

Weather

Mostly cloudy and warm with 30 percent chance of showers and thundershowers today and tomorrow. High both days near 90. Low tonight 72.

The Battalion

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Solar energy's future doubtful

By JERRY NEEDHAM
City Editor

An application by two TAMU professors for a patent on a process utilizing the sun's rays to heat large building complexes and communities was recently approved in Washington.

Dr. William Harris and Dr. Richard Davison, two of the nation's foremost energy authorities, developed the process with the help of a grant from the National Science Foundation.

"Solar energy has received much publicity lately because it is free, inexhaustible and has no environmental hazards," said Dr. Harris.

The patented process basically proposes large-scale, long-term underground storage of solar heat and winter cold.

In developing their process (termed Solaterre) the researchers had to be constantly aware of several characteristics of solar energy to make realistic appraisals of proposed applications.

These characteristics are: solar radiation is diffuse and intermittent, the collecting costs rise rapidly with the temperature of the collected heat and since solar radiation is free, the cost of the heater operation is small, which makes the cost of collected solar energy almost entirely capital intensive.

Since solar energy can be collected most easily and inexpensively at low temperature, the researchers concentrated on low

temperature applications. Approximately twenty per cent of the energy usage in the United States is for low temperature space-heating.

Water-bearing formations known as aquifers underlie large portions of the earth's surface. These aquifers supply 20 per cent of the nation's water supply and vary greatly in volume, depth, thickness and salinity. It is a well-known fact that the earth is an excellent insulator.

The proposed system would use a horizontal heater to produce hot water which would be pumped into a zone of the aquifer.

In the winter, the hot water would be pumped from the wells, and piped through a utility type system to heat homes and buildings. The cooled water would be returned to the same water formation in another region or directly below the heated zone.

Also during the winter, the water from a different part of the formation could be chilled in a spray pond and stored in the formation until summer. Then it could be piped through the same utility system for air conditioning. The warmed water would be returned to the formation.

For this system to work, a good aquifer must exist at the place of use, but aquifers are widespread. Flow in the aquifer must be very slow, but this is the rule rather than the exception.

Using this system, the individual home is freed from architectural restrictions of using individual solar

collectors, and, most importantly, is freed from the necessity of a back-up system.

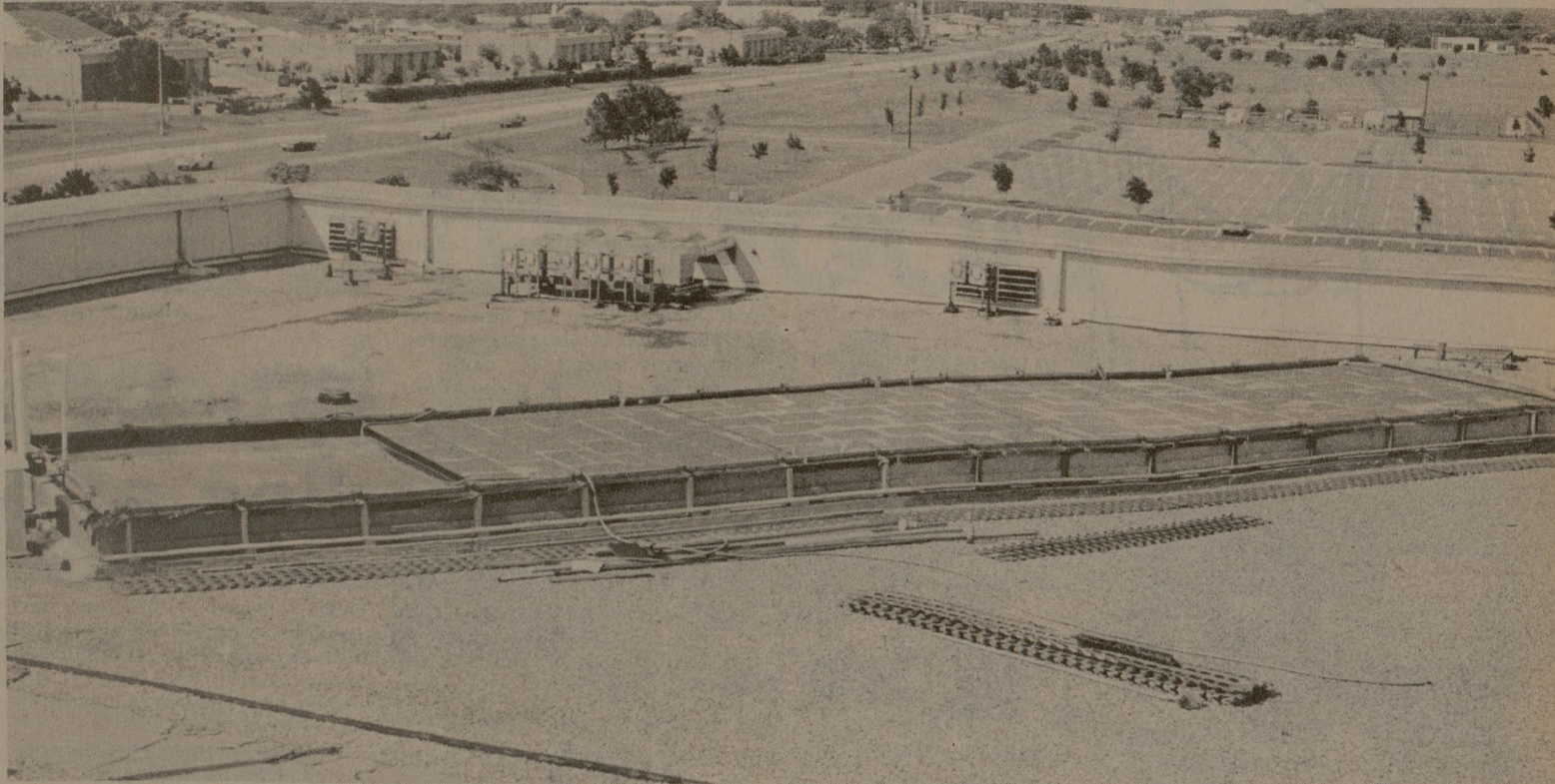
Since the heat and cold are stored on an annual basis, spells of bad weather have no effect, and the individual house need not have a furnace or air conditioner. This means a more than sufficient savings to pay for the wells and distribution system.

