly fortunate to have you working with him.

I look forward to seeing you soon. I promised Joe Hanna that I would invite him to the next meeting of the Energy Committee; if you are free, I wish you would join us then as well.

Sincerely,

LK

Laura Keever
Energy Chairperson

bcc: SO

LWV-Texas
September16, 1976
II. A. 1. b.
Program - Energy
LL Presidents Mailing

ALERT ALERT ALERT ALERT ALERT

TO: LL Presidents
FROM: Betty Anderson, President, & Laura Keever, Energy Chair
RE: Energy Conservation Plan Action

The application for federal planning funds to develop a state energy conservation plan MUST be signed by Gov. Dolph Briscoe immediately if Texas is to receive funding for planning. We talked with Lt. Gov. Hobby this week, and he thinks a show of citizen concern for energy conservation will be effective if the Governor receives it BY MONDAY OR TUESDAY.

Please send Gov. Briscoe a public opinion wire urging him to sign the application for funds to participate in the FEA energy conservation program under the Energy Policy & Conservation Act of 1975.

Energy conservation is a key component in state and national energy policies, so please act!!

Please return the Action Alert Form to Laura Keever [redacted]

Energy S.O. SEP 28 1976

September 16, 1976

ACTION ALERT - ACTION ALERT - ACTION ALERT - ACTION ALERT

To: Energy Chairperson of Brazos County, Orange, Houston, Beaumont, Austin, Dallas, San Antonio, Eastern Bell County, Galveston

From: Laura Keever

Under the Energy Policy and Conservation Act funds were provided for states to develop and implement state energy conservation plans. (The Energy Policy and Conservation Act was passed last December 22 by Congress--see Report from the Hill of February, 1976). Yesterday (September 15) was the date that the request for planning funds were due to the Federal Energy Administration (FEA). The planning funds are the funds which are available to states to develop the various state conservation plans. GOVERNOR BRISCOE HAS NOT APPLIED FOR THESE PLANNING FUNDS. FEA will still accept a late application for these funds. Will each of you please alert your president of this situation and encourage your local league to write or wire the Governor IMMEDIATELY to apply for these funds. I am most fearful that if we do not apply for the planning funds we will not participate in the state energy conservation program. I suggest that your letter or telegram (or mailgram) be very ~~simple~~ brief simply

- stating the League's interest in energy conservation
- requesting that the governor submit the request for planning funds for the state energy conservation plan.

I hand-delivered a letter to the governor's office from Betty Anderson yesterday, and Betty also spoke with Lt. Governor Hobby about this by telephone. He indicated that the governor might be responsive to letters from across the state.

Please act now! Many thanks.

LK

COPY

Energy S.O.

SEP 28 1976

September 13, 1976

The Honorable Max Sherman
The Senate
Austin, Texas 78711

Dear Senator Sherman:

This will confirm the telephone conversations I have had with your office concerning your joining the Energy Committee of the League of Women Voters of Texas at its meeting in Austin on September 21. We will be meeting at the League offices at 1212 Guadalupe and look forward to your joining us at 1:00 p.m. We would appreciate your reviewing for us any energy conservation legislation you foresee for the coming legislative session plus your thoughts regarding the State of Texas participating in the conservation plans under the Energy Policy and Conservation Act.

Joe Ventura will be joining us as well to review the work of the Governor's Energy Advisory Council.

I look forward to seeing you on September 21.

Sincerely,

LK

Laura Keever,
Energy Chairperson

cc: Joe Ventura

COPY

Energy

SEP 28 1976

COPY

MEMORANDUM

September 3, 1976

To: Gail Bachelor - Orange
Anne Householder - Brazos County
Elsie Colwell - Houston
Judy Allen - Beaumont
Vella Buck - Austin
Pearl Wincorn - Dallas
June Kachtik - San Antonio
Willie Carpentier (I hope!) - Temple (Eastern Bell Co.)

From: Laura Reever

Re: Meeting of LWV-T Energy Committee on September 21

I want to thank each of you for agreeing to serve on the LWV-Texas Energy Committee. As I mentioned to you, I expect we will be meeting approximately every two months in Austin, and our first meeting is scheduled for September 21 at 10:30 a.m. at the State League Office, 1212 Guadalupe. Please bring a sack lunch; coffee will be provided. I regret that there are no funds to help defray your travel expenses. Think positively about next year's budget!

Please be prepared to share with us what your league is doing in the energy area, as well as what you would like to see us doing on the state level. In the afternoon, Senator Max Sherman, chairman of the Senate Natural Resources Committee, and Joe Ventura of the Governor's Energy Advisory Council, will be joining us for a briefing on upcoming energy conservation legislation and the status of the state energy conservation plan. Joe Hanna, chairman of the House Energy Committee, may also join us.

I look forward to a productive day and to seeing each of you. I have also asked those leagues within driving distance to send a representative if they wish. Therefore, if you know the energy chairperson in a nearby league, please bring her along. (Let me know how many you are bringing, however, as space is limited.)

LR

cc: LLPresidents of Orange, Brazos County, Houston, Beaumont, Austin, Dallas, San Antonio, Eastern Bell County

bcc: Anderson, Titus, Higgins, Headrick, Davies, Moon, SO

SEP 28 1976

80

Energy

September 1, 1976

Mrs. Char White
Texas Environmental Coalition
9318 Hasbrook
San Antonio, Texas 78217

Dear Char,

I'm delighted you are back, and I am looking forward to seeing you next Tuesday in Austin. Meanwhile, here are the names and addresses you requested:

Commissioner Al Erwin
Public Utility Commission of Texas
7800 Shoal Creek Boulevard
Austin, Texas 78757

Fred C. Repper
Vice President, Public Affairs
Central Power & Light Company
P.O. Box 2121
Corpus Christi, Texas 78403

D. E. Simmons
Vice President, Interutility
Affairs & Corporate Planning
Houston Lighting & Power Co.
P.O. Box 1700
Austin, Texas 77001

Chuck Johnston
Texas Electric Service Company
P.O. Box 970
Fort Worth, Texas 76101

I do not have Ron Sawey's address; Joe promised me yesterday that he would get it to me. He may have forgotten, however, so you may want to give him or Susan a call. Caroline Smith is Director of Economic Research for the Texas Public Utility Commission with the above address. I will call her next Monday as well as David Webb, the Public Service Director for the City of Houston. P.O. Box 1562, Houston, Texas, 77001. I think you have Herb Woodson's address, however, he is Director of te Center for Energy Studies, The University of Texas at Austin, Engineering Science Building 143, Austin, Texas, 78712.

I am enclosing a copy of Jack Howell's letter of August 25 agreeing to fund the seminar in the amount of $1,240. Thank goodness!

COPY

Let's hope Ray Reed is as generous next time.

Also enclosed are my June and July telephone expenses in the amount of $42.81. Please have TEC refund what it can.

I'm looking forward to the next seminar. Let me know who our two out-of-state speakers turn out to be!

See you Tuesday.

Sincerely,

LK

Laura Keever

bcc: Anderson, Titus, SO

COPY

Laura Keever (Mrs. Phillip)
Off-board Chair, Energy
[redacted]

LWV of Texas
September, 1976
State Board Report
II. A. 1. b.
Program - Energy

ENERGY

Success!! I am very happy to report to you that the Governor has now applied for the planning funds available from FEA for developing state energy conservation plans under the Energy policy and Conservation Act. Your response to our Action Alert was great and obviously meaningful to the Governor's office. The fact that 49 states and 5 territories had applied on time also was a motivating factor. However, the Governor's office now knows that there are people out there who CARE about this program. Thank you for your telegrams, mailgrams, letters, and telephone calls.

The next s ep will be development of the plan itself, and we will know more clearly what is necessary with the issuance of the Final Guidelines--please watch for these to be published in the Federal Register sometime in October. The planning funds are to be received by the Office of Budget and Planning (in the Governor's Office); however, I expect that the Governor's Energy Advisory Council will be the agency that actually develops the plan. The plan will be due five months from the date of issuance of the Guidelines; I will keep you advised as developments occur.

For those of you who have not done so, I encourage you to obtain a copy of the Energy Conservation and Production Act, which President Ford signed on August 14. This is the so-called FEA Extension Act, but as the correct title conveys, there are several parts of the bill which relate to conservation. (See the last Report from the Hill). There is a title relating to rate design initiatives for electric utilities which requires that FEA develop proposals relating to (1) load management techniques which are cost effective; (2) rates which reflect marginal cost of service, or time of use of service, or both; (3) ratemaking policies which discourage inefficient use of fuel and encourage economical purchases of fuel; and (4) rates which encourage electric utility system reliability and reliability of major items of electric utility equipment. These proposals must be transmitted to Congress by February 14. Funds were authorized for demonstration projects relating to these areas as well as funds to allow FEA to intervene in any proceedings before a state utility regulatory commission on the request of a state or any participant in the proceeding. Grants are also provided for states to establish offices of consumer services to assist consumers in their presentations before utility regulatory commissions.

The Act also contains a title relating to energy conservation standards for new buildings, specifically providing for "performance standards for new residential and commercial buildings which are designed to achieve the maximum practicable improvements in energy efficiency and increases in the use of nondepletable sources of energy", and to "encourage States and local governments to adopt and enforce such standards through their existing building codes and other construction control mechinisms, or to apply them through a special approval process". The performance standards must be developed within three years.

Another title relates to weatherization assistance for low-income persons. FEA is to publish proposed regulations for this portion of the act by October 14 for public comment. The state may apply for these funds; however, if it does not submit an application,any unit of general purpose, local government of sufficient size (as determined by FEA), or a community action agency carrying out programs under Title II of the Economic Opportunity Act of 1964 may submit an application. Please watch for the proposed guidelines--as well as whether or not the Governor applies for the funds. I will be following this closely and keep you informed as well; we may have to both encourage him to apply for the funds, and then if he does not, approach this from the local level. The funding authorizations are $55 million for the fiscal year ending

September 30, 1977; $65 million for the fiscal year ending September 30, 1978, and $80 million for the fiscal year ending September 30, 1979.

Another portion of this title authorizes supplemental state energy conservation plans and relates particularly to public awareness programs. There will be more guidelines (due February 14) and a supplemental state energy conservation plan must be developed. The authorized (not appropriated) funding includes $25 million for fiscal year 1977; $40 million for fiscal year 1978 and $40 million for fiscal year 1979.

Another provision of this title authorizes a $200 million HUD demonstration program to encourage homeowners to make energy conservation investments. This includes subsidies of up to $400 or 20% of a loan for conventional energy devices and of up to $2,000 or 25% of loans for renewable resource (solar, wind, etc.) investments.

The final provision of this title provides for an FEA-administered loan guarantee program of up to $2 billion for small business, industry, large commercial users, state and local governments, and private non-profit institutions. This program is designed to encourage investments in energy conservation and renewable resource technologies in order to meet federal energy efficiency goals. Individual loan guarantees are limited to 90% of the principal.

I anticipate reluctance on the part of some of our state officials to participate in these programs. Please give these programs your support at every opportunity.

LWV-Texas
August 27, 1976
II. A. 1. b.
Program-Energy
LL Presidents Mailing

Copies will be sent in September DPM

TO: Local League Presidents and
Energy Chairs (to receive second copy enclosed)
FROM: Laura Keever, Energy
RE: Energy Committee Meeting September 21, 1976

The first meeting of the energy committee will be on Tuesday, September 21, at 10:30 a.m. in the LWV-T Austin office, 1212 Guadalupe. This is an open meeting, and I invite each League within driving distance to send a representative. Please bring a lunch and we will plan to adjourn by 2:30 or 3:00 p.m. Senator Max Sherman is joining us at 1:00 p.m. along with Joe Ventura of the Governor's Energy Advisory Council to discuss upcoming legislation in energy conservation as well as the status of the energy conservation plan for Texas. House Speaker Clayton is also hoping to join us. It will be informative for all of us, and I look forward to seeing as many of you as possible.

Accompanying this mailing as a backgrounder entitled, "An Analysis of the Possible Effect of Utility Rate Structure Reform Proposals Upon the Poor." This is for use by local Leagues as you see fit--you may reproduce it in your Voters or use the information in any other way that may be helpful. Utility rate structure revision will probably be a legislative topic in the forthcoming Texas Legislature, and I hope members and Leagues will be informed enough to respond.

Also enclosed is a paper on energy conservation in buildings, which was prepared for an energy seminar sponsored by the Texas Environmental Coalition in conjunction with the League of Women Voters of Texas and the Governor's Energy Advisory Council. Essentially, it reviews the current legislative status regarding energy conservation in buildings. The GEAC funded having this printed for every local League--please see that it gets to whomever is handling energy for your League.

The topic most on the minds of those concerned with energy conservation at the state level is the state energy conservation plans. Energy conservation in buildings is one part of those plans, along with government procurement policies and mass transit efforts. The state will have five months to develop the plan after issuance of the final guidelines. Please follow these actions so that you will be in a position to respond to the plan after it is developed. I will alert you when the final guidelines are published in the Federal Register.

BACKGROUNDER

An Analysis of the Possible Effect of Utility Rate Structure Reform Proposals Upon the Poor

The guidelines of the League of Women Voters relating to utility rate structures state that, "Utility rate structures should be designed to encourage energy conservation, to be equitable, as well as to reflect the actual cost of service and provision for future needs. Conservation-oriented options should be utilized." Current proposals relating to utility rate structure reform differ in their impact upon the poor. As the new proposals are just now being implemented in a few states, the necessary data for objective analysis of particular situations is not yet available. However, certain theoretical observations may be made.

In Texas, most rate structures are classified as the "declining block" type, wherein each successive block of kilowatt hours (KWH) used by a customer is cheaper than the preceding one. Historically, there has been some justification for pricing which favors large users. By promoting the increased use of electricity, utilities could achieve greater efficiencies and economies of scale which benefitted all customers. However, in the past ten years these economies have been completely turned around, and growth results in substantially higher costs.

Does the declining block rate structure benefit the poor? Here we must distinguish between the poor who are small consumers and those who are large consumers--as well as the poor who live in apartments or residences which are individually metered. If, for example, a poor family lives in an apartment complex which has a master meter, they probably are charged commercial rates which are lower than residential rates. Thus, this family would benefit from a declining block rate structure. Similarly, if a poor family was a large user of electricity, it would benefit from this type of rate structure. To the extent, however, that poor users are small users of electricity, they do not benefit from the declining block rate structures, as they are paying more per kilowatt hour of electricity than the large user. (There is still some justification for charging slightly higher rates to small users, as there are fixed costs such as monthly billing and distribution expenses. However, these are relatively minor and could be handled as a separate item on the electric bill.) There is no doubt that the declining block rate structure encourages consumption rather than conservation. Similarly, it has been shown that individuals who live in apartments which are individually metered conserve more energy than those who live in apartments with master meters.

Flat rate structures are another type of rate structure which is gaining proponents. In a flat rate structure, all energy is sold at a uniform rate per unit after a minimum service charge to all customers. Utilities and large users argue that flat rates are discriminatory in that metering, billing, and distribution costs are inequitably distributed. However, with the addition of a fixed customer charge, the flat rate may, in some cases, be an appropriate cost-based method of pricing electricity. If a poor user is a small user of electricity, he would probably benefit from this rate structure. If a poor user is a large user, he probably would not. The town of Wellesley, Mass. has pioneered in this concept--the result being reduced electric bills for all but a few commercial heavy users. The Texas Public Utility Commission has tended to flatten all rates in Texas by ruling that all fuel pass-throughs must be charged on a flat rate basis to all classes of customers. This has positive conservation aspects, of course--particularly to large consumers.

Lifeline rates involve charging residential customers a low, uniform amount for the first several hundred kilowatt hours--enough to cover minimum household needs. Some lifeline proposals would increase the rates of larger residential customers in order to make up for the loss incurred by a lifeline rate; others would pass this cost on to all classes of cu tomers (residential, commercial, and industrial). The currently-proposed

Massachusetts and New Jersey lifeline plans would provide the first 300 KWH for 3¢ each. According to the Houston Lighting and Power Marketing Department, 300 KWH would cover the following uses in an 800 sq. ft. residence:

Lighting, small appliances and a black & white TV	186 KWH
8 cu. ft. refrigerator	50
Fan (non-window)	48
	284 KWH

If a 3/4 ton air conditioner were run 24 hours/day, 900 additional KWH would be required. In July, the cost for 300 KWH was $12.45 in the Houston Lighting and Power Service area, and the charge for 500 KWH was $18.03. In the HL&P service area, the average residential use is 1000 KWH per month; though, obviously, there are wide variations in winter and summer.

The benefits of such a plan for the poor would depend upon the number of KWH covered under lifeline and the cost per KWH. Even if the first 500 KWH were included, in Houston the benefit would only amount to $3.03. This would be a small benefit to the small user, but the larger user, under any plan, would make up the difference, leaving the large, poor user at an even greater price disadvantage. Lifeline rates would encourage conservation only to the extent that the large user is subsidizing the smaller user and thus paying more per KWH. Furthermore, lifeline rates may encourage consumption, depending upon how the remaining rate structure is designed. Lifeline rates were considered by several interim committees of the Texas legislature earlier this year and in no case were they recommended.

