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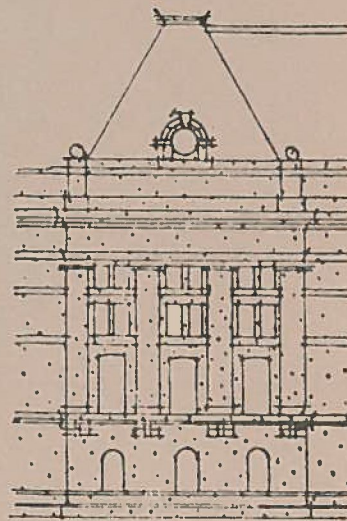
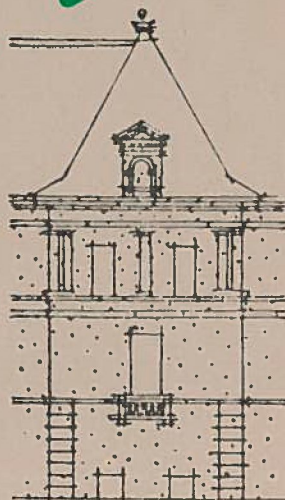
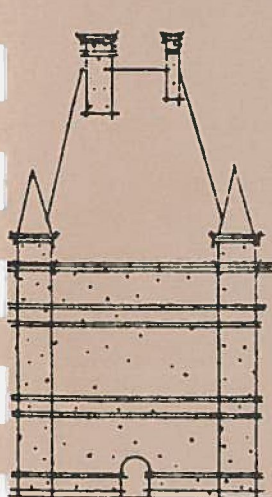
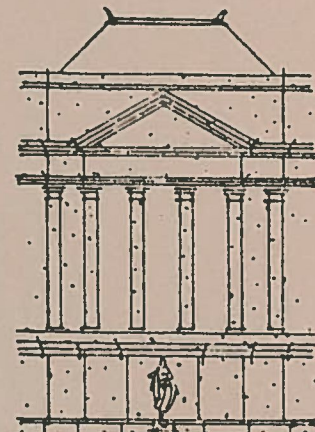
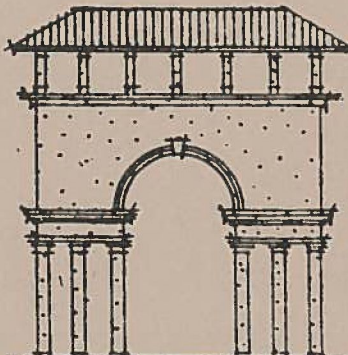
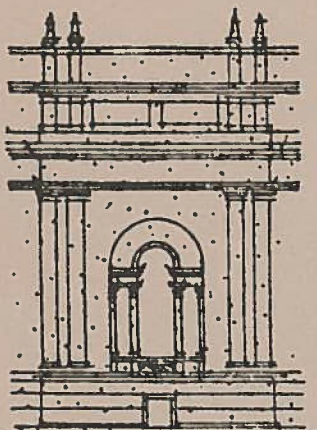
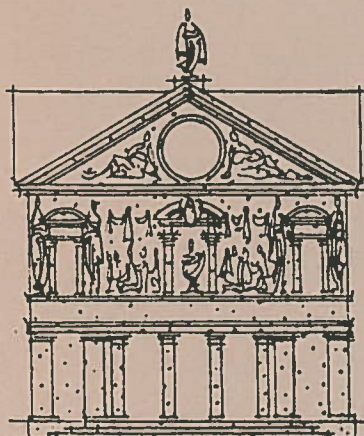


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**Institutional Buildings Grants Program
Colorado State Plan**

Office of Energy Conservation
State of Colorado/Office of the Governor



STATE PLAN
FOR THE STATE OF COLORADO

INSTITUTIONAL BUILDINGS GRANTS PROGRAM

OFFICE OF ENERGY CONSERVATION
Office of the Governor
1600 Downing Street
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8 November 1979

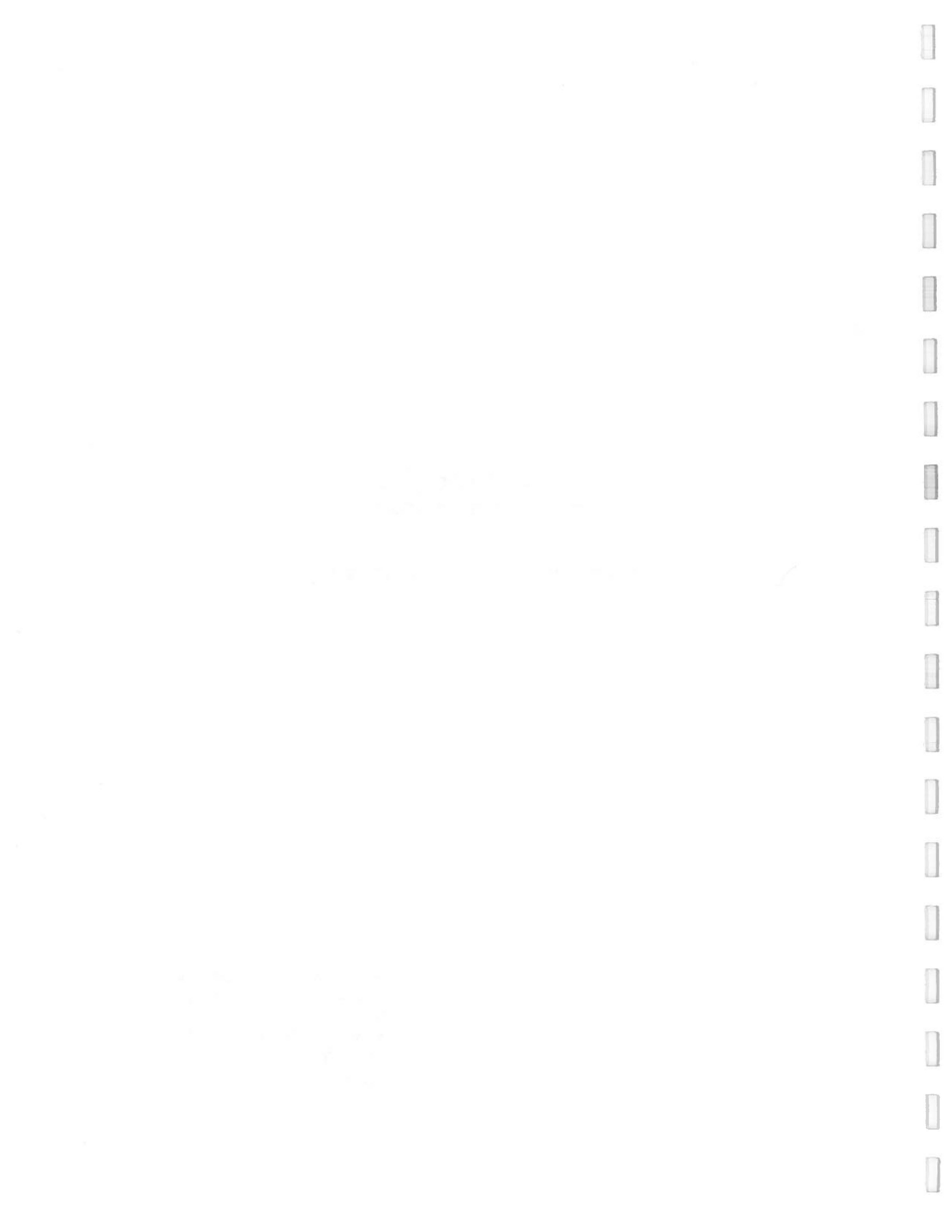


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INTRODUCTION - THE INSTITUTIONAL BUILDING GRANTS PROGRAM

The National Energy Conservation Policy Act (NECPA) was signed into law by the President in November of 1978. As part of NECPA, the Institutional Buildings Grants Program (IBGP) was established. This Program is designed to provide financial assistance, in the form of matching grants, for energy conservation activities in the following types of existing institutional buildings:

- 1) public and private non-profit schools;
- 2) public and private non-profit hospitals;
- 3) buildings owned and predominately occupied by units of local government, including governing bodies of Indian tribes;
- 4) public and private non-profit public care institutions.

The U.S. Department of Energy (DOE) is the agency responsible for administering the IBGP nationwide. The Office of Energy Conservation (OEC) administers the Program in Colorado, and will be responsible for receiving, reviewing and ranking grant applications in order of priority of funding.

The IBGP is currently in its first funding cycle. This cycle is being conducted in two phases: Phase 1, reimbursement for performance of energy audits, and Phase 2, grants for technical assistance programs and energy conservation measures. Two or more other funding cycles may occur: one which entails both phases, and another that is a repeat of Phase 2. For Phase 1 of the current funding cycle, Colorado has been allocated \$394,371. The Phase 2 allotment is \$3,007,793. Total allocation to Colorado for the entire Program could be as much as \$14,000,000 over a three year time period.

Phase 1 of the IBGP entails performance of relatively simple, low-cost surveys of the energy use patterns in a building. This "energy audit" will be used to determine the potential for energy savings through changes in operation and maintenance procedures, as well as the need for energy

conservation measures. These audits will serve as the ground work for Phase 2 programs. The OEC will train auditors for this phase of the Program in a series of three-day workshops to be held in key locations throughout the State. It has also developed an Energy Audit Workbook to be used by institutions when conducting the audit. Once an institution's energy audit has been completed and approved by the OEC, it can file a claim for reimbursement of up to 50% of costs incurred. After the energy audit, the institution may be eligible for Phase 2 technical assistance program money, and in the case of schools and hospitals, funds for energy conservation measures as well.

The technical assistance programs to be funded in Phase 2 are essentially detailed, technical energy audits of buildings, conducted by professional engineers and/or architects. These technical evaluations will enable institutions to identify appropriate energy conservation measures for their buildings. Such analyses will also identify the estimated cost of the recommended conservation measures and the energy and cost savings that are likely to be achieved through their implementation. Institutions will apply for grant awards prior to conducting technical assistance programs.

Schools and hospitals which perform a technical analysis with financial assistance from this Program, or those that perform equivalent programs with their own money, are entitled to apply for funds to design, acquire and install energy conservation measures. Such measures, often referred to as "retrofits," are physical changes or additions to a building for purposes of energy conservation. These measures may include systems using renewable energy sources. Utilization of renewable resources is encouraged in this Program, and institutions may apply for funds to add passive or active solar heating and/or cooling systems, solar electric systems such as wind generators or photovoltaic cells, and projects which use geothermal resources. Conservation measures

which can pay for themselves in energy cost savings in a short period of time will be given priority for funding under this Program.

With 3,914 Colorado buildings representing 115,722,200 square feet eligible for assistance from this Program, there is great promise for significant reduction of energy consumption in the State, and relief to institutions hard-hit by escalating fuel prices. The OEC is excited about this Program, and is hopeful that as many institutions as possible participate.

The State Plan for administering the second phase of the IBGP is provided in the following document. It covers management procedures as well as the methods to be used in awarding grants to institutions.

TERMS AND ABBREVIATIONS

The following terms and abbreviations occur in the text of the State Plan. For purposes of clarification, a definition for each is provided below.

Abbreviations

OEC - Colorado Office of Energy Conservation

TAP - technical assistance program

ECM - energy conservation measure

PEA - preliminary energy audit

BTU - British thermal unit

GSF - gross square foot

DOE - United States Department of Energy

Terms

Program - Institutional Buildings Grants Program

State - Colorado

State Plan or Plan - Colorado Plan for the Institutional Buildings Grants Program

Rules and Regulations - U.S. Department of Energy rules and regulations for the Institutional Buildings Grants Program, as published in the Federal Register, Vol.44, No.64, Monday, April 2, 1979 and Vol.44, No.75, Tuesday, April 17, 1979, pages 19340 and 22940 for April 2 and April 17 respectively.

Coordinating Committee - the Colorado Institutional Buildings Grants Program Coordinating Committee, which serves as an advisory panel to the Office of Energy Conservation.

A. SOLICITING AND CONSIDERING VIEWS OF ELIGIBLE INSTITUTIONS

The Office of Energy Conservation has actively sought the views of eligible institutions during the development of the State Plan. The primary mechanism for soliciting input has been the Institutional Buildings Grants Program Coordinating Committee, comprised of individuals representing eligible institutions, state agency officials, technical experts, and people specializing in energy management in schools and hospitals. (See Appendix 2 for membership list) A relatively small, representative group of advisors was constituted so that suggestions could be obtained in a timely, cost-effective manner, and so that representatives of affected institutions and other advisors would have an opportunity to interact.

Selection of the advisors was made by the OEC staff with help from members of groups representing eligible institutions. A list of such organizations was compiled at the outset of the Program (See Appendix 3), and each was contacted by staff to publicize the Program and solicit initial input. This was achieved in the following ways:

*Press releases on the Program were prepared and distributed to professional organizations and selected newspapers across the State.

*The OEC staff attended meetings of professional organizations to talk with them about the Program. The director of the Program spoke to the Colorado Association of School Boards, the Colorado

Association of School Executives, the Colorado Hospital Association, Colorado Counties, Inc., Colorado Municipal League, Blue Cross-Blue Shield of Colorado, Colorado Health Care Association, Colorado Association of Child Care, Inc., and others.

*Six regional meetings were held to inform participating institutions on how the Program would be administered in Colorado and to solicit initial suggestions on the State Plan.

*A series of "Energy Memos," newsletters disseminated by the OEC, were distributed to eligible institutions to keep them abreast of Program developments and to invite suggestions. A copy of an Energy Memo is provided in Appendix 4.

In the course of communicating with groups and individual eligible institutions, staff asked for written recommendations on appropriate people to serve on the Coordinating Committee. Based on these recommendations, a group of individuals was selected.

Views of the Coordinating Committee have been obtained by mail and phone surveys and two formal meetings. The first meeting served as a briefing on the Program and the components of the State Plan on which the committee would be asked to make suggestions, e.g., methods for applicant review and certification. The second meeting was a working session during which the panel made specific recommendations. A draft of the State Plan, incorporating Coordinating Committee views, was mailed to members for review and comment. Feedback from advisors on the draft was received

by mail or phone. These comments have been considered by Staff and incorporated in the Plan where appropriate. Documentation of comments received by mail is provided in Appendix 5.

The Coordinating Committee will serve the OEC for the duration of the Program and will be convened whenever necessary.

B. NOTIFYING ELIGIBLE INSTITUTIONS AND COORDINATING AGENCIES
OF THE CONTENTS OF THE STATE PLAN

Upon the approval of the State Plan, the OEC will immediately take steps to notify all eligible institutions and representative groups of the Plan's content. Notification will be accomplished in the following ways:

1. An executive summary of the State Plan will be published in the Energy Memo, which is distributed to all of the eligible institutions, representative groups and interested parties identified by the OEC. The procedure for obtaining a complete Plan will be included with the executive summary for those parties who wish to acquire a copy.
2. Press releases summarizing the approved State Plan and the objectives of the Program will be issued to newspapers and radio and tv stations. Selected special interest groups that publish newsletters or journals for their constituencies will also receive press releases.
3. A copy of the State Plan will be sent to representative groups
4. A copy of the State Plan will be given to each member of the Coordinating Committee.
5. Time and funds permitting, workshops for participating institutions will be conducted in key locations throughout Colorado to explain the State Plan. Material covered during the workshop will include

procedures for submitting grant applications and how these applications will be reviewed. In addition, such meetings will provide an opportunity for institutional representatives to ask any questions they might have about the Program.

C. PROCEDURES FOR SUBMITTAL OF GRANT APPLICATIONS TO THE STATE

Applications for grants for technical assistance programs and energy conservation measures shall be submitted to the Office of Energy Conservation. The submittal process will be initiated by notifying institutions of approval of the State Plan (See Section B of this Plan). Institutions expressing interest in participating in the Program will be sent an information packet containing materials needed to submit a grant application. In addition, if time and funds permit, one-day workshops will be conducted in key locations in the State to provide guidance and educational assistance to those preparing grant applications.

Submittal Procedure - Grant Application Packet

The grant application packet prepared by the OEC for use by institutions requesting funds for TAP's and ECM's will contain a detailed explanation of the procedure for submitting a grant application, copies of application forms, and instructions for their completion. In addition, the duties and responsibilities of grantees will be explained in detail. Copies of the packet will be made available to participating eligible institutions.

Specifically, each packet will contain:

1. Copies of application forms for TAP's and ECM's.
2. Information on the deadline for submittal of grant applications for the first funding cycle.
3. An explanation of how an institution can obtain credit toward their share of ECM cost for a previously conducted technical assistance program.
4. An explanation of how funds expended by an institution for installation of one or more energy conservation measures may be counted toward its match for additional energy conservation measures.
5. A notification that after institutions are apprised of OEC's recommendation for funding (but before DOE's decision) institutions must certify they are able to meet the financial match requirements.
6. A discussion of eligibility requirements as specified in Section 455.41 and 455.51 of the Rules and Regulations (See Appendix 1).
7. A discussion of information required by Section 455.60(b) and (c) of the Rules and Regulations (See Appendix 1).
8. Listing of additional information required by the OEC, such as:
 - a. Data needed to evaluate and rank applications in conformance with the criteria specified in Section E of this Plan.
 - b. Data needed to evaluate and rank applicants for hardship funds in conformance with criteria specified in Section G of this Plan.
 - c. Reports and related information needed to evaluate non-federally funded energy audits and TAP's as described in Section L and N of this Plan.
 - d. Documentation of TAP analyst qualifications and freedom from financial conflict of interest, as specified in Section P of this Plan.

- e. A listing and explanation of assurances required of grant applicants by DOE and the OEC, as discussed in Section I of this Plan.

Review Procedure

The following steps will be taken in recording and reviewing grant applications and related materials. The procedure for reviewing applications is detailed in Section E of this Plan.

1. Each grant application received will be dated and logged-in. These applications will be given a preliminary review by staff to determine eligibility and completeness.
2. Applications which pass the initial review will be evaluated and ranked by the OEC staff and a team of readers from the Program Coordinating Committee.
3. After ranking, OEC will apprise the institution it is being recommended for funding and will ask for certification of the institution's ability to meet the financial match requirements.
4. Applications from schools and hospitals recommended for funding, as well as several runners-up, will be sent to the designated state facilities agency for review and certification. (See Section E of this Plan.)
5. Applications recommended for funding will be sent to DOE. All institutions will be notified of the status of their application.
6. After their review, the DOE will notify the OEC and applicants of grant award winners.

Timetable

December 14, 1979

Deadline for submittal of grant applications. All applications must be received by 5:00 p.m. on December 14, 1979, or be postmarked no later than December 12, 1979.

January 10, 1980

Date for transfer of appropriate applications to the designated state agencies for review and certification.

February 1, 1980

Applications recommended for funding, plus several runners-up, submitted to DOE. All institutions notified of the status of their application.

March 15, 1980

OEC and applicants notified of grant award winners by DOE on or before this date. All applicants notified of final ranking order of applications by OEC.

	Dec.	Jan.	Feb.	Mar.
	1	15	1	15
Application submittal deadline				
Applications to state agencies for review				
Recommended applications to DOE/ Application status reported				
Notice of grant award winners/ Application ranking order re- ported				

* OEC & Committee Review →

* State Agency Review →

* DOE Review →

*

D. A DESCRIPTION OF PRELIMINARY ENERGY AUDIT RESULTS

Sample Preliminary Energy Audits

Preliminary energy audits have been conducted in Colorado in a sample of institutions potentially eligible to receive financial assistance through this Program. A PEA questionnaire entitled "Survey: Building Energy Consumption Inventory" (See Appendix 6) was sent to a randomly selected 12% sample of institutional buildings that had expressed interest in participating in the Program. Those interested in participating were identified by conducting a mail survey of all potentially eligible institutions in the State. Information obtained from the initial survey of Program participants is supplied in Appendix 7.

Data from the completed PEA survey forms received by the OEC have been categorized and tallied. PEA results are provided in tables in Appendix 8. These tables illustrate building and energy consumption characteristics, categorized by institutional types. By reporting the results in table form, direct comparison of the building characteristics and energy use patterns in each category of institution is possible.

The PEA results, of course, have certain limitations. First of all, the information contained in the tables is only as reliable as the information provided by the institution. The OEC has attempted to avoid, wherever possible, making undue interpretation of the responses contained on the preliminary energy audit forms. While the information is assumed to be reasonably reliable, the OEC cannot guarantee the accuracy of the responses

obtained.

Secondly, in receiving this type of data, there is seldom a one-to-one correlation of questions and responses. When certain information was not given, all responses for each question were weighted equally. This means that the figures generated in the analysis were based on the total number of responses for each item on the survey form. While this can possibly lead to incongruencies, it was thought to be the best course of action in comparing data.

Despite the limitations of the analysis, the PEA results have been extremely helpful in making decisions related to the conduct of the Program. For example, the PEA information was used to decide the apportionment of funds between schools and hospitals (See Section Q of this Plan). Also, the figures on energy cost and consumption obtained in the PEA's were used in determining the weighting and scoring figures for ECM evaluation and ranking criteria.

Procedure to Complete Preliminary Energy Audits

To complete preliminary energy audits, the OEC has included the PEA survey form in the Building Energy Consumption Inventory Section of the Energy Audit Workbook, which will be completed in the process of performing the energy audits required for participation in this Program. The figures resulting from these energy audits will be calculated and compared to PEA data currently available to determine if any changes in the evaluation and ranking criteria or in the apportionment of money should

be made to better serve the needs of the eligible institutions. This process will ensure that very accurate data is available regarding building and energy consumption characteristics for all eligible buildings in the State of Colorado. The analysis will be done during March, 1980.

Expected Energy Savings From Energy Audits

The OEC is presently gathering estimates of energy savings in eligible buildings from the modification of operation and maintenance procedures as part of energy auditor training sessions. Eight training sessions are scheduled, and at each session four buildings are audited using Colorado's Energy Audit Workbook. Professionals on the training team have been asked to independently estimate the energy savings that would be realized through "O & M's" appropriate to such buildings. The results of this sample will be calculated and analyzed in conjunction with results of similar studies. Final estimates of such energy savings will be added to the State Plan as an amendment.

The OEC will analyze energy savings estimates for energy conservation measures proposed for schools and hospitals as part of the application review process. The results of this sample will be calculated and again analyzed in conjunction with the results of similar studies. Final estimates will be added to the State Plan as an amendment.

Appropriate Energy Conservation Measures

The OEC has identified energy conservation measures, or "retrofits," which are appropriate for all buildings eligible for the program in Colorado. Such retrofits can be found in the Energy Audit Workbook which the OEC developed for use in Phase I of the Program.

E. STATE PROCEDURES FOR EVALUATING AND RANKING TECHNICAL
ASSISTANCE AND ENERGY CONSERVATION MEASURE GRANT APPLICATIONS

Technical Assistance Program (TAP) Review

Applications for technical assistance are to be filed with the OEC on or before the deadline established for such submittals for each grant cycle. Upon receipt, staff will examine the application to judge the applicant's eligibility under the provisions of Section 455.41 of the Rules and Regulations and to determine if the application appears to be complete under the provisions of Section 455.60(b). If, upon this initial review, the application does not appear to be submitted by an eligible applicant or does not seem complete, it will be sent back to the applicant accompanied by a letter outlining the reasons for the return. If the preliminary review indicates that the application is submitted by an eligible applicant and is complete, it will be filed within the appropriate category for evaluation by staff. Three categories have been established, as follows: TAP applications from schools, TAP applications from hospitals, and TAP applications from units of local government including governing bodies of Indian tribes, and public care institutions.

As soon as feasible after their receipt, TAP applications will be reviewed by staff and the Application Review Panel. The Panel will be selected by the Institutional Buildings Grants Program Coordinating Committee and will consist of Committee members. Each application will be awarded a score based upon the ranking criteria listed below. The final decision regarding the ranking of each application will be made by the OEC.

The OEC staff will prepare a list of applications ranked, in descending order, according to their scores. The applications from schools and hospitals on this list which are recommended for funding, as well as several runners-up, will be submitted to the appropriate facilities agency for review. The OEC has recommended that the Governor designate both the Colorado Department of Education and the Colorado Commission on Higher Education as the Schools Facilities Agencies. In the case of elementary and secondary education, the Colorado Department of Education should review applications in conjunction with the Department of Labor. In the case of higher education, the Colorado Commission on Higher Education should work with the State Buildings Division of the Department of Administration. For the Hospitals Facilities Agency, the OEC has recommended that the Governor designate the Colorado Department of Health. These agencies will review and certify the submitted applications to ensure that the TAP does not conflict with State Plans or programs. When appropriate, the facilities agencies will coordinate their review with other State agencies and representative groups. Upon completion of their review, the facilities agencies will return the applications accompanied by appropriate certifications to the OEC. Certified TAP applications recommended for funding as well as a small number of certified runners-up will be forwarded to DOE.

The evaluation of TAP applications will be based on the following criteria. Each criterion will be weighed in accordance with the points assigned to it, based on a 100 point scale.

<u>Maximum Points Possible</u>	<u>Criteria</u>
35	1. BTU's consumed per gross square foot per year
20	2. Energy costs per gross square foot per year
25	3. BTU's consumed per gross square foot per annual operating hour
20	4. Past energy conservation activity
<u>100</u> (highest possible score)	

Staff and the Application Review Panel will assign appropriate scores for each criterion. After these scores are determined, they will be totaled to derive a final score for the TAP application. In a case where two or more applications recommended receive the same final score, preference will be given to the applicant who completed an energy audit with non-federal funds.