In a concluding statement made in a report by Harris and Davison, they surmise that "it appears that where the coincidence of favorable summer sun, winter cold and good aquifer exist, this system would be competitive at present fuel costs except where low cost natural gas is still available."

The researchers are putting the final touches on a prototype of the system (minus the aquifers) atop the Zachry Engineering Center. Data will be collected during the summer to determine temperatures and efficiency of the system.

Despite their avid interest in solar energy, the researchers remain pessimistic about the immediate future of the sun as a widely used power source.

They maintain that many of those studying solar power application make false claims for the capabilities and economics of such systems. These false claims may be made from ignorance or from a desire to gain government funds for research.



This horizontal, flat-plate solar water heater, located on the roof of Zachry Engineering Center, will soon be absorbing solar radiation in controlled tests by TAMU researchers. The project is scheduled for completion by the end of the week.

President Williams announces

Appropriations set record

State appropriations totaling a record 227,534,509 dollars for the TAMU System have been approved for the next two years, announced university President Jack K. Williams.

The funding, which became final when Gov. Dolph Briscoe signed the Legislature's appropriations bill over the weekend, represents an increase of 51 per cent over the level provided for the current biennium.

"We are bolstered by the confidence which the Legislature and Gov. Briscoe have in our programs, as evident by the funding granted us," Williams said. All parts of the system received increases.

TAMU will receive 54,945,164 dollars for fiscal year 1976, which begins Sept. 1 of this year, and 57,514,951 dollars for 1977. The two totals represent a 53.7-per cent increase over the appropriation for the current two-year period.

State funding for fiscal year 1975, under which the institution is presently operating, totals 37,162,545 dollars. Each figure is only for main campus operations of the university.

Other appropriations for the system are (1976 and 77 figures listed first with current allocations shown in parentheses):

System Administration and General Offices — \$712,783 \$778,357 (\$617,289); Agricultural Experiment Station — \$13,460,161 \$14,759,493 (\$10,022,306); Agricultural Extension Service

—\$13,998,854 \$15,238,384 (\$10,108,449); Engineering Experiment Station — \$3,076,406 \$2,975,243 (\$2,627,916); and Engineering Extension Service — \$1,000,570 \$1,041,495 (\$898,098).

Also, Texas Forest Service — \$3,388,252 \$3,724,977 (\$2,737,795); Texas Maritime Academy and Moody College of Marine Sciences and Maritime Resources — \$1,838,994 \$1,703,115 (\$1,038,842); Prairie View A&M University — \$14,985,351 \$9,337,620 (\$6,241,433); Rodent and Predatory Animal Control Service — \$1,106,821 \$1,167,952 (\$887,490); Tarleton State University — \$4,831,179 \$4,222,380 (\$3,217,321); Texas Veterinary Medical Diagnostic Laboratory — \$873,377 \$849,600 (\$359,807).

The bill also includes special awards of 1,944,222 dollars for TAMU's new medical education program, 1,905,376 dollars for energy-related research and 200,000 dollars for a study of the state's railroad system. The energy studies will be coordinated by the university's new Center for Energy and Mineral Resources. The rail study will be conducted by the Texas Transportation Institute.

Appropriations for the various parts of the system reflect net general revenue, rather than grand totals, which include estimates for other educational and general

funds. Also state appropriations comprise varying percentages of the overall operating budgets, with several parts of the system receiving

federal funds as well as support from private sources. Operating budgets for 1976 will be finalized later in the summer.

Dinner theater begins Thursday

By KARLA MOURITSEN
Campus Editor

The stage is set, the cast knows their cues, and all is in readiness for Thursday night's opening of TAMU's first dinner theater production, "What the Butler Saw."

