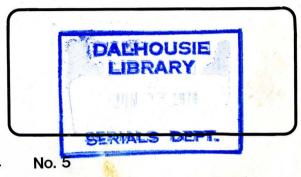
Ecology Action Centre Forrest Building, Dalhousie University Halifax, N.S. 422-4311 QH 540 F5 SP.

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February 21, 1974

# THE MYTH OF CANADIAN SELF-SUFFICIENCY IN OIL

In December of 1973, Prime Minister Trudeau announced that Canada's energy policy must have as one of its objectives the attainment of self-sufficiency in oil by the end of the decade. This was underscored by the call for an all-Canadian pipeline which would open up markets east of the Ottawa Valley to Canada's untapped oil reserves.

Meanwhile, last month's federal-provincial conference on energy has mushroomed into a constitutional debate over control of domestic oil pricing in Canada. And the whole argument, of course, was premised on the assumption that self-sufficiency in oil was just around the corner.

#### Bare-boned energy policy

But Canadian self-sufficiency will be a myth, and a pipeline, if not a dream, will be empty unless Canada's bare-boned energy policy acknowledges the necessity of carefully planned energy conservation programmes. A look around the corner, something our politicians failed to do last month, shows that, over the next few decades, unchecked energy consumption in Canada will devour domestic oil supplies and eliminate the possibility of attaining self-sufficiency in oil.

This article and the 26 Ways to Conserve Energy are based on publications from Toronto Pollution Probe.

E. A. C. publications and further information on topics mentioned in this newsletter can be obtained by contacting the Ecology Action Centre, Forrest Building, Dalhousie University, Halifax, N.S. Publications are free unless otherwise specified.

Much of our literature is sent automatically to our members. Our membership list helps give us an idea of the support we have; membership fees help pay our expenses for supplies, printing, mailing, etc. You can become a member of the Ecology Action Centre by sending your name and address, along with \$2.00 to the above address.

## Supply

Canada's oil picture is made up of probable and possible oil reserves. Canadian self-sufficiency would rest on the development of four probable and possible oil reserves.

-Western Conventional Oil: Conventional oil reserves in the West have been rapidly declining in the past four years. Production is expected to slide from 1.9 million barrels per day (B/D) in 1975 to 800,000 B/D in 1990. (Figures: Gulf Oil Canada)

-Athabaska Tar Sands: Three tar sand plants presently being planned are slated to produce a total of 290,000 B/D by 1982.

Beyond that, other tar sand plants may be developed at the rate of one every four, three, or two years beginning in 1984. A new tar sands plant once every two years represents, from an economic and technical point of view, development at break-neck speed. A special advisory board to the Albertan cabinet considers a new tar sands plant every two years downright dangerous, saying that such a rate would "indicate complete chaos" if it ever occurred. (Figures: Alberta Conservation and Utilization Committee)

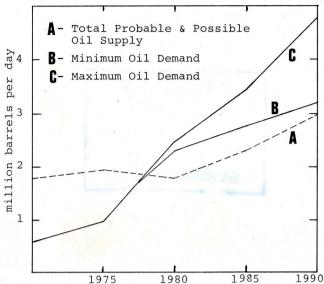
-Eastern Offshore Oil: This is a possible frontier area, but to date, exploration results have been disappointing. Optimistically, the Ontario Advisory Committee predicts a possible production rate of 500,000 B/D by 1990.

-Arctic Oil: Finds to date and the threshold amounts required to warrant the building of transportation systems in the North, presently leave the status of Arctic oil highly questionable. A pipeline could not possibly operate before 1985. Production is set at 500,000 B/D in 1985 and rising to 1,000,000 B/D by 1990. These figures are frontier area projections, and as such, include Eastern offshore oil. (Figures: Gulf Oil Canada)

#### **Demand**

Projections for minimum and maximum oil needs are given in the first volume of the Energy Minister's "An Energy Policy for Canada - Phase 1" (pg. 72). It should be noted that the government's demand projections are based on our traditional approach to energy marked by a doubling of consumption every ten or fifteen years. Assumed is the constancy of present energy policy, continentalist in nature, and unfettered by environmental or energy conservation movements.

