

America, is there an energy option?

Democratic principles demand public forum for energy decisions

By PHILIP LUSK
WITH THOM GUNTER

Editor's note: This is the last in a series of three articles dealing with energy policy options. Today's article deals with the prospect of the "soft" energy path with respect to North Carolina.

In yesterday's article we discussed the myth perpetuated upon the American public that the best form of energy available for consumer use was instantaneous electricity generated in large, centralized systems. Granted that the consuming public wants and needs energy to perform basic functions, the people involved are not really interested in, nor do they desire, the abstractions of electricity, oil or gas. Rather, they are more interested in comfortable rooms, lighting, the ability to travel, food, furniture and other tangible objects.

There exists today an aggregate of energy technologies that will satisfy those needs. They are also technologically mature and can be utilized for short-term goals if given the incentive and engineering. They will also be quicker and cheaper to install when compared to the total costs of utilizing the "hard" energy path. These are the "soft" technologies, as termed by Amory Lovins.

that are flexible, resilient, sustainable and benign. The difference in distinction from "hard" technologies is in the quality of the technical, social and political structure of the energy system instead of just the quantity of energy used.

"Soft" technologies have been defined by Lovins to possess the following characteristics:

- They rely on renewable energy flows such as sun, winds and waste vegetation and not on depletable energy capital such as uranium, oil or coal.
- They are diverse, with each energy supply designed for maximum efficiency in particular circumstances.
- They are flexible and relatively low-technology. This is, in the sense of elegant simplicity, a tool which is easily understood rather than a complex machine that uses man.
- They are matched in scale and in energy quality to end use needs, utilizing the free potential of most energy flows.

They do not require, for example, a nuclear-electric generating plan operating in thousands of degrees to heat a dwelling in ranges of tens of degrees.

As defined in our first article, the "soft" energy path will rely on a blend of technical fixes based upon the criteria presented above with some degree of change in our

expectation of future life styles.

Technical fixes can be considered as the use of conservation techniques and substitutions to produce the same output of goods and services as before, with the replacement of the energy we are using so wisely today with other resources that are immediately available (capital, design management, labor, personal development, etc.)

It has been estimated that in the long-term (25-50 years), technical fixes alone in the U.S. could improve energy efficiency by a factor of at least three or four. Another recent study argues that with only those technical fixes that could be implemented by the turn of the century, we could nearly double the efficiency with which we use energy.

In North Carolina, a state that has been described as being traditionally fuel poor but whose energy potential is rich, there are many underexplored opportunities for utilizing technical fixes, some of which are listed below:

- The retrofitting of present structures to achieve the most reasonable level of conservation. "Reasonable" has been defined as the use of all conservation techniques whose combined cost is less than the cost of proposed new power plants in a specific service area.

- The use of solar space-heating and cooling utilized to maximum efficiency as a supplement to district heating coupled with the use of solar hot water heaters. A recent study in the Pacific Northwest estimated that the use of residential electric water heaters requires the equivalent of one large power plant for approximately 800,000 units.

The use of biomass conversion techniques on forest, agricultural and municipal solid wastes to produce fertilizer, liquid and gaseous fuels. A recent study conducted locally projected that if one-third of the chicken droppings produced in Chatham County were mixed in a 1:1 ratio with one-half of the municipal waste solids produced in Orange County, using bioconversion the resultant gas produced would provide the total gas needs of both counties. This by-product gas could also be utilized in the generation of electricity.

As seen above, if the appropriate encouragement were given to just these few native energy sources, there could be a significant reduction in the demand for conventional fuels and new, large electric generating facilities. The list of potential technical fixes is limited only by the imagination and institutional barriers, certainly not the technical know-how.

The institutional barriers which need innovation include such areas as building

codes, lending policies and adoption of minimum efficiency standards. After these institutional barriers are modified, means of encouragement are needed. These means must include, among others, tax incentives low-interest loans and government purchases of equipment to reduce consumer cost (as in the case of the transistor or nuclear reactors).

This is not to suggest that there will not be some degree of social problems. Mental adjustments will have to be made as the millions of consumer needs are sorted. However, the benefits would implement those choices if given the replacement of the institutional barriers. It will not be an easy task, but it will be easier for posterity than not doing it at all.

As we begin to understand the role of man in the holistic perspective, the choices will become obvious. Our biological survival may well depend upon our ability to integrate into this framework. The experience of values will become real when based upon the personal realization of their meaning, importance and validity rather than upon the abstractions of value presented by today's society.

As we have been using our energy supplies faster than they are being replaced, conditions will soon force us to budget our resources. Should we wait until we have no

choice due to an inadequate supply of fuels, resources and money, or should we instead use those resources we presently have to ease the transition into an energy system that does not depend upon the entanglements of foreign relations?