The following is a listing of the scales to be used when deriving scores for each of the above criterion:

1. BTU's consumed per gross square foot (35 points)

Based on the results obtained from the PEA sample, the OEC feels that a single scale for deriving scores for energy consumption per gross square foot is inappropriate for all eligible institutions, therefore, three ranges will be used: one for schools, one for hospitals, and one for public care institutions and local governments.

a. Schools

The maximum 35 points will be awarded to schools which consume 250,000 BTU's per gross square foot per year or more. Schools which consume less than 250,000 BTU's/GSF will be given points in conformance with the following formula:

$$\text{points} = \frac{\text{BTU's/GSF/year}}{250,000} \times 35$$

b. Hospitals

The maximum 35 points will be awarded to hospitals which consume 560,000 BTU's per gross square foot per year or more. Hospitals

which consume less than 560,000 BTU's/GSF will be given points in conformance with the following formula:

$$\text{points} = \frac{\text{BTU's/GSF/year}}{560,000 \text{ BTU's/GSF}} \times 35$$

c. Public Care Institutions and Local Governments

Public care institutions and local governments which consume 400,000 BTU's per gross square foot per year or more will be awarded the maximum 35 points. Buildings in this category which consume less than 400,000 BTU's/GSF will be awarded points in conformance with the following formula:

$$\text{points} = \frac{\text{BTU's/GSF/year}}{400,000 \text{ BTU's/GSF}} \times 35$$

2. Energy costs per gross square foot per year (25 points)

Based on sampling results, OEC feels that a single scale for deriving scores for energy costs per gross square foot per year is inappropriate for all eligible institutions. Therefore, three ranges will be used: one for schools, one for hospitals, and one for public care institutions and local governments.

a. Schools

The maximum 25 points will be awarded to schools which have energy costs of \$.55 per gross square foot per year or greater. Buildings which have energy costs of less than \$.55/GSF will be awarded points in conformance with the following formula:

$$\text{points} = \frac{\text{energy cost/GSF of building}}{$.55/\text{GSF}} \times 25$$

b. Hospitals

The maximum 25 points will be awarded to hospitals which have energy costs of \$1.10 per gross square foot per year or greater. Buildings which have energy costs of less than \$1.10/GSF will be awarded points in conformance with the following formula:

$$\text{points} = \frac{\text{energy cost/GSF of building} \times 25}{\$1.10/\text{GSF}}$$

c. Public care institutions and local governments

The maximum 25 points will be awarded to public care institutions and local governments which have energy costs of \$.80 per gross square foot per year or greater. Buildings which have energy costs of less than \$.80/GSF will be awarded points in conformance with the following formula:

$$\text{points} = \frac{\text{energy cost/GSF of building} \times 25}{\$.80/\text{GSF}}$$

3. BTU's consumed per gross square foot per annual operating hour (20 points)

Based upon the results of the PEA sample, the OEC feels that it is appropriate to award the maximum 20 points to buildings which consume 150 BTU's/GSF/annual operating hour. Buildings which consume less than 150 BTU's/GSF/annual operating hour will be awarded points in conformance with the following formula:

$$\text{points} = \frac{\text{BTU's/GSF/ann.oper. hour of building} \times 20}{150 \text{ BTU's/GSF/ann. oper. hour}}$$

4. Past energy conservation activity (20 points)

The OEC also feels that it is important to consider past energy conservation activity in the building when awarding grants for TAP's. The failure to do so would place a building in which an energy management program has been initiated at a disadvantage vis-a-vis similar buildings in which an energy management program has not been implemented. A disadvantage results because consumption indexes such as BTU's/GSF, BTU's/GSF/annual operating hour, and energy cost/GSF decrease after an energy management program has been implemented.

Scores will be assigned to buildings on the basis of the percentage of energy savings which have been realized in the building from past conservation activity. This percentage will be derived by the consumption records of one 12-month period prior to the activity to another 12-month period after conservation steps were taken. Records from 1974 - 1980 may be used. The points assigned to percentages are as follows:

<u>Points</u>	<u>Percentage of annual energy savings</u>
20	30% and over
15	20% to 30%
10	10% to 20%

Energy Conservation Measures (ECM) Application Review

Grant applications for energy conservation measures are to be filed with the OEC on or before the deadline established for such submittals for each grant cycle. Upon receipt, staff shall review the application to judge an applicant's eligibility under the provisions of Section 455.51 of the Rules and Regulations and to determine if the application appears complete under the provisions of Section 455.60(c). If, upon this initial review, the application does not seem complete, it will be sent back to the applicant accompanied by a letter outlining the reasons for the return. If the preliminary review indicates that the application is submitted by an eligible applicant and is complete, it shall be filed within the appropriate category for ranking by the staff. One category has been established: ECM applications from schools and hospitals.

As soon as feasible after their receipt, ECM applications will be reviewed by staff and by the Application Review Panel. The panel will be selected by the Institutional Buildings Grants Program Coordinating Committee and will consist of committee members. Each application will be awarded a score based upon the

ranking criteria listed below. The final decision regarding the ranking of each application will be made by the OEC.

The OEC will prepare a list of applications ranked, in descending order, according to their scores. The applications on this list which are recommended for funding, as well as several runners-up, will be submitted to the appropriate facilities agency for review. These agencies will review and certify the submitted applications to ensure that the ECM's which are proposed do not conflict with State plans or programs and to protect against violations of State laws or codes. When appropriate, the facilities agencies will coordinate their review with other agencies. Upon completion of their review, the facilities agencies will return the applications accompanied by appropriate certifications to the OEC. Certified ECM applications recommended for funding, as well as a small number of certified runners-up, will be forwarded to DOE. The evaluation of ECM applications will be based on the following criteria. Each criterion is weighted in accordance with the points assigned to it, based on a 100 point scale.

<u>Maximum Points Possible</u>	<u>Criteria</u>
30	1. Average simple payback period for all proposed measures
21	2. Energy source to which conversion is proposed, including in descending priority: <ul style="list-style-type: none">- renewable- coal
20	3. Type and quantity of energy to be saved, including in descending priority: <ul style="list-style-type: none">- oil- natural gas or LPG- electricity

19	4. Climate area within the state
5	5. Demonstration value of measures
5	6. Extent of energy conservation education in the institution
<hr/> 100	
(highest possible score)	

Staff and the Application Review Panel will assign appropriate scores within the allowable point totals. After scores are determined for each criterion, they will be totaled to derive a final score for the ECM application.

The following is a listing of the scales for scoring each of the above criterion and the points to be assigned to each:

1. Average simple payback period for all proposed measures (30 points)

The average simple payback period for the measure(s) proposed must be determined by dividing the total estimated cost of the measure(s) by the total projected annual cost saving which is likely to result from energy savings. Applications will be considered only if each proposed measure has a payback period of between 1 year and 15 years.

The score to be assigned to the average simple payback period will be determined by dividing the maximum possible score, 30, by the average simple payback period. For example, if the average simple payback period is one year, a score of 30 will be assigned. If the payback period is

15 years, a score of 2 will be assigned.

2. Energy source to which conversion is proposed (21 points)

The intent of this criterion is to help ECM's which save conventional energy through the use of renewable energy sources to compete with other energy conservation measures. Such assistance is necessary because ECM's which utilize renewable resources or coal commonly have a higher initial cost and therefore a longer simple payback period than other energy conservation measures.

Applications for ECM's which include systems specially designed to utilize renewable resources or coal will receive the points listed below:

<u>Points</u>	<u>Energy Source</u>
21	Geothermal
18	Solar Electric (wind or photovoltaic)
15	Heating and/or cooling (active, passive or hybrid systems)
12	Coal

Adjustments:

- a. The points above will be adjusted in proportion to the ratio of the annual energy cost savings of the conversion measure to the total annual energy cost savings of all measures proposed for a given building. The derived percentage will be multiplied by the points assigned to the energy source.
- b. In cases where the renewable resource measure is designed to provide only a portion of a system load, the adjusted point total calculated in a. above will be further adjusted by multiplying such point total times the percentage of the system load that is designed to be provided by the renewable resource or coal.

For example, an application is received for two ECM's, one of which annually saves \$1,000 in energy through conservation, and another which saves \$3,000 in energy through the utilization of a solar heating system. The solar heating system is designed to provide 60% of the heating requirements for the building. Of the total energy savings of \$4,000, 75% is attributable to the solar system. To determine the points to be awarded to the application for this criterion, the following calculation is then performed:

$$\begin{aligned} & (\text{points for solar heating}) \times (\% \text{ of energy savings}) \times \\ & (\% \text{ of system load}) = \text{final score} \end{aligned}$$

or;

$$(15) \times (.75) \times (.60) = \underline{6.75}.$$

3. Type and quantity of energy to be saved (20 points)

This criterion gives a greater weighting to those energy sources which are in shorter supply as compared to alternative energy sources. In descending order, preference is to be given to oil or LPG, natural gas, and electricity.

The scores to be assigned to each of these energy sources follows:

<u>Points</u>	<u>Fuel</u>
20	Oil
16	Natural gas or LPG
12	Electricity

A score for this criterion will be assigned by determining what percentages of the total energy savings to be realized by all of the proposed ECM's will result from a savings of oil or LPG, natural gas, and electricity. The derived percentages will be multiplied by the points assigned to the various energy sources, and the resulting figures will be added. This sum will be the total score for this criterion. For example, an application is received for two ECM's, one of which annually saves 1 million BTU's produced

by oil and another which annually saves 3 million BTU's produced by electricity. Of the total savings of 4 million BTU's, 25% is oil and 75% is electricity. The following calculation is then performed:

$$(25\%) \times (\text{points for oil}) + (75\%) \times (\text{points for elec.}) = \text{total points}$$

or;

$$(.25) \times (20) + (.75) \times (12) = \underline{14}.$$

4. Climate area within the state (19 points)

This criterion attempts to give a greater weighting to those ECM's which are implemented in areas of the State which experience higher than average degree-day (DD) readings. The OEC has determined the average annual heating degree-day readings and cooling degree-day readings for approximately 80 sites in the State. The highest degree-day total is found in Fraser, Colorado. This location has been awarded 19 points. The point values for the rest of the sites has been calculated according to the following formula:

$$\text{points} = \frac{\text{Total DD of site}}{\text{DD for Fraser (11,760)}} \times 19$$

The designated totals for all of the sites can be found in Appendix 9. In cases where an application is received from an institution that is not located at a site on the list, the value for the site that is closest to the institution will be used.

5. Demonstration value of ECM's (5 points)

This criterion attempts to give a greater weighting to projects which have demonstration value. The OEC will examine the proposed ECM's and determine if one or more have value as a significant demonstration of systems which utilize renewable energy resources, implement innovative energy conservation products or techniques, or otherwise provide an example of energy conservation which would be of interest to the general public and/or similar institutions or commercial buildings. For example, solar collectors or a geothermal system would have demonstration value to the general public. Likewise, modifications

to a lighting system, automatic flue dampers, or exhaust air heat recovery systems may not be visible to the general public but would be of interest to other institutions. Five points will be awarded to applications proposing projects which have a demonstration value to the general public or to other institutions.

Adjustment

The points above will be adjusted by evaluating what percentage of the total energy savings to be realized by all of the proposed ECM's will result from a measure(s) which has demonstration value. The derived percentage will be multiplied by the points assigned to reach the final score. For example, an application is received for two ECM's, one of which saves 1 million BTU's and another of which saves 3 million BTU's. The latter ECM also has significant demonstration value. Of the total energy savings of 4 million BTU's, 75% results from an ECM with a demonstration value. 75% of the 5 points available for ECM's with demonstration value, or 3.75, would be assigned to the application.

6. Extent of energy conservation education in the institution (5 points)

This criterion attempts to give a greater weighting to applicants which have aggressively instituted a program of energy conservation education in their buildings. Such programs could include educational programs for occupants of a building, programs for the managers and operators of buildings, and, in the case of educational institutions, programs for integrating the subject of energy conservation into curricula.

The OEC will examine any certified statements provided by the institution as part of the grant application detailing energy conservation programs which have been carried out in the institution's buildings. The OEC will award 5 points upon a finding that one or more energy conservation education programs have been implemented in the institution and that the program(s) is extensive and comprehensive.

F. EQUITABLE ALLOCATION OF FUNDS

The following steps will be taken to ensure equitable allocations of Program funds. First of all, submitted applications will be evaluated separately by group. The following three groups have been established:

1. Applications for technical assistance from schools and hospitals.
2. Applications for technical assistance from units of local government, including governing bodies of Indian tribes, and public care institutions.
3. Applications for energy conservation measures from schools and hospitals.

This three-fold procedure for sorting applications helps to ensure equitability in that it does not discriminate among eligible institutions on the basis of size, energy consumption characteristics, or type of institution. Equitability is also assured through the subsequent application of evaluation criteria, as outlined in Section F of this Plan.

Procedures for equitable distribution of hardship funds are covered in Section G.

Reference in Rules and
Regulations (Appendix 1)
Section 455.82(c), 455.71(d),
and 455.90(g)

G. HARDSHIP CRITERIA

To identify schools and hospitals experiencing severe hardship and to determine an applicant's qualified level of federal funding in excess of 50%, the OEC will use the evaluation criteria listed below. Separate criteria will be used for evaluating schools and hospitals respectively, to allow for the differences in the financing and energy use patterns of these institutions. In this way, the OEC will ensure that it does not discriminate among eligible applicants on the basis of institutional type.

Evaluation of hardship applicants will involve several steps. First, the figure provided by the institution for each criterion will be given a score, based on a predetermined criterion scale. This score will then be multiplied by a weighting factor to obtain the overall criterion score. When only one criterion is used, as in the case of schools, the criterion score will serve as the evaluation score. When two criteria are applied, the criterion scores will be added to arrive at a final evaluation score for the applicant. This score will be compared to an established rating scale to determine if the applicant qualifies for hardship, and, if so, the level of funding to which the institution is entitled. The criteria and the scales to be used for schools and hospitals follows.

SCHOOLS

Threshold to qualify - 5.0%

Criterion: The ratio of the cost of purchased fuels* expended annually by the institution to the institution's total annual operating budget.

<u>Ratio (%)</u>	<u>Federal Funding Level</u>	<u>Ratio (%)</u>	<u>Federal Funding Level</u>
5.0	60	6.5	75
5.1	61	6.6	76
5.2	62	6.7	77
5.3	63	6.8	78
5.4	64	6.9	79
5.5	65	7.0	80
5.6	66	7.1	81
5.7	67	7.2	82
5.8	68	7.3	83
5.9	69	7.4	84
6.0	70	7.5	85
6.1	71	7.6	86
6.2	72	7.7	87
6.3	73	7.8	88
6.4	74	7.9	89
		8.0	90

* The OEC has interpreted this to mean the purchased fuels expended for buildings only, exclusive of purchased fuels consumed for transportation.

Before consideration for hardship funding, an institution must first qualify for a matching funds grant along with other eligible applicants. Further, the order of ranking resulting from the evaluation process explained in Section E of this Plan will be maintained when hardship criteria are subsequently applied.

If Colorado's hardship allocation is exhausted before all qualified hardship applicants can be recommended for additional funding, the OEC staff will contact the applying institution's specified representatives. If they agree to provide 50% match monies in spite of their request for hardship consideration, they will be recommended for 50% federal funding. If they are unable to make the match, their application will be withdrawn and staff will proceed down the ranked list until the allocation is exhausted by a non-hardship applicant, or a hardship applicant that agrees to 50% federal funding only.

If Colorado's allocation for 50/50 matching funds is exhausted before allotted hardship funds, the OEC staff will proceed farther down the ranked list to the next hardship applicant. If this applicant qualifies as a hardship case, the full amount of the grant will be awarded from the hardship funds. Staff will proceed in this fashion until the entire hardship allocation is expended.

H. ENCOURAGING UTILIZATION OF RENEWABLE RESOURCES

Colorado has been endowed with abundant solar and geothermal resources and has a vital interest in their development. With a well-established infrastructure supporting the utilization of renewable energy resources, solar energy in particular, the State is in an excellent position to stimulate the implementation of solar and geothermal projects.

The OEC has a policy of encouraging the use of renewable energy resources and has a staff member devoted to that purpose. With her assistance and the advice of technical experts on the Coordinating Committee, appropriate steps will be taken to encourage use of renewable resources* in this Program, including:

1. Use of evaluation and ranking criteria specified in Section E of this document. In particular, the weighting points assigned to the second energy conservation measure evaluation criterion (the type of energy to which conversion is proposed), and addition of the demonstration and education value of a project to the ECM criteria strongly encourages the use of solar and geothermal energy.

*As stated in the summary of 10 CFR Parts 450 and 455 of the Rules and Regulations, the Program is to provide financial assistance for identification and implementation of energy conservation measures, including assistance for solar and "other renewable resource measures." For the purpose of this Program, the Office of Energy Conservation has included geothermal energy sources in the definition of "renewable resources."

2. Presentation of solar energy information in the OEC energy auditor workshops.
3. Development of guidelines for technical assistance analysts which outline minimum requirements for the TAP. These guidelines will specify that solar and geothermal projects be considered and will provide supporting technical data as well as a list of sources of further information. Contents will include information on the location of known geothermal resources in Colorado, descriptions of selected solar and geothermal retrofit projects, an annotated bibliography, a description of various solar information services and other material helpful to the TAP analyst.
4. Education of building owner/operators through publication of relevant solar/geothermal news in the Energy Memo.
5. Continuation of OEC efforts to encourage solar energy use, e.g., assistance to the Colorado General Assembly in drafting appropriate bills, workshops for various special interest groups, publications, etc.

I. ASSURING COMPLIANCE WITH THE STATE PLAN, FEDERAL RULES AND
REGULATIONS AND OTHER ENERGY CONSERVATION PROGRAMS

Grantee Assurances

The Office of Energy Conservation will require written assurances from applicants certifying that they will comply with requirements of the State Plan, Federal Rules and Regulations, and other state and federal energy conservation programs when expending federal grant monies. To obtain such assurances, the OEC will provide a special form with the grant application materials which lists the assurances required. An official of the applying institution will have to sign this form to certify that the institutions will comply with the stated policies. A grant application will not be considered complete without a properly signed assurance form.

Further, Program staff, assisted by professionals in the OEC's Technical Resource Center, will conduct periodic field visits to a valid sample of the institutions awarded grants. During these visits the staff member will review a program's financial records and interview program staff to monitor compliance with state and federal requirements. A standard procedure for conducting these field visits will be developed, as well as a uniform record-keeping system. This on-site investigation will be coordinated with other monitoring functions related to the Program.

Office of Energy Conservation Assurances

The Office of Energy Conservation will also comply with all state and federal requirements, as certified in Colorado's State Application for Schools and Hospitals and for Buildings Owned by Units of Local Government and Public Care Institutions Grant Program, which is on file at the Department of Energy Region VIII office in Lakewood, Colorado.

J. ENSURING IMPLEMENTATION AND CONTINUATION OF ENERGY CONSERVATION
MAINTENANCE AND OPERATING PROCEDURES

To ensure that audit recommendations for energy conservation maintenance and operating procedures are implemented, these procedures will be followed:

1. Applicants for grant awards will be required to submit a) a written assurance that all energy conservation maintenance and operating procedures identified in an energy audit and/or technical assistance program have been implemented, or b) a written justification for not implementing specific identified procedures. These assurances will be included in the annual reports submitted by the grantees.
2. TAP grantees will be required to submit an annual report of energy consumption covering each year of the three-year period after the date of the grant award or for the life of the program, whichever is shorter. OEC staff will analyze the yearly consumption patterns to see if energy conservation measures and O & M procedures are continuing to be implemented.
3. OEC staff will analyze the yearly consumption history of the institutions receiving grants for ECM's, as recorded in annual reports. This reported data will be compared to results of the energy savings from conservation activities. If the energy consumption appears overly high, an investigation will be made.

4. OEC staff will make periodic visits to a valid sample of the buildings for which financial assistance has been awarded.

On such visits the staff member will seek to determine if energy conservation operating and maintenance procedures have been, and are continuing to be, implemented. During the visit the OEC representative will also perform other Program monitoring functions.

5. The OEC will notify the DOE in all cases where it appears upon examination that operation and maintenance procedures are not being implemented in buildings receiving financial assistance.

K. PROCEDURES TO ENSURE THAT ASSISTANCE WILL SUPPLEMENT AND NOT
SUPPLANT OTHER FUNDS

Since the intent of this Program is to provide aid to eligible institutions to develop and implement energy conservation programs they might not otherwise be able to undertake, the OEC will require that grant funds not be used to subsidize programs that institutions are able to finance with monies from state and/or local sources. Applicants will be required to submit a written assurance in the grant application certifying that requested funds will be used to supplement, and not supplant, state, local or other funds. In addition, they will be required to list other related programs for which they are receiving, or expect to receive, federal, state, local or other funds. This assurance will be included on the assurance form described in Section I of this Plan.

The OEC will also require grantees to state that they will not use in-kind or cash contributions from other federal sources to match the federal monies allocated for TAP's and ECM's. This includes personnel hired with monies from other federal programs. The only exception to the exclusion of the use of federal funds for matching purposes are those monies received by hospitals for Medicare and Medicaid. These funds are exempted because they are not viewed as direct allocations but as a form of reimbursement for medical costs incurred by patients.

In addition to requiring the written assurance, the OEC will conduct spot checks of a sample of grantees when performing the financial auditing procedures discussed in Section O of this Plan. At that time a staff member will research the institutions' past expenditures so that historical practices can be compared to practices during Program funding cycles.

L. DETERMINING COMPLIANCE OF NON-FEDERALLY FUNDED ENERGY AUDITS WITH
FEDERAL REGULATIONS

To reward institutions for voluntary energy conservation efforts, the OEC will consider applicants who have performed non-federally funded energy audits, or their equivalents, eligible for TAP grants if their audits substantially comply with the Rules and Regulations. The OEC recognizes that many institutions will have conducted their audits prior to publication of federal requirements. In addition, since energy auditing is a relatively new field with no standardized methodology, a complete compliance requirement would be unnecessarily rigid and arbitrary.

Institutions will have to submit an energy audit report to the OEC which demonstrates substantial compliance with the Rules and Regulations. If staff determines that the reported energy audit has sufficiently covered the components of an energy audit as described in the Rules, including an analysis of energy consumption levels and patterns, recommendations for changes in operation and maintenance procedures, and possible energy conservation retrofits, it will be certified as equivalent.

In addition to requiring a report on the non-federally funded energy audit, the OEC may exercise an option to make an on-site validation of the audit. During such a review, a staff member would:

1. Review the methods used to identify the energy conservation maintenance and operating procedures.

2. Check the potential of the energy conservation measures identified in the energy audit.
3. Interview the non-certified energy auditor to determine his/her qualifications.

M. MILESTONES FOR ACCOMPLISHMENT

Each grant applicant will be required to submit a schedule of milestone targets, and times and dates for completing a proposed TAP or ECM. In an effort to standardize each applicant's presentation of this information, the Office of Energy Conservation will include instructions for writing proposed program schedules in the grant application materials. These guidelines will require that the institution develop a chart which identifies the tasks, events and outcomes of the proposed project and specifies, a) the individuals responsible for completing the listed items, b) the amount of time required to complete or achieve them, and c) dates of significant events.

To assure a timely and orderly execution of TAP's and ECM's, the OEC will require that each grantee conform with the following schedules for each project:

- 1) For TAP's or design contracts which are under ECM's the contract between the grant recipient and a qualified contractor should be signed within 60 days after the notice of grant award is received.
- 2) For ECM projects requiring a bid invitation, bids should be solicited no later than 90 days after notification of grant award, and contracts awarded not later than 120 days after the grant award notice. Institutions implementing ECM's that do not require bids should award contracts no later than 90 days after the grant award notification.

OEC will require grantees to notify the Office in writing immediately upon entering into contracts for TAP design aspects of ECM's or for construction of ECM's. Such notification shall also include the expected date of completion of the contract.

To determine the grantees' adherence to proposed milestone dates, the OEC will require that each grant recipient submit a semi-annual report until their program ends. These reports will include, among other things, identification of accomplished and unaccomplished milestones, problems encountered, and remedial actions taken or planned. In addition, during the on-site visits to a valid sample of institutions receiving financial assistance, an OEC staff member will review program records and reports and interview program staff members to ascertain the extent of adherence to program milestones. As previously mentioned, several Program monitoring functions will take place during site visitations.

N. DETERMINING THAT NON-FEDERALLY FUNDED TECHNICAL ASSISTANCE PROGRAMS (TAP's)
ARE IN COMPLIANCE WITH FEDERAL REGULATIONS

In keeping with the Program's policy of encouraging and rewarding voluntary energy conservation actions, institutions will be able to substitute a non-federally funded TAP or its equivalent for a federally funded one if such a program complies with the Rules and Regulations and was initiated after November 8, 1978. To determine if the TAP fulfills federal requirements the OEC will:

1. Require that a complete report of the TAP be submitted to OEC for review. This report must show that the TAP is in substantial compliance with the Rules and Regulations.
2. Require that the individual or team that performed the analysis meet the qualifications criteria specified for technical assistance analysts in Section P of this Plan. In addition, an OEC staff member may make an on-site visit to interview a technical assistance analyst and review his/her methodologies.
3. Require that the analysis include a calculated simple payback period for each proposed measure. This component of the analysis is prescribed because a) the simple payback period is the primary

evaluation and ranking criterion for grant awards for energy conservation measures, and b) a professional energy analysis often omits simple payback calculations in favor of a more sophisticated economic analysis like life-cycle costing.

4. Require that the analysis be comprehensive. It must deal with the entire building, not just one system or subsystem, and must consider all reasonable energy conservation measures.

O. PROCEDURES FOR STATE MANAGEMENT, FINANCIAL AUDITING, MONITORING
AND EVALUATION

The Management System

The OEC will be the principal state agency responsible for managing the Program. The OEC will develop, prior to the issuance of grant awards by the DOE a management system which will entail the following tasks:

1. General policy making. Policy statements regarding the state's management responsibilities and the delegation of any responsibilities to other organizations will be developed and publicized. Lines of communication and levels of decision-making authority will be spelled out.
2. Establishment of a centrally located energy data base. A system will be developed for collecting, recording, and maintaining data from all participating institutions.
3. Preparation of public notices and media releases. One person on the Program staff will be in charge of preparing public notices and media releases. The public information officer for the OEC and the Program director will supervise this staff member. Insofar as possible, all media telephone and interview requests will be handled by the designated media person.
4. Developing a comprehensive reporting mechanism. OEC staff will analyze each section of the State Plan and determine all the

information that needs to be collected from eligible institutions and grantees. Then reporting mechanisms and forms will be developed. Section 455.63 of the Rules and Regulations will be used as a starting point in the development of reporting procedures.