Minimum Canadian oil needs register at 1,800,000 B/D in 1977, increasing to 3,200,000 B/D by 1990. Maximum Canadian oil needs will stand at 4,800,000 B/D of domestic crude by 1990.



As the graph illustrates, Canadian self-sufficiency in oil will become an increasingly elusive plank on which to build a national energy policy. Even the total of the highest probable and possible supply projections (Curve A) indicates that Canada will not attain self-sufficiency in oil, based on minimum demand projections (Curve B) after 1977.

Self-sufficiency is possible

This does not mean that self-sufficiency in oil is impossible. It does mean that pursuit of self-sufficiency will be fruitful only in the context of a sane energy policy for Canada. And that requires realignment of our energy policy in three areas:

\* ENVIRONMENT - Environmental factors have to be considered. While our supply curve (A) is based on a rapid rate of development of oil reserves in Canada, this must not be done at the expense of the environment. Every energy project in Canada must be controlled, regulated, and evaluated in the light of its environmental, social, and economic implications.

Thus, for example, new 125,000 B/D tar sand plants as frequently as every two years is simply out of the question. A green light for development at this rate would entail serious environmental damage in the form of hot water waste, toxic tailings, and high sulphur dioxide

emissions from the plants.

\* EXPORT - Canada presently exports about onehalf of its domestic crude. A cut-off of oil exports would alleviate the strain on conventional oil reserves, already peaking out, and stretch the life span of future oil sources. The increasing demands of the American energy industry are already felt in Canada. The effect of the U.S.'s demands on potential Canadian oil reserves are economically and environmentally dangerous. A cut-off of oil exports must be an ingredient of an energy policy which has selfsufficiency in oil as a goal.

\* DEMAND - Energy consumption forecasts are largely a matter of policy and can, by various means, be changed. Changes in government policy - giving transit priority over cars, encouraging reuse and recycling, raising building code standards, etc. - can curtail energy growth without reducing our quality of life. Sound energy conservation programmes must be implemented if self-sufficiency in oil is to be a realizable

goal.

## **26 WAYS TO CONSERVE ENERGY**

- Building codes should be upgraded to require better insulation and storm windows.
- Discourage the installation of "heat-fromlight" systems. Contrary to popular belief, this is a wasteful use of energy.
- Promote "total energy" systems for office buildings and large complexes.
- 4. Set subsidies to favour and promote urban public transit.
- 5. Construct bicycle pathways.
- 6. Discourage the use of cars in downtown areas.
- Stagger working hours for more efficient use of public transit.
- Encourage decentralization of offices to suburban centres so that people don't have to travel so far to work.
- Improve and promote high speed train travel between cities for both people and freight. Discourage inefficient truck, car and plane transport.
- 10. Discourage new expressways and airports.
- 11. Tax large gas guzzling new cars.
- 12. Force car manufacturers to redesign engines to achieve both high mileage and low pollution emissions.
- 13. Ban disposable soft-drink cans and bottles.
- 14. Legislate against over-packaging.
- 15. Encourage municipal reclamation and recycling plants.
- 16. Landfill and incineration of garbage must not take precedence over recycling.
- 17. Establish economic incentives for recycling resources.
- 18. Set freight rates so that recycled materials can be moved more cheaply than virgin materials. Currently, the reverse is true.
- 19. Raise minimum content levels of recycled materials in new products.
- 20. A Consumer Product Review Board should be established to approve new products on the basis of their energy consumption and enviromental impact, both in manufacture and during consumer use. For instance, criteria for product approval should:

(i) require that products be made from readily recyclable materials

- (ii) promote durability and repairability (iii) encourage products made of natural renewable resources, rather than synthetics that require high-energy production processes.
- 21. Require power consumption and energy efficiency to be shown on electrical appliances.
- 22. Power and gas rate structures which reward large users with lower prices must be eliminated.
- 23. Phase out special low hydro rates for houses that use electric space and water heating.
- 24. Advertising by energy companies and utilities which promote energy consumption must be eliminated.
- 25. Research in energy efficiency should be encouraged by government.
- 26. The government must adopt a policy aimed at levelling off the per capita consumption of energy.