Peak load pricing (a form of time-of-day metering) is the rate design most supported by the Federal Energy Administration. In this approach electricity is priced according to the level of demand on a daily and/or seasonal basis. For example, most "system peaks" in Texas occur in the late afternoon in the summer. According to a peak load pricing approach, rates would accordingly be higher on summer afternoons. In an Arkansas experiment, the summer residential charge is 8.45¢ per KWH for the peak period, whereas the charge for the off-peak period is 1.39¢ per KWH. This changes during the winter to 1.24¢ per KWH for the peak period and 1.17¢ per KWH for off-peak periods.

Peak load pricing has very real energy conservation potential. By charging higher rates during peak hours, utilities would be encouraging their customers to shift consumption to off-peak times. Since utilities must serve peak loads by running their least efficient generators, this practice would result in considerable fuel savings. But even more important, peak load pricing could result in dramatic overall reductions in electricity use. If utility customers were charged the actual costs of serving their peak demands, we should expect substantial efforts to reduce electricity consumed in excessive lighting, air conditioning, and heating. And, in the long run, we might see changes in industrial processes and building design.

There are two major problem areas in peak load pricing. The first is the dual metering equipment which such a rate design requires (time-of-day meters currently vary in price from $35 to $300). The second problem relates to the system peak, and all systems vary in this regard. Some systems may not have a significant peak, or the peak may be so broad that there is little chance for its reduction. Furthermore, the response to peak load pricing may be simply to shift the peak rather than reducing it. These pricing approaches must therefore be implemented with care, and the results analyzed with equal care. Nonetheless, there seems to be an opportunity in most Texas service areas for peak load pricing to have a positive impact.

The poor can benefit from this type of rate structure to the extent that they can be flexible in their use of electricity--certainly the large user who can shift usage to an off-peak time will benefit the most. Peak load pricing gives all customers an option--they may use very cheap electricity during off-peak hours, thus saving significantly. A further general benefit to all consumers will be had from the conservation effects, which will lessen the need for additional power plant constuuction and thus lower costs for all users.

It should be clear from the above discussion that these issues are not simple ones. Service areas differ as to climate, types of customers, growth in demand, and peak loads. All of these factors and more are important in rate design. Furthermore, there may be combinations of rate designs which may be the best solution. For example, a bill introduced in the U. S. Congress by Rep. John Dingell (D-Mich.) requires a "lifeline" amount of electricity to every consumer for an "affordable" basic rate in combination with load management techniques including time-of-day pricing.

Another factor to be considered is whether the poor are low or high volume consumers of energy. Many studies show that, in general, the poor use less energy. However, other studies have not shown this trend as clearly. According to Dr. Caroline M. Smith, Director of Economic Research for the Texas Public Utility Commission,

> "In San Antonio, 58% of low income users use less than 300 KWH per month; this means that 42% consume more than that amount. In a sample of Abilene residential customers, no relationship was found between income and consumption. For example, during August of 1975, the median income of those consuming an average of 355 KWH was $7,600 whereas those consuming an average of 634 KWH was $5,800. If the objective is to reduce bills for the poor and fixed-income consumers, it is necessary to identify those customers by income and not by consumption.

Obviously, efforts must be made to relieve the poor of energy costs they cannot afford. Utility rates are one approach. Other suggestions have been energy stamps, tax rebates, and weatherization programs. One thing is clear--energy costs will not decline in the foreseeable future. It will require the understanding of all uf us to solve these complex issues.

References:

1. Pickett, John C., Peak Load Pricing: The Arkansas Experiment, Paper presented to the Energy Conservation Training Institute, San Antonio, Texas, March 6, 1976.

2. Pace, Joe D., The Poor, the Elderly, and the Rising Cost of Energy, Public Utilities Fortnightly, June 5, 1975.

3. Riesenberg, Thomas, Regulating Electric Utilities: Incentives For Energy Conservation, Paper prepared for the Environmental Action Foundation, 1976.

4. Willard, Hal, Electric Power: The Struggle Over Controls, The Washington Post, Sunday, August 8, 1976.

5. Smith Caroline M., Statement Before the House Committees on Energy Resources, State Affairs, and Ways and Means, May 12, 1976.

8/24/76 Energy

MEMORANDUM

To: Joann, Liz, Betty, Meg, Bobette August 22, 1976

From: Laura

Re: Utility Backgrounder

Attached is the backgrounder I have written on utility rate structures with emphasis on the poor. LIZ , will you call me as soon as you get this (read it first, of course!) so that I can call Joann and tell her any changes you have. As I am mailing this on Sunday, I presume you will get it at least by Tuesday. This is probably going to just miss the deadline, but I hope it all works out. I had hoped to make it just the back and front of one page, but it's going to require a second page. You just can't treat those issues lightly! PLEASE any of you call me with your comments IMMEDIATELY!

I think this should go out on DPM, though I am amenable to sending it just to LLPs. Who decides that?

I am attaching a letter for LLPs and NR people explaining what it is and setting up my first energy committee meeting. With regard to that, I have asked Senator Sherman (who was very happy to come) and Joe Ventura to join us in the afternoon. I was telling Sue Bartow, Speaker Clayton's energy ~~chairman~~ expert, about the meeting and she indicated that the Speaker might like to come. They are to let me know in a day or two. Otherwise, I will have Joe Hanna if he is available. (Meg, if the speaker comes, you particularly might want to join us.) I just ~~gx~~ got the minutes and saw that something else is planned for the 3rd week in September; I'm sorry I didn't know that.

I look forward to seeing everyone at Sam's. Liz, I was unable to find a place for us to meet in Temple in time. I'll bring it up at Sam's, and I hope we can work it out for the next time. I really think it would be better if you could attend.

AUG 24 1976

bcc: Anderson, Titus, SO

(It is very hard for me to schedule a conference without the funding in hand. Char has lots more guts than me.)

LK

Energy

August 16, 1976

COPY

Dr. Jack Howell
Director
Energy Institute
University of Houston
Houston, Texas 77004

Dear Jack,

I have listed below the expenses which I project we will incur for the September 25-26 seminar on energy conservation as it relates to utilities and utility rate structures.

Speakers (2)	$800
Conference expenses for eight additional speakers	240
Administrative costs (mailing, printing, research material, telephone)	200
	$1,240

You are very kind to offer to help in this endeavor, and we are most appreciative of your support.

I am most concerned about inviting the out-of-state speakers. Will you let me know when you think I can make those calls?

I certainly enjoyed our visit with Bob Brewer. It is a pleasure for me to see an energy conservation emphasis developing in Houston.

Sincerely,

LC

Laura Keever
Energy Chairperson

cc: Char White
Texas Environmental Coalition

So

AUG 24 1976

Energy

August 10, 1976

Interior Subcommittee on Energy Research & Water Resources
United States Senate
Washington, D. C.

Gentlemen:

I understand that your subcommittee has recently completed hearings on the 1976 version of ERDA's comprehensive energy plan. Is it possible for me to receive a copy of the statements presented or a copy of any report prepared as a result of these hearings?

Thank you very much.

Sincerely,

LK

Laura Keever,
Energy Chairperson

Please respond to:

[redacted]

COPY

Energy
AUG 9 1976

August 7, 1976

Mr. Frank Zarb
Administrator
Federal Energy Administration
Washington, D. C. 20461

Dear Mr. Zarb:

I am very interested in receiving a copy of the mid-year report of FEA which was released on August 5.

Thank you for your attention to this matter.

Sincerely,

LK

Laura Keever,
Energy Chairman

Please reply to:

[redacted]

bcc: Meg, SO

COPY

Energy

AUG 9 1976

August 7, 1976

COPY

The Honorable Bob Eckhardt
1741 Longworth House Office Building
Washington, D. C. 20515

Dear Congressman Eckhardt:

According to the Houston Post, Representatives Morris Udall and Paul Tsongas released a report on August 5 relating to security deficiencies of U. S. nuclear installations. I would very much appreciate your having a copy of that report sent to me.

Thank you very much.

Sincerely,

LK

Laura Keever,
Energy Chairperson

Please respond to:

[redacted]

bcc: Meg, SO

SO

SO - Please note. One shared Energy & each LL president -

L.K.

JUL 19 1976

July 16, 1976

475
5491

COPY

Mr. Joe Ventura
Associate Executive Director
Governor's Energy Advisory Council
7703 N. Lamar
Austin, Texas 78752

Dear Joe,

I promised to let you know the number of local leagues there were in Texas so that copies of the Energy Conservation in Buildings background paper could be sent to them. There are 41. If there is a possibility of sending those to our Austin office, that would be most helpful. If not, I will take them over the next time I am in Austin--probably August 17.

I really know that this is July and not September.

I look forward to seeing you Tuesday.

Sincerely,

Laura Keever,
Energy Chairperson

bcc: Anderson, Titus, SO

Energy

JUL 19 1976

MEMORANDUM

To: NR Core July 16, 1976

From: Laura

Re: What's Going On (That is a statement, not a question)

MEG: I know that I am a day late and a dollar short (particularly a dollar short), but here is a question I would highly recommend be asked of legislators:

> DO YOU THINK THE STATE OF TEXAS SHOULD PARTICIPATE IN THE CONSERVATION PROGRAM PROVIDED FOR IN THE ENERGY POLICY AND CONSERVATION ACT?
>
> If so, certain legislation will be required to qualify for funding (approximately $1,000,000 for FY 1977). Are you willing to support such enabling legislation? (i.e., legislation will probably be required in the area of lighting and thermal standards for buildings as well as government procurement practices.

I am certainly not wedded to this wording but I would like a question in this general area. What we are really talking about is a state-wide building code for which there will be MUCH opposition (that's why you say lighting and thermal standards--it's like not saying zoning.

LIZ: Thank you for your letter. Could we meet in Schulenberg on August 9 at, say, 11:00 a.m.? I noticed a restaurant there called Oakridge Smokehouse which has all the characteristics of Sam's. Let's hope! Actually, the only days that week I cannot meet you are Tuesday and Thursday: however, if we do need something for the VOTER, we need to get together as soon as possible. MEG, you will notice from Liz' letter that she missed some of the board discussion in this area. I called Jan and she could remember very little. Will you let me know what you recall of that discussion?

You will be interested to know that an Energy Brief on utility rate structures is the next one scheduled--and I'm going to write it. Essentially it will be an expanded version of what was in our last VOTER--I really don't know what else there is to say, so I will be interested in your comments.

Things have been going full space. Too fast, as a matter of fact. My GSAC conservation advisory committee is meeting every 3-4 weeks, and the work involved in preparing for them is very time consuming, even with the help of the GSAC staff. Liz, I would suggest that you meet me in Austin, but those meetings are 6 hours long and we go to lunch together--so neither is there the time nor am I in the mental framework to look at something else when they are completed. I'm always exhausted when those meetings are over. We looked specifically at utility rate structures this past meeting and the recommendations we made are, in my opinion, very superficial. Joe Ventura keeps telling me that I expect

COPY

too much--but you would think from people who KNOW the energy situation you would achieve more significant responses. They COULD NOT use the word "conservation" in any of their recommendations--they could use "rate structures to promote energy efficiency"--but that's as far as they could go. DAMN! I will send everyone a copy of the final recommendations. Next time we are discussing government procurement practices, and the meeting following that will be energy conservation in buildings. Both of these are areas that legislation will be required if the we participate in the state conservation program mentioned ~~above~~ above. I expect similar reluctance on the part of the committee to really come to grips with the problem. It is very hard when you are a minority of one in a committee of eleven. Somehow it is not a majority even if you are chairing; in fact, if I were not chairing I could be more vocal than I now am. I console myself with the fact that if I ~~was~~ were not chairing this committee, we probably wouldn't even be meeting.

The first of the Energy Conservation Seminar Series was held last weekend (the seminars we are "assisting" TEC with). Char was similarly concerned over the superficiality of those recommendations, but they are a hell of a lot more substantive than what my committee is going to be able to recommend, I am sure. The first seminar was on energy conservation in buildings, the next one will be on government procurement practices. Happily Joe Ventura has agreed to fund a background paper for my committee that the TEC can use for its seminar. At least we are hoping that that can be worked out. I have also asked him to contract out another background paper for transportation--how about that Lis! He has also agreed to provide enough copies of the background papers for each local league to have one; the first one was on energy conservation in buildings and was done for the TEC (and funded by them). I will let the SO know when those will be coming in. ROBETTE, you will be happy to know that after that VERY pointed remark of mine about how the state office was coming along in writing the enabling legislation, Joe had one of his staff attorneys talk with me last Tuesday about what legislation I thought should be drawn up. Did I give him an earful! Now, let's see what he writes. Next Tuesday we are having the Planning Committee for the next seminar ~~series~~ series (the one on utility rate structures). I chair that committee. Does the work never end? Today I wrote two letters and after they were ~~gone~~ gone I noticed that they were dated September 16 instead of July 16--god, I wish I had a secretary to do all this work! (Being a LL president spoils one.)

I took my local energy committee to visit an offshore production platform ~~a~~ on Tuesday courtesy of Getty Oil Company. There will be a number of black and white photos of that available to me--is this something we could use ~~in~~ in the Texas VOTER? (In fact, I would much prefer doing an article on that than utility rate structures. What do you think Meg?)

TGIF -- TGIF -- TGIF -- TGIF -- TGIF -- TGIF

I enjoy hearing from all of you.

ROBETTE - I just got your memo. Thursday, August 26 is fine with me. Please let me know.

COPY

Energy

July 15, 1976

Mr. Delbert Fowler
Regional Administrator
Federal Energy Administration
2626 W. Mockingbird Lane
Dallas, Texas 75235

Dear Mr. Fowler:

Enclosed is a copy of my written response of the League of Women Voters of Texas relating to the proposed state energy conservation plan guidelines. These were sent directly to Washington in accordance with the June 16, 1976 Federal Register instructions. It occurred to me that that procedure might not result in your obtaining a copy, and I did want you to know he League's response to those proposals.

I also want to thank you again for joining my Conservation Advisory Committee to the Governor's Energy Advisory Council on June 22. My committee found it most productive to have you and Dan present your programs and concerns to us and to have the opportunity to have our questions answered.

Pearl Wincorn will be appearing before the FEA Consumer Affairs/ Special Impact Advisory Committee on behalf of the League of Women Voters of Texas. I wish you would move your regional offices to Houston!

I look forward to seeing you soon.

Sincerely,

LK

Laura Keever
Energy Chairperson

bcc: Anderson, Titus, SO

JUL 19 1976

Diana T.
S.O.
Energy

July 1, 1976

PROPOSED STATE ENERGY CONSERVATION PLAN GUIDELINES
COMMENTS OF THE LEAGUE OF WOMEN VOTERS OF TEXAS

The League of Women Voters of Texas submits the following comments on the Proposed State Energy Conservation Plan Guidelines as published in the June 16, 1976 Federal Register, Vol. 41, No. 117.

(1) The definition in Sec. 420.11 of energy conservation as the "efficient utilization of energy resources" is not consistent with the useage in Sec. 420.37(b), where reference is made to "the opportunity to conserve and to improve efficiency in the use of energy..." It is also inconsistent with Sec. 361(a)(1) of Public Law 94-163, where it is stated that "the development and implementation by States of laws, policies, programs, and procedures to conserve and to improve efficiency in the use of energy..." (emphasis added). Perhaps the definition should be changed to reflect the two widely-accepted components of energy conservation--(a) actual reduction in energy use and (b) increased efficiency.

(2) Sec. 420.32 is inconsistent with Public Law 94-163 and with the explanation of Sec. 420.32 given on page 24419 of the June 16, 1976 Federal Register in that the proposed section does not state that the Governor of each state shall be invited to submit a state energy conservation plan report within five months after the effective date of the guidelines.

(3) The League of Women Voters of Texas is completely supportive of the mandatory provisions which must be included in state energy conservation plans and opposes any effort by the Administrator, through regulatory policy, to weaken the mandatory provisions and make them, in effect, non-mandatory. We also support having a specific date, such as January 1, 1978, as a target date for implementation of mandatory programs. We suggest, however, that Regional Administrators be given the power to extend the January 1, 1978 date to those states which may not be able to achieve it but which have made a good faith effort to have the programs in place by the target date. For example, all political subdivisions of the state may not have the mandatory lighting efficiency standards for public buildings in place and ready for implementation by January 1, 1978. The key to any extention, however, must be evidence of good faith by the state in trying to achieve the January 1, 1978 deadline.

(4) The League of Women Voters of Texas recommends that Sec. 420.35 (a)(2) be changed to reflect a minimum size of public building above which the standard shall apply.

(5) With regard to Sec. 420.35(a)(3), we suggest that chapter 9 of ASHRAE 90-75 be published as part of the proposed guidelines.

(6) With regard to Sec. 420.35(a)(4), the League of Women Voters of Texas suggests that minimum standards be stated.