5. Internal management of budget, expenditures, personnel, etc. These management activities will be consistent with the existing practices of the OEC.

The Financial Auditing System

The OEC will conduct financial audits of grantees to determine the actual expenditures for technical assistance programs and energy conservation measures. Because of limited staff, auditing of every grant recipient will not be possible, so a sample number of institutions will be selected for this procedure. Such a sample will be selected in the same manner as that specified in the next section entitled, "The Monitoring System." In the financial auditing process, a standardized reporting format, auditing format, on-site auditing procedure and follow-up reporting procedure will be used to indicate the status of each grantee's financial compliance.

Section 455.63 (b)(2) specifies that each grantee will submit financial status reports by the end of January and July. These status reports will serve as sources of information in preparation of on-site financial audits. The following steps will be followed in the process of conducting a financial audit:

1. Identify all elements of the program to be audited.
2. Examine the accounting system established by the grantee to account for both federal funds and local matching or in-kind funds.

3. Examine the approved budget and the accounting system to determine if the accounting system includes all necessary items.
4. Compare each journal entry with established accounts.
5. Examine all posted expenditures.
6. Request copies of all budget statements made to the board of directors of school boards.

Financial auditing will take place early within the program cycle to provide enough time for correcting any irregularities in financial accounting. A policy for any discrepancies in grantee expenditures will be developed well in advance so that the OEC can handle situations effectively as they arise. The DOE will be informed immediately upon the discovery of any discrepancy in grantee expenditures.

The OEC will develop all of the formats, procedures and policies necessary for the conduct of financial audits of grantees prior to the issuance of grant awards by the DOE.

The Monitoring System

The OEC will be responsible for monitoring TAP's and ECM's to determine if proposed and approved project activities are in fact taking place in accordance with proposed guidelines, and to determine the grantee's adherence to assurances and certifications. Monitoring will be performed by any of the three permanent Program staff and one person from the OEC's Technical Resource Center. Additional OEC staff will be made available where appropriate. In addition, OEC will explore the feasibility of calling upon the state auditor and the internal auditor at the State Department of Education to assist with auditing and monitoring activities. With a limited number of staff, monitoring each grant recipient is not possible, therefore, the OEC will monitor a sample of the grantees. The

sample selected will be adequate to assure that a significant number of grantees are monitored, but in no case will the sample be less than 5% of the number of grant recipients. This sample will be selected by first listing the grant winners under their appropriate categories (See Section F of this Plan). The grantees will then be ranked within their categories according to the dollar value of their grant. This list will be broken into three ranges - high, average, and low. All grant winners in the top range, who will have received the largest grants, will be monitored. A substantial number of the winners in the average range will be monitored, and a small percentage in the low range. Since the number of grant recipients is virtually impossible to calculate at the present time, no exact percentage of the grantees in each range to be monitored has been determined. However, the OEC feels that the above method is the most effective approach to take for determining those institutions that should be monitored. Recipients of large sums of money will be monitored closely, while those receiving small grants, although not ignored, will be monitored to an extent appropriate to the amount of staff time available. Such a procedure will result in maximum monitoring of federal funds.

The actual monitoring process will rely on on-site checks done at the same time financial auditing visits are made. A standard monitoring form will be developed for use by all monitors. In addition to the on-site visits to a sample of the grantees, monitoring will take place by requiring institutions to report relevant data in required reports. Section 455.63(b) of the Rules and Regulations will be used as a guide for the development of the Program monitoring system. The DOE will be informed immediately upon the discovery that proposed and approved project activities are not proceeding in accordance with guidelines, assurances and certifications.

The Evaluation System

The OEC staff will design an evaluation system to determine how effectively the total Program and each institutional TAP or ECM reduced energy consumption. An initial guideline for developing this system will be extracted from Section 455.73(c) of the Rules and Regulations. The OEC will first determine what the indicators of project success are, and then determine what information can be elicited from each grantee to generate comparative values on the selected indicators. Such information will be obtained through the standard reporting mechanism so as not to burden grant recipients with a separate reporting procedure. When designing the evaluation process, the OEC will develop a method by which data can be used for planning future Program cycles.

P. QUALIFICATIONS FOR TECHNICAL ASSISTANCE ANALYSTS

To qualify as a technical assistance analyst for the Program, the OEC requires that such analysts:

- 1) have experience in energy conservation and be a registered professional engineer licensed under the regulatory authority of the State of Colorado; or
- 2) have experience in energy conservation and be a licensed architect under the regulatory authority of the State of Colorado; or
- 3) be an architect-engineer team, the principal members of which have experience in energy conservation and are licensed under the regulatory authority of the State; and
- 4) be free from financial interests which conflict with the proper performance of their duties.

The participating institution must require that these qualifications be met. Such qualifications will be reviewed by OEC staff to determine compliance.

Each participating institution will be required to submit a statement from the technical analyst or analyst team with their grant applications which includes:

1. Proof that the analyst(s) is licensed as an architect or professional engineer in Colorado.
2. A statement outlining the energy conservation experience of the

analyst(s), which includes a list of previously conducted energy conservation projects.

3. A statement certifying the ability of the analyst(s) to perform a technical assistance analysis and certifying that the analyst(s) is free from financial conflict of interest. These statements must be signed by the analyst(s) and will be included in the assurance form described in Section I of this Plan.

Guidelines for the institutions to use when selecting qualified analysts will be prepared by OEC staff. These guidelines will suggest that at a minimum:

1. Architects and engineers meet the same criteria for energy conservation experience.
2. "Energy conservation experience" can mean a) demonstrated experience in conducting professional energy audits, and/or b) experience in the design of energy efficient systems commonly found in the building(s) selected for the analysis.
3. "Free from financial conflict of interest" means free of financial interests in the products or equipment which would be acquired or installed under an ECM grant. The term is not intended to prohibit technical assistance analysts from performing the detailed design work which may be necessary as part of grant awards for ECM's.

In order to assist institutions in contracting for TAP's, OEC intends to develop a model "scope of work" that institutions could incorporate into contracts with TA analysts.

Q. PROCEDURES FOR APPORTIONMENT OF FUNDS AMONG ELIGIBLE INSTITUTIONS

The State shall ensure equitable allocation of funds by evaluating submitted applications separately by group, pursuant to the provisions of 455.90(f) of the Rules and Regulations and outlined in Section F of this Plan. P.L. 95-619 authorized two separate funding amounts for this program: one amount was authorized for schools and hospitals for TAP and ECM grants and one amount for units of local government and public care institutions. Out of the authorization for schools and hospitals not more than 30% is to be used for technical assistance. Thus, the following categories have been established:

1. Applications for technical assistance from schools and hospitals.
2. Applications for technical assistance from units of local government, including governing bodies of Indian tribes, and public care institutions.
3. Applications for energy conservation measures from schools and hospitals.

Funds for technical assistance for units of local government, including governing bodies of Indian tribes, and public care institutions will be allocated to institutions within these two groups on the basis of the ranking criteria for TAP applications established in Section E of this Plan. Each applicant, regardless of institutional type, will compete for funds from the same allotment. No limit is specified as to what percentage of the total funds available to both local governments, including governing bodies of Indian tribes and public care institutions can be garnered by either group.

Funds for technical assistance and for energy conservation measures for schools and hospitals will also be allocated to institutions within these two groups on

the basis of the ranking criteria for TAP applications and for ECM applications established in Section E of this Plan. Each applicant, regardless of institutional type, will compete for funds from the same allotment. However, the Rules and Regulations specify that schools as well as hospitals must receive at least 30% of the funds allotted for TAP and for ECM grants. To conform to this requirement, the OEC will first list in order of ranking all applications for TAP's and ECM's received from schools and hospitals until funds are exhausted. Then, the list will be reviewed to determine if at least 30% of the funds are allocated to schools as well as hospitals. If this is not the case, schools on the list will be dropped in favor of the next highest ranked hospitals, or vice-versa, in order to achieve this 30% minimum requirement.

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Tuesday
April 17, 1979



Part II

Department of
Energy

Technical Assistance and Energy
Conservation Measures: Grant Programs
for Schools and Hospitals and for
Buildings Owned by Units of Local
Government and Public Care Institutions

DEPARTMENT OF ENERGY

10 CFR Part 455

Technical Assistance and Energy Conservation Measures: Grant Programs for Schools and Hospitals and for Buildings Owned by Units of Local Government and Public Care Institutions

AGENCY: Department of Energy.

ACTION: Final rule.

SUMMARY: The Department of Energy (DOE) is issuing a final regulation for cost sharing grant programs to reduce the energy use and anticipated energy costs for (1) schools and hospitals and (2) buildings owned by units of local government and public care institutions. These objectives are to be achieved by providing financial assistance for identifying energy conservation maintenance and operating procedures; conducting technical assistance programs to identify and evaluate attainable energy conservation objectives; and, for schools and hospitals, acquiring and installing energy conservation measures, including solar and other renewable resource measures. This is the second and final segment of DOE regulations for implementation of programs established pursuant to Title III of the National Energy Conservation Policy Act (NECPA), Pub. L. 95-619, 92 Stat. 3206. The first portion of the programs provides financial assistance for the conduct of preliminary energy audits and energy audits for schools, hospitals, units of local government and public care institutions pursuant to regulations published in the *Federal Register* on April 2, 1979 (44 FR 19340). Participation in both phases of the programs is voluntary. The Secretary may make grants to schools, hospitals, units of local government and public care institutions for technical assistance programs; to schools and hospitals for energy conservation measures, including solar and other renewable resource measures; and to States for defraying administrative costs.

DATES: This regulation is effective April 17, 1979. States must submit State Plans to the Secretary on or before August 15, 1979. The first grant program cycle for technical assistance and energy conservation measures, including solar and other renewable resource measures, will begin on April 17, 1979 and will end on February 1, 1980.

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION:

- I. Introduction
- II. Elements of the Program
- III. Notice of Grant Program Cycle
- IV. Discussion of Major Comments and Revisions
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I. Introduction

With the issuance of this final regulation, the Department of Energy (DOE) amends Chapter II of Title 10, Code of Federal Regulations, by adding Subparts C through I to Part 455. This regulation fulfills the remaining requirements of Title III of the National Energy Conservation Policy Act (NECPA), Pub. L. 95-619, 92 Stat. 3206, which amended Title III of the Energy Policy and Conservation Act (EPCA), Pub. L. 94-163, 89 Stat. 871, by adding Parts G and H, to establish cost sharing energy conservation grant programs to fund technical assistance programs for schools, hospitals, buildings owned by units of local government and public care institutions, and to fund the acquisition and installation of energy conservation measures, including solar and other renewable resource measures, for schools and hospitals.

On January 5, 1979, DOE published a proposed regulation which described this grant program and solicited comments from interested persons (44 FR 1580). DOE received and considered 324 written comments and the testimony of 54 persons presented at hearings held in Washington, D.C.; Chicago, Illinois; and Seattle, Washington, on January 22-24, 1979. Summaries of the major comments received, a number of which resulted in changes to the final rule, are discussed below.

On April 2, 1979, DOE published a final regulation implementing the first portion of the energy conservation grant programs established under Title III of NECPA (44 FR 19340). The first portion of these programs will provide financial

assistance for the conduct of preliminary energy audits and energy audits to identify buildings suitable for further energy conservation analysis, to identify maintenance and operating changes which could save energy, and to estimate the State-wide need and potential for conserving energy in eligible institutions.

This second portion of the energy conservation grant programs authorized by Title III of NECPA provides financial assistance for schools, hospitals, units of local government and public care institutions and coordinating agencies for conducting technical assistance programs to identify energy and cost savings likely to be realized as a result of modifying maintenance and operating procedures in a building and as a result of implementing energy conservation measures, including solar and other renewable resource measures, in a building. This regulation also provides financial assistance for schools and hospitals and coordinating agencies to acquire and install energy conservation measures to reduce energy consumption or to allow the use of alternative energy sources.

II. Elements of the Program

Initially, a State must formulate a State Plan for the operation of these grant programs and have the State Plan approved by DOE. Upon approval of the State Plan, a State energy agency will receive, review and rank applications for financial assistance for eligible schools, hospitals, units of local government and public care institutions. Applicants must prepare and forward their applications to the State in accordance with this regulation and the approved State Plan. If applications are determined by the State to be eligible for assistance under this regulation and the State Plan, the State will rank all buildings covered by those applications in order of priority for funding. The State will then forward to DOE once each grant program cycle all eligible applications together with its rankings of the buildings covered by those applications. Among other things, the State will also identify those buildings proposed by the State for grant funding, based on the priority ranking, and set forth the funding, by building, recommended for each applicant.

Upon approval of State recommendations, DOE will make grant awards to applicants for up to 50 percent of the cost of a technical assistance program or energy conservation measure. In addition, DOE may make grant awards in excess of 50 percent of total costs to schools or

hospitals in a class of severe hardship in amounts recommended by the State in accordance with its State Plan for up to 90 percent of the cost of a technical assistance program or energy conservation measure. The total amount of all such hardship funding in a State may not exceed 10 percent of funds allocated to that State in a grant program cycle.

A State may also receive grants in amounts not exceeding 5 percent of all grants made in a State during a given grant program cycle for the purposes of defraying the costs of administering technical assistance programs and energy conservation measures grants.

III. Notice of Grant Program Cycle

DOE has elected to use "grant program cycles" for all NECPA Title III grant programs. For purposes of making grants for technical assistance programs and energy conservation measures, including solar and other renewable resource measures, the first grant program cycle begins on the date of publication of this regulation. State Plans under this regulation are due 120 days from the beginning of the cycle. For fiscal year 1978, NECPA authorizes appropriations in the amount of \$180 million for schools and hospitals and \$17.5 million for units of local government and public care institutions. Subject to the availability of these monies, Table 5 presents the amounts allocated to States for the first grant program cycle. Except as may otherwise be specified by the Secretary, this first grant program cycle for technical assistance and energy conservation measures shall end February 1, 1980.

IV. Discussion of Major Comments and Revisions

State Plan Submissions

Sections 394(a) and 400D(a) of EPCA direct the Secretary to invite State energy agencies of each State to submit State plans to DOE within 90 days after the effective date of this regulation. However, the law also permits the establishment of a longer period of time for this purpose if there is "good cause" for such action. Because the final regulation for preliminary energy audits and energy audits has been so recently issued, and since the development of State Plans in great measure depends on the results of the preliminary energy audits conducted in accordance with those final regulations, there is good cause for extending the time in which State Plans may be submitted to DOE. Accordingly, § 455.91 has been revised to permit 120 days, rather than the 90

days proposed, for their submission. This extension should permit States to conduct a sufficient number of preliminary energy audits to insure complete and comprehensive State energy planning.

Eligible Institutions and Buildings

Several comments addressed the range of institutions that may be eligible to receive grant funding. The definitions that determine which institutions are eligible for Federal grant funds are set forth in 10 CFR 455.2. States, as a result of their licensing and oversight authorities with respect to such institutions, are in the best position to apply those definitions to institutions within their jurisdictions when they review and evaluate grant applications.

Comments also addressed the range of buildings that may be eligible for Federal financial assistance. Buildings covered by applications from eligible institutions that house resources for the arts, humanities and for historic preservation (such as libraries, arts centers, etc.) in connection with schools, hospitals, units of local government and public care institutions may be eligible for financial assistance if such buildings conform to the requirements of Part 455. Although buildings owned by local educational agencies and used primarily as administrative buildings are eligible for preliminary energy audit and energy audit funding, such administrative buildings are not eligible for grants for technical assistance programs or energy conservation measures.

Energy Conservation Maintenance and Operating Procedures

An important element of these grants programs is the identification of energy conservation maintenance and operating procedures which require no significant expenditure of funds. The implementation of such procedures, once identified by an energy audit or technical assistance program, should result in substantial energy savings. Therefore, as a prerequisite to further participation in this program, the proposed regulation required applicants to implement all identified energy conservation maintenance and operating procedures prior to submitting a grant application for a technical assistance program or energy conservation measure.

This requirement has been modified in the final regulation to permit applicants to be eligible for technical assistance program or energy conservation measure grants without having implemented all energy conservation maintenance and operating procedures

if satisfactory written justification for not implementing any such procedure is provided. Such justification will be considered satisfactory if it demonstrates that implementation of a maintenance and operating procedure recommended by an energy audit report or technical assistance report would violate an applicable health or safety code, would require special training for maintenance or operating personnel which cannot be completed prior to submitting a grant application, or would create other such overriding circumstances that make implementation impractical.

Technical Assistance Analyst Qualifications

NECPA directs that DOE establish factors which may be used by a State in prescribing criteria for identifying persons qualified to conduct technical assistance programs. It is essential that only those individuals possessing the relevant background, training and experience be considered as qualified technical assistance analysts. Therefore the proposed regulation required as a minimum that technical assistance analysts have experience in energy conservation and be registered professional engineers or architect-engineer teams. Numerous comments were received regarding these qualification factors. Among other things, it was suggested that the qualifications were overly restrictive and that they excluded certain groups from participating in the technical assistance phase of the program. Others suggested that States should be responsible for establishing programs for qualifying technical assistance analysts. A number of comments stated that many architects and architectural firms have the necessary experience to perform technical assistance programs, and suggested that architects be permitted to conduct a technical assistance program independently.

It is the intent of this regulation to establish minimum qualifications for technical assistance analysts to insure that participating institutions select individuals or firms able to perform the very complex and detailed technical assistance program. Accordingly, the final regulation specifies that the technical assistance analyst should be a registered professional engineer or, ideally, an architect and an engineer working as a team. However, the final regulation has been modified to permit a State to specify such alternative qualifications as it may deem appropriate and as are included in its approved State Plan. Such alternative

qualifications must insure that the technical assistance analyst has sufficient experience and training to perform all of the minimum requirements of a technical assistance program.

An architect-engineer team provides an especially suitable combination of professional skills to perform the comprehensive analysis of the building or buildings required for a technical assistance program. Several comments raised questions concerning the effect of the minimum requirements for technical assistance analysts and the contractual relationship between architectural firms and engineering firms which desire to perform jointly technical assistance programs. No prior relationship is required nor was it DOE's intent to preclude either member of the team, individually, from functioning as the prime contractor for a technical assistance program.

Several comments pointed out that the provision which requires that technical assistance analysts be free from conflicting financial interests may prevent technical assistance analysts from performing the detailed design functions which may be necessary under the energy conservation measures phase of these programs. This provision is intended to exclude those individuals having a financial interest in the products or equipment acquired and installed under an energy conservation measures grant. A State must establish procedures, as a part of its State Plan, to implement these requirements. These procedures must also exclude any other individuals having financial interests which conflict with the proper performance of their duties. This requirement should not be construed to preclude technical assistance analysts from performing detailed design or inspection services under the energy conservation measures phase of these programs.

Technical Assistance Procedures

It is essential that a technical assistance program consist of a thorough survey and analysis of both the building envelope and the building's energy-using systems. A few comments suggested that thermographic inspections of the building be required as part of a technical assistance program. While such methods are a valuable tool in analyzing a building, the final regulation does not specify any methods to be utilized as part of a technical assistance program. It is left to the discretion of the technical assistance analyst to select the methods which, in the analyst's judgment, are the most

appropriate for the building which is being analyzed.

Eligible Energy Conservation Measures

Several comments suggested that DOE expand the grant programs for schools and hospitals to fund experimental energy conservation measures. A list of previously demonstrated energy conservation measures, including solar and other renewable resource measures, is set forth in § 455.52. Solar measures eligible for funding include both active and passive solar energy systems, as well as other renewable resource measures. This list is not all inclusive. Other measures identified in a technical assistance program or an energy audit performed pursuant to Subpart C of 10 CFR Part 450, which have an average simple payback of more than 1 year and less than 15 years, may be included in any grant application. A complete description of such measures must accompany the application. The description must include calculations and other technical data which indicate the projected cost and energy savings of such measures. An experimental energy conservation measure for which an applicant cannot adequately project costs and energy savings will not be considered for funding.

Consideration of Solar and Other Renewable Resource Measures

In view of comments received, and due to the desirability of increased utilization of solar energy to reduce consumption of non-renewable energy resources, the final regulation reflects greater emphasis on conversions to solar and other renewable resource systems, where appropriate. Specifically, certain basic data regarding a building's potential for solar applications will be collected during the preliminary energy audit and energy audit phase of the program. Upon analysis of preliminary energy audit data, the State should be able to specify in its State Plan the extent to which, and by which methods, utilization of solar systems will be encouraged within that State. Each technical assistance program must include an evaluation of the building's potential for solar conversion and an identification of any known zoning ordinances and building codes which may place restrictions on or barriers to the installation of solar energy systems. It is intended that, initially, the technical assistance analyst will evaluate the data collected during the preliminary energy audit and energy audit phase of the program. If, upon completion of this initial evaluation, it is determined that the building has

potential for conversion to solar or other renewable resource measures, the technical assistance analyst will undertake a more detailed analysis of the costs and energy cost savings associated with the acquisition and installation of such measures.

Leased Equipment

Several comments suggested that the installation and use of equipment which is normally leased, such as computer control systems, qualify as an eligible energy conservation measure. The final regulation has been changed to permit grants for the costs of installing and connecting leased equipment, such as a computer-operated energy monitoring or control system. However, the recurring lease costs associated with leased equipment, which typically include maintenance and service costs, are not eligible for funding. To calculate the simple payback period for leased equipment, the procedure set forth in § 455.52(w) shall be used. This procedure is required to insure that recurring lease costs are considered in the overall evaluation of such a proposed measure.

Starting Date for Eligible Programs and Measures

Several comments requested a change in a provision of the proposed regulation to permit the funding of technical assistance programs and energy conservation measures, including solar and other renewable resource measures, begun prior to November 9, 1978. The conference committee report accompanying NECPA indicates that project costs incurred prior to November 9, 1978 are not to be considered eligible for grant funding. Accordingly, this suggestion has not been adopted. However, expenditures for a technical assistance program commenced on or after November 9, 1978, may be wholly or partially classified by the Secretary as non-Federal funds for the purposes of matching a grant for the acquisition and installation of energy conservation measures identified by such technical assistance program.

Applicant's Submissions to States

A number of comments raised questions concerning the manner in which institutions are to file applications for technical assistance program grants and energy conservation measures grants. The requirements governing applications for grant funds are contained in Subpart E of Part 455 and have been modified only slightly from their proposed form. Since applicants must forward grant

applications to a State for review, evaluation and ranking, applicants may also be required to submit their grant applications in conformity with any additional procedures or requirements prescribed by the State in the State Plan. This regulation, however, does not prohibit two or more institutions from submitting a single application to the State. Indeed, DOE encourages States to permit institutions to apply for grant funds through a coordinating agency (such as the State, a State hospital or school facilities agency, or a regional or district organization representing schools or hospitals) which could act as an agent for institutions whose buildings are covered by the coordinating agency's application. The use of coordinating agencies may: (1) Reduce the administrative workload for institutions, (2) introduce economies of scale for applicants, (3) allow institutions, which might otherwise lack the expertise or resources, to participate, and (4) expedite the processing of applications and the administration of the program.

State Evaluation and Ranking of Grant Applications

The State evaluation and ranking requirements set forth in §§ 455.70 and 455.71 elicited a number of comments and requests for clarification. These provisions have been revised primarily to incorporate several suggested changes to the ranking criteria and to clarify the procedure to be used for ranking applications for technical assistance programs and energy conservation measures.

The evaluation and ranking process prescribed by Subpart F requires the State to make two determinations. First, a State will review and evaluate an application to determine whether the applicant is eligible for financial assistance and thus a candidate for inclusion in the State's ranking process. Eligible applicants must conform to all of the requirements of Subparts C, D and E of Part 455, the requirements of the approved State Plan, any State environmental laws, and any other applicable laws or regulations. Applications of schools and hospitals must receive certifications from the State school or hospital facilities agency, as the case may be, in order to be eligible for Federal assistance. This certification process will take place concurrently with the State's evaluation and ranking in a manner such that no unnecessary delay results. An applicant that does not conform to these requirements or that fails to receive certification is not eligible for Federal

assistance and its application should be returned immediately to it, together with an explanation of the application's deficiencies.

Second, a State will rank buildings for which an eligible applicant has requested financial assistance to determine, in accordance with the criteria established in its State Plan, which buildings should be recommended for up to 50 percent funding. Although a few comments recommended that States rank metered facilities rather than buildings, DOE has retained the more refined requirement of a building-by-building ranking, since estimated energy consumption for individual buildings can be calculated using standard engineering procedures.

Section 455.71(a) establishes detailed criteria for ranking buildings for technical assistance programs. Buildings will be ranked on the basis of energy conservation potential as indicated by energy audits of those buildings and in accordance with the methods prescribed by the State Plan. Preference will be given to buildings for which an energy audit was completed without the use of Federal funds in the case of buildings having equivalent energy conservation potential.

The ranking criteria applicable to energy conservation measures set forth in § 455.71(b) have been modified only slightly to reflect, among other things, a preference for savings of oil over savings of natural gas. Weights for each prescribed criterion will be assigned by the State.

The product of the State ranking process for technical assistance programs and energy conservation measures will be three lists of buildings ranked in order of descending priority based upon the criteria prescribed by § 455.71. There will be a separate list of buildings for technical assistance programs for units of local government and public care institutions, for technical assistance programs for schools and hospitals, and for energy conservation measures for schools and hospitals.

At the request of an applicant for an energy conservation measure grant, a group of buildings may be ranked as a single building if the application requests funding for the acquisition and installation of a single energy conservation measure which directly involves all of the buildings. This permits applicants the option to seek funding for measures that affect more than one building. In such cases, an applicant will submit the average simple payback of the single measure proposed for all of the buildings affected by that

measure as well as averaged data for all the buildings for the other ranking criteria. States will rank the buildings covered by such an application based upon those averages.