# **RECYCLING & ENERGY USE**

The "energy crisis" has forced many Canadians into a heightened awareness that the traditional North American propensity toward ever-expanding energy consumption can be sustained no longer. The agonizing realization that world fossil fuel resources will be exhausted within our lifetime, and the knowledge that the potential dangers of nuclear power far outweigh possible benefits, dictate that Nova Scotians must replace a customary energy growth ethic with a philosophy of reduction and conservation.

One of the ways in which this necessary transition can be effected is through programmes to greatly increase recycling and reuse. Such practices have always been important in attempts to reduce solid waste and to ease the strain on our natural resources. During the past year, it has become apparent that increased recycling and reuse can substantially reduce the consumption rate of another of our carelessly managed resources - energy.

#### Recycling can save energy

The aluminum and steel manufacturers are two industries that have known for some time that large-scale recycling can save both money and energy. For decades, steel companies have used old steel in the manufacture of new steel products. In fact, up to 50% of the material which goes into the production of steel in Canada is scrap. As a result of this type of recycling, 75% less energy is expended than when only raw materials are used.

In an attempt to increase the amount of scrap steel used at the Sydney steel plant, an operation called "Good Grease" has been established in Halifax and Lunenburg counties. "Good Grease" will collect the hundreds of discarded auto bodies in these counties, bale them, and then ship them to Sydney. This local recycling effort will not only clean up our countryside, but also will contribute to greater energy savings in the industry.

#### 95% less energy used

In the manufacture of aluminum, recycling conserves almost 95% of the energy which is normally used to turn raw materials into aluminum. It is for this reason, and the money saved as a consequence, that the large American corporations are actively promoting the reclamation of aluminum cans from solid waste. Recycling depots in the United States receive about \$200/ton for aluminum.

Within Nova Scotia, most of the attention of recycling advocates is turned toward the paper industry. At present, the only provincial pulp mill which uses waste paper is Minas Basin Pulp and Power in Hantsport. At that plant, the creation of new paper products from waste, rather than from virgin pulp, results in a 30-40% energy saving, not to mention the number of trees that are conserved.

## Recycling potential in Halifax-Dartmouth

Over the past few months, several companies have expressed keen interest in the recycling potential of the Halifax-Dartmouth area. Of particular interest is Metro's waste paper. One firm, Anglo-Canadian Pulp and Paper, has indicated that they are very interested in building a reclamation plant in the area to recycle a minimum of 40% of the solid waste. With time, a spokesman for the company states, the figure could climb as high as 90%.

Recently, a Moncton based operation, Natural Recovery Systems Inc., has demonstrated interest in buying both paper and metal cans from the garbage of Halifax-Dartmouth. They already possess guaranteed markets for these items. Similarly, Canada Packers Ltd., has written to Mayor Fitzgerald about the possibility of purchasing a steady supply of newsprint from the city to export to a foreign country.

## Government support needed

Since large-scale recycling operations can substantially reduce energy consumption and since definite overtures are currently being made by interested parties, all levels of government must squarely face their obligation to promote recycling.

The time is ripe for the provincial government and the city councils of Halifax and Dartmouth to encourage the recycling overtures now being made. What is needed is a full-scale study to determine how recycling options will fit into the larger picture of solid waste disposal in Metro.

In the late summer of 1973, the Metropolitan Area Planning Committee (MAPC) authorized such a study, but it was never carried out. A recycling study must be carried out at this time because a new solid waste system, based on a regional sanitary landfill, is now on the drawing board. If present and future recycling options are not included in the design stage of this new system, future attempts to incorporate recycling might be made more expensive or ruled out entirely.

If our local politicians and city staff do not take a serious look at the opportunities which are emerging, a large-scale recycling programme may never become a reality in Metro.

And if that happens, we will lose the valuable benefits which recycling offers - greater energy savings, extended life of the landfill site and a decreased rate of resource depletion.

# FUNDS FOR 1974

The Ecology Action Centre began as a recycling project in the summer of 1971. Since then, we have expanded into four project areas, and represent a strong, positive voice for environmentally sound development in Nova Scotia.

In 1973, the Centre spent close to \$50,000 for seven salaries and expenses. The federal Local Initiatives Program paid most of the bills, supplemented by sales proceeds, and donations from a few companies and institutions and many private citizens.