(7) The League of Women Voters of Texas finds that Sec. 420.35 (b)(1) is inexcusably weak. As one of the five programs that each state energy conservation plan must include, it should be considerably strengthened. Even Public Law 94-163 states that "programs to promote the availability and use of carpools, vanpools, and public transportation" shall be included in state conservation plans. One way of strengthening this section would be to require one of the actions listed be in place in each of the SMSA's within the state by January 1, 1978. Alternatively, of course, the limitation "at least one of the following actions" could be deleted.

(8) The League of Women Voters of Texas finds that Sec. 420.35(c) is insufficient in that it does not state minimum standards (other than an implementation date) for procurement practices of the state and its political subdivisions. The language "to the extent determined feasible by the state" is, to say the least, indefinite.

(9) As in our recommendation (5), we suggest that chapters 4-9 of ASHRAE 90-75 and the HUD Minimum Property Standards be included as part of the guidelines relating to thermal efficiency standards.

(10) The League of Women Voters of Texas objects to Sec. 420.36(a) relating to waiving all or parts of required programs. Public Law 94-163 is very clear as to the five major components which must be included in any state energy conservation plan.

(11) The League of Women Voters of Texas would reject any effort to reduce environmental standards in an effort to conserve energy. We share the concern of EPA that pollution control equipment could become a target of energy conservation efforts. We therefore encourage the review of EPA of the state energy conservation plans.

(12) The lack of opportunity for public comment on proposed state energy conservation plans is also of concern to the League. We strongly recommend that public hearings be required before final approval of any state energy conservation plan.

Respectfully submitted,

Betty Anderson,
President

Laura Keever,
Energy Chairperson

STATE ENERGY CONSERVATION PLANS: IMPLEMENTING THE ENERGY POLICY AND CONSERVATION ACT OF 1975 (PL 94-163)

by Marlan Blissett* and Marc Jacobson

The voluntary creation of state energy conservation plans is an important aspect of the Energy Policy and Conservation Act of 1975 (EPCA). By authorizing the expenditure of $150 million during the next three years (1976 through 1978) for states that wish to participate, the Act clearly demonstrates the concern in Washington for a greater state role in energy conservation. The purpose of the legislation is to utilize instruments of state control to reduce a state's projected energy consumption for 1980 by at least 5 percent. Both the legislative history of the Act and the language of the law indicate that states are in an advantageous position to implement conservation programs that are sensitive to local economic, employment, and climatic differences.

To be eligible for federal funds states must submit a report to the Federal Energy Administration (FEA) assessing the feasibility of achieving the 5 percent energy reduction by 1980. Following guidelines developed by FEA for the design and submission of state plans, a detailed energy conservation program must be created by each state that covers the following areas:

* Mandatory lighting efficiency standards for non-federal public buildings;

* Programs to increase the use of carpools, vanpools, and public transportation (with the exception of subsidized fares);

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* I wish to thank the Lyndon B. Johnson Foundation for a faculty development grant that made part of this research possible.

* Mandatory energy efficiency standards and policies for state-local procurement;

* Mandatory thermal efficiency standards and insulation requirements for both new and renovated non-federal buildings; and

* A traffic law or regulation permitting a right turn on red.

Additional provisions are optional but may include:

* A restriction on the use and operation of non-federal public buildings;

* Regulation of decorative or non-essential lighting;

* Transportation controls;

* Public education programs for energy conservation; and

* Other programs for conserving energy.

All 50 states have indicated the feasibility of achieving the conservation goals anticipated by EPCA. But implementing the required elements of the plan will require an understanding of technical problems and institutional processes that are exceedingly complex. This article provides an analysis of state-local procurement and discusses the creation of state efficiency standards for lighting and thermal conditions in non-federal buildings. Its purpose is to review current practices and to suggest methods for estimating energy conservation through the application of mandatory standards and policies.

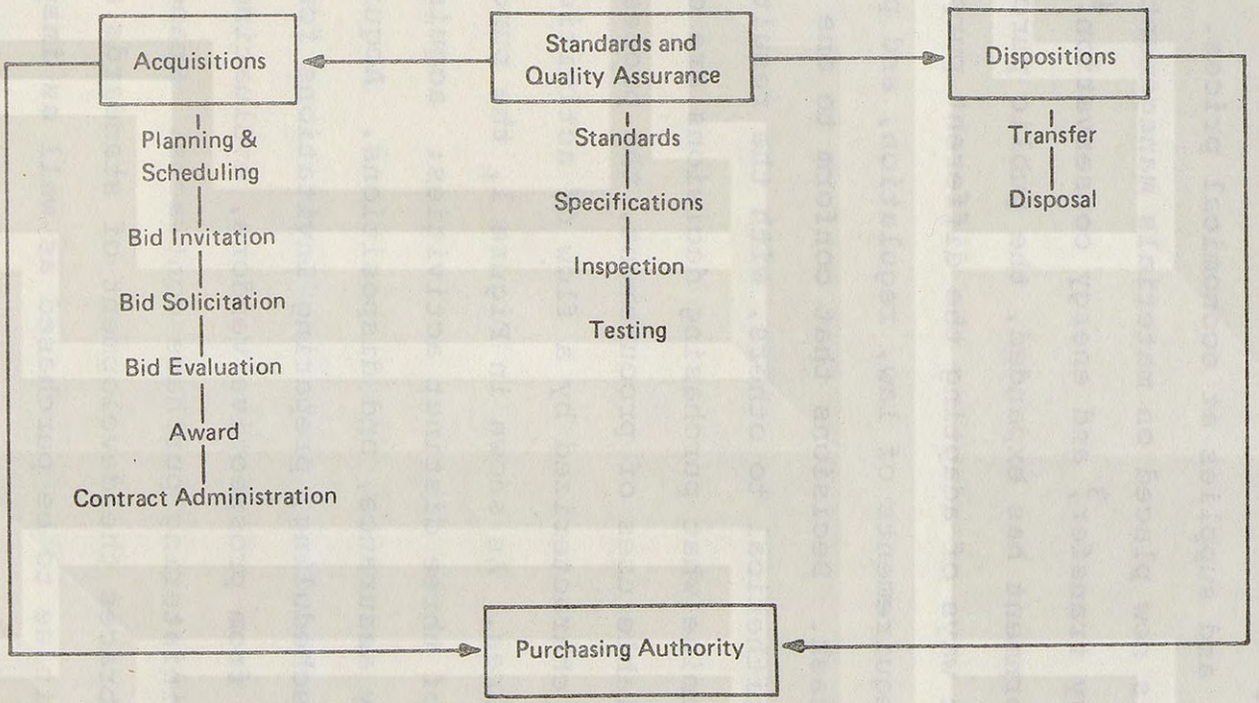
THE PROCUREMENT PROCESS AND ENERGY CONSERVATION

State and local purchasing has evolved into a complex set of activities that serves many different purposes. The most frequently mentioned purpose is that of providing government with equipment, materials, and supplies at economical prices. But increasing emphasis is now placed on materials management,[1] product innovation,[2] technology transfer,[3] and energy conservation.[4] As the economic role of government has expanded, the public purchasing profession has sought ways of adapting the different purposes of procurement to the requirements of law, regulation, and practice. This is not an easy task. Decisions that conform to one set of objectives may be antithetical to others, with the result that it is difficult to determine what purchasing decisions are optimal.[5]

Despite the variable uses of procurement, the process of public purchasing is characterized by a flow of activities with clearly-defined features. As shown in Figure 1, the purchasing function is made up of three distinct activities: acquisitions, standards and quality assurance, and dispositions. Acquisitions covers planning and scheduling, preparing Invitations for Bids, soliciting responses from prospective vendors, evaluating bids, and awarding and administering purchase contracts. Standards and quality assurance embraces the development of standards and specifications for commodities to be purchased as well as inspecting and testing the commodities received. Dispositions encompasses the transfer of surplus property to different agencies and its final disposal through bids, auctions, negotiations, or posted prices.

FIGURE 1

The Procurement Process



Source: Adapted from The Council of State Governments, *State and Local Government Purchasing*

State and Local Procurement

Even though the purchasing functions of state and local governments can be identified clearly, their application differs enormously. This is due to variations in state statutes, regulations, local ordinances, and administrative procedures. In order for mandatory procurement standards to be effective as instruments of energy conservation changes may be required in thousands of state, county, municipal, and special purpose governments. The magnitude of such an undertaking can be illustrated by the results of a recent survey of 4,493 local governments in the United States.[6] The survey found that only 33 percent of the cities and 14 percent of the counties had prepared or issued a purchasing manual. Moreover, only 37 percent of the cities and 22 percent of the counties even had a full-time purchasing officer. With purchasing authority diffused among over 78,000 local governments, (see Table 1), it will not be easy to develop mandatory standards that can be applied uniformly and whose results can be accounted for systematically.

Centralized and Cooperative Purchasing

The most effective method for bringing about control over state and local purchasing practices has been the creation of centralized buying. At the state level this method has been used for selected institutional purchases since 1892, but its application to all state agencies as well as to city, county, and special purpose governments has been spasmodic.[7] Based on the premise that volume buying can achieve significant economies for certain commodities, centralized purchasing has demonstrated its utility to the financial management of state operations. But within com-

TABLE 1

LOCAL GOVERNMENTS BY FEDERAL REGION

Federal Region	States	All Types of Local Government	Number of Local Governments by Type				
		Total	Counties or Equivalent	Municipalities	Townships	Special Districts	School Districts
I	Maine	714	16	22	472	126	78
	Vermont	658	14	61	237	74	272
	New Hampshire	499	10	13	224	94	158
	Massachusetts	682	12	39	312	268	51
	Connecticut	428	–	34	149	231	14
	Rhode Island	115	–	8	31	73	3
II	New York	3,306	57	618	931	954	746
	New Jersey	1,456	21	335	232	341	527
III	Pennsylvania	4,935	66	1,012	1,552	1,777	528
	West Virginia	508	55	226	–	172	55
	Virginia	385	96	231	–	58	–
	Maryland	403	23	151	–	229	–
	Delaware	158	3	52	–	78	25
IV	Kentucky	1,135	378	–	446	191	–
	Tennessee	881	94	316	–	457	14
	North Carolina	802	100	454	–	248	–
	South Carolina	583	46	262	–	182	93
	Florida	865	66	390	–	315	94
	Mississippi	796	82	270	–	282	162
	Alabama	875	67	396	–	286	126
	Georgia	1,243	158	530	–	366	189

Federal Region	States	All Types of Local Government	Number of Local Governments by Type				
		Total	Counties or Equivalent	Municipalities	Townships	Special Districts	School Districts
V	Minnesota	3,395	87	854	1,798	211	445
	Wisconsin	2,448	72	570	1,268	121	417
	Michigan	2,649	83	532	1,248	139	647
	Illinois	6,385	102	1,267	1,432	2,407	1,177
	Indiana	2,792	91	546	1,008	832	315
	Ohio	3,259	88	936	1,320	275	640
VI	New Mexico	309	32	89	–	99	89
	Oklahoma	1,683	77	547	–	402	657
	Texas	3,624	254	981	–	1,215	1,174
	Arkansas	1,283	75	454	–	366	388
	Louisiana	834	62	287	–	419	66
VII	Missouri	2,807	114	894	343	820	636
	Kansas	3,715	105	626	1,517	1,136	331
	Iowa	1,818	99	951	–	305	463
	Nebraska	3,561	93	537	476	1,081	1,374
VIII	Montana	992	56	126	–	258	552
	North Dakota	2,726	53	358	1,368	561	386
	South Dakota	1,770	64	308	1,034	136	228
	Wyoming	383	23	87	–	203	70
	Utah	459	29	214	–	176	40
	Colorado	1,319	62	258	–	812	187
IX	California	3,819	57	407	–	2,223	1,132
	Nevada	184	16	17	–	134	17
	Arizona	406	14	65	–	90	237
	Hawaii	19	3	1	–	15	–

Federal Region	States	All Types of Local Government	Number of Local Governments by Type				
		Total	Counties or Equivalent	Municipalities	Townships	Special Districts	School Districts
	Washington	1,682	39	266	39	1,021	317
	Idaho	901	44	197	–	543	117
X	Oregon	1,446	36	231	–	826	353
	Alaska	120	8	112	–	–	–
	United States	78,218	Total 3,044	18,517	16,991	23,885	15,781

Source: U.S. Bureau of the Census, *Statistical Abstract of the United States,* 1975.

munities where strong preferences exist for local vendors, the mandatory use of a state central purchasing agency has been stoutly resisted. Yet as the amount of local purchasing has increased, neighboring jurisdictions have found it to their advantage to obtain a number of items through cooperative purchases. This device, when combined with the permissive use of a central state purchasing agency, has greatly improved savings on common-use items with identical specifications. Indeed, the popularity of this arrangement is such that 43 states have now adopted some form of state-local cooperative buying (see Table 2).

A joint venture in public purchasing, however, is not a mechanical exercise in the application of procurement techniques. It is, as Robert M. Belmonte has observed, very much a "strenuous workout in human relations and intergovernmental relationships."[8] Most states require the passage of new enabling legislation for extending state contract prices to units of local government, as well as for authorizing state solicitation of bids on items requested by them. In almost all cases, local jurisdictions must respond by filing a resolution or ordinance from its governing body indicating that it will purchase from designated state contracts and that it will be responsible for direct vendor payments after ascertaining whether conditions of delivery and quality have been met. Once this process is completed, the next step is to select the commodities to be covered. While adjustments in user preferences are to be expected, past experience with cooperative purchases suggests that successful candidates are those

(1) with which everyone has some familiarity,

TABLE 2

STATES PERMITTING OR REQUIRING UNITS OF LOCAL GOVERNMENT TO PURCHASE SOME OR ALL COMMODITIES THROUGH THE STATE CENTRAL PURCHASING AGENCY
(By Federal Region)

FEDERAL REGION	STATE	TYPE OF COOPERATIVE PURCHASING		
		MANDATORY	PERMISSIVE	RESTRICTED TO CERTAIN ITEMS
I	Maine		X	
	Vermont		X	
	New Hampshire		X	X
	Massachusetts		X	X
	Connecticut		X	
	Rhode Island		X	X
II	New York		X	X
	New Jersey		X	
III	Pennsylvania		X	X
	West Virginia		X	X
	Virginia		X	
	Maryland		X	X
	Delaware		X	
IV	Kentucky		X	X
	Tennessee		X	
	North Carolina			
	South Carolina		X	
	Florida		X	
	Mississippi		X	
	Alabama		X	
	Georgia		X	
V	Minnesota		X	
	Wisconsin		X	X
	Michigan		X	
	Illinois		X	X
	Indiana			
	Ohio			
VI	New Mexico		X	
	Oklahoma		X	
	Texas	X	X	X
	Arkansas			
	Louisiana		X	
VII	Missouri		X	
	Kansas			
	Iowa	X		
	Nebraska		X	X

FEDERAL REGION	STATE	TYPE OF COOPERATIVE PURCHASING		
		MANDATORY	PERMISSIVE	RESTRICTED TO CERTAIN ITEMS
	Montana		X	X
	North Dakota		X	
VIII	South Dakota		X	
	Wyoming		X	X
	Utah		X	
	Colorado		X	X
	California		X	
	Nevada		X	
IX	Arizona		X	
	Hawaii		X	X
	Washington			X
	Idaho		X	X
X	Oregon		X	
	Alaska		X	

SOURCE: Kansas Advisory Council on Intergovernmental Relations, Survey of Directors of State Purchasing Agencies, 1972.
Texas Advisory Council on Intergovernmental Relations, *State-Local Cooperative Purchasing Program for Texas,* 1975.

(2) that can be clearly specified and readily purchased,

(3) that come in standardized units, and

(4) that require relatively large expenditures.[9]

The extent of commodity coverage under cooperative purchasing programs varies considerably, but a suitable number of items would appear to be 30 or 40.[10] Beyond this range -- particularly in states with large populations and large numbers of local governments -- the inclusion of additional items places a heavy burden on administrative coordination and user satisfaction.

Selecting Energy-Efficient Commodities

The selection of energy efficient commodities for state procurement is likely to be influenced by state-of-the-art advances in the public purchasing profession. A number of new procurement methods and concepts have been proposed that, if put into practice, could result in the acquisition of more energy efficient products. Among the more promising approaches are life cycle costing, value incentive clauses, performance specifications, and multiple-year contracts.

Life cycle costing (LCC) is a technique for establishing the lowest total ownership cost of an item to be procured. This includes both the acquisition price as well as projected operating and maintenance (logistics) costs during the expected life of a product. LCC analysis adds another dimension to public contracting. Traditionally, procurements have been made on the basis of sole source or price competition. But for items with measurable service lives and clear performance characteristics, LCC provides an evalu-

ation that compares price differences among competitive bidders to the logistical costs (including energy consumption) associated with the product's use.