Within each list, a State will indicate the ranking and the amount of financial assistance requested for each eligible building. The State will also indicate the amount of funding recommended by the State for each building. Where the amount recommended for any building by the State is less than the amount requested by the applicant, the State shall also indicate the reason for such recommendation. Those buildings ranking highest on the list will receive financial assistance within the amount of funds allocated for each State for grants up to 50 percent of eligible costs.

The State will perform two additional reviews of each list of school and hospital buildings. First, the State must assure that neither schools nor hospitals are recommended for more than 70 percent of the total funds allocated for technical assistance programs and energy conservation measures.

Second, the State must evaluate school and hospital buildings for which "severe hardship" claims have been made. With respect to those school and hospital applications requesting such funding, only those applications which would otherwise qualify for grants up to 50 percent may be considered by the State. For such qualified applications, the State must perform a separate evaluation of the relative need of each applicant. The evaluation must be performed in accordance with the procedures established by the State in its State Plan in accordance with the criteria set forth in § 455.72(d)(2). The results of this evaluation will determine the amount of additional Federal funding, in excess of 50 percent, for which each applicant is qualified. After this evaluation has been completed, buildings in a class of severe hardship shall be recommended for funding in descending order of their energy saving potential, determined pursuant to §§ 455.71 (a) and (b). These results will be recorded within each list for schools and hospitals by indicating: (1) The amount of additional hardship funding requested for each building by each application qualified for hardship funding; and (2) the amount of hardship funding recommended by the State based upon relative need, as determined in accordance with its State Plan, to the limit of the hardship funds available.

Requests for hardship funding, as determined by the State and indicated in the State ranking, will be approved by DOE to the extent that the total of all

such requests for hardship funding does not exceed 10 percent of the total allocation of funds to the State for schools and hospitals in the applicable grant program cycle.

Prior to forwarding applications to the Secretary, each State must certify that each institution recommended for funding in any amount has given its assurance that it is willing and able to participate in the program based on the amounts recommended by the State and set forth in the State's ranking of all applications pursuant to § 455.71.

It is anticipated that in some cases the amounts requested by eligible applicants will be less than the total amount allocated to the State in a particular grant program cycle. In such cases, the State is exempt from the ranking requirements of § 455.71. With respect to eligible applications for schools and hospitals, the State is exempt from the ranking requirements only if the total amount requested for grants up to 50 percent is less than or equal to the funds available for such grants and the total amount recommended for hardship funding is less than or equal to the amount reserved by the State for that purpose. Unobligated funds remaining at the close of a grant program cycle will be reallocated, if available, to all States in the succeeding grant program cycle.

Economic Analysis Ranking Factor

NECPA requires that DOE establish criteria for ranking applications for energy conservation measures, including solar and other renewable resource measures. The primary ranking factor selected for this phase of the program is the measure's cost-effectiveness. The proposed regulation specified a simple payback methodology for this ranking factor. A number of comments were received regarding the use of this methodology. Most of the comments indicated that simple payback is not as accurate in determining the cost-effectiveness of a measure as is life-cycle costing. A life-cycle costing methodology considers the time value of money, fuel price escalations and future operating, maintenance and other costs over the life of the building or measure. The use of discounted payback was also suggested. Because simple payback provides only an approximate indication of actual cost-effectiveness, DOE has undertaken the development of a life-cycle costing methodology which it currently plans to adopt for evaluating energy conservation measures under this program. However, this methodology will not be available for use during the first grant program cycle.

Therefore, the regulation specifies the use of the simple payback methodology, but encourages institutions to obtain a life-cycle cost analysis for use in their decision-making process for the first grant program cycle.

Several comments were also received regarding the 15-year simple payback period limitation on energy conservation measures, including solar and other renewable resource measures. Comments were approximately balanced between those favoring a shorter payback period limitation and those favoring a longer payback period limitation. Other comments suggested that States be responsible for determining the limitation. No change has been made to the final regulation. The 15-year simple payback limitation on eligible measures approximates the limit that would result if measures were determined to be cost-effective by a life-cycle cost analysis (assuming a 10-percent real discount rate, current fuel price forecasts and a 25-year useful life of the measure or building). Since DOE intends to amend this regulation to substitute life-cycle cost analysis for simple payback, this provision may be deleted at that time.

State Forwarding of Grant Applications

A number of comments suggested changes to the requirement of § 455.72 that States forward grant applications to DOE only once each grant program cycle. Some comments proposed to permit States to forward applications for financial assistance continuously or at several times during the grant program cycle to reduce administrative burdens which might delay the attainment of energy savings. Since NECPA specifically limits the frequency of application submittals, this provision has not been altered. Further, this single submittal is likely to result in a more equitable allocation of the available funds by requiring the simultaneous evaluation of all applications received during a single grant program cycle.

Grant Awards

Several comments requested that the regulations clarify whether additional funding will be available to an applicant in the same or a subsequent grant program cycle to complete a technical assistance program or energy conservation measure that has already been funded by a grant. Section 455.80 has been amended to specify that no additional assistance will be available to fund cost overruns. In order to promote accurate cost calculation and thereby assure that only cost-effective technical assistance programs and

energy conservation measures, including solar or other renewable resource measures, receive Federal assistance, DOE shall award only one grant for any technical assistance program or energy conservation measure for any building.

State Administrative Costs

The subject of grant awards to defray State expenses incurred in administration of this program elicited numerous comments from States and institutions. Several comments favored the proposed provision allowing 50 percent matching grants to States in amounts not exceeding 5 percent of all grants awarded to institutions within a State. Some comments, however, suggested awarding such grants as early as possible in the grant program cycle to help cover the significant expenditures required for a State to develop a State Plan and to establish its system for accepting and reviewing grant applications before they are submitted to DOE. It was also suggested that DOE raise the allowable percentage of funding for the States.

DOE still anticipates that 5 percent of the grants awarded within a State will provide the State with adequate funding, when coupled with State matching funds, to administer effectively this phase of the program. However, §§ 455.82 and 455.83 have been revised to permit earlier grant awards for this purpose. As revised, a State may apply for an administrative expense grant concurrently with submission of its State Plan. For subsequent grant program cycles, a State may apply for an administrative expense grant immediately upon publication by DOE of the amounts allocated for among the States for that grant program cycle. Up to 2 percent of the amounts allocated to the State for grants for technical assistance programs and energy conservation measures will be available for administrative expense grants. For the first grant program cycle, DOE plans to award these 2 percent grants for State administrative costs at the time the State Plan is approved.

Subsequent to this initial application for administrative costs, States may forward a second application to DOE during each grant program cycle at the time the State forwards all the grant applications eligible for technical assistance programs and energy conservation measures. At that time, States may apply for an administrative expense grant up to an amount equal to the difference between the initial amount awarded for an administrative expense grant for that grant program cycle and 5 percent of the total of all

grants recommended for institutions in that State in the same grant program cycle. All grants for State administrative expenses are subject to the 50 percent matching requirements. The total of all amounts requested to defray State administrative expenses plus the total of all amounts recommended to fund technical assistance programs and energy conservation measures must be less than or equal to the total amount allocated for the State.

The limitations on State administrative expenses set forth in § 455.83 were also revised pursuant to comments received. States' expenses may now include the acquisition of services, such as computer, printing or other services, directly supporting the State's administration of the grant program. In addition, the cost limit on any single item of equipment acquired was raised from \$200 to \$300. Items costing in excess of \$300 may only be purchased with the express consent of the Secretary.

Allocation Formula

The formula established for allocating funds among the States for schools and hospitals and for units of local government and public care institutions is designed to reflect the relative need for financial assistance of each State. The population and climate of each State is considered to be the best indicator of need, because these two factors tend to reflect the number of buildings eligible for assistance and the level of energy use within such buildings, respectively. Total energy use of the eligible institutions within any State is expected to be approximately in direct proportion to the product of these factors. Bureau of Census estimates were used as the basis for all population data. Population-weighted State averages for heating and cooling degree days, as determined by the National Oceanic and Atmospheric Administration, were used to indicate climate. Although heating and cooling degree days do not precisely reflect the different energy requirements of buildings, they are the only indicators of climate currently available on a population-weighted basis for all States. DOE is examining possible alternatives to the use of heating and cooling degree days in response to comments concerning the formula. These alternatives will not be available for use in computing State allocations during the first grant program cycle. If an alternative measure of climate is developed which more precisely reflects actual energy use and the potential for energy conservation, the allocation

formula established by these rules will be appropriately amended at that time.

Fuel cost is used in the allocation formula to reflect the special needs of those regions where the price of energy is somewhat higher than the national average. And, finally, a portion of the available funds is allocated equally among all States in order to reflect the minimum requirements necessary to participate in the program and to assure that no State (except the District of Columbia and the eligible territories) receive less than 0.5 percent of the total amounts appropriated, as required by section 398 of EPCA.

A number of comments stated that the formula for allocating funds among States was incorrect and that the allocation factors given in Table 4 of the proposed regulation could not be

derived with the data and formula given. The regulations have been changed to clarify the factors in the allocation formula. The denominator of the fuel cost factor is the summation of the fuel cost numerators of all States. The denominator of the population-climate factor is the summation of the population-climate numerators of all States. In addition, there were several errors in the climate data given in Table 3 of the proposed regulation. The correct data for fuel cost, population and climate are set forth below in Tables 1, 2 and 3, respectively. New allocation factors appear in Table 4, and the allocation of funds among States for local government and public care buildings and for schools and hospitals for the first grant program cycle are given in Table 5.

Table 1.—Oil Import Price: 15.32

[Demand Region Average Retail Price Summary in 1978 \$/Million Btu's]

Sector (fuel)	Demand regions										Total
	Nw.-Eng.	N.Y./N.J.	Mid-Atl.	S.-Atl.	Midwest	S.-West	Central	N.-Cntrl.	West	N.-West	
Residential	5.11	5.66	6.14	7.87	4.56	5.20	4.41	4.10	5.59	4.82	5.39
(Elect.)	13.31	15.91	13.89	11.05	12.00	11.87	12.70	9.68	12.66	5.83	11.71
(Dist.)	3.89	3.97	4.16	4.23	3.79	3.90	3.89	3.87	3.85	3.85	3.83
(LG)	3.90	4.01	4.32	4.32	3.99	3.97	3.91	4.07	3.94	3.94	4.04
(Coal)	2.07	1.95	1.84	1.97	1.75	1.83	1.68	1.37	1.75	1.78	1.82
(NG)	4.53	4.13	3.58	3.15	3.11	2.39	2.11	2.28	3.35	3.65	3.09
Commercial	4.78	6.45	6.45	6.85	5.15	6.02	6.05	5.28	6.85	4.22	5.85
(Elect.)	13.22	17.69	13.31	11.18	11.98	11.26	12.43	8.80	11.71	5.81	12.01
(Dist.)	3.64	3.71	3.76	3.76	3.60	3.64	3.51	3.64	3.56	3.56	3.66
(Resid.)	2.87	2.98	3.27	2.90	3.12	2.97	3.10	3.01	2.92	2.85	2.99
(LG)	3.27	3.27	3.27	3.27	3.49	3.27	3.48	3.47	3.27	3.27	3.38
(Coal)	2.07	1.95	1.84	1.97	1.75	1.83	1.68	1.37	1.75	1.78	1.82
(Asphalt)	3.18	3.18	3.18	3.17	3.20	3.13	3.15	3.19	3.07	3.07	3.15
(NG)	3.86	3.53	3.11	2.63	2.78	2.46	3.46	3.13	2.83	3.05	2.94
Raw material ¹	3.43	3.35	3.18	2.92	3.25	3.27	3.28	3.20	3.08	2.92	3.22
(LG)	3.61	3.61	3.61	3.58	3.59	3.54	3.52	3.56	3.44	3.44	3.54
(Oil)	3.16	3.18	3.18	3.17	3.20	3.13	3.15	3.19	3.07	3.07	3.15
(NG)	3.29	2.83	2.69	2.19	2.44	2.16	3.10	2.65	2.44	2.37	2.33
Industrial ²	4.86	4.54	3.92	4.98	3.88	2.98	4.79	3.18	3.85	3.28	3.79
(Elect.)	10.07	9.47	10.07	9.40	9.37	9.57	10.55	7.30	9.96	3.56	9.29
(Dist.)	3.64	3.69	3.86	3.85	3.60	3.63	3.50	3.68	3.56	3.56	3.67
(Resid.)	2.92	3.06	3.19	2.87	3.10	2.96	3.07	2.96	2.92	2.97	2.99
(LG)	3.66	3.74	3.95	3.96	3.82	3.70	3.76	3.85	3.69	3.69	3.79
(Coal)	2.07	1.95	1.84	1.97	1.75	1.83	1.68	1.37	1.75	1.78	1.78
(Met Coal) ³	2.18	2.08	1.97	2.10	2.02	2.12	1.95	2.21	2.53	2.70	2.03
(Naphtha)	3.61	3.61	3.61	3.58	3.59	3.54	3.52	3.56	3.44	3.44	3.56
(NG)	3.29	2.83	2.69	2.24	2.44	2.16	3.10	2.65	2.44	2.37	2.31
Transportation	5.74	5.79	5.67	5.63	5.67	5.22	5.52	5.49	5.38	5.42	5.55
(Elect.)	12.44	14.25	12.35	10.33	10.81	10.64	11.74	8.59	11.37	4.96	13.22
(Dist.)	4.79	4.84	5.00	4.99	4.75	4.77	4.65	4.82	4.71	4.71	4.82
(Resid.)	2.92	3.06	3.19	2.87	3.10	2.96	3.07	2.96	2.92	2.97	2.99
(LG)	3.27	3.27	3.27	3.27	3.49	3.27	3.48	3.47	3.27	3.27	3.31
(Gasoline)	6.05	6.27	6.03	5.94	5.96	5.73	5.83	5.87	6.01	6.02	5.96
(Jet Fuel)	4.12	4.23	4.49	4.54	4.05	4.16	3.93	4.16	4.10	4.10	4.22
Average price	5.16	5.62	5.08	5.76	4.67	3.83	5.01	4.40	5.11	4.42	4.82

¹ Liquid gas in the raw material sector includes liquid gas feedstock.

² Met Coal includes 70% premium coal and 30% bituminous low sulfur coal.

³ Industrial sector here does not include refineries.

Source: Energy Information Administration. Prepared for the Administrator's Annual Report, 1977 (1986 Series C projections).

Table 2

State	Population (in thousands)
Alabama	3,685
Alaska	392
Arizona	2,270
Arkansas	2,109
California	21,520
Colorado	2,583
Connecticut	3,117
Delaware	582
Dist. of Columbia	702
Florida	8,421
Georgia	4,970
Hawaii	887
Idaho	831
Illinois	11,229
Indiana	5,302
Iowa	2,870
Kansas	2,310
Kentucky	3,428
Louisiana	3,841
Maine	1,070
Maryland	4,144
Massachusetts	5,809
Michigan	9,104
Minnesota	3,965
Mississippi	2,354
Missouri	4,778
Montana	753
Nebraska	1,553
Nevada	610
New Hampshire	822
New Jersey	7,336
New Mexico	1,168
New York	18,084
North Carolina	5,469
North Dakota	843
Ohio	10,690
Oklahoma	2,766
Oregon	2,329
Pennsylvania	11,862
Rhode Island	927
South Carolina	2,848
South Dakota	886
Tennessee	4,214
Texas	12,487
Utah	1,228
Vermont	476
Virginia	5,032
Washington	3,612
West Virginia	1,821
Wisconsin	4,609
Wyoming	390
American Samoa	28
Guam	100
Puerto Rico	2,951
Virgin Islands	63
U.S. total	217,820

Table 3

State	Heating degree days	Cooling degree days
Alabama	2,695	1,999
Alaska	12,012	8
Arizona	2,298	2,824
Arkansas	3,214	1,892
California	2,728	669
Colorado	7,004	338
Connecticut	8,130	507
Delaware	4,780	1,021
Dist. of Columbia	4,750	1,415
Florida	704	3,388
Georgia	2,684	1,859
Hawaii	0	3,528
Idaho	6,917	415
Illinois	8,058	950
Indiana	5,713	952
Iowa	8,834	876
Kansas	4,900	1,543
Kentucky	4,414	1,254
Louisiana	1,701	2,636
Maine	8,002	222
Maryland	4,782	1,015
Massachusetts	6,232	467
Michigan	8,739	593

Table 3—Continued

State	Heating degree days	Cooling degree days
Minnesota	8,729	473
Mississippi	2,411	2,223
Missouri	5,024	1,332
Montana	8,292	239
Nebraska	6,347	1,099
Nevada	4,370	1,500
New Hampshire	7,535	297
New Jersey	5,470	877
New Mexico	4,766	972
New York	5,899	677
North Carolina	3,392	1,454
North Dakota	9,484	421
Ohio	5,779	797
Oklahoma	3,508	2,003
Oregon	5,254	183
Pennsylvania	5,755	723
Rhode Island	5,924	445
South Carolina	2,697	1,885
South Dakota	7,681	801

Table 3—Continued

State	Heating degree days	Cooling degree days
Tennessee	3,801	1,458
Texas	2,015	2,669
Utah	6,580	630
Vermont	7,873	293
Virginia	4,268	1,113
Washington	5,752	171
West Virginia	5,108	849
Wisconsin	7,531	541
Wyoming	7,896	328
American Samoa	0	5,325
Guam	0	5,011
Puerto Rico	0	4,907
Virgin Islands	0	0
U.S. Total	270,449	77,290

Table 4

State	0.07/n + 0.1(Sic)/Nto + 0.83(SP)(SC)/(NPC) = Allocation Factor			
Alabama	.0013	.0021	.0112	.0148
Alaska	.0013	.0016	.0030	.0059
Arizona	.0013	.0019	.0073	.0104
Arkansas	.0013	.0014	.0070	.0087
California	.0013	.0019	.0478	.0507
Colorado	.0013	.0016	.0123	.0152
Connecticut	.0013	.0019	.0135	.0166
Delaware	.0013	.0019	.0022	.0053
Dist. of Columbia	.0013	.0019	.0028	.0080
Florida	.0013	.0021	.0223	.0257
Georgia	.0013	.0021	.0147	.0181
Hawaii	.0013	.0019	.0020	.0052
Idaho	.0013	.0016	.0040	.0068
Illinois	.0013	.0017	.0512	.0542
Indiana	.0013	.0017	.0230	.0280
Iowa	.0013	.0018	.0144	.0175
Kansas	.0013	.0018	.0097	.0128
Kentucky	.0013	.0021	.0128	.0160
Louisiana	.0013	.0014	.0108	.0135
Maine	.0013	.0019	.0057	.0089
Maryland	.0013	.0019	.0158	.0188
Massachusetts	.0013	.0019	.0253	.0285
Michigan	.0013	.0017	.0434	.0464
Minnesota	.0013	.0017	.0237	.0287
Mississippi	.0013	.0021	.0071	.0105
Missouri	.0013	.0016	.0198	.0229
Montana	.0013	.0016	.0042	.0071
Nebraska	.0013	.0018	.0075	.0108
Nevada	.0013	.0019	.0023	.0055
New Hampshire	.0013	.0019	.0042	.0074
New Jersey	.0013	.0021	.0303	.0336
New Mexico	.0013	.0014	.0044	.0070
New York	.0013	.0021	.0774	.0807
North Carolina	.0013	.0021	.0172	.0208
North Dakota	.0013	.0016	.0041	.0070
Ohio	.0013	.0017	.0457	.0487
Oklahoma	.0013	.0014	.0099	.0128
Oregon	.0013	.0016	.0083	.0112
Pennsylvania	.0013	.0019	.0500	.0531
Rhode Island	.0013	.0019	.0038	.0070
South Carolina	.0013	.0021	.0085	.0119
South Dakota	.0013	.0016	.0038	.0067
Tennessee	.0013	.0021	.0144	.0178
Texas	.0013	.0014	.0381	.0407
Utah	.0013	.0016	.0058	.0087
Vermont	.0013	.0019	.0025	.0057
Virginia	.0013	.0019	.0177	.0208
Washington	.0013	.0016	.0139	.0168
West Virginia	.0013	.0019	.0071	.0102
Wisconsin	.0013	.0017	.0242	.0272
Wyoming	.0013	.0016	.0021	.0050
American Samoa	.0013	.0019	.0001	.0032
Guam	.0013	.0019	.0003	.0035
Puerto Rico	.0013	.0021	.0004	.0128
Virgin Islands	.0013	.0021	.0003	.0038
U.S. Total	.0700	.1000	.8300	1.0000

Table 5

State	Allocation Factor	Schools & Hospitals	Units of Local Government & Public Care Institutions
Alabama	.0146	\$2,625,825	\$255,269
Alaska	.0059	1,059,528	103,010
Arizona	.0104	1,878,158	182,404
Arkansas	.0097	1,744,085	169,582
California	.0507	9,130,947	887,731
Colorado	.0152	2,741,280	266,513
Connecticut	.0168	2,994,044	291,088
Delaware	.0053	980,830	93,414
Dist. of Columbia	.0060	1,072,309	104,252
Florida	.0257	4,627,242	449,971
Georgia	.0181	3,255,298	316,487
Hawaii	.0052	833,898	90,796
Idaho	.0069	1,235,391	120,107
Illinois	.0542	9,756,588	948,557
Indiana	.0260	4,677,807	454,787
Iowa	.0175	3,152,824	306,525
Kansas	.0128	2,304,189	224,018
Kentucky	.0160	2,886,435	280,626
Louisiana	.0135	2,434,027	236,642
Maine	.0089	1,601,455	155,697
Maryland	.0188	3,379,453	328,558
Massachusetts	.0285	5,129,224	498,675
Michigan	.0464	8,357,619	812,546
Minnesota	.0267	4,812,300	467,863
Mississippi	.0105	1,888,195	183,575
Missouri	.0229	4,118,238	400,384
Montana	.0071	1,272,936	123,748
Nebraska	.0108	1,915,307	188,210
Nevada	.0058	986,773	95,836
New Hampshire	.0074	1,324,786	128,799
New Jersey	.0236	6,055,463	588,728
New Mexico	.0070	1,267,891	123,248
New York	.0807	14,531,860	1,412,820
North Carolina	.0206	3,714,978	361,178
North Dakota	.0070	1,266,401	123,122
Ohio	.0487	8,773,118	852,942
Oklahoma	.0128	2,268,269	220,526
Oregon	.0112	2,007,741	195,197
Pennsylvania	.0531	9,586,916	930,117
Rhode Island	.0070	1,262,250	122,719
South Carolina	.0119	2,159,013	207,960
South Dakota	.0067	1,201,941	118,855
Tennessee	.0178	3,208,416	311,735
Texas	.0407	7,334,243	713,051
Utah	.0087	1,567,500	151,424
Vermont	.0057	1,025,988	99,747
Virginia	.0208	3,747,870	364,376
Washington	.0168	3,027,009	294,370
West Virginia	.0102	1,836,072	178,507
Wisconsin	.0272	4,896,400	478,039
Wyoming	.0050	895,907	87,102
American Samoa	.0032	584,782	56,854
Guam	.0035	628,017	60,863
Puerto Rico	.0128	2,297,382	223,357
Virgin Islands	.0038	653,639	63,568
U.S. Total	1.0000	180,000,100	17,499,950

¹ Allocations are subject to availability of funds.

Several comments expressed doubt as to whether the formula set forth in § 455.101, allocating appropriations among the States, conformed to the requirements of sections 398 and 400H of EPCA. The formula fully complies with the requirements of the law. Pursuant to section 400H of EPCA, the Secretary must allocate grants for units

of local government and public care institutions among the States based upon the population and climate of each State and such other factors as the Secretary deems appropriate. The Secretary must also assure that the funds appropriated for grants to schools and hospitals are allocated among the States on the basis of a formula to be

prescribed by rule in accordance with the provisions of section 398 of EPCA. Since population and climate factors are to be the principal basis for allocating funds for schools and hospitals, as well as for units of local government and public care institutions, DOE has determined that it is equitable and appropriate to use the same formula for allocating among the States all funds appropriated under Title III for technical assistance programs and energy conservation measures. In conformity with the requirements of section 398 of EPCA, 10 percent of the amounts available will be allocated taking into account energy costs. Another 80 percent of the amounts available will be allocated taking into account the population and climate of each State. DOE has decided to allocate the remaining 10 percent of the available funds so that 7 percent will be divided equally among all States and the remaining 3 percent will be allocated on the basis of population and climate, bringing the total percentage allocated on the basis of population and climate to the 83 percent figure set forth in § 455.101. This formula is used to assure that no eligible State receives less than 0.5 percent of the funds allocated among the States.

The additional requirement to allocate 10 percent of the total available for schools and hospitals determined to be in a class of severe hardship (for additional financial assistance in excess of the 50 percent Federal share, up to 90 percent of the costs of technical assistance programs and energy conservation measures) is satisfied by the requirement that each State reserve 10 percent of its allocation for schools and hospitals each year to provide this additional financial assistance.

State and Grantee Reporting Requirements

Sections 455.63 and 455.73 have been revised in the final regulation to include the requirement that States and grantees which have received financial assistance for energy conservation measures submit regular reports on energy use. These reports are intended to indicate the energy use reductions

that have been realized as a result of energy conservation maintenance and operating procedures and energy conservation measures. This requirement was added to insure that the States and DOE have available accurate information on the actual energy savings resulting from these programs. Further, these reports will encourage participating institutions to establish sound, ongoing energy management practices. An essential ingredient of any effective energy management program is the monitoring of actual energy use levels. These practices are expected to provide significant long-term benefits to institutions in maintaining efficient operations. Grantees will submit reports annually to the States. The States will summarize the reports submitted by the grantees and report the results to DOE in an annual report. Data and information contained in the reports prepared by the grantees will be collected and maintained on a monthly basis or for a period consistent with the billing cycle associated with the relevant fuel type. This reporting requirement will apply for three years or for the life of these programs, whichever is shorter.

