Energy R&D money due

(First in a series)

(Ford Professor of Engineering David C. White, Director of MIT's Energy Lab was recently interviewed by Paul Zintel for "The Tech." His wide ranging discussion of the energy crisis facing the country, and the outlook for Energy R&D at MIT comprises the first article in a series by The Tech on the energy crisis - Editor)

Q: Why is there an energy shortage? A: In the short run, two reasons. The first, and the most direct, is because China, and it will possibly cause rationing, and certainly major shortages this year, is that one of our major sources of international oil supply, because of an international upset between the Arab world and Israel, has elected to use the economic marketplace as a place to influence the political policies of the United States. In the short run, the cutoff of supplies from the Arab states and the cutoff of supplies of crude to Western Europe that is then refined and flows through as refined products to the United States is a significant reduction in our resources.

We import one third of our petroleum. Half of that, because of the refineries, is located in the United States. The other third is imported and we import 72% of our refined petroleum. Half of that, both directly and indirectly, was coming out of the Middle East, both crude and as flow-through. So that is the present really tough crunch. If that were changed tomorrow, it would shift the character of the energy shortages back to another problem, but a very real one.

The other problem is one related to a major upset of the energy marketplace in the petroleum-gas field. It's caused partially by regulations, regulation of natural gas at the wellhead and the little wellhead has been a contributor, import quotas to the US were a contributor, so that one could not be sure of having adequate supplies of crude available from the Continental United States. Therefore refineries were not built. If you look at the growth of the refinery population of the US, you'll find that we have not built a refinery in the last five years, and the growth in the last ten years has been very short. Refinery capacity has been built in Europe and the Caribbean. The US finds that it cannot supply all of its refined products with domestic located refineries, and becomes vulnerable then to buying these on the world market.

Q: The Wall Street Journal says that the oil boycott is economic, not political. A: I don't think that's a valid argument. The developing nations, with very little population, Saudi Arabia is one, could take that position. However, if they have money coming in and can invest it, say in European banks, and get a rate, of 7 per cent or greater, that money will double in ten years. Granted at the moment, they can get almost any price they want for their oil. Their short run return, by increasing the price, will give them a much more rapid return on what is in the ground. But cutting off the supply doesn't help them. If they don't like $4, try 5. If they don't like 5, try 8. Basically, Western Europe and Japan have no choice. They are totally dependent. If the Arabs raise that price, they will buy it, they will give it. (Please turn to page 7)

NOTES

* The Electrical Engineering Department's IAP program (open to all students) will run this year differently than in the past. Two rooms located on the first and fourth floors of the new EE building in the elevator lobbies will have fairly detailed descriptions of the activities offered. With each description will be a sign-up sheet for students who have a definite interest in the activity to give the planners of each activity an idea of what to expect. Suggestions are encouraged and should be directed to either Professor Bird (EE IAP Coordinator office, (38-260), (38-415) or to the EE Ste-Far office, (38-476), (38-494)

* The other, November 28: Fabric, Technological Developments in and for Postal Services, Telephone Communications Planning and Policy Research Seminar Series. Thursday, November 29: Charles Jackson, Abraham Tersoff and Policy for Postal Services.

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SCHUMANN RAVEL Carnaval (excerpt)
BRAHMS SCHOENBERG Piano quartet in E minor op. 28

2. WHERE WE'RE AT
January 24 - subject to be announced
BOULEZ Eclats
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M. FELDMAN Cellos and orchestra
S. REICH Music for mallet instruments

3. THREE CENTURIES OF DRAMA IN MUSIC
April 11
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