The energy conserving potential of LCC techniques can be described by the equation

$$P = X + Y/EER$$

where P is the total life cycle cost; X is the bid price; Y is the annual operating cost; and EER is the energy efficiency ratio* established for the product. Using this equation, the Federal Supply Service recently performed an LCC analysis of five different sizes of room air conditioners. For an expected life of seven years each size was compared on the basis of the following characteristics: power rating (BTU/hour), energy efficiency ratio, power cost (dollars per watt/hour), and number of operating hours each year. The results showed that for an anticipated purchase of 27,000 units net cost savings would be $316,888, with improvements in energy efficiency ratios ranging from 9 percent to 42 percent.[11] Similar analyses can be made of all major energy consuming appliances once their energy efficiency ratios have been established.[12]

Value incentive clauses, performance specifications, and multiple year contracts can also be used to relate performance, price, and energy efficiency. Under a value incentive clause, if a supplier can design a more economical product (or system) without lowering quality, the firm is entitled to 50 percent of the resulting savings

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* Energy Efficiency Ratio (EER) measures the relative electrical efficiency of a product. It is obtained by dividing BTU/hour output by the electrical watts input during operation.

the first year and 30 percent the following year, even if the contract is cancelled. As currently applied, value incentive clauses appear to work best when coupled with performance specifications (product descriptions that describe function, not design) and are part of contracts that run from two to five years.[13]

The extent to which states have begun to use innovative procurement methods to acquire energy-efficient products is not fully known, although at least one federally-funded project may help clarify state progress. The Experimental Technology Incentives Program (ETIP) of the National Bureau of Standards in cooperation with the Council of State Governments, the National Association of State Purchasing Officials, and the Federal Supply Service has created six task forces to examine ways of using state procurement policies to bring about product innovation in the private sector. The task forces are organized around product groups that cover a number of energy-intensive commodities. The groups are: electrical products, mechanical and automotive devices, communications products, furnishings and textiles, medical and scientific equipment, and miscellaneous items. The duration of the project is scheduled for three years with quarterly reports to indicate findings in each commodity procurement area. The latest report (May 1976) gives the results of a survey of state-local purchasing officials as to their needs for performance/cost analysis. Out of a list of twenty items five energy-consuming devices were identified. These included: police vehicles, lamps, heavy equipment (street sweepers, refuse trucks), school buses, and ambulances. If this list is supplemented by a Stanford Research Institute estimate of energy consumption by electrical devices used in state and local

governments, a number of additional candidates can be specified (see Table 3).

Estimating the Energy Conserved Through Procurement

The designation of commodity candidates for new methods of purchasing does not solve the problem of how much energy is consumed by current state inventories nor how much might be saved through the purchase of energy-efficient equipment, goods that require less energy to manufacture, or simply the purchase of fewer energy-consuming items.[14] All methods for measuring energy consumption by state inventory depend upon information about the number of products, their use, and the energy expended in their manufacture and sale. Perhaps the most useful method for making such calculations has been developed by the Stanford Research Institute (SRI). The SRI formula is based on the assumption that the annual consumption of energy is the sum of two products -- the first being the number of items within a state inventory multiplied by the average yearly consumption for each item; the second being the dollars spent annually for the purchase of each item multiplied by the energy per dollar required for production, transportation, and marketing.[15] The energy conserved through procurement policies can be expressed as the difference between the total energy consumed in a state inventory without energy-efficient purchases and the total energy required by a projected inventory in which energy-efficient items have been purchased. The relation among all the variables of the SRI formula can be described by the following equation:[16]

TABLE 3

ESTIMATES OF ENERGY CONSUMPTION OF REPRESENTATIVE ELECTRICAL DEVICES AS USED BY STATE AND LOCAL GOVERNMENTS

Device	Power Rating (Watts)	Estimated Equivalent Daily Usage Hours	Estimated Equivalent Daily Usage Kilowatt Hours	Operating Days per Year	Electrical Energy per year Kilowatt Hours	Electrical Energy per year Million Btu	Energy Required To Supply Electricity* (million Btu)
Air conditioner (window)	1566	8	12.53	125	1556	5.3	17.8
Clock	5	24	0.12	365	43.8	0.15	0.5
Clothes Dryer (electric heat)	4856	4	19.42	250	4855	16.57	55.2
Clothes Washer (automatic)	250	4	1.0	250	250	0.85	2.8
Coffee Maker	200/800	8	2.8	250	700	2.39	8.0
Dishwasher	1200	4	4.8	250	1200	4.1	13.6
Disposal	445	1	0.45	250	112.5	0.38	1.3
Drill, Electric (1/4")	250	1	0.25	250	62.5	0.21	0.7
Electric Oven	5000	2	10.0	250	2500	8.5	28.4
Food Blender	385	1	0.39	250	97.5	0.33	1.1
Floor Polisher	400	4	1.6	250	400	1.37	4.5
Food Freezer (15 cu. ft.)	440	18	7.92	365	2890.8	9.87	32.9
Fry Pan	1196	3	3.59	250	897.5	3.06	10.2
Hot Plate	1257	2	2.51	250	627.5	2.14	7.1
Lawn Mower (electric)	1000	4	4.0	125	500	1.7	5.7
Light Bulb	100	10	1.0	250	250	0.85	2.8
Light, Florescent Tube	40	10	0.4	250	100	0.34	1.1
Microwave Oven	1450	1	1.4	250	360	1.23	4.1
Movie Projector	500	1	0.5	50	25	0.09	0.3
Photo Copier	2700	4	10.8	250	2700	9.21	30.7
Range (electric)	8500	1	8.5	250	2125	29.0	24.1
Refrigerator Freezer (14 cu. ft. conventional)	326	18	5.87	365	2142.6	7.31	24.4
Refrigerator Freezer (frost free)	360	22	7.92	365	2890.8	9.87	32.9
Skill Saw	1000	2	2.0	250	500	1.71	5.7
Typewriter	30	4	0.12	250	30	0.10	0.3
Vacuum Cleaner	600	4	2.4	250	600	2.05	6.8
Air Compressor (1/2-hp. elec. motor)	373	4	1.49	250	372.5	1.27	4.2
Arc Welder (37-1/2 amp.)	4500	2	9.0	250	2250	7.68	25.6
Drill Press (1/2-hp. electric motor)	373	2	0.75	250	187.5	0.64	2.1
Grindstone (1/3-hp. electric motor)	246	1	0.25	250	62.5	0.21	0.7
Lathe Metal (1-hp. electric motor)	745	1	0.75	250	187.5	0.64	2.1
Lathe Wood (1-hp. electric motor)	745	4	2.48	100	248	1.01	3.4
Table Saw (1-hp. electric motor)	745	3	2.24	250	560	1.91	6.4
Soldering Iron	500	2	1.0	250	250	0.85	2.8
Television Set (color)	350	4	1.4	250	350	1.19	4.0
Tape Recorder	100	2	0.2	250	50	0.17	0.6

*Assuming 30 percent overall efficiency in generation and transmission.
Coffee maker assumed to operate 2 hours per day at 800 watts to percolate coffee and 6 hours per day at 200 watts to keep coffee hot.

Source: Stanford Research Institute, *Methodology for Estimating Energy Savings for State Conservation Plans*, 1976.

$$E_s(P) = \sum_i (e_i S_i - e'_i S'_i) +$$

$$\sum_j (N_j E_j - N'_j E'_j)^*$$

where

$E_s(P)$ = annual energy savings from purchase of energy efficient commodities

e_i = total energy intensity of commodity i (in BTU per dollar of purchase price to produce, transport, and wholesale/retail

$\$_i$ = state annual expenditures on commodity i

N_j = inventory of energy consuming commodity j

E_j = yearly energy consumption per unit of commodity j

(*) Primed variables are evaluated after conservation plans have been initiated. Unprimed variables are established before conservation plans have been instituted.

Perhaps the greatest difficulty in applying the SRI formula will be the lack of data for comparing differences in the energy intensity of products within the same line. While comparative performance data exist for automobiles and several major appliances (e.g., window air conditioners, refrigerators, and freezers),[17] similar information for other energy-consuming commodities (e.g., arc welders, air compressors, and mining and oil field machinery) may be slow to develop. Until test procedures are devised for a wide spectrum of energy consuming products and their consumption characteristics identified, the use of any method or formula to estimate total energy savings will be full of uncertainties.

ENERGY EFFICIENCY STANDARDS FOR BUILDINGS

EPCA requires not only the use of public purchasing, but the creation of state lighting and thermal efficiency standards to achieve energy conservation goals. The prospect of energy savings in the built environment is appealing, since that sector alone accounts for 32 percent of national energy demand and consumes 57 percent of all electricity produced in the United States.[18] State control over the development and application of energy efficiency standards depends upon the administration of codes that affect the construction of buildings. How these codes are designed and used will directly influence the amount of energy that can be conserved inside closed structures.

Building and Energy Conservation Codes

New building construction is regulated by building codes created either by a state or one of its political subdivisions. The power to write and enforce building codes falls under the police powers of a state--powers employed to protect the public health, safety, and general welfare.[19] Public protection in enclosed structures is provided by the creation of minimum acceptable conditions for new buildings, usually including the number of exits, fire protection, structural design, material specifications, sanitary facilities, and lighting and ventilation standards.[20] States have traditionally delegated this power, reserved by the Tenth Amendment, to their political subdivisions under the doctrine that the immediate duty of protecting citizens is the responsibility of the nearest unit of legal authority.[21]

Nationally, there are more than 4,000 different building code

authorities containing more than 30,000 local variations.[22] In addition, there are 16 states with energy conservation authority in their building codes (see Table 4).[23] This patchwork system of code authorities can be confusing. Indiana, for example, has a statewide building code without an energy conservation authority, while California, Nevada, and New York have an energy conservation authority separate from their statewide building codes. Minnesota has a separate authority for regulating energy efficiency standards, but its regulations become a part of the state building code.[24] Full compliance with EPCA may require a detailed clarification of code authorities within a state as well as the development of a statewide set of inspection procedures.

Due to variations in local economic and climatic conditions, most cities and political subdivisions have modified the standard codes of several professional associations to fit their peculiar circumstances. There are four standard codes: the Basic Building Code (Building Officials Conference of America, 1950), the National Building Code (American Insurance Association and Underwriters Laboratories, 1905), the Southern States Building Code (southern states, 1946), and the Uniform Building Code (International Conference of Building Officials, 1927). The federal government also has codes which cover government-owned or leased office buildings (General Services Administration) and federally-owned or subsidized housing (FHA and HUD Minimum Property Standards). Many states will now use the Minimum Property Standards in their energy conservation codes since it is offered as the minimum for thermal efficiencies in all new residential buildings in the proposed FEA guidelines.

TABLE 4

Summary of State Building Energy Authority and Regulatory Status

FEDERAL REGION	State	Building Energy Regulatory Authority		Regulations		Authority Being Considered	
		in Statewide Code	in Separate Law	Promulgated	Under Development	by Legislature	by Staff or Study Group
I	MAINE						
	VERMONT					X	
	NEW HAMPSHIRE					X	
	MASSACHUSETTS	X(e)					
	CONNECTICUT	X			X		
	RHODE ISLAND	X					
II	NEW YORK		X(b)				X(c)
	NEW JERSEY					X	
III	PENNSYLVANIA						X
	WEST VIRGINIA					X	
	VIRGINIA	X					
	MARYLAND	X(n)					
	DELAWARE						
IV	KENTUCKY						
	TENNESSEE						
	NORTH CAROLINA	X		X(h)			
	SOUTH CAROLINA						X
	FLORIDA	X					
	MISSISSIPPI						
	ALABAMA						
	GEORGIA	X(n)					
V	MINNESOTA		X(d)		X		
	WISCONSIN	X		X(j)		X(m)	
	MICHIGAN	X			X		
	ILLINOIS					X	
	OHIO	X(i)		X(i)			
VI	NEW MEXICO	X					
	OKLAHOMA						
	TEXAS						
	ARKANSAS						
	LOUISIANA						
VII	MISSOURI						
	KANSAS						X
	IOWA					X	
	NEBRASKA						
VIII	MONTANA	X(a)					
	NORTH DAKOTA						
	SOUTH DAKOTA						
	WYOMING					X	
	UTAH						
	COLORADO			X(k)		X	
IX	CALIFORNIA		X	X(f)	X(g)		
	NEVADA					X	
	ARIZONA					X	
	HAWAII						
X	WASHINGTON	X		X(l)			
	IDAHO	X					
	OREGON	X		X(h)			
	ALASKA						

(a) authority has been clarified by amendment
(b) authority to draft an energy conserving code
(c) authority to promulgate an energy conserving code
(d) authority in separate law but regulations become a part of the state building code
(e) as amended
(f) residential buildings
(g) commercial buildings
(h) single family and multi-family residential, 3 stories and under
(i) excluding 1, 2, & 3 family residential
(j) excluding 1 & 2 family residential
(k) multi-family and manufactured buildings
(l) electric heat only
(m) pending legislation would extend building regulatory authority to 1 & 2 family residential and manufactured buildings
(n) voluntary

Adapted from *Building Energy Authority and Regulations Survey: State Activity*, Robert M. Eisenhard, Office of Building Standards and Codes Service, National Bureau of Standards, June 1975.

ASHRAE 90-75

From a practical point of view, the most extensively researched and debated standards for energy conservation in buildings are the guidelines issued by the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE 90-75).[25] Developed at the request of the National Conference of State Building Codes and Standards, ASHRAE 90-75 sets minimum standards for lighting efficiencies in new buildings as well as thermal insulation and heating efficiencies in new, non-residential structures. The efficiency guidelines are expected to provide design requirements that will decrease component utilization of energy in new buildings, especially in the selection of mechanical, electrical, service, and illumination systems and equipment.

In its present form, ASHRAE 90-75 is a component performance code that differs from an energy budget in that its purpose is to require certain levels of performance for various materials and components of a building. The result of a component performance code, however, may be the same as that of an energy budget, for it can be argued that if each part of the structure is energy-efficient, then a lower level of consumption will be attained. In an energy budget a maximum limit is placed on energy consumption, with the designer selecting the materials and components that fall within the acceptable range.

Since the energy interrelationships of most building components and systems are not well-known, the ASHRAE approach would appear closer to implementation than energy budgets, even though ASHRAE is restricted to the evaluation and analysis of specifications, drawings,

and calculations in the pre-construction phase of a project. Despite current state-of-the-art limitations, the scope of ASHRAE 90-75 is broad, excluding only those structures whose peak design rate of energy use is less than 1 watt per square foot of floor space and whose HVAC system is not mechanically operated.[26]

Lighting Efficiency Standards

The proposed guidelines issued by FEA for implementing EPCA provide for mandatory state lighting efficiency standards applicable to public buildings. With respect to new non-federal public buildings, the guidelines follow the same structural classes as ASHRAE 90-75, although states may determine what buildings are to be excluded. Moreover, the guidelines specify that minimum illumination standards must be no less stringent than those set in Chapter 9 of ASHRAE 90-75.

Chapter 9 procedures are intended to help illumination engineers find upper limits of lighting power that provide both comfortable work areas and efficient lighting systems. Power limit calculations are not to influence lighting system design more than as a general parameter. Designers are encouraged to develop a "pleasing visual environment" that utilizes less power than the limit allows.[27] ASHRAE limits for power budget calculations are those found in the latest Handbook of the Illuminating Engineering Society (IES).[28] Designers are referred to the footcandle levels outlined in Table 5, which lists lighting levels by building type and task category.

IES footcandle levels are based on "conservative interpretations of presently available data." Levels are graded according to task difficulty.[29] IES also prescribes a base level of lighting for an entire work area equal to the level for the most difficult task per-

TABLE 5

SUGGESTED ILLUMINATION LEVELS

	Footcandles Maintained
Office Buildings:	
Private Offices	
Reading handwriting in hard pencil or on poor paper, reading fair reproductions	100
Reading handwriting in ink or medium pencil on good quality paper	70
Reading high contrast or well-printed materials	30
Conferring and interviewing	30
General Offices	
Reading handwriting in hard pencil or on poor paper, reading fair reproductions, active filing, mail sorting	100
Reading handwriting in ink or medium pencil on good quality paper, intermittent filing	70
Bank Lobby	
Writing Areas	70
General Areas	50
Dental Offices	
General Operatory	70
Waiting Rooms	30
Doctor's Offices	
General Examination and Treatment	50
Waiting Rooms	30
Conference Rooms	
Conferring	30
Note-taking during projection (variable)	30
Rest Rooms and Wash Rooms	30
Corridors, Stairways, Elevators	20
Storage Rooms	
Active—Medium Materials	20
Active—Rough, Bulky Materials	10
Inactive Storage	5
Stores:	
Merchandise requiring close inspection because of detail, fineness, or high value	100*
General Merchandise Areas	50*
Alteration rooms, fitting rooms, dressing areas	50
Circulation areas, stockrooms	30

Source: Illuminating Engineering Society Handbook, 5th Edition.

*Footcandle values on plane used to display merchandise. Horizontal plane for merchandise displayed horizontally. Vertical plane for merchandise displayed vertically.

formed in that area. Yet there is concern among some design professionals that this method may produce over-utilization of lighting power in large sections of a work area surrounding the task.[30]

As for existing public buildings, the proposed FEA guidelines require that lighting standards be expressed by major building types in the form of an illumination-energy ratio (that is, a ratio of total lighting wattage used to illuminate the gross number of square feet in a building).[31] Such a crude measure as gross wattage per total footage, however, does not establish when, where, or how energy is used in the different elements of a building. The term 'major building type' may also be inexact due to variations in climatic conditions, management techniques, site location, building position, and the ratio of opaque envelope area to glazing area.