Comments DOE Could Not Incorporate

DOE received many comments in response to the notice of proposed rulemaking which suggested revisions to the regulation which the Department was unable to incorporate in the final regulation. These comments included suggestions to: eliminate the matching funds requirement; fund energy conservation measures for units of local government and public care institutions; permit the funding of administrative buildings owned by local education agencies; alter or eliminate the requirement for conformity with the provisions of the Davis-Bacon Act; fund technical assistance programs and energy conservation measures commenced prior to November 9, 1978; eliminate the requirement that funds not obligated be reallocated in the next grant program cycle; and permit units of local government and public care institutions to qualify for hardship funding. Each of these comments proposes a revision to a specific requirement of NECPA. Thus, DOE could not and did not incorporate these comments in this regulation.

V. Additional Information

Environmental Assessment

DOE prepared an environmental assessment of the entire Title III NECPA

programs. Notice of the public availability of that environmental assessment, together with the negative determination of environmental impact reached pursuant to an evaluation of the environmental assessment, was published in the Federal Register on March 12, 1979 (44 FR 13554). The negative determination concluded that the programs established by Title III of NECPA did not constitute major Federal actions significantly affecting the quality of the human environment pursuant to Section 102(2)(C) of the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 *et seq.*). No material comments were received during the public comment period. Consequently, DOE has finalized, and will act in accordance with, that negative determination.

Regulatory Analysis and Effective Date

The proposed regulation was reviewed in accordance with Executive Order 12044, 43 FR 12661, and was determined to be a "significant regulation" likely to have a "major impact." The proposed regulation was also reviewed in accordance with OMB Circular A-116 and was determined to be a major policy and program initiative.

In consideration of the rapid depletion of the Nation's nonrenewable energy resources and the short-term statutory deadline for issuance of regulations implementing NECPA Title III programs, the Under Secretary of DOE has determined that it is contrary to the public interest to delay issuance of this regulation for preparation of a regulatory analysis and an urban and community impact analysis. However, DOE is in the process of preparing such analyses which will be made available for public review and comment within 90 days of the publication of this regulation. Based on the findings of these analyses and any comments received following public review, DOE may propose appropriate amendments to this regulation.

Also, for the reasons just noted, good cause exists to make this regulation effective upon publication, rather than 30 days thereafter as would otherwise be required under the Administrative Procedure Act. In consideration of the foregoing, Part 455 of Chapter II, Title 10 of the Code of Federal Regulations is amended by adding new Subparts C through I, as set forth below. This amendment shall be effective April 17, 1979.

Issued in Washington, D.C., April 6, 1979.

Omi G. Waldea,
Assistant Secretary, Conservation and Solar Applications,
Department of Energy.

10 CFR Part 455 is amended by establishing new Subparts C, D, E, F, G, H and I as follows:

Subpart C—Technical Assistance Programs for Schools, Hospitals, Units of Local Government, and Public Care Institutions

- Sec.
455.40 Purpose and scope.
455.41 Eligibility.
455.42 Contents of program.

Subpart D—Energy Conservation Measures for Schools and Hospitals

- 455.50 Purpose and scope.
455.51 Eligibility.
455.52 Contents of program.

Subpart E—Applicant Responsibilities

- 455.60 Grant application submittals.
455.61 Applicant certifications.
455.62 Grant applications for State administrative expenses.
455.63 Grantee records and reports.

Subpart F—State Responsibilities

- 455.70 State evaluation of grant applications.
455.71 State ranking of grant applications.
455.72 Forwarding of applications.
455.73 State duties.

Subpart G—Grant Awards

- 455.80 Approval of grant applications.
455.81 Grant awards for units of local government and public care institutions.
455.82 Grant awards for schools and hospitals.
455.83 Grant awards for State administrative expenses.

Subpart H—State Plan Development and Approval

- 455.90 Contents of State plan.
455.91 Submission and approval of State plans.
455.92 State plans developed by the Secretary.

Subpart I—Allocation of Appropriations Among the States

- 455.100 Allocation of funds.
455.101 Allocation formulas.
455.102 Reallocation of funds.

Authority: Title III of the National Energy Conservation Policy Act, Pub. L. 95-619, 92 Stat. 3206 *et seq.*, which establishes Parts C and H of Title III of the Energy Policy and Conservation Act, Pub. L. 94-163, 42 U.S.C. 6321 *et seq.*; Section 385(e)(2), 42 U.S.C. 6325(e)(2), of the Energy Conservation and Production Act, Pub. L. 94-385, 42 U.S.C. 3801 *et seq.*; Department of Energy Organization Act, Pub. L. 95-91, 42 U.S.C. 7101 *et seq.*

Subpart C—Technical Assistance Programs for Schools, Hospitals, Units of Local Government, and Public Care Institutions

§ 455.40 Purpose and scope.

This subpart specifies what constitutes a technical assistance program eligible for financial assistance under this part, and sets forth the eligibility criteria for schools, hospitals, units of local government and public care institutions to receive grants for technical assistance to be performed in buildings owned by such institutions.

§ 455.41 Eligibility.

To be eligible to receive financial assistance for a technical assistance program, an applicant must—

- (a) Be a school, hospital, unit of local government or public care institution, all as defined in § 455.2, or a coordinating agency representing a group of eligible institutions and which has been granted authority by the institutions to act in their behalf;
- (b) Be located in a State which has an approved State Plan as described in Subpart H of this part;
- (c) Have conducted an energy audit or its equivalent, as determined by the State in accordance with the State Plan, for the building for which financial assistance is to be requested, subsequent to the most recent construction, reconfiguration or utilization change which significantly modified energy use within the building;
- (d) Give assurance that it has implemented all energy conservation maintenance and operating procedures identified as a result of the energy audit, or provide a satisfactory written justification for not implementing any specific maintenance and operating procedures so identified; and,
- (e) Submit an application in accordance with the provisions of this part and the approved State Plan.

§ 455.42 Contents of program.

(a) A technical assistance program shall be conducted by a qualified technical assistance analyst, who shall consider all possible energy conservation measures for a building, including solar or other renewable resource measures. A technical assistance program shall include a detailed engineering analysis to identify the estimated costs of, and the energy and cost savings likely to be realized from, implementing each identified energy conservation maintenance and operating procedure. A technical assistance program shall also identify the estimated cost of, and the energy

and cost savings likely to be realized from, acquiring and installing each energy conservation measure, including solar and other renewable resource measures, that indicate a significant potential for saving energy based upon the technical assistance analyst's initial consideration.

(b) At the conclusion of a technical assistance program, the technical assistance analyst shall prepare a final report which shall include—

- (1) A description of building characteristics and energy data including—
 - (i) The results of the preliminary energy audit and energy audit (or its equivalent) of the building;
 - (ii) The operating characteristics of energy using systems; and
 - (iii) The estimated remaining useful life of the building;
- (2) An analysis of the estimated energy consumption of the building, by fuel type (in total Btu's and Btu/sq. ft./yr), at optimum efficiency (assuming implementation of all energy conservation maintenance and operating procedures);
- (3) An evaluation of the building's potential for solar conversion, particularly for water heating systems;
- (4) A listing of any known local zoning ordinances and building codes which may restrict the installation of solar systems;
- (5) A description and analysis of all recommendations, if any, for acquisition and installation of energy conservation measures, including solar and other renewable resource measures, setting forth—
 - (i) A description of each recommended energy conservation measure;
 - (ii) An estimate of the cost of design, acquisition and installation of each energy conservation measure;
 - (iii) An estimate of the useful life of each energy conservation measure;
 - (iv) An estimate of increases or decreases in maintenance and operating costs that would result from each energy conservation measure, if any;
 - (v) An estimate of the salvage value or disposal cost of each energy conservation measure at the end of its useful life, if any;
 - (vi) An estimate of the annual energy and energy cost savings (using current energy prices) expected from the acquisition and installation of each energy conservation measure. In calculating the potential energy cost savings of each recommended energy conservation measure, including solar or other renewable resource measure, technical assistance analysts shall—

(A) Assume that all energy savings obtained from energy conservation maintenance and operating procedures have been realized;

(B) Calculate the total energy and energy cost savings, by fuel type, expected to result from the acquisition and installation of all recommended energy conservation measures, taking into account the interaction among the various measures; and,

(C) Calculate that portion of the total energy and energy cost savings, as determined in (B) above, attributable to each individual energy conservation measure.

(vii) The simple payback period of each recommended energy conservation measure, taking into account the interactions among the various measures. The simple payback period is calculated by dividing the estimated total cost of the measure, as determined pursuant to § 455.42(b)(5)(ii), by the estimated annual cost saving accruing from the measure, as determined pursuant to § 455.42(b)(5)(vi). For the purposes of ranking applications, the simple payback period shall be calculated using the cost savings resulting from energy savings only, determined on the basis of current energy prices. The estimated cost of the measure shall be the total cost for design and other professional services (excluding costs of a technical assistance program), if any, and acquisition and installation costs. Other economic analyses, such as life-cycle costing, which consider all costs and cost savings, such as maintenance costs and/or savings, resulting from an energy conservation measure, are recommended, but not required, for use by the institution in its decision-making process;

(6) A listing of energy use and cost data for each fuel type used for the prior 12-month period.

(7) A signed and dated certification that the technical assistance program has been conducted in accordance with the requirements of this section and the grant application and that the data presented is accurate to the best of the technical assistance analyst's knowledge.

Subpart D—Energy Conservation Measures for Schools and Hospitals

§ 455.50 Purpose and scope.

This subpart specifies what constitutes an energy conservation measure that may receive financial assistance under this part and sets forth the eligibility criteria for schools and hospitals to receive grants for energy

conservation measures, including solar and other renewable resource measures.

§ 455.51 Eligibility.

(a) To be eligible to receive financial assistance for an energy conservation measure, including solar or other renewable resource measure, an applicant must—

(1) Be a school or hospital, or both as defined in § 455.2, or a coordinating agency which represents groups of eligible institutions and which has been granted authority by the institutions to act in their behalf;

(2) Be located in a State which has an approved State Plan as described in Subpart H of this part;

(3) Have completed a technical assistance program or its equivalent, as determined by the State in accordance with the State Plan, for the building for which financial assistance is to be requested, subsequent to the most recent construction, reconfiguration or utilization change to the building which significantly modified energy use within the building;

(4) Have implemented all energy conservation maintenance and operating procedures which are identified as the result of an energy audit and a technical assistance program, or have provided a satisfactory written justification for not implementing any specific maintenance and operating procedures so identified;

(5) Have no plan or intention at the time of application to close or otherwise dispose of the building for which financial assistance is to be requested within the simple payback period of any energy conservation measure recommended for that building; and

(6) Submit an application in accordance with the provisions of this part and the approved State Plan.

(b) To be eligible for financial assistance, the simple payback period of each energy conservation measure for which financial assistance is requested shall not be less than 1 year nor greater than 15 years, and the estimated useful life of the measure shall be greater than its simple payback period.

§ 455.52 Contents of program.

The programs to be funded under this part will be for the design, acquisition and installation of energy conservation measures to reduce energy consumption or measures to allow the use of solar or other alternative energy resources for schools and hospitals. Such measures include, but are not necessarily limited to—

(a) Insulation, which resists heat transfer from the mechanical systems to

the surrounding space, for bare pipes, water heaters, hot water storage tanks, chilled water piping, ductwork and other uninsulated mechanical equipment carrying an above or below ambient temperature fluid;

(b) Roof insulation, which resists heat transfer through the roof;

(c) Ceiling insulation, installed either above or below the ceiling, which resists heat transfer through the ceiling;

(d) Wall insulation, which resists heat transfer through the wall;

(e) Floor insulation, which resists heat transfer through the floor;

(f) Storm windows, which are an additional window, normally installed to the exterior, but which may be installed to the interior of the primary or ordinary window, to increase resistance to heat transfer, and to decrease air infiltration through the window assembly;

(g) Storm doors, which are an extra door installed to the exterior of an exterior door, but also may be installed as part of the entrance vestibule, to decrease heat transfer and air infiltration through the building entrance ways;

(h) Multiglazed window or door systems, which are a single glass unit consisting of multiple layers of glass separated by a hermetically sealed air space, which provide greater resistance to heat transfer;

(i) Reduction in glass area (in other than south-facing glazing systems) through use of methods such as bricking and insulated paneling which decreases heat transfer and air infiltration;

(j) Heat absorbing or heat reflective glazed and coated window and door systems, which are specially treated, coated or laminated glazing systems to absorb or reflect solar heat;

(k) Caulking, which is placed in joints of buildings or window or door systems to prevent the passage of air and moisture through the building envelope;

(l) Weatherstripping, which consists of strips of flexible material placed over, under, or in movable joints of windows and doors to reduce the passage of air and moisture;

(m) Automatic energy control systems, such as mixed air temperature reset devices; cooling coil discharge temperature reset devices; hot deck temperature reset devices; economizer controls; enthalpy controls; night setback thermostats; time clocks to start/stop selected heating, ventilating and air conditioning systems, refrigeration equipment, hot water generators, and associated pumps and fans; thermostatic radiator valves, and central computer control systems, which

adjust the supply of heating, cooling, and ventilation to meet space conditioning requirements;

(n) Equipment required to operate or convert to variable energy supply, including—

(1) Automatic ventilating systems to turnoff or vary the consumption of energy systems to deliver no more energy than required at any operating point;

(2) Constant volume air distribution systems altered to variable air flow systems by the addition of variable air flow boxes, fan volume control dampers and related climatic controls; or

(3) Water spray coils for adiabatic cooling during appropriate weather conditions;

(o) Passive solar systems, such as direct gain glazing systems, mass (trombe) wall systems, thermal pond systems, and thermosyphon systems, which utilize elements of the building to collect, store and distribute solar energy for heating and/or cooling, and in which heat flow is by natural means (conduction, convection, radiation or evaporation);

(p) Solar space heating or cooling systems, which consist of solar collectors, and associated thermal storage, heat exchangers, pumps, fans, controls, piping and ducting;

(q) solar electric generating systems, which consist of photovoltaic solar collectors and associated electric storage and controls, or concentrating solar collectors and generating equipment, or wind energy conversion systems;

(r) Solar domestic hot water heating systems, which consist of solar collectors, and associated thermal storage, heat exchangers, pumps, controls and piping, for systems such as domestic hot water, laundry, kitchen, and boiler water makeup;

(s) Furnace or utility plant modifications, which consist of the installation of equipment to achieve reduction in fuel consumption, or to convert to renewable energy sources or coal, including—

(1) Replacement burners, furnaces, boilers, or any combination thereof, which are designed to substantially reduce the amount of fuel consumed as a result of increased combustion efficiency;

(2) Electrical or mechanical furnace ignition systems which eliminate continuous energy use;

(3) Devices for modifying flue openings, such as dampers and heat exchangers, which increase the efficiency of the total heating systems;

(4) Automatic combustion control systems, which improve burner operating performance to reduce consumption of fuel during full- and part-load operation;

(5) Devices, such as turbulators and flow restrictors, for modifying the capacity of boilers or hot water units to reduce oversized equipment to a proper size (after the other building modifications) and to increase the full and part-load efficiency of the primary equipment; and

(6) Equipment required to convert oil-fired and gas-fired units to alternative energy sources, including coal;

(t) Lighting fixture modifications and associated rewiring, which reduce the watts per square foot required for illumination through use of such measures as lamp sources of higher efficiency, or use of non-uniform task lighting design. Lighting fixture modifications that increase the general illumination level of a facility shall not be eligible for funding unless the increase is necessary to conform to any applicable State or local building code;

(u) Energy recovery systems which reduce energy used in heating and cooling systems by—

(1) Direct recycling of uncontaminated air, which has been conditioned, to an adjacent area for heating, cooling or ventilation makeup air;

(2) Exhaust air heat recovery to preheat outside air supply with heat recovery devices such as rotary air wheels, plate heat exchangers, non-regenerative heat-pipe devices, and run-around loop systems; or

(3) Purifying with charcoal or other mediums and recycling exhaust air from toilet areas, dining rooms, and lounges, and other building areas;

(v) Cogeneration systems which produce steam, heat, or other forms of energy as well as electricity for use primarily within a building or complex of buildings and which meet such fuel efficiency requirements as may be prescribed or approved by DOE and which may be new heat recovery equipment added to existing electrical generation systems;

(w) Any otherwise eligible energy conservation measure that involves leased equipment, which will save a substantial amount of energy. Only the costs of installation and connection of such leased equipment are eligible for financial assistance under this program. For purposes of ranking, pursuant to § 455.71(b)(1), a building for which a leased measure has been proposed, the simple payback period shall be determined by dividing the total installation and connection costs by the

result of subtracting the average annual recurring lease costs from the projected average annual energy cost saving;

(x) Any other measures an energy audit or a technical assistance report shows, to the satisfaction of the Secretary, will save a substantial amount of energy. Such measures must be specifically identified in the grant application, and a complete description of the measure, together with calculations and other technical data supporting the projected cost and energy savings must be included in the application.

Subpart E—Applicant Responsibilities

§ 455.60 Grant application submittals.

(a) Each eligible applicant desiring to receive financed assistance shall file an application in accordance with the provisions of this subpart and the approved State Plan of the State in which such building is located. The application, which may be amended in accordance with applicable State procedures at any time prior to the State's final determination thereon, shall be filed with the State energy agency designated in the State Plan.

(b) Applications from schools, hospitals, units of local government, public care institutions and coordinating agencies for financial assistance for technical assistance programs shall include—

(1) The applicant's name and mailing address;

(2) A written statement certifying that the applicant is eligible under § 455.41;

(3) The results of the preliminary energy audit and energy audit (or its equivalent) for each building for which financial assistance is requested;

(4) A project budget, by building, which stipulates the intended use of all Federal and non-Federal funds, and identifies the sources and amounts of non-Federal funds, including in-kind contributions (limited to the goods and services described in OMB Circular A-102, "Uniform Administrative Requirements for Grants-in-Aid to State and Local Governments", which are directly related to the project and do not include funds derived from revenue sharing or other Federal sources), to be used to meet the cost-sharing requirements described in Subpart G of this part;

(5) A brief description, by building, of the proposed technical assistance program, including a schedule, with appropriate milestone dates, for completing the technical assistance program; and

(6) Additional information required by the applicable State Plan, and any other information which the applicant desires to have considered, such as information to support an application from a school or hospital for financial assistance in excess of the 50 percent Federal share on the basis of severe hardship.

(c) Applications from schools or hospitals and coordinating agencies for financial assistance for energy conservation measures, including solar and other renewable resource measures, shall include—

(1) The applicant's name and mailing address;

(2) A written statement certifying that the applicant is eligible under § 455.51;

(3) Identification of each building pursuant to 10 CFR 450.42(a) (1) through (5) for which financial assistance is requested, including—

(i) Name or other identification of each building and its address;

(ii) Building category;

(iii) Description of functional use;

(iv) Ownership; and

(v) Size of building expressed in gross square feet.

(4) A project budget, by building, which stipulates the intended use of all Federal and non-Federal funds, and identifies the sources and amounts of non-Federal funds, including in-kind contributions (limited to the goods and services described in OMB Circular A-102, "Uniform Requirements for Grants-in-Aid to State and Local Governments", which are directly related to the project and do not include funds derived from revenue sharing or other Federal sources), to be used to meet the cost-sharing requirements described in Subpart G of this part;

(5) A schedule, including appropriate milestone dates, for the completion of the design, acquisition and installation of the proposed energy conservation measures for each building;

(6) A list, by building, of the specific energy conservation measures proposed for funding, indicating the cost of each measure, the estimated energy and energy cost savings of each measure, the projected simple payback period for each measure, computed in accordance with the methodology described in § 455.42(b)(5)(vii) or § 455.52(w); as the case may be, and the average simple payback period for all measures proposed for the building. The average simple payback period of all measures proposed shall be determined by dividing the total estimated cost by the total projected annual cost saving (from energy savings only);

(7) A technical assistance report, completed since the most recent

construction, reconfiguration or utilization change to the building which significantly modified energy use, for each building;

(8) If the applicant is aware of any adverse environmental impact which may arise from adoption of any energy conservation measure, an analysis of that impact and the applicant's plan to minimize or avoid such impact; and

(9) Additional information required by the applicable State Plan, and any additional information which the applicant desires to have considered, such as information to support an application for financial assistance in excess of the 50 percent Federal share on the basis of severe hardship.

(d) Financial assistance for units of local government and public care institutions will be provided only for buildings which are owned and primarily occupied by offices or agencies of a unit of local government or public care institution and which are not intended for seasonal use and not utilized primarily as a school or hospital eligible for assistance under this program.

(e) Financial assistance provided to a school which is a local education agency as defined in § 455.2 must not be used for a technical assistance program or acquisition or installation of any energy conservation measure in any building of such agency which is used principally for administration.

§ 455.61 Applicant Certifications.

Applications for financial assistance for technical assistance programs and energy conservation measures, including solar and other renewable resource measures, shall include a signed statement that the applicant—

(a) Has satisfied the requirements set forth in § 455.60;

(b) Will expend granted funds for the purpose stated in the application and in compliance with the requirements of this part and the applicable approved State Plan;

(c) Has implemented all energy conservation maintenance and operating procedures recommended as a result of the energy audit and, for applications for energy conservation measures, those recommended in the report obtained under a technical assistance program. If any such procedure has not been implemented, the application shall contain a satisfactory written justification for not implementing that procedure;

(d) Will obtain from the technical assistance analyst, before the analyst performs any work in connection with a technical assistance program or energy

conservation measure, a signed statement certifying that the technical assistance analyst has no conflicting financial interests and is otherwise qualified to perform the duties of a technical assistance analyst in accordance with the standards and criteria established in the approved State Plan;

(e) Will not enter into any contract relating to an energy conservation measure, which requires or may require expenditure of more than \$5,000 (excluding technical assistance costs), that does not conform to the provisions of the Davis-Bacon Act (40 U.S.C. section 276a to 276a-5) pertaining to minimum wages for construction in the applicant's locality; and

(f) Will comply with all reporting requirements contained in § 455.63.

§ 455.62 Grant Applications For State Administrative Expenses.

(a) Each State desiring to receive grants to help defray State administrative expenses shall file applications therefor in accordance with the provisions of this section. Each State may apply for an amount not exceeding 2 percent of its total allocation for technical assistance and energy conservation measures during the initial grant program cycle to the Secretary at any time after the State forwards its State Plan to the Secretary for approval; or, for subsequent grant program cycles, any time after notice by DOE of the amounts allocated to each State for that grant program cycle. In addition, each State after it makes the submittal to DOE required under § 455.72 may apply for a further grant not exceeding 5 percent of the total of all grant awards for technical assistance and energy conservation measures within that State in that grant program cycle, less any amounts previously awarded the State for administrative expenses in the same grant program cycle.

(b) Applications for financial assistance to defray State administrative expenses shall include—

(1) The name and address of the person designated by the State to be responsible for the State's functions under this part; and

(2) An itemized budget, which stipulates the intended use of all Federal and non-Federal funds, for only those State administrative expenses listed in § 455.63(b), and which identifies the sources and amounts of the required matching non-Federal funds, including in-kind contributions (limited to the goods and services described in OMB Circular A-102, "Uniform Requirements for Grants-in-aid to State and Local

Governments", which are directly related to the project and do not include funds derived from revenue sharing or other Federal sources), to be used to meet the cost-sharing requirements described in Subpart G of this part.

§ 455.63 Grantee Records and Reports.

(a) Each State, school, hospital, unit of local government, public care institution and coordinating agency which receives a grant for a technical assistance program, energy conservation measure, including solar and other renewable resource measure, or State administrative expenses shall keep all the records required by § 455.4.

(b) By the end of January and July of each year each grantee shall, until the grantee's program has been concluded, submit a report to the State which shall detail and discuss—

(1) Milestones accomplished, those not accomplished, status of in-progress activities, problems encountered, and remedial actions, if any, planned; and

(2) Financial status reports completed in accordance with the documents listed in § 455.3. Financial status reports must be submitted simultaneously to both the State and the Secretary.

(c) Within 90 days of concluding a technical assistance program or installation of funded energy conservation measures, including solar and other renewable resource measures, the grantee shall submit a final report to the State and a summary thereof to the Secretary which shall detail and discuss, as applicable—

(1) A summary of all work accomplished;

(2) Problems encountered;

(3) Final financial reports completed in accordance with the documents listed in § 455.3;

(4) For a completed technical assistance program—

(i) The technical assistance report; and

(ii) A recommended plan to implement energy conservation maintenance and operating procedures, and plans to acquire and install energy conservation measures, including solar and other renewable resource measures;

(5) For completed energy conservation measures including solar and other renewable resource measures—

(i) A listing and description of energy conservation measures acquired and installed;

(ii) A final projected simple payback period, computed in accordance with § 455.42, for each building specifying and utilizing the actual costs for each measure and all the measures, taken as a whole; and

(iii) A statement that the completed modifications (material, equipment and installation) conform to the report on the technical assistance program and the approved grant application.

(d) Grantees shall keep all records required by this section for a minimum of three years after completion of the technical assistance program or energy conservation measure for which the grant was awarded.

(e) Grantees shall submit annual reports to the State covering each year of the three-year period following installation of an energy conservation measure or measures, or for the life of the program, whichever is shorter. Such annual reports shall identify each building and shall provide data on the actual energy use of that building for the preceding 12-month period. Energy use shall be presented on a monthly or quarterly, as well as an annual basis, consistent with the energy billing cycle for the building. Annual reports shall be submitted within 60 days of the close of each 12-month period.

Subpart F—State Responsibilities

§ 455.70 State Evaluation of Grant Applications.

(a) If an application received by a State is reviewed and evaluated by that State and determined to be in compliance with Subparts C, D and E of this part, § 455.70(b), any additional requirements of the approved State Plan, State environmental laws, and other applicable laws and regulations, then such application will be eligible for financial assistance.