We are now at a critical stage. For 1974, we are funded only until March 31. We are approaching members of the business community to support our projects. If you can help with contacts, please phone Brian Gifford at 422-4311.

Donations of \$5.00 or more, payable to the Ecology Action Centre, are tax deductible - and are most welcome.

# TRANSPORTATION & ENERGY USE

# - how a change in our travelling habits can cut down on our energy consumption

Transportation currently accounts for onequarter of our energy consumption. Any attempts to reduce energy demand must include changes in our transportation habits. And there is lots of room for improvement in the ways in which we transport ourselves and our goods.

In terms of energy use, planes, cars, and trucks are among the most inefficient forms of transportation. It is time for train travel and public transit supplemented by such private short-distance modes as bicycling and walking, to be emphasized over the more wasteful forms of travel.

It is estimated that for the year 1974 alone, residents of the Halifax-Dartmouth area will consume between 25 and 35 million gallons of gasoline in accommodating their transportation habits. Transportation habits that are based almost entirely on the private automobile. The private automobile uses 75% of the energy consumed in transportation.

#### Public transit saves energy

If the present modal split (the proportion of daily trips that are made using transit) were increased from about 10% to even 20% by means of an improved transit system, 3.5 million gallons of gasoline could be conserved in metro Halifax in a year. This is a substantial saving when one considers the rising cost of gasoline, and more importantly, the cost to the environment that our expanding energy consumption demands.

MAPC has made specific recommendations for transit improvements in the Halifax-Dartmouth region from dial-a-bus to new ferries to the creation of an integrated regional system. These are designed to double the modal split within 15 years. This schedule can and should be speeded up as the first stage in creating a widely used transit system.

#### Automobile interests

Yet if these first steps are to be taken, the call for public transit has to be made loud and clear by the general public to both the municipal and provincial levels of government. Our politicians and civil servants have been, and will continue to be, strongly influenced by the oil industry, highway construction interests, and developments, such as the MicMac Mall, which encourage high private automobile usage. Politicians have to be shown that the general public interest is greater (in terms of votes) than the private auto lobby. With the new Dartmouth council in office, and with elections in the offing for both Halifax City Council and the provincial government, chances are good for a transportation policy that is more responsive to people's needs.

#### RESEARCHERS NEEDED

Our Urban Team is embarking on research for a Development Handbook to be published in early summer. Some of the topics to be explored deal with existing assessment procedures, zoning regulations, municipal development plans, the Planning Appeals Board, etc. We need researchers. If you are interested in helping us, please drop by, or phone 422-4311.

A prime reason given by our politicians for not establishing an efficient transit system is its cost. Yet the cost of accommodating the private automobile continues to soar - \$30 million for the North West Arm bridge, \$12 million for Harbour Drive North, \$11 million for the Cogswell Street interchange. When these costs are compared with those indicated by MAPC for a regional transit system (to result in a yearly annual deficit of \$1.1 million by 1991), the politicians' case against transit becomes untenable. Public transit on a regional scale when cost-shared with the provincial and federal governments, becomes by far the cheaper and less energy-consuming mode of transportation.

At the present time, plans are being drawn up for potentially hard-hitting transit demonstration projects to be implemented this year in Spryfield, Dartmouth, and Bedford-Sackville, 3 areas which show the greatest need for transpor-

tation improvements.

#### Press for change

If local politicians and civil servants have their way, however, these projects may well be watered down and even replaced by token demonstration projects. But politicians respond to public pressure. If you are concerned about our diminishing energy supply and escalating costs, one solution is to press for a change in our regional transportation policies. Phone and write your alderperson, councillor, MAPC representative, and local MLA to express your concern. For further information on ways to press for an effective transit system, phone the Ecology Action Centre, 422-4311.

## Where are you going with urban transportation?

On the 18th and 19th of January, the Ecology Action Centre, together with the Dalhousie Student Union, Nova Scotia Technical College, and the St. Mary's Geography Department, held an urban transportation conference at the Nova Scotia Technical College.

Friday evening heard a panel made up of William Bunge, controversial geo-grapher from York University, Douglas Fullerton, Canada's leading urban critic, Mary McGeer, urban writer for the 4th Estate, and Halifax Mayor Walter Fitz-gerald. It was chaired by Alan Ruffman.