Estimating the Energy Conserved Through Lighting Efficiency Standards

Interior lighting in all office buildings accounts for 5 percent of residential and commercial energy consumption, while office lighting accounts for 10 percent of total lighting demand (35×10^9 kw/day). The energy required for lighting is equivalent to 2 percent of all electricity generated in the United States and .5 percent of all energy used nationally.[32] Although space heating, water heating, air conditioning, and refrigeration consume larger shares of energy within the residential and commercial sectors, proper utilization of lighting in public buildings could conserve a substantial amount of energy. Estimates of potential savings have run as high as 35 percent of lighting energy use, with a total savings between 1975 and 1990 of 310×10^9 kwh.[33] It is with these potential savings in

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Bank Lobby	
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Dental Offices	
General Operatory	70
Waiting Rooms	30
Doctor's Offices	
General Examination and Treatment	50
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*Footcandle values on plane used to display merchandise. Horizontal plane for merchandise displayed horizontally. Vertical plane for merchandise displayed vertically.

mind that the proposed FEA guidelines contain minimum lighting efficiency standards for all non-federal, public buildings.

The Ross/Baruzzini Study

Estimating energy savings, however, is a complex process that rests upon a number of assumptions concerning lighting requirements and use under varying conditions. One of the most recent attempts to analyze energy conservation in buildings is a 1975 study by Ross and Baruzzini, Inc. under contract to FEA.[34] The consulting group investigated lighting power utilization in office buildings and came to four conclusions.

First, the research findings showed that footcandle levels are not the sole determinants of visual efficiency. Measurements of visibility (using visibility meters based on procedures recommended by the Illuminating Engineering Society [IES]) did not permit accurate predictions of required levels of lighting. Moreover, the Ross/Baruzzini visual efficiency tests revealed no differences in reading comprehension or speed of comprehension as a function of illumination over a range of 1 to 450 footcandles for those approximately 20 years old and for those between 45 and 62 years of age. Material quality and print contrast were found more important to visual efficiency than illumination levels.[35]

Second, climatic differences emerged as a major variable of lighting energy use. Indeed, the study urged the use of climatic characteristics as a major consideration in any policy decision influencing lighting levels and power limits. To reach this conclusion, the research team utilized "typical" buildings in each of

six climatic regions in the United States. (Table 6 lists the variations of lighting use as a function of geographic region.) The highest level of kwh per square foot per year was 11.1 for lighting, out of a total electrical kwh/sq.ft./year of 47.2. This was discovered in the Pacific Northwest region. The lowest use level was found in the Southern region -- 8.4 kwh/sq.ft./year out of 26.7 for all electricity. It was noted that the high consumption levels in the Northwest could be attributed to cheap electricity and the large number of total hours for building use. Building height and age were also shown to be important factors in energy consumption but the study concluded that the climatic region is still the most influential factor.[36]

Third, research indicated that reduced lighting energy levels could contribute to reductions in energy use by heating, ventilating, and air conditioning systems (HVAC), since the energy input to the lighting system in an office will end up as heat.[37] But determining HVAC system load involves a complex set of relations that include climate, design, exterior insulation, ratio of opaque walls to glass, hours of operation, infiltration, air leakage, and the heat transfer of building sections. Again, a "typical" office building was used in the analysis. The hypothetical structure was 20 stories tall, having floors scaled to a height of 11'6". There were 312,500 square feet of floor space, with walls 60 percent opaque and 40 percent glazed per floor. To simulate operating conditions the occupancy rate was established as 180 square feet per person and the building was "located" in seven different cities: New York, Los Angeles, Minneapolis, Houston, Atlanta, St. Louis, and Denver. The study concluded that a reduction of energy input to the building for cooling

TABLE 6

Variations of Lighting Use as a Function of Geographic Region

	Number of Buildings	Average Footcandles	Kwh/ Sq. Ft./ Year		Annual Hours of Use	Annual Hours That Building was Open
			Light	Total Electricity		
Mid-Atlantic	49	83	9.7	23.2	3396	2880
Midwest-Northern	28	94	9.8	25.6	3152	2962
North Central	29	91	9.8	23.6	2859	2975
Pacific Northwest	11	97	11.1	47.2	3912	2923
Pacific Southwest	32	89	10.5	25.1	3559	3057
Southern	22	92	8.4	26.7	3595	3014
Southwest	19	87	9.2	29.8	3952	3191

(Source: Ross and Baruzini, Inc., *Energy Conservation Applied To Office Lighting*, Prepared for FEA, April 15, 1975.)

from 3 watts per square foot to 2 watts per square foot would reduce cooling needs by approximately 7.5 percent. However, a trade-off results since heating needs would increase by 4 percent. For each kwh-per-square-foot decrease in the peak load demand for lighting there was an approximate decrease of .9 kwh/ft^2 in peak cooling demand on refrigeration equipment, which is equivalent to a 10 percent savings in total installed capacity. These savings varied across the different climatic regions with the smallest in Minneapolis and the largest in Houston. When inefficiencies in electric power generation are taken into account, there was an estimated average decrease of .25 kw of energy to the HVAC system for each kwh reduction in national lighting use.

Four, the analysis revealed that lighting use levels were highly elastic and sensitive to regional variations in fuel costs.[39]

The assumptions made in the Ross/Baruzzini study are open to criticism and have been challenged by Lawrence Spielvogel on a number of grounds.[40] Spielvogel argues that the "typical" office building postulated by Ross/Baruzzini may be far from typical when compared to operational structures. He also questions the relation between fuel costs and lighting use, as well as the impact of lighting reduction on energy consumed by HVAC systems. Furthermore, he believes experimental evidence does not confirm that regional climatic differences are the most important factors in lighting use and strongly urges that policy decisions be based on the functional characteristics of individual buildings. He does recognize, however, that the conclusions drawn from the Ross/Baruzzini study may be correct in view of the assumptions

made, but since the assumptions are "grossly inadequate", the usefulness of the results is thrown into question.[41]

Given the current state of the art, it would be surprising if agreement could be achieved on the relation of all variables that determine lighting use. Still, a crude measure of energy savings can be achieved by estimating future lighting demand without conservation, and making another that includes conservation efforts. The difference between the first and second estimate would represent the amount of energy saved. If no attempts at conservation are made, the lighting energy consumed by new and existing buildings can be defined as the product of total floor space multiplied by the projected demand for lighting energy.[42] But, if conservation techniques are applied, then a savings factor must be calculated that represents an anticipated reduction in lighting use. In both cases accurate estimates could be facilitated by an inventory of state building space by type and information about lighting practices, fixtures, bulb or tube wattages, and hours of operation. As matters currently stand, building performance data do not exist in detail sufficient enough to lend confidence to conservation projections.

Thermal Efficiency Standards and Estimates of Energy Conservation

The proposed FEA guidelines require that state conservation plans include mandatory thermal efficiency standards for new and renovated buildings. These standards must take into account the physical characteristics of the exterior envelope, the selection, arrangement, and performance of the HVAC system, and the design and operation of

the service water heating system. In all new non-residential buildings, standards must be at least as strict as chapters 4-9 of ASHRAE 90-75; for all new residential buildings thermal standards cannot be lower than the Minimum Property Standards developed by the Department of Housing and Urban Development for the construction of low rent public housing. As for renovated buildings, states are free to apply whatever standards they wish.

Although the largest percentage of building energy use goes for space heating, the application of thermal standards is no less difficult than those for lighting. Thermal efficiencies must be worked out within the context of building size, envelope characteristics, building occupancy, maintenance practices, and the interaction between insulation and the HVAC system.[43] Consequently, estimates of energy reduction through the use of mandatory thermal efficiency standards vary significantly, ranging as high as 50 percent in new buildings and 25 percent in renovated structures.[44] Given what is currently known about potential efficiencies, all a state can do in calculating energy savings is rely on a rough projection of energy consumption in buildings without the imposition of thermal standards (expressed perhaps in BTUs per square/foot per year for each building type) and an estimate of energy consumption as a result of thermal efficiency requirements. The difference between the two projections would represent the amount of energy conserved.

CONCLUSION

Energy conservation through mandatory state procurement policies and building code standards provides an opportunity for an expanded state role in energy policy development. It also emphasizes the use of policy instruments that are sensitive to local conditions and practices. Still, a number of institutional and technical problems must be solved before energy savings can be accomplished. In most states the implementation of conservation plans will depend on the passage of new state legislation or the issuance of new administrative regulations to bring the state into conformity with the required provisions of EPCA.

From the standpoint of political feasibility, it appears unlikely that mandatory state purchasing policies will be applied uniformly to all political subdivisions. Preferences for local vendors, difficulties in recruiting and training personnel, and lack of state budget resources serve to inhibit the extension of centralized purchasing. Under the circumstances, a state conservation plan might have a better chance for success if mandatory procurement standards were applied only to state agencies and local governments were permitted (but not forced) to use state purchase contracts for a relatively small number of energy-intensive items.

The prospect of energy savings through the application of mandatory lighting and thermal standards faces at least two uncertainties: first, the limitations associated with state-of-the-art assumptions about energy use in buildings; and second, the economic impact on markets for materials and equipment within the U.S. con-

struction industry. At present, the effect that lighting and thermal efficiencies have on total energy utilization within buildings is imperfectly understood. But as more is learned from building experiments, questions of energy savings can be answered with greater degrees of assurance. On the economic side, the extent to which the building industry might be affected by widespread adoption of lighting and thermal standards remains unclear. What evidence exists[45] suggests that market opportunities will increase for manufacturers of building materials (insulation, siding, flat glass, window fabrications) and decrease for suppliers of general building equipment (electric lamps, lighting fixtures, gas and electric meters, hot water heaters) and HVAC systems (equipment and controls).

In view of the technical and institutional complexities that will be encountered in the use of procurement and building codes to achieve energy conservation, an early assessment of state plans should not be based exclusively on the percent of energy saved. In the initial stages it may be much more important to provide a framework for all parties at interest to examine both instruments for their possible impacts and consequences.

FOOTNOTES

1. See, The Council of State Governments, State and Local Government Purchasing, Lexington, Kentucky, 1975, p. 3.2

2. For example, the Experimental Technology Incentives Program (ETIP) funded by the National Bureau of Standards in the Department of Commerce.

3. See, J.G. Berke, "Procurement - The Pull Side of Technology Transfer", The American Society of Mechanical Engineers, Publication No. 75-ENAs-3.

4. Federal Energy Administration, State Energy Conservation Feasibility Report Guidelines, 1976.

5. Albert S. King, "A Systematic Approach for the Analysis and Evaluation of Purchasing Policy", Journal of Purchasing, August, 1973, p. 73.

6. Council of State Governments, State and Local Government Purchasing, op. cit., p. C.5.

7. George Wood Jennings, State Purchasing: The Essentials of a Modern Service for Modern Government, (Lexington, Kentucky: Council of State Governments) 1969, p. 4. In 1892 the Texas Legislature established an agency to oversee purchases made for charitable and penal institutions.

8. Robert M. Belmonte, "Another Look at Large Scale Intergovernmental Cooperative Purchasing, Journal of Purchasing, February, 1972, p. 35.

9. Ibid. p. 40.

10. After a number of years of practicing cooperative purchasing, California and Illinois now limit their coverage to 30 or 40 items.

11. Federal Supply Service, Life Cycle Costing in the Procurement of Room Air Conditioners, July 1975, pp. 21-22.

12. Under the Department of Commerce's Voluntary Program for Energy Reduction the appliance industry has established energy efficiency ratios for room air conditioners, refrigerators, and freezers. Completion targets for other appliances are: water heaters (2nd quarter, 1976), television receivers (1st quarter, 1976), clothes washers (1st quarter, 1976), clothes dryers (1st quarter, 1976) dishwashers (2nd quarter, 1976) ranges (mid-1977).

13. See, for example, William H. Miller, "The New Look in Federal Buying," Industry Week, February 9, 1976.

14. Edward Dickson, et al., Methodology for Estimating Energy Savings for State Conservation Plans, a Final Draft Report to the Federal Energy Administration by the Stanford Research Institute, April 1976.

15. Ibid., Executive Summary.

16. Ibid., p. 38.

17. For appliances see, The Association of Home Appliance Manufacturers, 1976 Directory of Certified Refrigerators and Freezers, and the 1976 Directory of Certified Room Air Conditioners; for automobiles see, the Environmental Protection Agency, Federal Energy Administration, "1975 Gas Mileage Guide for New Car Buyers."

18. Robert Griffin, "'Locking In' Energy Conservation: The Energy Research and Development Administration", HUD Challenge, vol. VII, No. 6, June 1976, p. 10; Richard Schoen, Alan S. Hirshberg, and Jerome Weingart, New Energy Technologies for Buildings: Institutional Problems and Solutions (1975), p. 1; R. G. Stein, "Matter of Design: Effect of Building Design on Energy Consumption", Environment 14: October 1972, p. 17; Stein cites U.S. electrical energy consumption in the built environment at more than 57%.

19. Joyce Carpenter and Marc Wiegand, Legal and Regulatory Policy Committee Project L/R-3: Energy Conservation, Governor's Energy Advisory Council, Final Draft Memorandum, Austin, Texas, (July 24, 1974), p. 14; Steven Rivkin, "Courting Change: Using Litigation to Reform Local Building Codes", Rutgers Law Review 27: 659-674, Spring 1974, p. 663; United States Advisory Commission on Intergovernmental Relations, Building Codes: A Program for Intergovernmental Reform (1967), p. 11.

20. McQuillan on Municipal Corporations, 2d. Ed. Vol. 3, p. 282 sec. 106.

21. Ambrose M. Richardson, "Note: Building Codes: Reducing Diversity and Facilitating the Amending Process," 5 Harvard Journal on Legislation 587 (1968), p. 596.

22. Richard Schoen, et al., New Energy Technologies, taken from, Report to the President's Committee on Urban Housing, "A Decent Home" (The Kaiser Committee) 1969, 0-313-937 Superintendent of Documents.

23. Robert Eisenhard, Building Energy Authority and Regulation Survey: State Activity, Final Report, National Bureau of Standards (March 1976) p. 1.

24. Ibid.

25. The American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc., ASHRAE Standards 90-75: Energy Conservation in New Building Design, second edition (1975).

26. Ibid., sec. 8:2.1-.2.

27. Ibid., sec. 9:2.1.

28. Illuminating Engineering Society Lighting Handbook: The Standards Lighting Guide, Fifth Edition (1972).

29. Ibid., p. 11-12.

30. Ibid., p. 9-81.

31. Federal Energy Administration (10 CFR Part 420) State Energy Conservation Plan and Feasibility Report Guidelines, Federal Register, Vol. 41, No. 117, June 17, 1976, sec., 420.11 definitions; sec., 420.35(a)(4).

32. Ross and Baruzzini, Inc., Energy Conservation Applied to Office Lighting, prepared for FEA (April 15, 1975). Distributed by National Technical Information Service, U.S. Department of Commerce, p. I-2.

33. Ibid., p. III-36.

34. Ibid., p. I-2.

35. Ibid., p. IV-28.

36. Ibid., p. III-23.

37. Ibid., p. III-12.

38. Ibid., p. III-8.

39. Ibid., p. III-5, V-15.

40. Lawrence Spielvogel, "Critical Analysis of FEA Office Lighting Study--HVAC Energy Relations," National Technical Information Service, U.S. Department of Commerce, No. PB-246-555 (October 1975).

41. Ibid., p. 2.

42. Stanford Research Institutes, Final Draft Report, "Methodology for Estimating Energy Savings for State Conservation Plans," op. cit., p. 13.

43. William Ruday and Fernando Duran, "Effects of Building Envelope Parameters on Annual Heating/Cooling Load," ASHRAE Journal (July 1975) p. 19.

44. General Services Administration, Public Building Service, "Energy Conservation Guidelines for New Office Buildings; C. W. Griffin, "Energy Conseration in Building," Construction Specifications Institute (1974); Stanford Research Institute, Final Draft Report, "Methodology for Estimating Energy Savings for State Conservation Plans," op. cit., p. 59.

45. Craig Lentz, "ASHRAE Standard 90-75--Economic Impact on Selected Industries and the Design Profession," ASHRAE Journal, June 1976.

ENERGY CONSERVATION IN BUILDINGS:

The State of the Art - July, 1976

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In the United States, buildings of all types account for approximately one-third of the total energy consumption. Experts generally agree that anywhere from 40 to 60 percent of this energy could be saved by a strong public and private energy conservation program for buildings -- retrofitting existing buildings, strengthening design standards, and developing performance guidelines for various types of new buildings, utilizing life cycle costing, making new energy-saving technology more attractive to consumers, and educating building professionals and the general public.