(b) Concurrently with its evaluation and ranking of grant applications pursuant to § 455.71, the State will forward each application for a school or hospital to the State school facilities agency or the State hospital facilities agency, as the case may be, for review and certification that each school application is consistent with related State programs for educational facilities, and each hospital application is consistent with State health plans under sections 1524(c)(2) and 1603 of the Public Health Service Act (42 U.S.C. 300m-3 and 300o-2, respectively), and that each has been coordinated through the review mechanisms under section 1523 of the Public Health Service Act (42 U.S.C. 300m-2) and section 1122 of the Social Security Act. No application from a school or hospital shall be eligible for funding until such certification has been issued.

§ 455.71 State Ranking of Grant Applications.

All eligible applications received by the State will be ranked by the State on an individual building-by-building basis.

(a) For technical assistance programs, buildings shall be ranked in descending priority based upon the energy conservation potential of the building as determined from an energy audit (or its equivalent) in accordance with the procedures established in the State Plan and one or more of the methods indicated in 10 CFR 450.43(c). In the case of buildings having equivalent energy conservation potential, preference shall be given to those buildings which have completed an energy audit without the use of Federal funds.

(1) Each State shall develop separate rankings for all buildings covered by eligible applications for—

(i) Technical assistance programs for units of local governments and public care institutions, and

(ii) Technical assistance programs for schools and hospitals.

(2) Within each ranking for technical assistance, a State shall indicate the amount of financial assistance requested by the applicant for each eligible building and, for those buildings with the highest ranking within the limits of the State's allocation, the amount recommended for funding. If the amount recommended is less than the amount requested by the applicant, the list shall also indicate the reason for that recommendation.

(b) For energy conservation measures, including solar or other renewable energy resource, buildings shall be ranked in descending priority. Several buildings may be ranked as a single building if the application proposes a single energy conservation measure which directly involves all of the buildings. States shall indicate the amount of financial assistance requested by the applicant for each eligible building and, for those buildings with the highest ranking within the limits of the State's allocation, the amount recommended for funding. If the amount recommended is less than the amount requested by the applicant, the list shall also indicate the reason for that recommendation. Buildings shall be ranked in accordance with the procedures established by the State Plan, on the basis of the information developed during a technical assistance program (or its equivalent) for the building and the criteria for ranking applications, which are listed below in the descending order in which weights for each criterion are to be applied by the State—

(1) The average simple payback period of all energy conservation measures proposed for the building, determined by dividing the total estimated cost by the total projected annual energy cost savings;

(2) The type(s) of energy source(s) to which conversion is proposed (with weighting adjustments directly proportional to the ratio of the annual energy cost savings of the conversion measure to the total annual energy cost savings of all measures proposed for a given building), including in descending priority—

(i) Renewable; and

(ii) Coal;

(3) The type(s) and quantity(s) of energy to be saved (with weighting adjustments directly proportional to the ratio of the annual energy savings of each measure to the total annual energy savings of all measures proposed for a given building), including, in descending priority—

(i) Oil;

(ii) Natural gas; and

(iii) Electricity;

(4) Climate within the State; and

(5) Other factors as determined by the State.

(c) Within the rankings of school and hospital buildings for technical assistance and energy conservation measures, including solar or other renewable resource measures, a State shall assure that—

(1) Schools receive not more than 70 percent of the total funds allocated for schools and hospitals to the State in any grant program cycle; and

(2) Hospitals receive not more than 70 percent of the total funds allocated for schools and hospitals to the State in any grant program cycle.

(d) To the extent provided in § 455.82(c), additional financial assistance will be available for schools and hospitals experiencing severe hardship based upon an applicant's long-term need or inability to provide the 50 percent non-Federal share. This additional financial assistance will be available only to the extent necessary to enable such institutions to participate in the program.

(1) Funding for this additional financial assistance will be taken from the funds reserved for grants in excess of 50 percent of the total costs of the technical assistance programs and energy conservation measures.

(2) Applications for Federal funding in excess of 50 percent based on claims of severe hardship shall be given an additional evaluation by the State to assess on a quantifiable basis, to the maximum extent practicable, the

relative need among eligible institutions. The minimum amount of additional Federal funding necessary for the applicant to participate in the program will be determined by the State in accordance with the procedures established in the State Plan and will be based upon one or more of the following—

(i) The ratio of the cost of the proposed technical assistance programs or energy conservation measures to the institution's total annual budget;

(ii) The borrowing capacity of the institution;

(iii) The average unemployment rate for the institution's locality at the time the application is submitted;

(iv) The ratio of the amount expended annually by the institution for energy to the institution's total annual operating budget;

(v) The median annual family income of the institution's locality; and

(vi) Other special conditions of the institution or its locality as determined by the State.

(3) A State shall indicate, for those schools and hospitals with the highest rankings, determined pursuant to paragraphs (a) and (b) of this section—

(i) The amount of additional hardship funding requested by each eligible applicant for each building determined to be in a class of severe hardship, and

(ii) The amount of hardship funding recommended by the State based upon relative need as determined in accordance with the State Plan, to the limit of the hardship funds available.

(e) A State is exempt from the ranking requirements of this section when—

(1) The total amount requested by all applications for schools and hospitals for technical assistance and energy conservation measures in a given grant program cycle for grants up to 50 percent is less than or equal to the funds available to the State for such grants and the total amount recommended for hardship funding is less than or equal to the amounts available to the State for such grants.

(2) The total amount requested by all applications for buildings owned by units of local government and public care institutions in a given grant program cycle is less than or equal to the total amount allocated to the State for technical assistance program grants in the State.

§ 455.72 Forwarding of Applications.

Each State shall forward to the Secretary once each grant program cycle each listing of buildings covered by eligible applications for schools and hospitals or for units of local

government and public care institutions, and ranked by the State pursuant to the provisions of § 455.71.

§ 455.73 State Duties.

(a) Each State shall be responsible for—

(1) Consulting with eligible institutions and coordinating agencies representing such institutions in the development of its State Plan;

(2) Notifying eligible institutions and coordinating agencies of the content of the approved State Plan;

(3) Notifying each applicant, prior to submittal of applications to the Secretary, how the applicant's building ranked among other similar buildings, and whether and to what extent its application will be recommended for funding or, if not to be recommended for funding, the reason therefore;

(4) Certifying that each institution that has submitted an application to be recommended for funding has given its assurance that it is willing and able to participate on the basis of the amounts recommended for that institution in the State ranking pursuant to § 455.71; and

(5) Direct program oversight, monitoring and financial auditing of the activities for which grants are awarded to its institutions to insure compliance with all legal requirements. States shall immediately notify the Secretary of any non-compliance or indication thereof.

(b) Each State shall submit a report to the Secretary, by the close of each February and August following State Plan approval for the duration of the grant program, providing—

(1) A narrative of the program, including objectives accomplished, problems encountered and recommended solutions;

(2) A detailed report on program related financial expenditures by all grantees and by the State;

(3) A summary of the most recent reports received by the State pursuant to § 455.63; and

(4) Such other information as the Secretary may, from time to time, request.

(c) Each State shall include in the August report required by paragraph (b) of this section, an estimate of annual energy use reductions in the State, by energy source, attributable to implementation of energy conservation maintenance and operating procedures and installation of energy conservation measures under this program. Such estimates shall be based upon a sampling of institutions participating in the technical assistance phase of this program and upon the reports submitted to the State pursuant to § 455.63(e).

Subpart G—Grant Awards

§ 455.80 Approval of Grant Applications.

(a) The Secretary shall review and approve applications submitted by a State in accordance with § 455.72 if the Secretary determines that the applications meet the objectives of the Act, and comply with the applicable State Plan and the requirements of this part. The Secretary may disapprove all or any portion of an application to the extent that funds are not available to carry out a program or measure (or portion thereof) contained in the application, or for such other reason as the Secretary may deem appropriate.

(b) The Secretary shall notify a State and the applicant of the final approval or disapproval of an application at the earliest practicable date after the Secretary's receipt of the application, and, in the event of disapproval, shall include a statement of the reasons therefor. An application which has been disapproved may be amended and resubmitted in the same manner as the original application at any time within a grant program cycle.

(c) The Secretary shall award only one grant to an applicant for any single technical assistance program or energy conservation measure for any one building. Financial assistance under this part for any single technical assistance program or energy conservation measure shall not exceed the amount of the initial grant award.

§ 455.81 Grant Awards For Units of Local Government and Public Care Institutions.

(a) The Secretary may make grants to units of local governments, public care institutions and coordinating agencies for up to 50 percent of the costs of performing technical assistance programs for buildings covered by an application approved in accordance with § 455.80.

(b) Total grant awards within any State to units of local government and public care institutions are limited to the funds allocated to each State in accordance with Subpart I of this part.

(c) No grant awarded under this section for a technical assistance program shall include funding for the purchase of any single item of equipment or personal property having an acquisition cost in excess of \$500.

§ 455.82 Grant Awards For Schools and Hospitals.

(a) The Secretary may make grants to schools, hospitals and coordinating agencies for up to 50 percent of the cost of performing technical assistance programs for buildings covered by an

application approved in accordance with § 455.80. Grant awards for technical assistance programs in any State within any grant program cycle shall not exceed—

(1) 30 percent of the amount allocated to a given State from the 1978 fiscal year appropriation for technical assistance programs and energy conservation measures for schools and hospitals;

(2) 15 percent of the amount allocated to a given State from the 1979 fiscal year appropriation for technical assistance programs and energy conservation measures for schools and hospitals;

(3) 5 percent of the 1980 fiscal year appropriation for technical assistance programs and energy conservation measures for schools and hospitals.

(b) The Secretary may make grants to schools, hospitals and coordinating agencies for up to 50 percent of the costs of acquiring and installing energy conservation measures, including solar and other renewable resource measures, for buildings covered by an application approved in accordance with § 455.80.

(c) The Secretary may award 10 percent of the total amount allocated to a State for schools and hospitals for technical assistance programs and energy conservation measures in a given grant program cycle to cover more than 50 percent, but not to exceed 90 percent, of the cost of a technical assistance program or an energy conservation measure. These additional amounts may be awarded to applicants in a class of severe hardship, ascertained by the State in accordance with the State Plan, for buildings recommended by the State pursuant to § 455.71(d)(3), and in amounts determined pursuant to § 455.71(d)(2).

(d) The Secretary shall not award more than 70 percent of the total amount allocated to a State for technical assistance programs and energy conservation measures in a given grant program cycle to either schools or hospitals in that State.

(e) No grant awarded under this section for a technical assistance program shall include funding for the purchase of any single item of equipment or other personal property having an acquisition cost in excess of \$500.

(f) Applicant expenditures for a technical assistance program commenced after November 8, 1978 for a building may be wholly or partially classified in the discretion of the Secretary as matching non-Federal funds for the purposes of matching grants awarded for energy conservation measures.

§ 455.83 Grant Awards For State Administrative Expenses.

(a) For the purpose of defraying State expenses in the administration of technical assistance programs and energy conservation measures, the Secretary may make grant awards to a State—

(1) Immediately following approval of the State Plan, or for subsequent grant program cycles, immediately following public notice of the amounts allocated to a State for the grant program cycle, and upon approval of the grant application for administrative costs, in an amount not exceeding 2 percent of that State's total allocation for a given grant program cycle for technical assistance and energy conservation measures. Grants for such purposes may be made for up to 50 percent of a State's projected administrative expenses, as approved by the Secretary; and

(2) Concurrently with grant awards for approved applications for technical assistance or energy conservation measures for institutions in that State, and upon approval of an application for administrative costs, in an amount not exceeding the difference between the amount granted pursuant to subparagraph (1) of this paragraph and 5 percent of the total amount of grants awarded within the State for technical assistance programs and energy conservation measures in the applicable grant program cycle. Grants for such purposes may be made for up to 50 percent of a State's projected administrative expenses, as approved by the Secretary. The total of all grants for State administrative costs, technical assistance programs and energy conservation measures in that State shall not exceed the total amount allocated for that State for any grant program cycle.

(b) A State's administrative expenses shall be limited to those directly related to administration of technical assistance programs and energy conservation measures including costs associated with—

(1) Personnel, whose time is expended directly in support of such administration;

(2) Supplies, and services, expended directly in support of such administration;

(3) Equipment purchased or acquired solely for, and utilized directly in support of such administration: *Provided*, That no single item of equipment or other personal property costing more than \$300 shall be acquired without the express consent of DOE;

(4) Printing, directly in support of such administration; and

(5) Travel, directly related to such administration.

Subpart H—State Plan Development and Approval

§ 455.90 Contents of State Plan.

Each State shall develop a State Plan for technical assistance programs and energy conservation measures, including solar and other renewable resource measures. The State Plan shall be reviewed and approved by State energy agency. The State Plan shall include—

(a) A statement setting forth the procedures by which the views of eligible institutions or coordinating agencies representing such institutions, or both, were solicited and considered during development of the State Plan;

(b) The procedures the State will follow to notify eligible institutions and coordinating agencies of the content of the approved State Plan;

(c) The procedures for submittal of grant applications to the State;

(d) A description and evaluation of the results of preliminary energy audits (described in Subpart B of this part) which have been conducted in the State including, but not limited to—

(1) In the case of a State which has completed preliminary energy audits of all potentially eligible buildings, a summary of the data gathered pursuant to § 450.42 for all such buildings;

(2) In the case of a State which has completed preliminary energy audits of a sample of all potentially eligible buildings within the State—

(i) Reasonably accurate estimates of the preliminary energy audit data required by 10 CFR 450.42 for all potentially eligible buildings within the State; and

(ii) A plan which describes further actions to be taken to complete preliminary energy audits of all potentially eligible buildings;

(e) The procedures to be used by the State for evaluating and ranking technical assistance and energy conservation measure grant applications pursuant to § 455.71, including the weights assigned to each criterion set forth in § 455.71(b);

(f) The procedures that the State will follow to insure that funds will be allocated equitably among eligible applicants within the State, including procedures to insure that funds will not be allocated on the basis of size or type of institution but rather on the basis of relative need taking into account such factors as cost, energy consumption and energy savings, in accordance with § 445.71;

(g) The procedures that the States will follow for identifying schools and hospitals experiencing severe hardship and for apportioning the funds that are available for schools and hospitals in a class of severe hardship. Such policies and procedures shall be in accordance with § 455.71(d);

(h) A statement setting forth the extent to which, and by which methods, the State will encourage utilization of solar space heating, cooling and electric systems and solar water heating systems;

(i) The procedures to assure that all financial assistance under this part will be expedited in compliance with the requirements of the State Plan, in compliance with the requirements of this part, and in coordination with other State and Federal energy conservation programs;

(j) The procedures to insure implementation and continued use of energy conservation maintenance and operating procedures in those buildings for which financial assistance is awarded under this part;

(k) The procedures designed to insure that financial assistance under this part will be used to supplement, and not to supplant, State, local or other funds;

(l) The procedures for determining that energy audits performed without the use of Federal funds have been performed in substantial compliance with the requirements of 10 CFR Part 450 for the purposes of satisfying the eligibility requirements contained in § 455.41(c);

(m) The procedures for establishment of, and adherence to, milestones for accomplishment of technical assistance programs and energy conservation measures receiving financial assistance under this part;

(n) The procedures for determining that technical assistance programs performed without the use of Federal funds have been performed in compliance with the requirements of § 455.42, for the purposes of satisfying the eligibility requirements contained in § 455.51(a)(3).

(o) The procedures for State management, financial audit, monitoring and evaluation of technical assistance programs and energy conservation measures receiving financial assistance under this part;

(p) A description of the State's program for establishing and insuring compliance with qualifications for technical assistance analysts. Such policies shall require that technical assistance analysts—

(1) Have experience in energy conservation and be a registered

professional engineer licensed under the regulatory authority of the State;

(2) Be an architect-engineer team, the principal members of which are licensed under the regulatory authority of the State; or

(3) Be otherwise qualified in accordance with such criteria as the State may prescribe in its State Plan to insure that individuals conducting technical assistance programs possess the appropriate training and experience in building energy systems. Such policies shall also require that technical assistance analysts be free from financial interests which may conflict with the proper performance of their duties; and

(q) The procedures for apportionment of funds among eligible institutions within the State. As a minimum, such policies and procedures shall assure a separate priority ranking pursuant to the provisions of § 455.71 for each building covered by an application approved pursuant to the provisions of § 455.70 for—

(1) Technical assistance programs for units of local government and public care institutions;

(2) Technical assistance programs for schools and hospitals; and

(3) Energy conservation measures, including solar and other renewable resource measures, for schools and hospitals.

§ 455.91 Submission and Approval of State Plans.

(a) Proposed State Plans shall be submitted to the Secretary within 120 days of the effective date of this subpart unless the Secretary, upon request and for good cause shown, grants an extension of time.

(b) The Secretary shall, within 60 days of receipt of a proposed State Plan, review each Plan and, if it is found to conform to the requirements of this part, approve the State Plan. If the Secretary does not disapprove a State Plan within the 60-day period, the Secretary will be deemed to have approved the State Plan.

(c) If the Secretary determines that a proposed State Plan fails to comply with the requirements of this part, the Secretary shall return the Plan to the State with a statement setting forth the reasons for disapproval. With the written consent of the Secretary, the State may submit a new or amended Plan at any time.

§ 455.92 State Plans Developed by the Secretary.

(a) If a State Plan has not been approved by February 7, 1981, or within

90 days after completion of the preliminary energy audits, whichever is later, the Secretary may develop and implement a State Plan on behalf of the schools and hospitals in the State.

(b) Subsequent to the development of a State Plan by the Secretary, the State may submit its own State Plan and the Secretary shall approve or disapprove such plan within 60 days after receipt by the Secretary. If the proposed plan meets the requirements of this part, and is not inconsistent with any plan developed and implemented by the Secretary, the Secretary shall approve the State Plan which shall automatically replace the Plan developed by the Secretary.

Subpart I—Allocation of Appropriations Among the States.

§ 455.100 Allocation of Funds.

(a) The Secretary will allocate available funds among the States for the purpose of awarding grants to schools, hospitals, units of local government, and public care institutions and coordinating agencies to implement technical assistance and energy conservation measures grant programs in accordance with this part.

(b) By notice published in the Federal Register, the Secretary shall notify each State of the total amount allocated for grants within the State for any grant program cycle.

(c) By notice published in the Federal Register, the Secretary shall notify each State of the period for which funds allocated for a grant program cycle will be reserved for grants within the State.

(d) Each State shall apportion ten percent of its allocation for schools and hospitals in each grant program cycle to provide additional financial assistance, in excess of the 50 percent Federal share but not to exceed 90 percent, for technical assistance programs and energy conservation measures for schools and hospitals determined to be in a class of severe hardship. Such determinations shall be made in accordance with § 455.71(d).

§ 455.101 Allocation Formulas.

(a) Financial assistance for conducting technical assistance programs for units of local government and public care institutions shall be allocated among the States by multiplying the sum available by the allocation factor set forth in paragraph (c) of this section.

(b) Financial assistance for conducting technical assistance programs and acquiring and installing energy conservation measures, including solar and other renewable resource

measures, for schools and hospitals shall be allocated among the States by multiplying the sum available by the allocation factor set forth in paragraph (c) of this section.

(c) The allocation factor (K) shall be determined by the formula—

$$K = \frac{0.07}{n} + 0.1 \frac{(Sfc)}{(Nfc)} + 0.83 \frac{(SP)(SC)}{(NPC)}$$

where, as determined by DOE—

(1) Sfc is the average retail cost per million Btu's of energy consumed within the region in which the State is located, as reflected in the 1985, Series C projections prepared for DOE's Energy Information Administration Administrator's Annual Report, 1977;

(2) Nfc is \$271.95, the summation of the Sfc numerators for all States;

(3) n is the total number of eligible States;

(4) SP is the population of the State, as determined from 1978 census estimates, "Current Population Reports", Series P-25, number 003;

(5) SC is the sum of the State's heating and cooling degree days, as determined from National Oceanic and Atmospheric Administration data for the thirty year period, 1941 through 1970;

(6) NPC is 1,277,259,000, the summation of the (SP) (SC) numerators for all States.

(d) Except for the District of Columbia, Puerto Rico, Guam, American Samoa and the Virgin Islands, no allocation available to any State may be less than 0.5 percent of all amounts allocated in any grant program cycle. No State will be allocated more than 10 percent of the funds allocated in any grant program cycle.

§ 455.102 Reallocation of Funds

(a) If a State Plan has not been approved and implemented by a State by the close of the period for which allocated funds are available as set forth in the notice issued by the Secretary pursuant to § 455.100(d), funds allocated to that State for technical assistance and energy conservation measures will be reallocated among all States for the next grant program cycle, if available.

(b) If a State Plan has not been approved by February 7, 1981, or within ninety days after completion of the preliminary energy audits, whichever is later, the Secretary may develop and implement a State Plan on behalf of the schools and hospitals within the State. If

the Secretary does not develop a State Plan for a State, the funds reserved for that grant program cycle for schools and hospitals in that State will be reallocated for the next grant program cycle among all States for schools and hospitals.

(c) If a State does not forward a sufficient number of grant applications to award all the funds allocated for the State in any grant program cycle, the Secretary shall reallocate the funds which remain available among all States for the next grant program cycle.

(d) If a State does not forward a sufficient number of grant applications under the severe hardship provisions set forth in § 455.71(d) to award 10 percent of all of the funds allocated to the State for schools and hospitals in that grant program cycle, the Secretary shall reallocate the remaining hardship funds among all States for the next grant program cycle.

[FR Doc. 79-11033 Filed 4-11-79; 9:33 am]
BILLING CODE 6450-01-M

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy auditing of the accounts.

Furthermore, it is crucial to review the records regularly to identify any discrepancies or errors. Promptly addressing these issues can prevent them from escalating into larger problems. Consistent record-keeping is the foundation of sound financial management.

In addition, the document highlights the benefits of using digital accounting software. Such tools can streamline the recording process, reduce the risk of human error, and provide real-time insights into the financial health of the business. They also facilitate the generation of reports and tax filings.

Overall, the document serves as a comprehensive guide for anyone looking to improve their financial record-keeping practices. By following the outlined steps and utilizing modern technology, individuals and businesses can ensure their financial data is accurate, secure, and easily accessible.

The second section of the document provides a detailed overview of the various types of accounts that should be maintained. These include personal accounts, business accounts, and investment accounts. Each type of account has specific requirements and best practices for record-keeping.

For personal accounts, it is recommended to keep a separate record for each major category of spending, such as groceries, utilities, and entertainment. This helps in budgeting and identifying areas where expenses can be reduced. Regularly reconciling these accounts with bank statements is also essential.

Business accounts require more rigorous record-keeping. All income and expenses must be tracked meticulously, and proper documentation must be maintained for each transaction. This is not only important for tax purposes but also for understanding the overall performance of the business.

Investment accounts should be monitored closely to ensure that the portfolio is aligned with the investor's goals and risk tolerance. Regular reviews and adjustments are necessary to optimize returns and manage risk effectively. Keeping detailed records of all transactions and valuations is crucial for this purpose.

The document also discusses the importance of security in record-keeping. All financial records should be stored in a secure location, either physically or digitally. Regular backups and the use of strong passwords are essential to protect sensitive information from theft or loss.

In conclusion, the document provides a clear and concise framework for effective financial record-keeping. By adhering to these guidelines, individuals and businesses can gain a better understanding of their financial situation and make more informed decisions about their money.

INSTITUTIONAL BUILDINGS GRANTS PROGRAM
COORDINATING COMMITTEE

POLICY GROUP

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INSTITUTIONAL BUILDINGS GRANTS PROGRAM

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Dr. Gordon Brooks, Chairman
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The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both manual data entry and the use of specialized software tools. The goal is to ensure that the data is both accurate and easy to interpret.

The third part of the document provides a detailed breakdown of the results. It shows that there is a clear trend in the data, which suggests that the current strategy is effective. However, there are also some areas where the data is less consistent, and further investigation is needed.

Finally, the document concludes with a set of recommendations for future work. It suggests that the current methods should be refined and that new data sources should be explored. This will help to improve the overall quality and reliability of the information.



Office of Energy Conservation
State of Colorado/Office of the Governor
1600 Downing, Denver, CO 80218, 839-2507, 839-2186

EnergyMemo

Institutional Buildings Grants Program

2

PROGRAM STATUS

Notice of Grant Award for Phase I

On June 2, the Office of Energy Conservation (OEC) submitted Colorado's Application for Grant Award for Phase I of the Institutional Buildings Grants Program. We received approval from the Region VIII Office of the U.S. Department of Energy (DOE) on July 25. The Award includes \$286,815 in Federal matching funds for Schools and Hospitals energy audits, and \$107,556 for Units of Local Governments and Public Care Institutions. The total Award for the State of Colorado is \$394,371. Procedures for submitting applications for grants under this Program will be forthcoming from OEC.

After much research on the part of the OEC staff and guidance from the 28-member Institutional Buildings Grants Program Coordinating Committee, a draft of the State Plan for Phase II of the Program has been prepared and is being circulated for comment. The Plan is the policy document which establishes the procedures by which Phase II of the Program will be administered in Colorado. Based on the policies adopted in this document and approved by DOE, OEC will award, distribute, and monitor grants awards to selected eligible institutional buildings for Technical Assistance (professional energy audits) and Energy Conservation Measures (schools and hospitals only).

The final State Plan will be submitted to DOE in early September. Once submitted, DOE has two months to approve the Plan. In the interim, OEC will distribute an executive summary of the contents of the Plan in a future EnergyMemo.

Energy Auditor Training

OEC issued in July a Request for Proposals (RFP) for conducting energy auditor training sessions under Phase I of the Program. The proposal submitted by Energy Information Associates was chosen from a total of nine received. Energy Information Associates will conduct regional training sessions during September, October, and November. Sites throughout the state will be selected for the sessions. The three-day sessions will enable institutional representatives to develop the necessary skills to perform energy survey and audits on their buildings. A one-day session is offered for professionals in the energy management field to familiarize themselves with this Program's audit requirements. The auditor training sessions will begin in mid-September; dates and locations will be announced in a forthcoming EnergyMemo.