A comedy about the trials and tribulations of a dense young lady applying for a job from a couple of psychiatrists, "What the Butler Saw" will be presented in the MSC Ballroom, following a buffet of shrimp creole and sweet 'n' sour pork.

The Aggie Players, under the direction of Robert Wenck, have been rehearsing daily for several weeks in preparation for Thursday's opening. The two women, four man cast is headed by Craig McIntosh, who plays Dr. Prentice.

Prentice tries to examine Geraldine, played by Dana Herell, who only came to the sanitarium to apply for a secretarial position. It is at that moment that Mrs. Prentice, played by Cheri Lindquist, enters the doctor's office. The comedy follows close on her heels.

"What the Butler Saw" was written by Joe Orton. It opened off-Broadway in May of 1970 to rave reviews. Since that time, the play has become a dinner theater favorite.

Orton never knew of the play's success. He was murdered by his roommate two years before it was ever produced.

Now a joint effort of the MSC summer directorate, the Aggie players, and the Food Services Department, the idea of having a TAMU dinner theater was conceived by Bill Davis, the former MSC President. Davis wanted to provide more diversity of summer programming and to upgrade the quality of entertainment presented for the local community.

Tickets for "What the Butler Saw" are available in the Rudder Center Box Office at \$5 per ticket for students and their dates and \$7 per ticket for the general public. Tickets for the Thursday night performance will be on sale until 4 p.m. Wednesday.

Briscoe gives oath to fairer financing

Gov. Dolph Briscoe has given his commitment to establishing a fairer school finance system in the state, reports Texas Education Commissioner M. L. Brockette.

Brockette appeared Friday on a program at Texas A&M with Texas State Teacher Assoc. (TST) executive secretary Callie Smith who termed the recently passed education bill as the biggest step yet for public education, although he did not agree with all the bill's contents.

Smith and Brockette addressed the 50th annual Administrative and Instructional Leadership Conference at TAMU.

Brockette said he is now appointing members of the five-member panel called for by the legislation to hear views from school adminis-

trators on the proposed reforms in financing.

Briscoe, related the commissioner, has called the bill a point of departure that is significant for local districts.

Brockette said regional meetings will be held next week around the state for a section-by-section review of HB 11.26 including instructions on how districts need to supply information that will be the basis of the value alterations in financing.

Smith said the outlook for the future of public education in Texas was directly related to how much the professionals can or will learn from others and the amount of vision they have.

"If you don't know where you're

going most any road will do," he said. He also asserted that public education cannot be all things to all people.

Brockette agreed with the TSTA official that the bill offered new challenges and opportunities to the profession.

New flexibility, which calls on local districts to make more decisions, is also evident as a feature of the legislation.

The conference, with more than 400 officials attending, concentrated on human values in education. It was jointly sponsored by the Texas Association of School Administrators, Texas Association for Supervision and Curriculum Development and TAMU Department of Educational Administration.



"What the Butler Saw" will be the feature attraction of the debut of the dinner theater sponsored by the MSC, Food Services and the Aggie Players. Tickets are currently on sale at the Rudder Tower box office.

Millican money held up until further study done

Cong. Olin E. Teague received a copy of the Committee on Appropriation's report for public works for water and power development late yesterday afternoon.

The report calls for \$450,000 for further planning for Millican Lake during fiscal year 1976. The report also calls for \$110,000 for the transition quarter next year, when the beginning date of the fiscal year is changed.

The report also says "the committee in recommending full amount of money requested by the administration for the Millican Reservoir

feels very strongly that prior to any additional appropriation for construction purposes, the Corps of Engineers should attempt to determine the extent of lignite deposits in the area which would be inundated by such construction, as well as the Corps' estimate of the effects on land values."

The House of Representatives considered the appropriations bill late last night while in session until after midnight. The House approved the entire Public Works bill but at press time it was not known whether any amendments were attached.

CS budget nears council approval

The College Station city budget for fiscal year 1975-76 is rapidly proceeding toward adoption by the city council.

A meeting was held last Wednesday afternoon to enable area residents to make requests for specific items to be included on the budget.

At a Monday night work session, the Council added the following items to the proposed budget: \$1500 to the Retired Senior Volunteer Program, \$2700 to the Brazos County Bicentennial Celebration Committee, and \$6070 to the Brazos Valley Arts Council.

An \$8500 appropriation to the Brazos Valley Mental Health-Mental Retardation Center is pending until submission of a budget by the Center.

The completed budget is on the agenda for adoption at the council's Thursday night meeting, the last scheduled meeting before the city's new fiscal year begins on July 1. A public hearing on the budget will be held prior to formal adoption. The meeting will begin at 7 p.m.

The proposed expenditures for 1975-76 exceed this year's estimated expenditures by more than \$665,000.

An ordinance raising the tax rate in College Station will be considered at the Thursday night meeting also. College Station has one of the lowest tax structures in the state for cities of comparable size.