As a result of the recent energy crisis and a limited state energy conservation program, energy consumption in buildings operated by the State of Texas has decreased slightly from 1973 to 1975 despite an overall growth in the square footage in state buildings. State agencies consumed 4.0 trillion B.T.U.s of electricity in all of 1973 and 4.2 trillion B.T.U.s in 1975, an increase of 5 percent. They also used 4.7 B.T.U.s of natural gas in 1975 versus 5.2 B.T.U.s in 1973, thus decreasing consumption by 9.6 percent. State-supported colleges and universities utilized 5.2 percent more electricity in 1975 than in 1973 -- 14.1 trillion B.T.U.s to 13.4 trillion B.T.U.s-- whereas natural gas consumption dropped from 14.6 trillion B.T.U.s in 1973 to 14.5 trillion B.T.U.s in 1975, a .7 percent decrease. The electricity increase and lack of sizeable energy savings at the state-supported colleges and universities are primarily due to substantial increases in physical expansion on several campuses. Comparable information on energy consumption in all Texas buildings is presently unavailable. With a comprehensive public and private

energy conservation program for Texas buildings, the much higher level of savings that experts predict could be realized.

The purpose of this report is to provide a brief overview of the state of the art in energy conservation in buildings as of July, 1976. The first section describes relevant legislation and public and private programs at the national, state, and local levels. The last section deals with a variety of strategies that should be considered as part of a comprehensive program to conserve energy in Texas buildings.

WHAT IS HAPPENING IN ENERGY CONSERVATION IN BUILDINGS?

Existing Federal Legislation and Programs

The federal effort with respect to energy conservation in buildings is at present quite limited. There is no national building code and federal regulations and incentives promoting energy conservation in buildings are almost nonexistent. What few federal programs and initiatives do exist involve duplication of effort and a lack of coordination. With the exception of providing some funding, most all of the federal effort is informational.

The primary piece of federal legislation dealing with energy conservation in buildings is the Energy Policy and Conservation Act of 1975 (P.L. 94-163). Title III, Part C of this Act requires the Federal Energy Administration (FEA), within 60 days after enactment (12-22-75), to prescribe guidelines for the preparation of a state energy conservation report which should include a plan to reduce the total amount of energy consumed in the state by 5 percent below the figure projected for 1980. This report, which was required within three months after the effective date of these guidelines, was submitted by the Governor's Energy Advisory Council on May 1, 1976. Part C also requires FEA to issue guidelines for the development, modification, and funding of state energy conservation plans. These draft guidelines were published in the June 16, 1976, Federal Register and will be the subject of a regional hearing in Dallas on July 1, 1976. The final guidelines should be published by the end of July, 1976.

To be eligible for federal assistance authorized under this Act ($50 million annually for FY 76, 77, and 78 for the total U.S.) each state plan must include mandatory lighting efficiency standards for public buildings and mandatory thermal efficiency standards and insulation requirements for new and renovated buildings (see draft guidelines, Appendix A). The funding would include $182,922 to enable Texas to complete its state plan and additional funding to implement the plan. The draft guidelines include a formula for funding the states based on their population and their estimated absolute energy savings in calendar year 1980. The state plans must be submitted within five months of the effective date of the guidelines. In addition, Title III, Part E of the Act directs the President to establish and coordinate federal agency actions to develop mandatory standards with respect to energy conservation and energy efficiency to govern the procurement policies of the federal government. The President must also develop and implement a ten-year plan for energy conservation with respect to buildings owned or leased by an agency of the U.S.

There are several other federal laws that contain sections dealing with energy conservation in buildings. Section 305 of the Housing and Community Development Act of 1974 (P.L. 93-383) requires the Secretary of Housing and Urban Development (HUD) to promote the use of energy saving techniques through minimum property standards that he establishes for new constructed residential housing subject to mortgages insured under this Act. The Minimum Property Standards (specification codes) of HUD and FHA have been

accordingly revised to promote energy conservation and include upgraded thermal insulation requirements for one , two , and multi-family dwellings that must be met to quality for FHA loans of HUD funding. Section 103 of the Energy Reorganization Act of 1974 (P.L. 93-438), which created the Energy Research and Development Administration, authorized this agency to inform the public about energy conservation technologies and to encourage and conduct research and development efforts in energy conservation (buildings included). "Emergency Energy Conservation Services", a program to be administered by the Community Services Administration, was authorized by the Headstart, Economic Opportunity, and Community Partnership Act of 1974 (P.L. 93-644). This program is designed to enable low-income individuals and families to participate in energy conservation programs designed to reduce energy consumption. CSA is authorized to provide funding for winterization of old or substandard dwellings, improved space conditioning, and insulation, in addition to emergency loans, grants, and revolving funds to install energy conservation technologies. In FY 76 CSA has granted $542,188 to community action agencies in Texas to support this program.

There are six major federal agencies involved in energy conservation in buildings. In the past, the Federal Energy Administration (FEA) has had primary authority for federal energy conservation. The FEA Office of Conservation and Environment operates the Federal Energy Reduction Program which monitors federal energy use, implements ways to cut federal energy

use (including buildings) by 22 percent and performs or contracts out research projects for energy conservation. In addition, FEA has developed guidelines for saving energy in buildings such as "ECM-2, Engineers, Architects, and Operators Manual, Energy Conservation Opportunities and Guidelines for Existing Buildings, Retail, Office, Religious." As noted earlier, FEA is also responsible for the implementation of the Energy Policy and Conservation Act of 1975. At present, FEA is operating Project Conserve in New Mexico and Massachusetts. This is a computer-analysis program to assess a home's energy requirements and to calculate potential dollar and energy savings that can be achieved through a variety of energy-conserving actions. Additionally, FEA is also developing the Commercial Buildings Retrofit Program to encourage energy savings of at least 30 percent by 1980, and is working with other federal agencies to develop energy efficiency standards for new buildings.

The new Energy Research and Development Administration (ERDA) has become increasingly important in the area of energy conservation in buildings. This agency is mainly involved in providing information and training. For instance, ERDA is funding a three-year effort by the National Conference of States on Building Codes and Standards to train design professionals, state and local building officials, building inspectors, and policy makers on energy conservation standards for buildings (including ASHRAE 90-75). ERDA's Division of Buildings and Industry, Office of Conservation, is actively pursuing research to develop better materials, methods, and processes for retrofitting buildings, as well as for use in

new construction.

The General Services Administration (GSA) has the responsibility for developing procedures for the operation and maintenance of federal buildings with maximal energy conservation and for determining the types of energy sources to be used in connection with the design and construction of new federal buildings ("Energy Conservation Design Guidelines for New Office Buildings," Second Edition, July, 1975). These latter guidelines establish an energy budget of 55,000 Btus per gross square foot per year for GSA-managed buildings, a figure considered by many professionals to be too severe and arbitrary. The Department of Housing and Urban Development develops policies and procedures for energy conservation in buildings, such as the thermal insulation standards included in the FHA Minimum Property Standards mentioned earlier. The National Bureau of Standards (NBS) of the Department of Commerce is involved in basic applied research on new energy-efficient building technology, development of measurement technology, and the basis for building energy standards, and information on issues related to energy conservation in buildings. NBS developed draft criteria for ASHRAE Standard 90-75 and prepared a manual entitled "Technical Options for Energy Conservation in Buildings." As noted in a previous paragraph, the Community Services Administration operates the "Emergency Energy Conservation Services."

There are a small number of Federal funding sources, including the legislation described earlier, that can be utilized for training, research and development, and implementation of existing technology

with respect to energy conservation in buildings. In addition to ERDA and FEA funds for research and demonstration projects and training and the CSA weatherization funds, local and state conservation programs can be funded from general revenue sharing funds or from community development block grants.

Pending Federal Legislation

A variety of bills dealing with energy conservation in buildings are currently pending before Congress. Several of these bills have received the most attention and should be considered the major bills in this area. These include the "Energy Conservation in Buildings and Weatherization Assistance Act" (H.R. 8650, S. 2381). This bill requires HUD to develop energy conservation standards for all new residential and commercial buildings and prohibits federally-regulated banks and savings and loan associations from financing construction of homes, commercial buildings, and industrial facilities unless they meet these standards. It also authorizes additional weatherization funds for the CSA-administered program for low-income homes and additional funds for encouraging states and local governments to implement model standards through building codes. This bill went to a conference committee for resolution of differences on April 11, 1976. Another important piece of legislation is the "Energy Conservation and Conversion Act of 1975" (H.R. 6860) which provides a tax credit for expenses incurred insulating an existing principal residence (30 percent of the first $500), establishes an Energy Conservation and Conversion Trust Fund to fund various research and demon-

stration efforts, and changes the investment tax credit relating to insulation and air conditioning. This bill passed the House on June 19, 1975, and is now before the Senate Finance Committee, with the last hearing held on March 17, 1976. Several provisions of this bill have been incorporated in the tax reform bill presently being considered by the Senate. The other major bill is the "Energy Conservation Act of 1976" by Senator Kennedy (S. 2932, S. 3424). This bill includes funding to the states to implement programs for energy conservation in buildings and direct loan subsidies for energy conservation, including FHA loans for housing, assistance to small businesses, loan guarantees to the industrial and commercial sectors, and assistance for low-income housing. The bill has been reported by the Senate Commerce Committee, but is still being considered by the Senate Interior and Banking Committees. More recently, it, along with H.R. 8650 as passed by the Senate, has been added as an amendment to the FEA extension bill (S. 2872), which passed the Senate on June 16, 1976, and will go to a conference committee to resolve the differences between the House and Senate versions.

Other pending bills concerning energy conservation in buildings include the "Federal Facilities Energy Conservation and Utilization Act of 1975" (S. 2045, H.R. 7080). This legislation requires the federal government to publish energy conservation guidelines for use in the design, construction, renovation, and operation of certain residential, office, commercial, institutional, and other buildings. These guidelines are mandatory for federal buildings. Federal agencies are also required to prepare an energy utilization analysis and

an energy-economic analysis for each building. The "Conservation of Solar Energy -- Federal Buildings Act of 1975" (S. 2045, H.R. 8711) authorizes GSA and the Defense Department to develop guidelines designed to assure the most effective and efficient measures for the conservation of energy in the design, construction, and renovation of federal and federally-assisted buildings. Each federal agency is required to submit a detailed life cycle energy cost analysis of any building to be constructed, acquired, or leased by it or for its use. This bill also includes increased cost limitations to accomodate energy (saving) equipment in federal and federally-assisted buildings. A demonstration energy conservation program, using promising innovative technology to the maximum extent possible, through retrofitting existing federal, state, and municipal buildings with energy conservation equipment and systems is authorized by the "Energy Conservation in Buildings Demonstration Act of 1975" (S. 1392). All three of these bills have undergone hearings in several Senate committees, but have yet to be reported.

Several pending bills would establish an Energy Extension Service (EES) in ERDA. These include the "National Energy Extension Service Act of 1976" (H.R. 13676) and the bills authorizing ERDA appropriations (S. 3105, H.R. 13350). The EES would oversee the development and administration of state plans for the development, demonstration, and analysis of energy conservation opportunities (in new and existing residential, commercial, and agricultural buildings or structures), and the development of programs to encourage the acceptance and adoption of energy conservation oppor-

tunities by energy consumers. S. 3105 was reported by the Senate Interior Committee on April 14, 1976.

Legislation and Programs in Texas

Texas has a limited number of programs and only one major piece of legislation related to energy conservation in buildings. There is no overall building energy authority in existence, and there is no state building code that includes energy conservation measures. But as a result of the passage of the "Energy Conservation in Buildings Act" (Art. 6,7,8i of Vernon's Statutes) in 1975, Texas is presently involved in the development of a variety of policies for energy conservation in building from the state to the local level.

The "Energy Conservation in Buildings Act of 1975" authorizes the State Building Commission (SBC) to write energy conservation standards and codes that would apply to State-financed buildings and be available for use by Texas cities. Section 7 of this Act requires the SBC to publish an energy conservation manual for use by consumers and designers, builders, and contractors of residential (Part I - generally nontechnical) and apartment and non-residential (Part II) buildings. This manual contains guidelines for energy conservation, information to assist designers and builders in meeting these guidelines, and design suggestions and information on the latest technologies for meeting or exceeding the guidelines. These guidelines, which are presently available from the SBC, closely follow portions of ASHRAE Standard 90-75 (mechanical and lighting

sections) and include an energy efficiency index for the complete shell of new buildings. These voluntary guidelines represent a combination of both performance and prescriptive standards, an effort to allow more flexibility than the ASHRAE 90-75 standards. The prescriptive standards have only been used in those areas where performance measures cannot be set (air conditioning, lighting, water heating). This information will form the basis for energy conservation design standards that all new state buildings, including those of state-supported institutions of higher education, are required to meet. These standards, which must include both performance and procedural (prescriptive) standards for maximum energy conservation, must be adopted and published by the SBC and the governing bodies of state institutions no later than January 1, 1977. Section 5 of this Act requires the SBC to prepare model energy conservation building codes for voluntary use by cities in enacting or amending their ordinances. These codes, based on the Section 3 manual, should be ready within a month.

The SBC is presently studying the energy usage of state agencies in order to make retrofitting recommendations and is cooperating with the State Board of Control and The University of Texas to analyze energy usage in selected buildings in the Capitol Complex. In addition, the SBC is working with architects to develop a case history of energy usage in a variety of Texas buildings.

The Governor's Energy Advisory Council (GEAC) was created by executive order in 1973 and was established as the one state body responsible for energy planning by the Energy Policy Planning Act

of 1975. The GEAC is currently involved in a number of programs related to energy conservation in buildings, including information, training, technical assistance, funding, and energy monitoring (of state agencies and institutions of higher education). These activities include general local energy awareness campaigns cosponsored by cities, a home energy audit program, energy conservation learning modules for professionals in business and industry (example: "conserving energy with insulation: buildings"), technical assistance to the SBC in preparing the energy conservation manuals, and funding of the Capitol Complex Buildings Conservation Program being carried out by the Board of Control and the Center for Energy Studies at The University of Texas at Austin. This study has analyzed the energy requirements of the Stephen F. Austin Office Building and has implemented selected energy conservation techniques such as cutting off the ventilation air system during periods of low occupancy. The LBJ Office Building is now undergoing a similar study. Additionally, the GEAC is working with the Texas A & M Engineering Extension Service and the Texas Department of Community Affairs to present programs for municipal building inspectors on energy efficient construction techniques. The Center for Energy Studies and the GEAC plan to develop energy management seminars for Texas commerce and industry.

As mentioned earlier, the Board of Control is participating in the Capitol Complex study. This agency's involvement in energy conservation in buildings is limited to regulating the temperature setting in state buildings under its control and setting specifications for purchasing by the State (such as air conditioning equip-

ment) to encourage energy conservation. The new Public Utility Commission has the potential for involvement in this area (energy audits and budgets) but is presently only involved in informational activities related to energy conservation in buildings.

State colleges and universities are required to adopt and publish energy conservation design standards consistent with those of the SBC. Several of these institutions currently are undertaking activities involving energy conservation in buildings. Texas A & M is studying some of its buildings and those of the Texas Department of Corrections to determine energy performance guidelines.

Legislation and Programs in Other States

Since the 1973 energy crisis, a number of states have become involved in energy conservation in buildings. As of November, 1975, sixteen states had state-wide building code authority as a vehicle for energy regulation and three additional states have energy authority separate from statewide code authority. Many other states are in various stages of legislative and program development (see Table 1, Appendix B). Many states have shown interest in adopting ASHRAE Standard 90-75 or a subsequent American National Standard as the basis for their future regulations. The states most frequently mentioned as being the most progressive as far as state policies for energy conservation in buildings are California, Florida, and Ohio.

California presently has the authority to regulate energy conservation in all types of new buildings. Residential and non-

residential regulations based on ASHRAE 90-75 have been promulgated along with an energy design manual. The California regulations are presently being challenged in the courts because they are specification standards instead of the performance standards that the enabling legislation called for.

The Florida Building Codes Act of 1974, effective on January 1, 1977, includes energy conservation authority. ASHRAE 90-75 has been adopted as the possible framework for developing energy conservation guidelines for new buildings. Other Florida legislation requires life cycle cost analysis on all state-constructed buildings of 5,000 square feet or more and state-leased facilities of 20,000 square feet or more.

Ohio has a state-wide building performance code which covers all buildings except one , two , and three-family dwellings. The related regulations became effective on June 1, 1976 and include a maximum allowable energy load for different types of buildings.

Local Programs

Cities have traditionally adopted building codes and standards based on model codes and standards developed by their professional organizations. Thus, ASHRAE Standard 90-75 has begun to be utilized at the local level. Several California cities are involved in innovative programs. Indio has developed an energy conservation performance code for a small city (under 20,000). Davis has adopted an energy conservation code and trains building professionals in energy conservation design techniques.