Please recycle paper.

PROGRAM NOTES

Regional Meetings Useful

During June six regional meetings were held throughout the state to introduce the Institutional Buildings Grants Program to representatives of participating institutions and other interested persons. The meetings were well received with more than 175 persons attending. All the meetings were characterized by a keen interest in the requirements and a desire to get the Program started. The dialogue established at these sessions proved to be educational and worthwhile for both the OEC staff and the participants. Questions and concerns raised during the meetings highlighted potential problem areas and provided focal points upon which the staff and Coordinating Committee could concentrate.

Credit for Previously Conducted Technical Assistance Programs

DOE has ruled that institutions which have undertaken professional energy management analysis that satisfy Federal regulations for the Technical Assistance Program (TAP) may be able to use the costs of the TAP equivalent as matching fund credit towards energy conservation measures (ECM). In effect, DOE will reimburse the institutions for one-half the cost of the TAP through an addition to the ECM award. Thus, the Federal share of an ECM would include one-half the cost of the ECM + TAP; the institutions matching requirement is one-half the ECM + TAP cost minus the total TAP cost.

EXAMPLE: An institution completes a TAP on its own at a cost of \$6,000. The institution then decides to apply for ECM's totaling \$60,000. The institution submits an ECM application for \$66,000 (ECM + TAP). The Federal share is \$33,000. The institution's match is \$33,000 - \$6,000 = \$27,000.

Coordinating Committee Formed

A 28 member coordinating committee consisting of representatives from each eligible institutional category, state agencies, and energy management professionals has been formed to guide the development and implementation of Colorado's State Plan for Phase II of the Program. This committee met with OEC staff on July 18th and again on August 1 to establish broad based procedures and criteria for equitable and efficient administration of grant awards. The following sections of the State Plan were the primary areas of concentration: hardship factors, criteria for TAP's and ECM's, general administration, alternative energy encouragement, TAP analyst qualifications; and evaluations of previous energy audits and TAP's. Enclosed is a list of the Committee members.

INSTITUTIONAL BUILDINGS GRANTS PROGRAM
COORDINATING COMMITTEE

Ms. Pat Barbour	Non-parochial private schools
Brother Foster Zibilich	Non-profit parochial schools
Ross Benson	City Representative
Flaven Cerise	County Representative
Bill Christopher	City Representative
Viola Garlington	Nursing Home Representative
John Halfen	Private Hospital Representative
Glen Lein	Child Care Representative
Dr. Donald J. McIntyre	Public Higher Education Representative
George Schiel	Hospital Representative
Kenneth P. Schoonover	Public Schools Representative
Tom Pickens	Public Schools Representative
John Anderson	Architect
Robert Sutherland	Hospital Energy Conservation Specialist
Lynn Wray	Engineer
Jim Buysse	Colorado Commission on Higher Education
George Collins	Department of Administration
John Donor	Colorado Department of Health
Dr. Fred Holmes	Colorado Department of Education
James R. Holt	Department of Institutions
Ralph Karlberg	Colorado Department of Health
Bill Lavance	Department of Social Services
Gary Pon	Department of Labor and Employment
Lorraine Young	Department of Local Affairs
Clarence Britton	School Energy Conservation Specialist
Akira Kawanabe	Solar Architect
Jim McFall	Engineer
Ace Stansberry	Architect

Written comments were received from the following members of the Program Coordinating Committee (see following pages):

1. Bill Christopher, city representative
2. George R. Schiel, hospital representative
3. Kenneth P. Schoonover, public schools representative
4. T. H. Pickens, public schools representative
5. Calvin E. Anderson, public schools representative
6. James D. McFall, engineer
7. Alfred C. Stansberry, architect
8. George Collins, Colorado Department of Administration
9. Jim Buysse, Colorado Commission on Higher Education
10. Patricia A. Barbour, private schools representative

August 28, 1979

Mr. John Lansdown
Coordinator of Schools and Hospitals Grant Program
Office of Energy Conservation
State of Colorado
Denver, Colorado 80218

Dear Mr. Lansdowne:

In reviewing the draft copy of Colorado's State Plan for the Institutional Buildings' Grant Program, my opinion is the plan is comprehensive and should provide a good working tool to accomplish substantial energy conservation.

However, I would recommend that under Section 'P' of the State Plan, the "Qualifications for Technical Assistance Analysts" should either follow the specifications in Department of Energy Rules - 10 CFR, Part 455.90, Sub-Part (P) - 1, 2, and 3, or include more detailed information or explanation of the intent of the four types of qualifying criteria as presently listed.

Sincerely,



Kenneth P. Schoonover
Superintendent of Schools
Arapahoe County School District No. Six
6558 South Acoma Street
Littleton, Colorado 80120
Phone: 795-7007, Ext. 230

KPS/srh

August 28, 1979

Mr. John Lansdowne
Office of Energy Conservation
State of Colorado
1600 Downing Street
Denver, Colorado 80218

Dear John:

I am writing to respond to the draft copy of Colorado's State Plan for the Institutional Buildings Grants Program which you previously distributed to the Committee. I appreciate the opportunity to review and comment on the Plan prior to it being submitted to the Department of Energy.

Overall, I believe the Plan, as drafted, is quite thorough, easy to understand and will, at least in part, achieve the intended goal of reduced consumption of energy. You and your staff are to be complemented on the narratives, explanations and illustrations used in making the Plan easy to read and understand. My only concern and objection relates to the allocation of Federal funds between schools and hospitals which we discussed in depth at the meeting on August 1.

I continue to take exception to the 70%/30% allocation of funds with the lion's share being earmarked for school buildings. I cannot help but believe that this approach is counter productive to the intended National goal reducing energy consumption. Your data is quite obvious that the hospitals consume a much more significant amount of energy as compared to the schools category. You state that "schools cannot compete fairly against hospitals for grant awards based upon criteria based on the Committee." I still do not accept such a statement and, even if this is to be the case, we will have missed the fundamental point if we distribute more funds to schools even though they are not as high an energy consumer. It is unfortunate that the background and political sensitivity of this legislation influences a heavy distribution to the schools over the hospitals which operate twenty-four (24) hours a day, 365 days a year. End of speech!

-continued-

Mr. John Lansdowne
August 28, 1979
Page 2

I cannot help but feel I am in the minority on my position on the allocation of Federal funds to eligible institutions in the State of Colorado. However, the principal and the logic motivate me to put into writing what I had previously stated at the August 1 meeting. Nevertheless, I congratulate you and your staff on a job well done and hope the Department of Energy accept the Plan in a timely fashion so that the next phase of the program can commence.

Sincerely yours,


Bill Christopher
City Manager



Working For Your Health

August 28, 1979

Mr. John Lansdowne
State of Colorado
Office of Energy Conservation
1600 Downing Street
Denver, Colorado 80218

Dear John:

I am responding to your request for comments concerning the State Plan of Colorado for the Institutional Buildings and Grants Program. Because of the very short time allotted for comments, I have limited my comments to those areas of greatest concern and potential inequity.

Of most concern to me is the staff recommendation to allocate grant funds on a fixed formula of 70 percent to schools and 30 percent to hospitals. I feel that this particular decision is arbitrary, has no substantive justification, and is not in the best interest of the schools and hospitals' program.

As you are aware, one of the considerations for allocation of funds is that they should be distributed in a manner which results in the greatest energy savings per dollar. I believe that any artificial allocation of funds which may inhibit producing the greatest energy savings per dollar is contrary to the intent and purpose of P.L. 95-691.

Secondly, as a member of the Institutional Buildings Coordinating Committee which met on August 1, 1979, I recall the conversation in our group as clearly recommending that dollars be allowed to produce the greatest amount of potential savings. At that time individuals representing both schools and hospitals spoke against a fixed formula for percentage allocation.

Finally, I note that the State Plan states that: "...schools could not compete fairly against hospitals for grant awards when evaluation and ranking criteria specified in Section E of this plan is applied." However, I note that Section E differentiates criteria between hospitals and schools so that two different scales are used. It would seem to me that you have already weighted evaluation criteria to take into account the significantly different level of energy use between schools and hospitals. If this has been done correctly, a subjective allocation of funds per the proposed fixed formula is unnecessary.

Mr. John Lansdowne
State of Colorado
Office of Energy Conservation
August 28, 1979
Page 2

Without belaboring the point, I would strongly recommend that the arbitrarily developed 70 percent/schools and 30 percent/hospitals formula be deleted from the State Plan and that funds be applied in that manner which results in the greatest energy savings per dollar spent.

I would also like to comment on the criteria for hospitals in determining hardship criteria for allowance of funds at greater than the 50-50 matching fund ratio. None of the three indicators you have used for hospitals (the ratio of the amount of energy expended annually as a percent of total annual operating budget, the ratio of debt to equity, and the total number of days working capital) are realistic measures for Colorado hospitals.

As an example, the ratio of the amount expended annually by an institution for energy compared to the institution's annual operating budget is not realistic. Upon request of OEC staff, I polled hospitals to determine percentage levels of energy expenditure. As you are aware, hospitals are very labor-intensive and use great amounts of expensive supplies. As a result, energy costs as a percent of total budget is usually relatively low. The data I forwarded to your office shows that the typical hospital has a budget for energy of about 2 percent of its total operating expenditures.

The ratios you use to determine hardship beginning at 3 percent and terminating above 5 percent simply are rare in Colorado hospitals. These should be set lower. I will forward in the near future additional information from other Colorado hospitals about their energy expenditures. This information was received after August 14th so I was unable to forward it to your office. However, it reinforces the fact that this criteria is unrealistic.

The two financial indicators for hardship which you have recommended also will not appropriately identify a hardship situation. Perhaps the easiest way to explain this would be to review this with you personally. However, let me state that the only hospitals with the high ratio of debt to equity which you have proposed would be relatively new hospitals. Older physical plants, which would be more likely candidates for energy funds, would not experience these ratios. Likewise, the statistic of days of working capital is stated well below what would be a hardship situation for a hospital.

I am very hopeful that there is adequate time so that these portions of the State Plan may be changed. I believe that these changes would not only improve the Plan but also would reflect what I determined was the recommendation of the Institutional Buildings Coordinating Committee.

Thank you for the opportunity to comment on this Plan.

Sincerely,


George R. Schiel
Vice President/Shared Services

GRS:ce

cc: Arvid B. Brekke

Colorado Hospital Association, 2140 South Holly, Denver, Colorado 80222 (303) 758-1630

MCFALL - KONKEL & KIMBALL
CONSULTING ENGINEERS, INC.

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JAMES D. MCFALL, EXEC. VP
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ROBERT E. SIDWELL, VP

STUART D. MONICAL, ASSOC.

DENVER, COLORADO 80222
2160 SOUTH CLERMONT ST.
303-753-1260

CHEYENNE, WYOMING 82001
3001 HENDERSON DR., SUITE M
307-634-7647

August 29, 1979

Mr. John Lansdown
Office of Energy Conservation
1600 Downing Street
Denver, Colorado 80218

Dear John:

The following is an acknowledgement of receipt of your letter and enclosure regarding the Institutional Building Grants Program.

I reviewed the documents and have only one comment which is in reference to the conversion factor for electricity at 3,413 BTU as mentioned on page 28. Since a significant amount of Colorado's electricity is generated by the use of other than hydro-electric I think it is still appropriate to acknowledge the inefficiency of thermal conversion. I understand the concern to weight the conservation effort toward natural gas and petroleum products. But, I still feel it is appropriate to acknowledge this feature of energy production. This is not a major issue and probably does not impact the processes being achieved by the document as submitted; just comment for the record.

Very truly yours,



James D. McFall

JDMC/st



September 4, 1979

Mr. John Lansdowne
State of Colorado
Office of Energy Conservation
1600 Downing Street
Denver, Colorado 80218

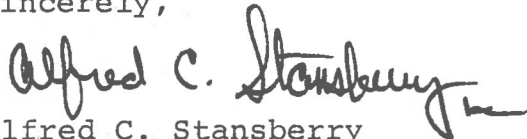
RE: Draft Copy of Colorado's State Plan for the Institutional
Building's Grant Program

Dear John:

Thank you for your letter of August 17, 1979, which accompanied
a copy of the above referenced plan.

After reviewing the figures and other information, I am in
agreement with the allocation of 70% of grant funds for schools
and 30% for hospitals. The overall plan appears to be well-
done, and I feel the Department of Energy (DOE) will approve
the plan.

Sincerely,



Alfred C. Stansberry

ACS/brc



JEFFERSON COUNTY PUBLIC SCHOOLS
809 QUAIL STREET / LAKEWOOD, COLORADO 80215 / (303) 231-2222

OFFICE OF CENTRAL SERVICES

September 4, 1979

Mr. John Lansdowne
Director - Schools/Hospital Program
Colorado Office of Energy Conservation
1600 Downing Street
Denver, Colorado 80218

Dear John:

The recommendation you have made in the proposed State Plan of a 70/30 (schools/hospitals) funding split is an excellent example of common sense. The rationale you have employed with the back-up data vindicates the soundness of your judgment. Not only are the schools an instructional tool which will initiate energy conservation through instruction, they were the originators of this federal project.

If, however, you were to deny all of the appropriate research you have undertaken to support your recommendations, other research would bring to light the extreme amount of federal support already enjoyed by the hospital community (perhaps they would care to share this on a 70/30 ratio with schools). This support already, in part, addresses their energy problems.

Schools are an integral part of every community while hospitals are not. They are watched, analyzed, and enjoyed by all. They can be visible examples of effective energy management!

Respectfully,

A handwritten signature in cursive script, appearing to read "Calvin E. Anderson".

Calvin E. Anderson

CEA/dc



Board of Education
1085 Peoria Street
Aurora, Colorado 80011
Telephone - Office (303) 344-8060

September 5, 1979

Mr. John Lansdowne
Office of Energy Conservation
1600 Downing
Denver, CO 80218

John,

As a member of the Advisory Committee, I have examined the draft of the State Plan for Institutional Buildings Grants Program and find it very well done and would certainly give it my stamp of approval.

The allocation of grant funds on the basis of 70% for schools and 30% for hospitals certainly is indicated when one examines all of the facts objectively. I felt that the school point of view was not too strongly represented on the Committee. I was not a member for the first meeting when the background briefing was given, and Mr. Kenneth Schoonover, another of the public school members, was not present for the second meeting. I failed to see any membership representing public higher education.

An additional point of concern to me regarding the objectivity of the Committee's point of view relative to the allocation of funds came from the personal knowledge that in the matter of the struggle for public tax dollars, the counties and cities tend to be very ardent rivals of the public schools and would generally tend to favor allocation of public funds to agencies other than the public schools.

I feel quite strongly that all objective evidence supports the allocation formula of 70% for schools and 30% for hospitals.

Sincerely,

A handwritten signature in cursive script, appearing to read 'T. H. Pickens', written over a horizontal line.

T. H. Pickens
Treasurer

THP:ej



DEPARTMENT OF ADMINISTRATION

STATE BUILDINGS DIVISION

1525 Sherman Street, Room 617
Denver, Colorado 80203
Phone (303) 839-2626

RICHARD D. LAMM
Governor

LEE WHITE
Executive Director

JACQUES C. BROWNSON
Director

September 6, 1979

M E M O R A N D U M

TO: John Lansdowne
FROM: George Collins *GC*
SUBJECT: Review Comments, State Plan

The following comments are submitted regarding the State Plan Draft dated August 17, 1979.

1. Overall presentation is excellent.
2. Procedures (Page 6) and Timetable (Page 7) clear and concise except for February 1, 1980, the intent is unclear.
3. Page 12, TAP Review:
 - a) If application sent back for revisions, how is December 5, 1979 deadline affected?
 - b) Because of the limited staff and short time span, is it possible to contract initial review for completeness prior to Staff and Committee review? This review would be limited to completeness and not content.
4. Tabulated data on Pages 71 - 82 should be verified. Percentages are in error on Tables IIA, IIB, IIC, IID, IIE, IIF, IIG, IIH, II-I, IIJ. Verify costs for Table IIIF Hospitals, Public Care.

GSC:nw

CC: Jacques Brownson

DEPARTMENT OF HIGHER EDUCATION
COLORADO COMMISSION ON HIGHER EDUCATION



LESTER R. WOODWARD, Chairman
ANNE LAIRD MANVEL, Vice Chairman
JUDY ARMAGAST
A. EDGAR BENTON
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PHILLIP B. GALLEGOS, JR.
REBECCA LOVE KOURLIS
J. TYLER MAKEPEACE
MICHAEL R. MOORE

1550 LINCOLN STREET, ROOM 210
DENVER, COLORADO 80203

TELE: AREA 303
839-2723

August 27, 1979

MEMORANDUM

TO: John Lansdowne, State of Colorado Office of Energy Conservation
FROM: Jim Buysse, Associate Director for Financial Affairs
SUBJECT: Draft State Plan for the Institutional Building Grants Program

I am writing in response to your request for a review of the draft plan for Colorado's Institutional Building Grants Program. To begin, I compliment you and your staff on a very well prepared draft document. Concerning the content, I have no major objections. I hasten to add that my review was based largely upon conversations with Skip Gray and yourself, as I had been unable to attend the August 1 meeting. Thus, I do not enjoy the advantage of hearing and participating in the discussions on the various issues which arose at that time.

One comment, however, which may or may not have been previously addressed, concerns the financial audits. You might wish to consider working with the State Auditor's office regarding grants to State agencies and institutions. Such action might provide more audit activity at the least cost. I do have some concern with items such as number 6 on page 26. A hardship provision is established later for grant matches, but some institutions may not have had sufficient funds to pursue energy conservation measures in the past.

A third concern relates to the data base used in developing recommendations in those areas which were not resolved at the August 1 meeting. A fair amount of reliance is placed thereon; however, to what extent does equipment energy usage skew the data?

In closing, I wish you success with the plan, and I look forward to working with you in the future. If you have any questions concerning my comments, please call on me.

JLB:jg



KENT DENVER
Country Day School

4000 East Quincy Avenue
Englewood,
Colorado 80110
303/770-7660

700 A
SEP 10 1979

September 7, 1979

State of Colorado
Office of Energy Conservation
1600 Downing Street
Denver, Colorado 80218

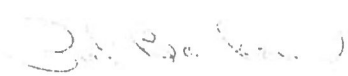
Attention: Mr. John Lansdowne

Dear John:

I am of the opinion that after the initial 30/30 split of allocated funds under the Grants Program for Schools and Hospitals the balance should be divided 30% to hospitals and 70% to schools as proposed in the State Plan.

In my judgment it is this approach that will result in the greatest energy savings per dollar in the long run.

Sincerely,


Patricia A. Barbour
Member, Coordinating Committee





SURVEY: BUILDING ENERGY CONSUMPTION INVENTORY

Office of Energy Conservation

A separate form is needed for each building.

Please answer all questions, and provide only answer(s) requested.

Return completed form as a self-mailer to:

Office of Energy Conservation

1600 Downing, Denver, Colorado 80218 (303) 839-2507, 839-2186

FOR OFFICE USE ONLY

#

REG.

SECTION 1: BUILDING IDENTIFICATION

(Please type or print clearly)

1. BUILDING NAME		2. INSTITUTION NAME	
3. BUILDING ADDRESS (Street, City, County, Zip Code)			
4. CONTACT PERSON		PHONE	
5. NAME OF LEGAL OWNER (If different than #2 above)		ADDRESS OF LEGAL OWNER (Street, City, County, State, Zip Code)	
6. OWNERSHIP CATEGORY (Circle appropriate code of legal owner) 1 Public 2 Private Non-Profit 3 Indian Tribe		7. BUILDING TYPE (Circle one only) 1 School 2 Hospital 3 Public Care Institution 4 Local Government	
8. BUILDING FUNCTION (Circle one only)			
SCHOOL	HOSPITAL	PUBLIC CARE INSTITUTION	LOCAL GOVERNMENT
1 Elementary	7 General	10 Nursing Home	16 Office
2 Secondary	8 Tuberculosis	11 Long Term Care — Other than Nursing Home	17 Storage
3 College or University	9 Other (Specify)	12 Rehabilitation Facility	18 Service
4 Vocational		13 Public Health Center	19 Library
5 Local Educational Agency Administration Building		14 Residential Child Care Center	20 Police Station
6 Other (Specify)		15 Other (Specify)	21 Fire Station
			22 Other (Specify)

SECTION II: MAJOR ENERGY SYSTEMS

(Circle the number(s) that describes each of the following systems and fuels in the building.)

9. PRIMARY HEATING SYSTEM(S) 1 Hot water or steam supplied from central plant 2 Steam boiler 3 Hot water boiler 4 Radiant (baseboard) 5 Heat pump 6 Forced air 7 Solar 8 Other (Specify)	10. HEATING FUEL(S) 1 Electricity 2 Natural gas 3 Fuel oil #2 4 Fuel oil #6 5 Coal 6 LPG (propane) 7 Solar 8 Other (Specify)	11. DOMESTIC HOT WATER SYSTEM(S) (Circle the number that describes how domestic hot water is heated.) 1 Hot water or steam supplied from central plant 2 Electricity 3 Natural gas 4 Fuel oil #2 5 Fuel oil #6 6 Coal 7 LPG (propane) 8 Solar 9 Other (Specify)
12. COOLING SYSTEM(S) 0 None 1 Chilled water supplied from central plant 2 Chilled water — centrifugal 3 Chilled water — absorption 4 Refrigeration — electric compressor — water cooled 5 Refrigeration — electric compressor — air cooled 6 Refrigeration — steam turbine compressor 7 Evaporative cooling unit 8 Other (Specify)	13. COOLING FUEL(S) 0 None 1 Electricity 2 Natural gas 3 Fuel oil #2 4 Fuel oil #6 5 Coal 6 LPG (propane) 7 Solar 8 Other (Specify)	14. TERMINAL SYSTEM(S) 1 Unitary (rooftop, furnace, unit heater, etc.) 2 Perimeter — hot water 3 Perimeter — heated air 4 Variable air volume 5 Dual duct 6 Terminal reheat 7 Heat pump 8 Other (Specify)
15. LIGHTING SYSTEM(S) 1 Fluorescent 2 Incandescent 3 Mercury vapor 4 Metal halide 5 High pressure sodium 6 Low pressure sodium 7 Other (Specify)	16. OTHER ENERGY USING SYSTEM(S) (Circle the number(s) that describe any other energy using systems in the building.) 0 None 1 Food service 2 Laundry service 3 Major computer systems 4 Special diagnostic equipment 5 Swimming pool 6 Other (Specify)	17. HEATING SYSTEM LOCATION (Circle the number(s) that best describes the location of the primary heating system.) 1 Outside the building 2 Within the building on the ground floor 3 Within the building in the basement 4 On the roof 5 Other (Specify) (If the heating system is within the building or on the roof, circle the number from the following list which best describes the type of heating system.) 6 Centrally located 7 Multiple units 8 Central and multiple units

18. DOMESTIC HOT WATER HEATING SYSTEM(S) LOCATION

(Circle the number(s) that best describes the location of the domestic hot water systems.)

- 1 Outside the building
- 2 Within the building on the ground floor
- 3 Within the building in the basement
- 4 On the roof
- 5 Other (Specify)

(If the water heating system is within the building or on the roof, circle the number from the following list which best describes the type of domestic hot water system.)

- 6 Centrally located
- 7 Multiple units
- 8 Central and multiple units

SECTION III: BUILDING CHARACTERISTICS

19. GROSS SQUARE FEET (Enter the square footage of all heated or cooled floor areas enclosed in the building. Calculate square footage from the outside building dimensions, or from the center line of common walls, if building is attached to another building.)

20. NUMBER OF STORIES (Enter the number of stories in this building. Do not count basement, if unoccupied.)

21. LAST MAJOR ADDITION (Enter the year of the last major addition to the building, if any.)

22. YEAR (Enter the year building was first placed into service.)

23. LOCATION (Circle the number which best describes the location of the building.)

- 1 Urban
- 2 Suburban
- 3 Rural

24. FUNCTIONAL USE CHANGES (Circle the number(s) from the following list that describes major changes planned in functional use or mode of operation in the next fifteen (15) years, if any.)

- 0 None
- 1 Demolition
- 2 Disposal
- 3 Rehabilitation
- 4 Conversion (e.g. from office to warehouse) (Specify)

25. ANNUAL OPERATING HOURS (Enter the approximate number of hours and days that the building is normally operated.)

Daily hours of operation	X	Days per week	=	Total hours per week
--------------------------	---	---------------	---	----------------------

WEEKLY NON — OR LIMITED — USE PERIODS (Enter the number of weekly periods of non-use or limited-use by quarter.)

JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	Total # Weeks
---------	---------	---------	---------	---------------

- 5 Other (Specify)

ANNUAL OPERATING HOURS Calculate the total of annual operating hours as follows:

Total hours per week	X	(52 - total # of weeks of non-use or limited-use)	=	Annual Operating Hours
----------------------	---	---	---	------------------------

SECTION IV: BUILDING CHARACTERISTICS WITH SOLAR EMPHASIS

(Circle the number that best describes the following characteristics of the building.)

26. BUILDING SHAPE

- 1 Square
- 2 Rectangular
- 3 E Shaped
- 4 H Shaped
- 5 L Shaped
- 6 Other (Specify)

27. ROOF ANGLE

- 1 Flat roof
- 2 Pitched roof facing south
- 3 Pitched roof not facing south

28. EXTERIOR MATERIAL OF THE SOUTHERN FACING WALL

- 1 Masonry (brick, concrete, stone, stucco, etc.)
- 2 Wood
- 3 Metal
- 4 Other (Specify)

29. ROOF TOP STRUCTURES (Circle the number(s) that best describes any roof top structures.)

- 0 None
- 1 Chimneys
- 2 Space conditioning equipment
- 3 Water tower
- 4 Stair hatch
- 5 Mechanical rooms
- 6 Other permanent structures
- 7 Specify

30. APPROXIMATE PERCENTAGE OF GLASS AREA ON WALL THAT MOST NEARLY FACES SOUTH

- 1 Less than 25%
- 2 25% — 75%
- 3 Over 75%

31. IS MORE THAN HALF THE BUILDINGS' ROOF AREA OR SOUTHERN WALL SURFACE HEAVILY SHADED BY SHRUBS, TREES, BUILDINGS OR OTHER OBSTRUCTIONS FOR MORE THAN FOUR (4) HOURS A DAY?