The tone of both the debate and question and answer period was decidedly pro-transit; the exception was Mayor Fitzgerald who used finances as the reason for NOT establishing a more

realistic transit system.

The conference continued Saturday morning with John Warnke, a colleague of Bill Bunge, speaking on the Toronto Geographical Expedition and its efforts to reduce private traffic in residential neighbourhoods. Douglas Fullerton wrapped up the conference Saturday afternoon by outlining how citizen groups can effect decision-making by "gathering allies and sticking with it".

A publication composed of comments from the panel members and the audience, is being prepared and will be available from the Centre early in March.

# NON-REFILLABLES WASTE ENERGY

Widespread concern over the "energy crisis" may have sounded the death-knell for the non-refillable beverage container (NR) in Nova Scotia. Whether one is talking of beer, soft drink, or milk packaging, the fact is that refillable beverage container systems provide marked energy savings when compared with their NR counterparts. With government and public alike seeking ways to curtail energy wastage, NR's may be among the first to be eliminated from the marketplace.

## Energy savings with reuse

Research demonstrates that less energy is expended in the process of cleansing and refilling beverage containers than in the manufacture of many single-use NR's. As the number of trips for refillables increases, so do the energy savings.

A study commissioned by the State of Minnesota calculated that conversion to a completely refillable system in that state in 1971 would have saved roughly the equivalent of 22,920,000 gallons of oil per year, or about six gallons per person per year.

Comparable figures for Nova Scotia would of course be much lower because of population differences, but there is no doubt that a phase-out of NR packaging for milk, beer, and soft drinks would result in definite energy savings.

#### Provincial action needed

At a time when energy supplies need to be utilized carefully and economically, provincial action in support of refillable beverage containers is required. The minister of the Environment, Glen Bagnell, is anxious to present legislation on non-refillables in the near future. The fact that a completely refillable beverage container system for milk, beer, and soft drinks would offer reductions in energy consumption adds weight to the demands for a ban on NR's.

As the evidence against NR's mounts, demonstrating that NR's pose both a litter and a solid waste problem, that refillables bring lower prices to consumers as container costs are shared by many users, and that NR's waste energy, it becomes clear that Nova Scotia must soon take action to phase out non-refillable beverage containers.

# STOP THE DEMOLITION DERBY

## Replacement buildings should be approved BEFORE demolition

Developer Ralph Medjuck levelled the corner of Spring Garden Road and Tower Road, where once stood several large houses in good condition. The land has been vacant since the Planning Appeal Board vetoed his "Inn on the Park" two years ago. Dalhousie University and the City of Halifax are also big offenders. Both are major landlords who often would rather demolish homes than repair them, even though Halifax has one of the largest housing shortages in Canada.

Homes are demolished

It has been a standard tactic of Halifax developers, when they acquire a piece of land, to demolish whatever is standing on the property. This way, if the city or the citizens don't approve of the developer's ideas for the land, their only alternative is a vacant lot that will soon be cluttered with overgrown weeds, broken bottles, and parked cars.

## Zoning amendment proposed

The Save the Capitol Society has applied to Halifax City Council for an amendment to the city's zoning by-law. The aim of the proposed amendment is to ensure that buildings on a site are not needlessly destroyed before new development for the site has been approved. The Society hopes that the amendment will stop the demolition of the Capitol until the new Maritime Tel and Tel building has been approved. But the amendment could have far-reaching benefits beyond the Capitol Theatre.

Demolition permits presently are used solely to control the safety of the demolition procedure. But they should be issued only when replacement buildings have been approved.

The purpose of City Council is to control the development of the city for the benefit of all the citizens. The effectiveness of Council in doing this job could be increased by adding demolition permits to existing controls such as zoning by-laws and development permits.

We urge all citizens to support the Save the Capitol Society in getting this amendment passed. Write or call your alderperson and let him or her know your concern.