"Emergency Energy Conservation Services" are currently being conducted by numerous Texas Community Action Agencies, mainly to weatherize low-income homes. Garland, Texas, is conducting a thermographic mapping exercise to identify heat leakage from buildings and recommend remedial measures. The City of Austin is frequently cited as a progressive municipality as far as energy conservation in buildings is concerned. Its Energy Conservation Commission, with a committee on building codes, was created in 1974. The City has been investigating the history of energy consumption in commercial structures and the climatology of the city for the past ten years in order to determine a reasonable level of energy consumption for various types of buildings. In December, 1974, the City adopted a minimum energy efficiency ration ordinance for air conditioning equipment. A minimum insulation ordinance for residential units was also adopted in 1974. At present, the City is funding a study by a University of Texas professor on energy performance guidelines for the commercial sector.

Private Sector Activities

The major, and most controversial, effort in the area of energy conservation in buildings in the private sector is ASHRAE Standard 90-75, entitled "Energy Conservation in New Building Design." This standard was developed in 1975 by the American Society of Heating, Refrigerating, and Air Conditioning Engineers in order to provide design requirements which would improve energy utilization in new buildings. A number of states and municipalities either have or are considering adopting all or portions of ASHRAE 90-75.

Despite the fact that these standards are the result of wide professional input and will be revised annually, they are frequently the subject of criticism. Most of this criticism is that 90-75 causes greater costs, requires an army of experts, is too stringent and thus restricts innovation, is a minimal rather than an optimum standard, and places heavy emphasis on the building envelope, which accounts for only 10 percent of the energy consumption. On the other hand, a study entitled "An Impact Assessment of ASHRAE Standard 90-75" prepared for FEA by Arthur D. Little, Inc., found that the higher design costs are offset by the long-term savings in energy. It also noted that maximum potential energy savings could only be realized if 90-75 was adopted and enforced by all code authorities. ASHRAE is also developing Standard 100-P, energy conservation standards for existing buildings, which should be available sometime in 1977.

One of the most frequent critics of prescriptive codes and ASHRAE 90-75 is the American Institute of Architects. This group's Task Force on Energy Conservation is preparing energy performance guidelines (energy budgets) for buildings which should be published by September 1, 1976. Dr. Ray Reed of Texas A & M is on this Task Force.

Business and industry are also involved in energy conservation in their buildings. Large concerns have the expertise and resources to implement such programs, but small businesses and industries need governmental help, such as conservation-oriented capital investment loans. An example of activity in this sector is a FEA-commissioned

study of commercial energy consumption and ways to reduce it by HAM-MER Consulting Engineers, inc., of Austin. This study of the City National Bank and the South Congress Shopping Center in Austin was completed in January, 1976.

STRATEGIES FOR ENERGY CONSERVATION IN BUILDINGS

The 40 to 60 percent energy savings predicted by experts as the result of a comprehensive conservation program in buildings is unachievable with current federal, state, and local policies. In order to develop such a comprehensive and meaningful program in Texas, a number of alternate strategies, including both administrative policies and technical innovation and improvements, need to be considered:

I. Administrative policies

A. Regulatory strategies

1. building codes and standards (prescriptive), including minimal standards for lighting, mechanical equipment, and insulation - state building code;
2. energy performance guidelines (annual energy budgets) for various types and uses of buildings;
3. state certificaiton of building inspectors, including training and testing;
4. mandatory life cycle costing of buildings;
5. mandatory energy efficiency rating and labelling of mechanical equipment and materials;
6. give countries ordinance authority so that they could establish building codes.

B. Tax reform

1. tax incentives to encourage increased insulation or other energy saving improvements
   (a) tax commercial and industrial real estate for land only, thereby encouraging capital improvements, including energy conservation expenditures;
   (b) property tax exemption for the value of energy conservation improvements (constitutional amendment);
   (c) exemption for conservation improvements from the Limited Sales, Excise, and Use Tax statute;
   (d) tax reductions or exemptions for firms producing energy conservation materials for buildings;
   (e) tax reductions for energy efficient buildings.
2. tax disincentives to discourage energy-wasteful design and construction

C. Government subsidies

1. direct cash grants to low-income or other individuals or firms for the installation of energy-saving equipment;
2. government insured loans for conservation improvements.

D. Education and information

1. manuals and training institutes for building professionals;
2. energy consumption estimates for homes and other buildings should be provided to purchasers;
3. publication of energy efficiency ratings of equipment and materials.

II. Technical innovations and improvements

A. Energy-saving architectural techniques -- siting and orientation of building, building shape, envelope design, wall shading, exterior and interior finishes, entranceways.

B. Technical innovations -- heat pump, thermal storage, Modular Integrated Utility System (MIUS).

C. Improvements -- improved thermal insulation, more efficient mechanical-electrical equipment.

A highly successful comprehensive energy conservation program in Texas buildings requires a multi-faceted approach utilizing a variety of the strategies listed above and involving both the public and private sectors.

APPENDIX A

Federal Energy Administration - Draft Guidelines

for State Energy Conservation Plans

(in accordance with P.L. 94-163)

Section 420.35 sets the minimum criteria for the required program measures:

(a) Mandatory lighting efficiency standards for public buildings must meet the following minimum criteria:
  (1) be in place and ready for implementation throughout all political subdivisions of the State by January 1, 1978;
  (2) apply to all public buildings above a certain size, as determined by the State;
  (3) for new public buildings, be no less stringent than a standard consistent with the provisions of Chapter 9 of ASHRAE 90-75; and
  (4) for existing public buildings, be expressed by major building types, in terms of the illumination-energy ratio.

(d) Mandatory thermal efficiency standards for new and renovated buildings shall meet the following minimum criteria:
  (1) be in place and ready for implementation with respect to all buildings other than exempted buildings throughout all political subdivision of subdivisions of the State by January 1, 1978;
  (2) take into account the exterior envelope physical characteristics, HVAC system selection and configuration, HVAC equipment performance and service water heating design and equipment selection;
  (3) for all new non-residential buildings, be no less stringent than a standard consistent with provisions of Chapters 4-9 of ASHRAE 90-75.
  (4) for all new residential buildings, be no less stringent than the HUD Minimum Property Standards; and
  (5) for renovated buildings, (i) apply to those buildings determined by the State to be renovated buildings; and (ii) contain the elements deemed appropriate by the State regarding thermal efficiency standards for renovated buildings.

APPENDIX B

TABLE 1

Summary of State Building Energy Authority and Regulatory Status

State	Building Energy Regulatory Authority		Regulations		Authority Being Considered	
	in Statewide Code	in Separate Law	Promulgated	Under Consideration	by Legislature	by Staff or Study Group
ALABAMA						
ALASKA						
ARIZONA						
ARKANSAS						
CALIFORNIA		X	X(f)	X(g)		
COLORADO			X(k)			
CONNECTICUT	X			X(p)		
DELAWARE						
FLORIDA	X			X		
GEORGIA	X(n)					
HAWAII						
IDAHO	X					
ILLINOIS					X	
INDIANA						
IOWA					X	
KANSAS						X
KENTUCKY						
LOUISIANA						
MAINE						
MARYLAND	X(n)			X		
MASSACHUSETTS	X(e)		1			
MICHIGAN	X			X		
MINNESOTA		X(d)	X			
MISSISSIPPI						
MISSOURI						
MONTANA	X(a)			X		
NEBRASKA						
NEVADA		X(o)		X		
NEW HAMPSHIRE						
NEW JERSEY	^			^		
NEW MEXICO	X			X		
NEW YORK		X(b)		X		X(c)
NORTH CAROLINA	X		X(h)	X(g)		
NORTH DAKOTA						
OHIO	X(i)		X(i)			
OKLAHOMA						
OREGON	X		X(h)			
PENNSYLVANIA					X	
RHODE ISLAND	X			X		
SOUTH CAROLINA						X
SOUTH DAKOTA						
TENNESSEE						
TEXAS				X(r)		
UTAH						
VERMONT					X	
VIRGINIA	X		X			
WASHINGTON	X		X(l)	X		
WEST VIRGINIA						
WISCONSIN	X		X(j)		X(m)	
WYOMING						

(a) authority has been clarified by amendment
(b) authority to draft an energy conserving code
(c) authority to promulgate an energy conserving code
(d) authority in separate law but regulations become a part of the state building code
(e) as amended
(f) residential buildings
(g) nonresidential buildings
(h) single family and multi-family residential, 3 stories and under
(i) excluding 1, 2, & 3 family residential
(j) excluding 1 & 2 family residential; rules suspended
(k) multi-family and manufactured buildings
(l) electric heat only
(m) pending legislation would extend building regulatory authority to 1 & 2 family residential and manufactured buildings
(n) voluntary
(o) minimum insulation standards
(p) approved but not yet effective
(q) for residential over 3 stories and all other buildings
(r) for State buildings but would be available for use by cities

[1]See footnote, page 24.

Source: Building Energy Authority and Regulations Survey: State Activity, Robert M. Eisenhard, Office of Building Standards and Code Services, National Bureau of Standards, Washington, D.C., March, 1976, p. 5.

Energy

JUL 19 1976

June 16, 1976

Susan Reid
[redacted]

Dear Susie,

Thank you for your letter--I know how it feels to be a former local league president, particularly one that was active. I know you will find constructive outlets for your many talents and energies soon, however. In fact, believe it or not, soon the problem will be to watch that you do not become over committed. Before you do that, however, I accept your volunteering to work with my committee! I will probably not call a meeting this summer due to scheduling problems, but look forward to one in the early fall.

Meanwhile, could you attend a meeting for me on June 22? You will see the details from the attached announcement--I would very much like for the League to be represented and for someone to let me know how the meeting goes. If you are free, I would love for you to be that "someone".

Let me hear from you--and have a good summer.

Sincerely,

LK

Laura Keever

bcc: Anderson, Titus, SO

NOTE: This is a meeting entitled "Energy Planning for Consumers" spansored by the Texas Coalition for Utility Regulation (the one we joined). Lee White, former chairman of the Federal Power Commission, is the featured speaker. Other speakers include Senator Doggett, Representative John Wilson, Don Butler, "and others".

LK

JUN 1 6 1976

Prog Energy

SO

June 15, 1976

Dear Meg,

The 25th at Sam's is fine with me. I'll look forward to it.

I'm unhappy that apparently everyone wasn't notified about my memo to certain local leagues relating to the utility commission regs. I don't know what else to do since I mailed both the letters to the local leagues and the carbons at the same time--or at least within a day or two of each other. I had, of course, alerted the Sam's groups while we were there; should I call Betty and the SO in the future? I am very sympathetic with everybody needing to know these things.

I hope that you have an excellent summer. I wish we could all join you!

I look forward to seeing you in August.

Sincerely,

LL

JUN 16 1976 Prog Energy

June 15, 1976

Dear Liz,

According to Meg's letter of June 7 to the NR core, the board expressed some concerns about utility rate structures as they relate to our energy and NR positions. I would like to speak to those concerns in any background paper we might write, but as of this point, I don't know what the concerns are! Would you mind writing down your ~~discussion~~ recollection of what the discussion covered so that I will know what to do? It really might be a good idea if we could get together sometime this summer and outline what we would like to cover. My vacation times are June 20-26 and July 24-August 8. Do you think we might get together sometime during mid-July.? (I'll also be in Washington ~~July~~ June 29-July 2.) Perhaps we could have lunch halfway between here and San Antonio. Let me know if you think this is a possibility.

I look forward to hearing from you.

Sincerely,

LK

cc: Anderson, Titus, Higgins, Moon, Headrick, SO

Energy

JUN 16 1976

June 2, 1976

Ms. Isabelle P. Weber
Staff Specialist
Energy
League of Women Voters Education Fund
1730 M Street, N.W.
Washington, D. C. 20036

Dear Isabelle,

Thank you for your letter of April 30 and all the enclosures! I am most appreciative. I no longer expect a special session to consider lifeline and other energy-related issues--primarily due to so much testimony pointing out the difficulties with lifeline. The Texas League has not taken a position for or against lifeline; however, I anticipate further hearings and we intend to try to encourage consideration of other rate structures such as peak load pricing in addition to lifeline.

I have been asked to prepare a background paper on utility rate structures; however, both your comment relating to an ENERGY Brief and my recollection of the ETF requesting some background material on utility rate structures lead me to ask if such a publication is in the works. I sincerely hope so; I can think of nothing that needs more understanding. If you are, would you let me know an approximate publication date?

I presume that you will be continuing your energy efforts for LWVEF and that I will have the pleasure of seeing you later this month.

Sincerely,

Laura Keever,
Energy Chairperson

cc: Betty Anderson
Meg Titus

bcc: SO ✓

JUN 16 1976

LWK-T
Prog-
Energy

May 7, 1976

Mr. Garrett Morris, Chairman
Public Utility Commission of Texas
7800 Shoal Creek Boulevard
Suite 450N
Austin, Texas 78757

Dear Mr. Morris:

Attached is a copy of the statement of the League of Women Voters of Texas with regard to the proposed Substantive Rules for the Public Utility Commission of Texas. We would appreciate your support of a greater emphasis onconservation in the proposed Rules.

Sincerely,

Laura Keever,
Energy Chairperson

10515 Laneview
Houston, Texas 77070

bcc: Betty, Meg, SO

SAME LETTER SENT TO COMMISSIONERS ERWIN & COWDEN ALSO. ↓ Bill Hobby

NOTE TO BETTY:

Meg and the ER core read and approved my written remarks--and said it would be find for me to go ahead and send ~~xxxx~~ them. I sure do hope you agree! I am going to try to get to the hearing on the 17th, but as we will be coming home on the 16th, I really don't know if it will work out or not.

I do hope all of you had a good time in New York.

Laura

A COPY OF THE STATEMENT WAS ALSO SENT TO COMMON CAUSE AND THE TEXAS ENVIRONMENTAL COALITION.

JUN 2 1976

Energy

May 6, 1976

COMMENTS OF THE LEAGUE OF WOMEN VOTERS OF TEXAS
ON THE PROPOSED SUBSTANTIVE RULES
OF THE PUBLIC UTILITY COMMISSION

The League of Women Voters of Texas is committed to energy conservation. With regard to rate structures, we believe that utility rate structures should be designed to encourage energy conservation, to be equitable, as well as to reflect the actual cost of service and provision for future needs. We also believe that conservation-oriented options should be utilized.

We therefore applaud the concept of Section 052.02.00.032, which allows that 50% of the funds expended promoting methods of conserving energy and 50% of the funds expended promoting methods by which the consumer can effect a savings in total bills may be allowed as a cost of service.

With regard to Section 052.02.00.033 (b) relating to rate structures, we suggest that the phrase "and shall promote energy conservation" be added at the end of paragraph (1). Paragraph (1) would then read:

> "Rates shall not be unreasonably preferential, prejudicial, or discriminatory, but shall be sufficient, equitable, and consistent in application to each class of customers, and shall promote conservation."

We also support Paragraph (F) of Section 052.02.00.033 which requires that fuel costs be billed uniformly to all customers on a per kilowatt-hour use basis regardless of customer class or quantity of use. This will tend to flatten the rate structure, thus discouraging consumption. It is also equitable and fair.

The League is interested in encouraging public utilities to provide insulation as a service to its customers with a fair profit accruing to the utility. We support this concept being promoted in these Substantive Rules.

Respectfully submitted,

Laura Keever,
Energy Chairperson

bcc: Anderson, Titus, Moon, SC

JUN 2 1976

Energy

LEAGUE of WOMEN VOTERS of TEXAS

The Penthouse, Suite 109, 1212 Guadalupe, Austin, Texas 78701

MEMORANDUM May 6, 1976

To: Local League Presidents of Austin, Bay Area, Beaumont, Brazos County, Dallas, Denton, Galveston, Houston, Irving, and San Antonio

From: Laura Keever, Energy Chairperson

Attached is a copy of a statement I have prepared in response to the Proposed Substantive Rules of the Public Utility Commission. I know that some of you have been keeping up with the actions of the Commission and would like to write a response on behalf of your local league. Comments should be directed to:

Roy J. Henderson
Director of Hearings
Public Utility Commission of Texas
7800 Shoal Creek Boulevard
Suite 450N
Austin, Texas 78757

I encourage you to send comments if at all possible. I would also appreciate your forwarding a copy of your comments to me at the following address:

Laura Keever
[redacted]

The Substantive Rules will be adopted by the Utility Commission on May 17--therefore please have your statement in before that date. If you wish to send a copy to the commissioners themselves, their names are as follows:

Mr. Garrett Morris, Chairman
Mr. Alan R. Erwin
Mr. George M. Cowden

Address: 7800 Shoal Creek Boulevard
Suite 450N
Austin, Texas 78757

APR 26 1976

30 energy

April 16, 1976

Mrs. Hazel Rollins
Office of Consumer Affairs/Special Impact
Federal Energy Administration
Washington, D. C. 20461

Dear Hazel,

The legislature of the state of Texas is gearing up to a possible special session on utility rates. In preparation therefor, several committees have been charged with considering lifeline rates. I have your paper given before the Senate Select Committee on Aging as well as Steven Mintz paper entitled "The Lifeline Rate Concept". Do you have anything more recent relating to lifeline? Do you still think it is a workable concept? Do you think peak load pricing would be a better alternative to lifeline--particularly as it relates to the poor and elderly?

I look forward to your early response.