Circle one: Yes No

32. INDICATE WHETHER OPEN LAND, SUCH AS FIELDS, YARDS AND PARKING AREAS ARE AVAILABLE WITHIN THE IMMEDIATE VICINITY OF THE BUILDING.

Circle one: Yes No

33. PRIMARY STRUCTURAL ROOF COMPONENTS (Circle the number(s) from the following list that describes the structural characteristics of the roof of the building.)

- 1 Steel
- 2 Wood
- 3 Concrete
- 4 Other (Specify)

34. ROOFING MATERIAL (Circle the number(s) that describe the materials used to construct the roof of the building.)

- 1 Shingles (wood, asbestos, etc.)
- 2 Slate or tile
- 3 Built up materials
- 4 Metal
- 5 Other (Specify)

35. BUILDING CONDITIONS (Circle the number that best describes general building conditions. Please include a brief explanation.)

- 1 Excellent
 - 2 Good
 - 3 Fair
 - 4 Poor
- Brief Explanation

36. ENERGY MONITOR (Circle yes if: a person has been designated to monitor and evaluate energy use in the building.)

- 1 Yes
- 2 No

If yes, enter

Name _____

Position _____ Phone _____

SECTION V: ENERGY CONSERVATION ACTIVITIES

37. ENERGY AUDIT INFORMATION (Circle the number that best describes activities which have been undertaken to date to conserve energy in the building, if any.)

- 1 No activities have been undertaken to date
- 2 A partial energy audit has been completed indicating energy conservation opportunities in the building (not performed by an engineer and/or architect)
- 3 A complete energy audit has been completed indicating energy conservation opportunities in the building (not performed by an engineer and/or architect)
- 4 Detailed studies have been completed by engineers and/or architects indicating energy conservation opportunities in the building
- 5 Detailed studies have been completed by engineers and/or architects indicating energy consumption opportunities in the building, including feasibility of renewable resources such as solar

38. PLEASE LIST MAJOR ENERGY CONSERVATION MEASURES WHICH HAVE BEEN IMPLEMENTED IN THE BUILDING, IF ANY.

MEASURE	COST	ANNUAL ENERGY SAVINGS
Example: Additional roof insulation	\$2400	2500 CCF Natural Gas

SECTION VI: COMPLEX

39. COMPLEX (Indicate whether or not this building is part of a complex in which hot water, steam, or chilled water is supplied from a central power plant.)

(Circle One) 1 Yes 2 No

If YES, please complete Section VII only for this building. Annual consumption figures should be calculated for the entire complex and then allocated to this building based on the gross square footage of this building compared to total square footage of all buildings served by the central plant. If NO, continue on to Section VII.

SECTION VII: ANNUAL ENERGY CONSUMPTION

(Information for this section can be obtained by completing the energy consumption worksheet – see instructions on back page)

FUEL TYPE	ANNUAL USE	x	CONVERSION FACTOR	=	ANNUAL BTU	x	ANNUAL COST
1. Electricity	Kwh	x	11,600	=			\$
2. Natural Gas	CCF	x	103,000	=			\$
	Therm.	x	100,000	=			\$
3. Fuel Oil #2	Gal.	x	138,890	=			\$
4. Fuel Oil #6	Gal.	x	149,690	=			\$
5. Coal	Tons	x	24,500,000	=			\$
6. LPG (Propane)	Gal.	x	985,475	=			\$
7. Purchased Steam	Lbs.	x	1,390	=			\$
8. Other (Specify)		x		=			\$
							\$

40. BTU PER GSF (Divide total annual BTU by GSF from #19.)

41. COST PER GSF (Divide total annual cost by GSF from #19.)

42. ELECTRICAL DEMAND DATE (Answer only if your electric utility bills you on a demand rate. Enter the highest measured electrical demand and the month for which it was recorded)

Highest measured demand

Measured in month of

(If you are missing some of your energy bills, contact the billing department of the utilities from which you buy.)

MONTH	ELECTRICITY			NATURAL GAS		FUEL OIL		OTHER	
	KWH	Demand KW if known	Cost	Therms or CCF	Cost	Gallons	Cost	Units	Cost
TOTALS									

INSTRUCTIONS:

1. Assemble all your energy bills — electricity, gas, oil and the like, for the most recent 12-month period possible. If you're missing some of your bills, contact the billing department of the utilities from which you buy and ask them for copies. Many utilities will provide, at no cost, a computer printing of your energy consumption during the previous 12-month or 14-month time period. (Example: Public Service Company offers this service to their electric, natural gas and steam customers.)

2. Record the amount of your monthly energy use and cost on the energy consumption worksheet. Your usage will be expressed on the bill in one of the ways listed below. There are two columns for each of the three major fuels listed below, plus a space for other fuels, if needed.

Fuel	Units
Electricity	Kilowatt hours (KWH)
Natural Gas	Therms (100,000 BTU's) or Cubic Feet x 100 (CCF)
Oil	Gallons (Gal.)
Coal	Tons
LPG (Propane)	Gallons (Gal.)
Purchased Steam	Pounds (Lbs.)

Use the correct unit to express any fuels listed in the other column.

3. Total both energy use and cost for the reporting period for every fuel type consumed and transfer that information to Section VII.

SELF-MAILER: Fold in half, staple and mail as is.

FROM _____



**NO POSTAGE STAMP NECESSARY
POSTAGE HAS BEEN PREPAID**

**OFFICE OF ENERGY CONSERVATION
1600 DOWNING STREET
DENVER, COLORADO 80218**

DATA ON PROGRAM PARTICIPANTS

Groups	Number of Institutions	Number of Buildings	Total GSF
A. Schools			
public schools k-12	156	1,446	56,893,500
non-profit schools k-12	55	180	2,275,500
public higher ed.	23	591	22,268,600
non-profit higher ed.	7	111	3,147,600
vocational	7	26	522,400
totals	248	2,354	85,107,600
B. Hospitals	79	275	13,667,600
C. Public Care Institutions			
nursing homes	18	37	1,330,400
residential child care centers	26	102	915,600
public health centers	9	32	338,000
rehab/long term care	4	106	446,800
totals	57	277	3,030,800
D. Local Governments			
cities and towns	119	823	10,517,000
counties	35	176	3,287,800
Indian tribes	1	9	111,400
totals	155	1,008	13,916,200
E. Totals	539	3,914	115,722,200

Account	Debit	Credit	Balance
101			100.00
102			100.00
103			100.00
104			100.00
105			100.00
106			100.00
107			100.00
108			100.00
109			100.00
110			100.00
111			100.00
112			100.00
113			100.00
114			100.00
115			100.00
116			100.00
117			100.00
118			100.00
119			100.00
120			100.00
121			100.00
122			100.00
123			100.00
124			100.00
125			100.00
126			100.00
127			100.00
128			100.00
129			100.00
130			100.00

Total



PRELIMINARY ENERGY AUDIT SAMPLE

I GENERAL INFORMATION

	Schools	Hospitals	Public Care	Local Government
A. Buildings in Sample	101	15	5	22
B. Ownership Category (%)				
1. public	97	54	60	100
2. private	3	46	40	0
3. indian	0	0	0	0
C. Location (%)				
1. urban	54	73	60	33
2. suburban	28	0	20	17
3. rural	18	27	20	50
D. Total Gross Square Footage	5,646,304	984,300	52,742	1,410,667
E. Average Gross Square Footage	55,904	65,620	10,548	64,121
F. Average Annual Operating Hours	2,586	6,449	5,936	4,305
G. Number of Stories (%)				
1. one	51	45	60	33
2. two	22	9	40	16
3. three	21	0	0	50
4. four	7	18	0	0
5. five	0	18	0	0
6. six	0	9	0	0
7. seven	0	0	0	0
8. eight and over	0	0	0	0
H. Last Major Addition (%)				
1. 1975-79	12	36	0	0
2. 70-74	5	9	10	33
3. 65-69	4	9	10	0
4. 60-64	5	0	0	0
5. 55-59	10	0	0	0
6. 50-54	3	0	0	0
7. 45-49	1	0	0	0
8. 40-44	2	0	0	0
9. pre-1940	1	9	0	0

I. GENERAL INFORMATION

	Schools	Hospitals	Public Care	Local Government
I. First Year of Service (%)				
1. 1975-79	5	0	0	16
2. 70-74	11	9	20	16
3. 65-69	10	9	0	0
4. 60-64	11	18	40	16
5. 55-59	13	9	0	16
6. 50-54	9	18	20	0
7. 45-49	2	0	0	0
8. 40-44	5	0	0	0
9. Pre-1940	30	36	20	33

J. Functional Usage Change (%)

0. none	74	90	80	82
1. demolition	2	0	0	0
2. disposal	4	0	0	0
3. rehabilitation	6	0	20	33
4. conversion	2	0	0	0
5. other	6	0	0	0

K. General Building Conditions (%)

1. excellent	27	27	20	33
2. good	53	64	60	67
3. fair	18	9	20	0
4. poor	2	0	0	0

II. MAJOR ENERGY SYSTEMS

	Schools	Hospitals	Public Care	Local Government
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A. Primary Heating Systems (%)

1. hot water - central system	49	81	60	0
2. steam boiler	33	27	0	17
3. hot water boiler	24	9	40	33
4. radiant	5	0	40	17
5. heat pump	1	0	0	0
6. forced air	22	18	40	33
7. solar	1	0	0	0
8. other	1	0	0	33

B. Heating Fuels (%)

1. electric	1	9	100	100
2. natural gas	93	100	80	100
3. fuel oil #2	17	54	20	17
4. fuel oil #6	8	18	0	6
5. coal	2	27	20	0
6. LPG (propane)	4	0	20	17
7. solar	1	0	0	0
8. other	0	9	0	0

C. Domestic Hot Water (%)

1. hot water/steam - central plant	33	91	0	0
2. electricity	8	9	20	33
3. natural gas	60	0	60	66
4. fuel oil #2	3	0	0	0
5. fuel oil #6	0	0	0	0
6. coal	0	0	0	0

II. MAJOR ENERGY SYSTEMS

	Schools	Hospitals	Public Care	Local Government
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C. Domestic Hot Water (%) (cont.)

7. LPG (propane)	4	0	20	0
8. solar	1	0	0	0
9. other	2	0	0	0

D. Cooling System(s) (%)

0. none	73	18	60	50
1. chilled water-central plant	4	45	0	0
2. chilled water-centrifugal	2	36	0	0
3. chilled water-absorption	3	9	0	0
4. refrigeration-water	4	18	20	0
5. refrigeration-air	11	45	20	17
6. refrigeration-steam	0	0	0	0
7. evaporative	3	27	0	17
8. other	2	0	0	17

E. Cooling Fuels (%)

0. none	73	18	60	0
1. electricity	24	64	40	50
2. natural gas	7	36	0	50
3. fuel oil #2	0	9	0	0
4. fuel oil #6	0	0	0	0
5. coal	0	9	0	0
6. LPG (propane)	0	0	0	0
7. solar	0	0	0	0
8. other	1	0	0	0

II. MAJOR ENERGY SYSTEMS

	Schools	Hospitals	Public Care	Local Government
<u>F. Terminal Systems (%)</u>				
1. unitary	25	54	20	0
2. perimeter-hot water	29	45	40	33
3. perimeter-air	10	18	20	0
4. variable air volume	4	18	20	17
5. dual duct	5	27	0	0
6. terminal reheat	1	18	0	0
7. heat pump	1	0	0	17
8. other	29	9	0	17

G. Lighting Systems (%)

1. fluorescent	97	100	100	100
2. incandescent	42	64	60	33
3. mercury vapor	7	0	20	0
4. metal halide	3	0	0	0
5. high pressure sodium	0	0	0	0
6. low pressure sodium	0	0	0	0
7. other	0	0	0	0

H. Other Energy Using Systems (%)

0. none	30	9	0	66
1. food service	65	64	100	0
2. laundry service	0	18	0	17
3. major computer systems	0	27	0	0
4. special diagnostic equipment	0	36	20	0

II. MAJOR ENERGY SYSTEMS

	Schools	Hospitals	Public Care	Local Government
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H. Other Energy Using Systems (%)

5. swimming pool	4	18	0	0
6. other	5	36	20	0

I. Heating System Location (%)

1. outside building	15	36	20	0
2. within bldg. - ground floor	28	9	40	33
3. within bldg. - basement	51	45	40	50
4. rooftop	12	27	0	17
5. other	6	9	20	0
6. centrally located in building	30	18	40	50
7. multiple units in building	15	27	0	50
8. central and multiple units in building	5	9	20	0

J. Domestic Hot Water System Location (%)

1. outside building	3	18	0	0
2. within bldg. - ground floor	37	27	60	17
3. within bldg. - basement	53	27	40	50
4. roof	0	0	0	0
5. other	4	9	0	0
6. centrally located in building	17	0	0	17
7. multiple units in building	5	0	0	0
8. central and multiple units in building	3	0	0	0

III. CONSUMPTION INFORMATION

	Schools	Hospitals	Public Care	Local Government
A. Total Annual BTU Usage in Sample (x10 ¹⁰)	108.07	50.85	1.90	113.22
B. Average Annual BTU Usage/Building (x10 ¹⁰)	1.07	3.39	0.38	5.15
C. Average Annual BTU Usage/GSF/Building	178,589	417,128	305,155	302,413
D. Average Annual BTU Usage/GSF/Bldg./Op.Hr.	82.67	104.81	90.66	84.26
E. Total Annual Energy Cost in Sample	\$2,252,401	\$826,395	\$40,210	\$928,618
F. Average Annual Energy Cost per Building	\$22,301	\$55,093	\$8,042	\$42,209
G. Average Annual Energy Cost/GSF/Building	37¢	79¢	59¢	66¢
H. Average Annual Energy Cost/GSF/Bldg./Op.Hr.	0.0176¢	0.0184¢	0.0177¢	0.0198¢
I. Average Highest Measured Electric Demand (KWH)	644	1894	512	629

IV. CHARACTERISTIC AFFECTING SOLAR UTILIZATION

	Schools	Hospitals	Public Care	Local Government
A. Building Shape (%)				
1. square	9	0	17	0
2. rectangle	43	64	83	83
3. E-shaped	4	18	0	0
4. H-shaped	5	18	0	0
5. L-shaped	16	18	17	0
6. other	24	18	0	17
B. Roof Angle (%)				
1. flat roof	71	100	60	66
2. pitched roof not facing south	21	0	20	33
3. pitched roof facing south	9	0	20	17
C. Exterior Material on Southern Wall (%)				
1. masonry or concrete	94	100	80	100
2. wood	5	0	20	0
3. metal	3	0	20	17
4. other	1	0	0	0
D. Roof Top Structures (%)				
0. none	33	36	40	17
1. chimneys	48	46	20	33
2. space conditioning	23	27	0	17
3. water tower	3	0	0	0
4. stair access	4	0	20	0
5. mechanical room	6	18	0	17

IV. CHARACTERISTICS AFFECTING SOLAR UTILIZATION

	Schools	Hospitals	Public Care	Local Government
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D. Roof Top Structures (%)

6. other structures	4	18	0	66
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E. Percentage of Glass Facing South (%)

1. less than 25%	69	54	60	66
2. 25% to 75%	32	46	40	33
3. 75% and over	1	0	0	0

F. Four or More Hours of Half-shaded Roof Surface (%)

1. yes	11	0	0	17
2. no	88	100	100	83

G. Open Land Within Immediate Vicinity of the Building (%)

1. yes	95	82	100	100
2. no	7	18	0	0

H. Primary Structural Roof Components (%)

1. steel	41	64	20	50
2. wood	49	9	60	50
3. concrete	28	91	20	17
4. other	3	0	0	0

IV. CHARACTERISTICS AFFECTING SOLAR UTILIZATION	Schools	Hospitals	Public Care	Local Government
I. <u>Roofing Material (%)</u>				
1. shingles	17	0	40	33
2. slate	8	0	0	0
3. built-up	74	100	60	17
4. metal	4	0	0	33
5. other	5	0	0	17

V. ENERGY CONSERVATION ACTIVITIES

	Schools	Hospitals	Public Care	Local Government
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A. Energy Monitor Appointed (%)

1. yes	57	54	80	17
2. no	43	46	20	83

B. Energy Audit Information (%)

1. no activities undertaken	51	54	60	67
2. partial energy audit	34	27	40	33
3. complete energy audit	9	0	0	0
4. detailed engineering study	5	9	0	0
5. feasibility study with renewable resource study	0	0	0	0

C. Implementation of Conservation Activities (%)

1. yes	34	27	20	17
2. no	66	73	80	83



CLIMATIC FACTORS AND ASSIGNED CLIMATIC SCORES
FOR COLORADO CITIES AND TOWNS

CITY OR TOWN	ELEVATION FEET	HEATING DEGREE DAYS	COOLING DEGREE DAYS	HEATING DEGREE DAYS & COOLING DEGREE DAYS	CLIMATIC SCORE
Akron	4663	6625	679	7304	11.80
Alamosa Air.	7536	8609	88	8697	14.05
Aspen	7928	8948	22	8970	14.49
Bailey	7733	8236	31	8267	13.36
Boulder	5445	5540	842	6382	10.31
Buena Vista	7954	7715	83	7798	8.95
Burlington	4165	5738	878	6616	10.68
Byers	5200	6192	662	6854	11.07
Canon City	5343	4660	917	5577	9.01
Cedaredge	6180	6242	493	6735	10.88
Center	7683	8494	60	8554	13.82
Cheesman	6875	7019	178	7197	11.63
Cheyenne Wells	4250	5860	899	6759	10.92
Colo. Nat. Mon.	5280	5753	1086	6839	11.05
Colo. Springs Air.	6145	6473	461	6934	11.20
Cortez	6177	6239	465	6704	10.83
Craig	6285	8376	152	8528	13.77
Crested Butte	8855	10654	0	10654	17.21
Del Norte	7884	7984	38	8022	12.96
Delta	5055	5903	678	6581	10.63
Denver Airport	5283	6016	625	6641	10.72
Denver City	5221	5505	742	6247	10.09
Dillon	9065	10854	0	10854	17.54
Durango	6550	6930	188	7118	11.50
Eads	4215	5512	1036	6548	10.58
Eagle	6497	8426	117	8543	13.80
Estes Park	7525	7970	34	8004	12.93
Ft. Collins	5001	6599	430	7029	11.35
Ft. Lewis	7595	8214	73	8287	13.39
Ft. Lupton	4888	6314	637	6951	11.29
Ft. Morgan	4321	6511	706	7217	11.66
Fraser	8560	11760	0	11760	19.00
Fruita	4507	5989	754	6743	10.89
Grand Junction Air.	4855	5605	1140	6745	10.89
Grand Lake	8680	10802	0	10802	17.45
Green Mtn. Dm.	7740	9063	58	9121	14.74
Greeley	4648	6639	622	7261	11.73
Grover	5090	6669	501	7170	11.58
Gunnison	7664	9941	15	9956	16.08
Hayden	6300	8507	128	8635	13.95
Hermit	9001	11074	0	11074	17.89
Holyoke	3746	6143	849	6992	11.29
Idaho Springs	7555	7911	44	7955	12.85
Ignacio	6424	7158	224	7382	11.92
John Mar. Dm.	3814	5204	1204	6444	10.41
Julesburg	3469	5984	952	6936	11.20
Kassler	5495	5522	730	6252	10.10
Kauffman	5250	6911	411	7322	11.82

CLIMATIC FACTORS AND ASSIGNED CLIMATIC SCORES
FOR COLORADO CITIES AND TOWNS

CITY OR TOWN	ELEVATION FEET	HEATING DEGREE DAYS	COOLING DEGREE DAYS	HEATING DEGREE DAYS & COOLING DEGREE DAYS	CLIMATIC SCORE
Kit Carson	4284	5959	884	6843	11.0
Lakewood	5440	5705	679	6384	10.3
Lamar	3635	5402	1199	6601	10.66
Leadville	10177	10671	0	10671	17.24
Limon	5560	6531	516	7047	11.3
Longmont	4950	6459	502	6961	11.24
Los Animas	3901	5195	1185	6380	10.31
Meeker	6242	7714	162	7876	12.7
Mesa Verde	7070	5970	589	6559	10.5
Monta Vista	7667	8578	71	8649	13.97
Montrose	5830	6325	559	6884	11.1
Northdale	6693	7449	217	7666	12.3
Norwood	7017	7711	143	7854	12.68
Pagosa Springs	7238	8417	123	8540	13.80
Pueblo Air.	4639	5394	981	6375	10.3
Rifle	5345	6795	344	7139	11.5
Rocky Ford	4178	5311	998	6309	10.19
Saguache	7697	8027	67	8094	13.0
Salida	7050	6910	108	7018	11.3
Silverton	9322	10669	0	10669	17.24
Stratton	4334	5841	896	6737	10.8
Taylor Park	9206	11675	0	11675	18.8
Trinidad Air.	5746	5642	705	6347	10.25
Wagon Wheel Gap	8500	10721	0	10721	17.32
Walden	8099	10357	0	10357	16.7
Walsenburg	6220	5460	542	6002	9.7
Waterdale	5260	6473	387	6860	11.08
Westcliffe	7860	8312	42	8354	13.5
Wray	3560	5881	939	6820	11.0
Yuma	4125	6051	887	6938	11.21

In conformance with OMB requirements, the Office of Energy Conservation submitted Colorado's application for Phase 1 of the Institutional Buildings Grants Program to the A-95 State Clearinghouse. A summary of comments received from clearinghouses involved in the A-95 review process is provided below. Complete copies of the reviews are on file at the OEC and are available for inspection.

The OEC has also submitted the State Plan for Phase 2 of IBGP to the Colorado Clearinghouse for review. A copy of their review summary is provided.

A-95 Review Summary for IBGP State Application

Of the fifteen area-wide and state clearinghouses contacted:

- five commented favorably
- three made "no conflict" or essentially neutral comments
- one disapproved the application
- two objected to OEC receiving funds prior to the statutory expiration of the comment period
- four sent no reply.

<u>State Clearinghouse</u>	<u>Comments</u>
Colorado Division of Planning	no conflict
<u>Area-wide Clearinghouses</u>	
Northeastern Colorado Council of Governments	favours funding
Larimer-Weld Regional Council of Governments	no conflict
Denver Regional Council of Governments	supports this program
Pikes Peak Council of Governments	objects to funding prior to expiration of review period
East Central Council of Governments	neutral
Lower Arkansas Valley Council of Governments	recommends approval
Pueblo Area Council of Governments	recommends approval

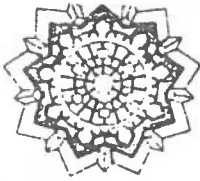
District 10 Regional Planning Commission	objects to funding prior to expiration of review period
Colorado West Area Council of Governments	unanimously favors funding
Upper Arkansas Area Council of Governments	recommends disapproval (no explanation provided)
Huerfano-Las Animas Area Council of Governments	no comments received
San Luis Valley Council of Governments	no comments received
San Juan Regional Commission	no comments received
Northwest Colorado Council of Governments	no comments received

ERRATA

The following list of errors and changes should be made to the State Plan for the State of Colorado for the Institutional Buildings Grants Program:

1. On pages 9 and 10, change the deadline for the submittal of applications to the following:

5:00 p.m. on December 21, 1979, or be postmarked no later than December 19, 1979.
2. On page 15, reverse the points awarded to criterion 2. and 3. so that criterion 2. is allotted 25 points and criterion 3. is allotted 20 points.
3. On page 45, strike the second sentence of the section entitled "The Management System" and substitute "The OEC will develop a management system prior to the issuance of grant awards by the DOE. This management system will be submitted to the DOE for review and approval and will entail the following tasks:".
4. On page 47, strike the sentence that begins at the very bottom of the page and continues on to the next page and substitute "The sample selected will be of maximum size consistent with available funds and matching state funds, but in no case will the sample size be less than 5% of the number of grant recipients.".



Department of Local Affairs Colorado Division of Planning

Philip H. Schmuck, Director



Richard D. Lamm, Governor

COLORADO CLEARINGHOUSE

REVIEW SUMMARY

TO: COLORADO OFFICE OF ENERGY CONSERVATION
Attn: George "Skip" Gray III

DATE: September 7, 1979

STATE I.D. NO. 79-210300-003

SUBJECT: State Plan for Schools, Hospitals and Public Buildings

The Colorado Clearinghouse has reviewed your notice of intent to apply for federal aid and has submitted it to appropriate state agencies. As a result of this review:

 x Based on information available at this time, it has been determined that the project does not appear to conflict with other state plans, programs or objectives. It is unknown, however, how the project accords with local and regional plans, policies or objectives. Attached is a comment from the Department of Education.

 However, it is recommended that the following conflicts, difficulties, or conditions be met or solved:

The Clearinghouse has no objections to the funding of the project when the above have been resolved.

 A request has been received from one or more state agencies that the final application be submitted for review. The project cannot be signed off until the application has been reviewed.

 It is recommended that approval of the project be withheld, for reasons state in the attached letter from .

Stephen O. Ellis
Chief Planner

This form and all attachments must accompany your application to the Federal funding agency.

cc: Department of Education
Regions 1,2,3,4,6,7a,7b,8,10,11,12,13

SOC-4, Revised August 1977

520 State Centennial Building, 1313 Sherman Street, Denver, Colorado 80203 (303) 892-2351



Ministry of Economic Affairs National Bureau of Planning



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