EAC publications can be received without charge, by checking the appropriate box, clipping out this form, and sending it to us at the Forrest Building, Dalhousie University, Halifax.
ELECTRICITY AND THE ENVIRONMENT. A look at how and why we produce electricity, and possible new policy directions.
INFORMATION PACKET ON THE PROPOSED STODDARD ISLAND NUCLEAR POWER PLANT. News-paper reprints and a bibliography on nuclear energy.
PARTICIPATE IN ENERGY POLICY! Energy issues facing Nova Scotians.
BIBLIOGRAPHY ON ENERGY ISSUES.
A PUBLIC FORUM ON ENERGY. Transcript of a debate among David Furlong, Rowland Harrison, Eric Kierans, Premier Gerald Regan, and Mel Watkins (April 1973).
A PUBLIC FORUM ON NUCLEAR POWER. Transcript of a debate among Robert Phinney, Dr. Henry Kendall, G. C. Baker, and Dr. J. E. Blanchard (December 1973).

# A VIEWS BY-LAW... AT LAST

A decision has finally been made on the Views by-law. A compromise resolution that offered more than could have been expected a month ago, introduced by the Ward 10 alderman, Leo Hogan, won the unanimous support of Council. But what does the Views by-law mean? What concessions were made, and what effect will these concessions have on the Views?

#### Lost views

The major loss is the view of George's Island from everywhere except the ramparts of the Citadel. The view of the island from the more accessible positions on the roadway has been sacrificed to Maritime Tel and Tel; no restrictions will be placed by the Views by-law on the height of development on the Capitol Theatre site.

Other losses include the C-l view between the Royal Bank Building and Scotia Square which was cut in half. The southerly section was deleted to make way for an office tower on the south-west corner of Duke and Barrington. This deletion was made before the public hearing, only an hour after Durham Leasehold proposed their view-blocking structure.

There were a number of small adjustments made in most of the other view planes which will allow one or two more storeys to be built. All adjustments were made in the direction of decreasing the size of the views.

#### By-law must be enforced

Despite the drawbacks of the resolution, at least we now have a Views by-law. It has taken all parties concerned a long time to get to where we are now. It is now the responsibility of the city's elected representatives to see that the Views are not eroded when new buildings are under consideration.

#### ENVIRONMENTAL LAW BOOK

Environment on Trial: A Citizen's Guide to Ontario Environmental Law. A practical guide about pollution and its legal controls, the governmental agencies responsible for these controls, and the manner in which the agencies operate.

While Environment on Trial deals primarily with Ontario issues, the discussion of federal environmental statutes, rules of common law, evidence, and legal strategies make this a useful guide across Canada.

This book is published by the Canadian Environmental Law Association and the Canadian Environmental Law Research Foundation, and distributed by New Press, 553 Richmond St. W., Toronto M5V 1Y6.

# STILL NO COMMITTMENT TO TRANSIT

## -Council denies larger budget to Transit

Halifax Transit is a service to the citizens of Halifax. Without this service, many of our residents could not get around with any kind of ease, and there would be even greater congestion than there already is. In addition, a good transit system can save the city money in road improvement costs and other automobile services. Because of this, City Council must expect to help finance transit.

Penny-pinching attitude

At this time, the municipal level is the only source of funds for public transit. This year transit requested \$756,946. After some discussion, the city finally agreed to \$736,070. While this represents an increase of \$60,000 over the City Manager's recommendation, it is certainly not enough to change the present minimal transit service into a good reliable transit system. This penny-pinching attitude does not show us that there has been any serious policy change toward transit on the part of council.

The federal and provincial levels should be helping the city with funding Halifax Transit. But the lack of municipal enthusiasm does not inspire this involvement. An enthusiastic council coupled with an aggressive transit corporation would be sure to catch the interest of the upper levels of government.

## 'dreadfully huge buses'

City Council has revealed by their allocation of funds, that encouraging transit is of lower priority than catering to the needs of the private automobile. Margaret Stanbury summed up this attitude and showed a complete lack of understanding of the situation, when she said that "congestion is caused by those dreadfully huge buses". Alderwoman Stanbury and City Council must be reminded that congestion is caused by inefficient private transportation and that a great many Halifax citizens depend on transit for transportation.

The change in policy that we might expect judging from the recently aired verbal pledges must be reflected by a financial committment.

The Ecology Action Centre needs people to help in various types of jobs: helping to run the Recycling Depot; folding, stapling, and distributing leaflets; sketches, photographs, paste-up, and other art work; mailing and telephoning. If you would like to help, please phone 422-4311.