In the final analysis, we, the citizens and inhabitants of North Carolina, are faced with a decision. We can allow present energy policy to continue and ensure the expansion of the "hard" energy path as presently advocated at the highest levels of state government, or if the democratic principles that this great state were founded upon are still in effect, we can demand an articulation of energy policy in open, public forum to decide upon the goals that will provide for the needs of the people in the most beneficial manner.

Note: The preceding has been primarily a synthesis of ideas presented in the writing of (or conversations with) the following people: Amory Lovins, David Orr, H. T. and E. P. Odum, Joe Straley and Dan Koenigshofer. A more complete bibliography is available upon demand. Write or come by: Chapel Hill ECOS, Suite A, Carolina Union, UNC Campus.

Philip Lusk, a senior, is an Energy and Environment major from Durham, N.C. Thom Gunter, a senior, is an Energy Policy major from Durham, N.C.

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Drop-add policy decision

Four weeks is too short

Chalk up another blow to academic freedom. The Educational Policy Committee, entrusted by the Faculty Council with the responsibility of studying drop-add, decided unanimously Monday to recommend that the current four-week drop period be retained.

According to the committee's report, prepared by Dean Samuel R. Williamson of the College of Arts and Sciences and Dean Donald C. Jicha of the General College, "The student should be allowed an ample amount of time to evaluate a course and its instructor in order to determine its pedagogical value in the context of his personal interests and his larger academic program and goals.

"Four weeks is a reasonable amount of time to make that evaluation." The report also noted that "It is not the purpose of a drop period to provide an escape hatch for students whose academic performance on papers and exams is below their initial expectations."

Obviously, the drop period should not be abused. And the statistics indicate that, despite the committee's inference, the short drop period if not being used any less as an "escape hatch" than the longer period. After the period was shortened from 11 to 4 weeks, no substantial fall in the total number of drops could be found — indicating that students had not been bailing out of troublesome classes any more than they are now.

Instead, the four-week drop period has successfully tied the hands of thousands of UNC students who must now make hasty and uninformed evaluations of a course's "pedagogical" value. Many an intermediate level course covers nothing but review material during the first four weeks of a semester — hardly a fair representation of the nature of the instructor or the material.

It is truly a shame that the Educational Policy Committee suffers from the same myopia that has plagued many faculty members throughout the past few years. The committee's choice to treat student input with the same degree of levity as past administrators have is disgraceful. The committee's argument — that many drops are frivolous and that a shorter period allows for more "adds" — is spurious. The statistics do not uphold such a contention.

The varied arguments by students showing how a longer drop period would enhance the educational experience seem to fall on deaf ears. We can only hope that the Faculty Council enjoys better vision and hearing when it makes the final decision on drop-add policy next month.

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Thatcher waits in wings

Callaghan, Labor Party caught in web of troubles

By ED RANKIN

No. 10 Downing Street is unobtrusive enough. Situated in Whitehall, just a brisk 10-minute walk from Parliament, the office of numerous British prime ministers is hardly eye-catching. And if it weren't for the implacable bobby standing guard outside the door, one could easily stroll by without noticing it.

The bobby's placid demeanor, however, belies the state of things in Britain's highest political office these days. Prime Minister James Callaghan and his Labor Party are caught in a web of troubles, mainly economic, that threatens to destroy their shaky coalition with the 13-vote Liberal Party. And, poised like vultures, the Conservative Party led by Margaret Thatcher waits patiently in the wings for Callaghan to stumble. Time, they feel, is on their side.

One does not have to look far to see what is ailing Britain and, thus, the Labor-led coalition in power. Inflation continues to run rampant at 17 per cent. Average earnings are rising at less than 10 per cent. More than 1.6 million Britons are out of work, representing a post-war high of nearly seven per cent of the work force. On top of this, the country faces a debt of \$19 billion due to heavy foreign borrowing that must be paid off by 1985.



James Callaghan

The Labor Party, which has been in power for three years, has caught the brunt of the nation's criticism. What most sting Callaghan the most, however, are the problems he has experienced with the traditionally pro-Labor trade unions. They have historically financed the party and presently control 18 of the 25 seats on the Labor Party Executive Board. The party has had difficulty, however, placating the workers the last two years.

In 1975 the unions voluntarily accepted

government-proposed guidelines that limited wage increases to a set percentage per year. But after prices skyrocketed last year, the unions decided to seek gains of 20 to 100 per cent this fall. This move presented a double threat to Callaghan. If wage restraints were cast aside, inflation would worsen — and the Labor government pledged when it gained power that fighting inflation would be its first priority. In addition, Liberals threatened to withdraw their crucial 13 votes in the House of Commons if wages were not restrained. If Callaghan loses their support, he would be forced to dissolve the government and call for another election — one that, in all likelihood, he would lose.