Sincerely,

Laura Keever,
Energy Chairperson

[redacted]

APR 26 1976

energy

April 16, 1976

The Honorable Tom Uher
House of Representatives
Austin, 78711

Dear Representative Uher:

Has your committee considered having someone from the Federal Energy Administration make a presentation relating to lifeline or peak load pricing? I have personally been impressed with Hazel Rollins, Director of the Office of Consumer Affairs/ Special Impact of FEA. Steven Mintz, also of the Office of Consumer Affairs/Special Impact, has written a paper entitled "The Lifeline Rate Concept" which is also quite good.

I enjoyed hearing these issues presented before your committee yesterday.

Sincerely,

LL

Laura Keever,
Energy Chairperson

Encl.

bcc: Anderson, Titus, Moon, SO

APR 26 1976

energy

April 16, 1976

Dr. Caroline Smith
Public Utility Commission of Texas
7800 Shoal Creek Boulevard
Austin, Texas 78757

Dear Dr. Smith:

I attended the hearing in Austin yesterday and very much enjoyed your remarks. Would you mind sending me a copy?

I am attaching a copy of a presentation I made before the First Texas Energy Forecast Conference last month which contains some information regarding some studies done on energy use by the poor and aged as well as some remarks about lifeline and peak load pricing. You will note that our remarks differ somewhat--were you basing your conclusions on studies made in Texas?

I look forward to hearing from you soon.

Sincerely,

LK

Laura Keever,
Energy Chairperson

Encl.

bcc: Anderson, Titus, Moon, SO

ADDITIONAL NOTE TO BETTY: Included on this special committee are two non-legislators, and one is from Lubbock: Lee Stafford. Do you know him? He is to represent "consumers". If you do know him, I would love for you to talk to him about the work of this committee. Let me hear from you!

L.

Additional NOTE: What Dr. Smith said (a lovely young woman) was that "high users often include the poor and elderly who spend more of their time at home and live in houses with poorer insulation". This is somewhat contradictory to the national studies which show that poor and elderly are more often than not <u>low</u> energy users--particularly the elderly: please note my paper, particularly the studies recently done by FEA on the elderly.

APR 2 6 1976

energy

April 16, 1976

Mr. Alvin Askew
Governor's Energy Advisory Council
7703 N. Lamar Blvd.
Austin, Texas 78752

Dear Al,

It was good to see you in Austin yesterday. Unfortunately, I had to leave at 3:00 which was right in the middle of your presentation before Representative Uher's committee. I would very much appreciate knowing the position you are taking regarding lifeline rates--would you mind advising me thereof?

You also mentioned that I might have copies of the presentations made before the Ways and Means Committee and the Senate Consumer Affairs Committee. Would you have someone send those to me?

I look forward to seeing you soon.

Sincerely,

Laura Keever,
Energy Chairperson

bcc: Anderson, Titus, Moon, SO

NOTE: I attended this committee hearing (it's a special committee--I don't even know the correct name of it) on April 15. One of the charges of the committee is to look into lifeline rates. They are to have several more hearings--perhaps in various parts of the state. I think it would be appropriate for me to make a statement before them giving our statement regarding utility rates pointing out that while lifeline has some difficulties to be overcome, if drawn to meet our guidelines, we could support it. I also think we should point out that they should not limit their thinking to lifeline--but should also look into peak load pricing as another rate structure design of merit. This was mentioned by several of the witnesses before the committee (for example, Frank Youngblood of the RR Commission).

I am also planning to write a response to the new Utility Comm. guidelines. They leave out conservation as something to be considered in rate structure designs. I think we should suggest it should be included. I'll have a rough draft ready for the Fairfield meeting. OK?!

JUN 2 1976

Energy

bcc: Betty, Meg, Becky, SO

April 14, 1976

Mr. Elton Fewell
House Committee on Energy Resources
P.O. Box 290
Austin, Texas 78767

Dear Mr. Fewell:

I would very much appreciate being placed on your mailing list to be notified of any future hearings of the Energy Resources Committee. Will you advise me if that is possible?

I understand that you called the League office after my presentation to the First Texas Energy Forecast Conference. While I gave that paper as an individual, the League is very interested in energy conservation, and certainly to utility rates as they affect energy conservation. In this regard we feel that:

- Energy conservation should be the keystone of government energy policies and citizen responses. A national energy policy should aim at more efficient use of energy in order to reduce per capita and per household consumption. The burden of energy conservation measures should be distributed as fairly as possible among all categories of energy users--residential, commercial, industrial and transportation--and with special concern for people of low-income level.

- Utility rate structures should be designed to encourage energy conservation, to be equitable, as well as to reflect the actual cost of service and provision for future needs. Conservation-oriented options should be utilized.

I am enclosing a copy of my paper for your information.

Do you know if anyone is drafting legislation relating to utility rate designs?

I look forward to hearing from you.

Sincerely,

LK

Laura Keever,
Energy Chairperson

[redacted]

APR 26 1976

energy

April 11, 1976

The Honorable Joe Wyatt
House of Representatives
Austin, Texas 78711

Dear Representative Wyatt:

The League of Women Voters of Texas, as a result of its support of energy conservation, is very interested in the efforts of the Ways and Means Committee in reducing utility rates. Will a summary be made of the comments received during your April 1 and 2 hearings? If so, would it be possible for me to receive a copy? I also understand from the news media that there were "proposals" that the committee was considering. Would it be possible for me to receive a copy of these proposals? I would also appreciate a copy of any recommendations your committee makes as a result of these deliberations. I note that Bob Bullock recommended fundamental changes in the utility rate structures. Do you anticipate any legislative proposals which will address this problem?

Thank you very much for your consideration of these inquiries. Could I be alerted in advance of any further hearings your committee might hold relating to this general subject?

Sincerely,

LR

Laura Reever,
Energy Chairperson

Please respond to:

[redacted]

bcc: Anderson, Titus, Moon, ~~Wilbur~~, SO, Headrick

APR 2 6 1976

energy

April 11, 1976

Mr. Carl W. Kuhlman
Division of Nuclear Fuel Cycle and Production
Energy Research and Development Administration
Washington, D. C. 20545

Dear Mr. Kuhlman:

I am interested in receiving information relating to the international nuclear waste management symposium to be held in Denver July 11-16. Is it possible for members of the general public to attend?

Thank you.

Sincerely,

LK

Laura Keever,
Energy Chairperson

Please respond to:

[redacted]

bcc: Titus, SO

APR 26 1976

energy

April 8, 1976

Mr. William L. Fisher
Assistant Secretary
Department of the Interior
Washington, D. C.

Dear Mr. Fisher:

The Houston Post of March 5, 1976 indicates that you introduced a report by the Department of the Interior relating to energy consumption for 1975--specifically stating that energy consumption in the United States dropped in 1975 for the second consecutive year. Would it be possible for me to have a copy of that report?

Thank you for your consideration of this matter.

Sincerely,

LK

Laura Keever,
Energy Chairperson

bcc: Titus, SO

Energy

bcc: Betty Anderson
Meg Titus
Lucinda Headrick
Laura Keever
Becky Moon
State Office ✓

April 5, 1976

George Cowden
[redacted]

Dear Commissioner Cowden:

The League of Women Voters of Texas is committed to energy conservation and to revision of utility rate structures which do not encourage conservation. The following two statements reflect our thinking with regard to energy conservation in general and utility rate structures in particular:

. Energy conservation should be the keystone of government energy policies and citizen responses. A national energy policy should aim at more efficient use of energy in order to reduce per capita and per household consumption. The burden of energy conservation measures should be distributed as fairly as possible among all categories of energy users--residential, commercial, industrial and transportation--and with special concern for people of low income level.

.. Utility rate structures should be designed to encourage energy conservation, to be equitable, as well as to reflect the actual cost of service and provision for future needs. Conservation-oriented options should be utilized.

We hope that you will carefully consider some of the various rate reform experiments which are now under way in other states. Lifeline rate structures, for example, while laudable in their efforts to provide a minimum amount of electricity for everyone at very low rates, have certain inherent problems which must be met before they can be truly effective. Those problems include a departure from a cost basis for rate design, and the fact that lifeline might not reach the customers it is intended to benefit, namely the poor and aged on fixed income. Lifeline rates would help the poor and elderly only where they are low volume users. Lifeline rates also present a problem when the poor live in apartments which are not separately metered. While it is thought that lifeline rate structures as proposed by other states may actually reduce the total electric bill of larger residential users, thus lessening the incentive to conserve. The problem is particularly complex in Texas with varying utilities now paying varying amounts for natural gas.

Peak load pricing avoids some of these problems but encounters others. A primary problem is that for best results new meters must be installed. (Time of day meters currently vary in price from $35 to $300). The advantages, however, include the fact that those consumers who use electric energy during the system peak pay the total cost incurred in the production of electricity

during the system peak, thus more realistically reflecting the true cost of service. The rate design should also lower the peak, thus resulting in cost savings by reducing the investment required to service the peak. Existing plants can thus be used more efficiently. There are thus reduced fuel costs resulting from (1) increased efficiency of the base load and (2) reduced need for peak generation usually provided by high operating cost peaker units.

The League of Women Voters of Texas encourages utility rate structure revision which will reward the small user and reduce the need for so great a peak power production capacity. Those using a small amount will get a lower rate, and the peak load user will pay a higher rate. If the rate curve is made flatter, citizens on fixed incomes and in the lowest income brackets will be penalized less heavily by their conservation efforts.

We look forward to hearing your views of rate structure reform for Texas electric utilities.

Sincerely,

Betty Anderson
Peesident

Laura Keever
Energy Chairperson

Enclosed: Peak Load Pricing: The Arkansas Experiment

APR 26 1976

energy

April 3, 1976

Mrs. Judith C. Allen
[redacted]

Dear Judy,

Many thanks for your letter which promptly came yesterday! Mine is off today; addresses and all, so you have my great appreciation. I sympathize with your need to find a way to make energy "handleable" as well as palatable. Let's wait until after national convention--so that we will have some idea what LWV-US will be expecting us to do as well as what they are going to do in the way of publications--then perhaps we can have another of our get-togethers and pool our thoughts. I really think having energy as a regular study item will make all our lives easier.

Again, thanks for your letter, and let me know when I can be of help. Beaumont isn't far, and I would love to meet you at Don's for lunch almost any day!

Sincerely,

LK

bcc: [illegible]
Anderson, Titus, SO

Meg - I didn't make enough copies, so could you please send this via D SO. Thanks —

1) Meg
2) D SO

Energy

APR 19 1976

April 3, 1976

The Honorable Bob Eckhardt
1741 Longworth House Office Building
Washington, D. C. 20515

Dear Bob,

I am very interested in your views regarding coal slurry pipelines. While I can see energy efficiency pluses and some environmental pluses, I am very concerned about water availability in the drier states and also water clean-up at the slurry destination. Would you share your views on these matters with me?

I also understand that Project Independence has been updated, and is entitled "1976 National Energy Outlook". Is it possible for me to obtain a copy?

Thank you very much for your attention to these matters.

Sincerely,

Laura Keever,
Energy Chairperson

cc: Keith Osmore

cc: Titus, SO

APR 8 1976

April 3, 1976

Senator Walter Mengden, Jr.
The Senate
Austin, Texas 78711

Dear Senator Mengden:

It is my understanding that the publication "A Consumer's Guide to Utility Regulation" is available through state senators and representatives. This publication was prepared by the consumer subcommittee staff of Senator Ron Clower.

Could you make a copy available to me?

Thank you.

Sincerely,

Laura Keever,
Energy Chairperson

Please reply to:

[redacted]

bcc: SO ✓

APR 8 1976

April 3, 1976

Mr. Herbert H. Woodson
Center for Energy Studies
The University of Texas at Austin
Austin, Texas 78712

Dear Mr. Woodson:

I am interested in attending the energy conference scheduled for April 26-30 at the LBJ Auditorium. Is it open to interested individuals and organizations?

I look forward to hearing from you soon.

Sincerely,

LK

Laura Keever,
Energy Chairperson

bcc: Titus, SO

APR 8 1976

April 3, 1976

The Honorable Bill Archer
1024 Longworth House Office Building
Washington, D.C. 20515

Dear Bill:

I have three requests. (1) I understand that the Senate passed a bill on March 9 which requires uniform federal energy conservation standards for new homes and businesses. I also understand that there is a House version of this bill. Could I have a copy of both bills? (2) Would you send me a copy of President Ford's energy message to Congress? And, finally, (3) Would you have my name added to the mailing list of the Nuclear Regulatory Commission? I now receive excellent communications from both ERDA and EEA--and I read every word! Thank you for that accomplishment!

And many thanks for your consideration of the above requests.

Sincerely,

Laura Keever,
Energy Chairperson

bcc: Titus, SO

APR 8 1976

April 3, 1976

The Honorable Edward M Kennedy
The Senate of the United States
Washington, D. C. 20510

Dear Senator Kennedy:

I understand that your subcommittee on energy met on February 2 and 3 to explore energy conservation matters. If there is a hearing record for those hearings, I would very much appreciate receiving it.

Thank you for your attention to this matter.

Sincerely,

Laura Keever,
Energy Chairperson

Please reply to:

[redacted]

MAR 22 1976

March 19, 1976

Mr. Alvin C. Askew,
Executive Director
Governor's Energy Advisory Council
811 W. 13th
Austin, Texas 78701

Dear Al,

In response to Charlie Purnell's request that we set down in writing our thoughts regarding the Advisory Committee, I would like to submit the following.

First, with regard to structure and procedure, it seems to me that each subcommittee should meet within the next month to determine objectives and priorities and devise a plan as to how to meet those objectives and priorities. I would also suggest that the entire Advisory Committee be advised of when the subcommittees are planning to meet, so that Advisory Committee members can attend more than their assigned committees, if they have the opportunity. It seems to me essential that the subcommittees meet on a regular basis, and I would suggest at least monthly. I also think that the Advisory Committee should meet on a regular basis to consider the recommendations of the subcommittees, and perhaps a bimonthly schedule would be sufficient. I do not think that recommendations of the subcommittees should stand alone, but must be considered by the entire Advisory Committee.

I think I indicated to you that I was interested in the Environment and Conservation Subcommittees, though I will be happy to remain on the Residential and Commercial Consumer Subcommittee as well, particularly if the Environment and Conservation Subcommittees are to be considered as one. (If they meet separately, I would like to drop the Residential and Commercial Consumer Subcommittee.) With regard to whether or not the Conservation Subcommittee should be separate, I personally would prefer a separate committee if a sufficient number of people indicate an interest therein. If it is to be a part of the Environment Subcommittee, then the Environment Subcommittee should probably be expanded.

I know that the Environment Subcommittee will have many concerns about environmental standards which require energy to meet and which some individuals may think are arbitrary. Certainly I hope that some balance can be had as a result of these discussions. I will not try to point out what particular areas will be, but I also hope that discussions can center around additional health-related environmental concerns and how these may be efficiently and realistically met.

With regard to conservation, I think we should consider the traditional four areas of possible conservation efforts: residential, commercial, industrial and transportation. Certainly there should be discussion of how governmental efforts can help achieve conservation goals and how we might implement conservation strategies on the local, state and national levels. Utility rate structures will undoubtedly also enter into these considerations.

It is my hope that committee and subcommittee meetings can be held in Austin and that GEAC staff can provide both informational and secretarial services therefor. Certainly it is essential that minutes be taken for both the Advisory Committee and for the subcommittees. I also suggest that subcommittee minutes be distributed to all Advisory Committee members.

Thank you for this opportunity to express my views, and I look forward to hearing from you soon.

Sincerely,

LL

Laura Hoover,
Energy Chairperson

cc: Mr. Charles G. Purnell
Dr. Herbert C. McKee

bcc: Anderson, Titus, Wilbur, Moon, SO

MAR 22 1976

energy

March 18, 1976

Mr. Richard L. White
Texas Utilities Generating Company
P.O. Box 968
Fairfield, Texas 75840

Dear Dick,

My misdeeds are catching up with me! May I belatedly thank you for your presentation on the lignite operations currently being undertaken by Texas Utilities. Your slides were excellent, and I heard many positive comments from those who attended. Do you have your comments in some sort of written form that I could have?

I have passed on your information concerning authors.

I had the pleasure of speaking on a panel with Mr. Austin last Tuesday before the First Texas Energy Forecast Conference. Other than Mr. Austin's determination to keep me in the kitchen, it was enjoyable!

I look forward to seeing you soon.

Sincerely,

Laura Keever,
Energy Chairperson

cc: Mr. T. L. Austin
Chairman of the Board
Texas Utilities Company
1506 Commerce Street
Dallas, Texas 75201

MAR 22 1976

March 18, 1976

Mr. Jerry Matthews
Center for Energy Studies
The University of Texas at Austin
Austin, Texas 78712

Dear Jerry:

Thank you for providing me with excellent information regarding the impact of rising energy prices on the consumer. My husband kindly brought a Microfiche viewer home from the office, so even that turned out to be workable. I am in the process of having my paper copied; I will send you a copy soon.

Thank you again for your help.

Sincerely,

Laura Keever,
Energy Chairperson

bcc: Anderson, Titus, SO