But last week Callaghan won a minor victory in his drive to stall his party's worsening political fortunes. Union leaders agreed to limit future wage increase demands by individual unions to one per year though no limit was set on the size of wage hikes unions can request. Albeit Callaghan obviously would have preferred a third year of wage restraints, he achieved a compromise that will put off new contract negotiations till 1978. He hopes the extra time will allow his party to get inflation under control.

Should Callaghan be forced to call an election before the deadline of late 1979 and lose, Britain's first woman prime minister would cross the threshold at Downing Street. Margaret Thatcher has been waiting

since early 1975, when she ousted former Prime Minister Edward Heath as Britain's Conservative leader, for her chance to supplant Callaghan. She served as Minister of Education from 1970 to 1974 under Tory Prime Minister Heath before challenging him for the party leadership.

Thatcher is coolly confident of her ascendancy to the prime ministership — and she should be. Monthly Gallup Polls show the Tories consistently ahead of Labor by a wide margin. The 11-point edge in August indicated that the Conservatives would win a plurality of 80 votes in the 635-seat House of Commons. She would delight in an election today, of course, but "whenever there is an election," she said recently, "we shall win."

Thatcher hopes she can force Callaghan into an early election by eroding his Liberal and right-wing Labor support. But even if the Labor prime minister jerryrigs a solution to his country's economic woes and his party's misfortunes, 1979 must still loom large in Callaghan's mind. Precluding some drastic turn of events, he and the Labor-led coalition will bow to the Conservatives and Thatcher in the next general election.

When that time arrives, however, a weary Callaghan may just welcome the winds of change that will swirl through Parliament.

Ed Rankin, a senior history major from Concord, N.C., is associate editor of the Daily Tar Heel.

Criticism of pot users termed 'elitist' interference

To the editor:

A recent letter to the Daily Tar Heel ("Get straight," Letters, Sept. 28) claims to tell the true facts about marijuana. Citing the Reader's Digest, D. C. Malle reports that marijuana causes "nerve deadening," "the jitters" and other ill effects. As anyone who has smoked marijuana will tell you, this is absurd. Recent studies by the Surgeon General of the United States (*Marijuana and*

was finished answering questions, about one-third of the audience was gone. As a freshman, I wonder if the students here give the same treatment to other lecturers? Also I would like to suggest that the University oil the seats in Memorial as these are badly in need of lubricating.

Anna Breiner
855 Morrison

shows that although, in principle, debate is enlightening, in reality debate on ERA degenerates into squabbling over already-resolved issues instead of rational discussions of facts and ramifications.

R. Goldstein
Rt. 4

if the consumers' costs of maintaining a campus telephone have tripled since the 1976 school year, why has the quality of service to these customers not experienced a similar trend?

Jerry Bellis
310 Mangum

Proud Tar Heel

To the editor:

I see no logical reasoning to Gary Gambrell's letter ("Russian Roulette," Letters, Sept. 22), concerning the "danger" of bike riding in Chapel Hill. I ride a bike around a great university city and find this a wonderful place to pursue the sport of cycling, both for practical needs and for recreation.

I think Chapel Hill is great! This is truly "the Southern Part of Heaven." I am proud to be a Tar Heel. After only one month of living here, I already feel I can truly call this "home."

Greg Cranford
1605 Granville West

letters to the editor

Debate dilemma

To the editor:

Like Mr. Acker ("Get all the facts," Letters, Sept. 28) I support freedom and even encouragement of speech. However, what he calls debate would include hysterical rantings by the anti-ERA people. Debates should be on the facts and moral considerations, not on unrelated emotional

Health) and the President's Commission on Marijuana and Drug Abuse show that marijuana use does not produce undesirable or harmful physiological effects, nor does it produce psychotic episodes, addiction, etc.

D. C. Malle cites the fact that in some states marijuana is illegal as "proof" that it is a harmful drug. Does this mean that alcohol was a harmful drug during Prohibition, but not before or since? The only thing wrong with marijuana is that it is illegal. Decriminalization of this harmless herb is supported by literally millions of doctors, lawyers, educators and political leaders (including William Buckley, the American Medical Association and President Carter). Making criminals out of people who use marijuana represents an elitist attempt on the part of the government to interfere in our private lives.

Paul-Henri Gurian
108 Pinegate, Apt. 5

Human behavior

To the editor:

I attended Ron Nessen's lecture Tuesday night and found it interesting and informative. However, I was disappointed in the behavior of some of the students attending the lecture — those who got up and left during the question-answer session. Not only was this rude and inconsiderate to Mr. Nessen but it made it impossible to hear the questions being asked. Mr. Nessen was kind enough to repeat the questions, having been asked to do so by the radio station, so that they were not entirely missed, but I would like to have heard the original wording by the students who asked them.

Granted, if one had to leave before the program was over, then that was the best time to do so. But by the time Mr. Nessen

