

*Oil and Gas Act*

the setting up of the necessary administrative system and for appeals by industry with regard to administrative orders and directives.

I should like to mention at this point the great degree of unanimity on both sides of the House with which the technical provisions of the act under consideration were approved. What does the future hold for the offshore? We cannot say with certainty, for it is hidden in what the mariners of old called "Davey Jones's Locker". As I have already pointed out, one cannot predict when a major discovery will be made—it could be tomorrow.

The image of a wild and barren sea must be revised and it is being revised by our oceanographers, geologists and geophysicists. Although such words as "offshore" and "continental shelf" have become part of our everyday conversation, few Canadians as yet have a clear conception of what they mean. Think of them, if you will, as a portion of our territory that happens to be covered with a relatively shallow layer of salt water. The average depth of water over the Grand Banks of Newfoundland is less than the maximum depth of Lake Erie, by far the shallowest of the Great Lakes. With modern petroleum technology, exploration at such depths has become commonplace. And these continental shelves are vast, their area amounting to about 40 per cent of our land area. Think of it—at one stroke the mineral-resource area of our country has been increased by more than one third. It is true that much of the continental shelf in the Arctic is covered by sea ice and is difficult of access, but it is already being studied in depth by the scientists of the Department of Energy, Mines and Resources. Indeed, it is an oil discovery in the American Arctic, onshore in Alaska less than 200 miles from the Canadian border, that has sparked an unprecedented interest in both Arctic exploration and Arctic navigation.

• (12.10 p.m.)

Not only are our continental shelves accessible to mineral exploration, especially oil and gas exploration, but their geological composition makes them highly promising from a prospecting point of view. Much of Canada's continental shelf consists of sedimentary rocks of the type in which petroleum is found. The Canadian Petroleum Association made an estimate not long ago that the petroleum potential of our east coast shelf alone, including only areas to a water depth of 200 metres, amounts to some 25 billion

[Mr. Orange.]

barrels of oil and 150 trillion cubic feet of gas. This does not take into account the large areas covered by considerably deeper water. The fact is that Canada's continental shelves extend to water depths considerably greater than 200 metres in many places.

These are indeed astronomical figures that strain the imagination; but scientific and technological achievements in recent years and months have shown that sceptics are the losers and visionaries the winners. It is true that we still know relatively little about the geology of our offshore areas—less in fact than was known about the geology of Alberta on the eve of the epoch-making Leduc oil strike of 1947. The gaps in our knowledge, however, are rapidly being filled by government and private scientists, with those of the Department of Energy, Mines and Resources in the van.

The growth in exploration activity has been phenomenal. The offshore area under federal exploration permits off the east coast alone now covers 260 million acres, about twice as many acres as the four Atlantic provinces combined, including Labrador, and stretching in an unbroken belt for some 2,000 miles from the Gulf of Maine in the north easterly direction to the Grand Banks and thence to Hudson Strait. In total, approximately 500 million acres are presently held under offshore Canada oil and gas permits. This means that more than half of Canada's submerged continental margin is now covered by permits. I need hardly point out that this activity is even now bringing important economic benefits to the coastal regions, particularly along the Atlantic, and that these benefits will multiply with the discovery of commercial quantities of oil or gas.

Yet the very magnitude of these activities and the economic and social consequences that flow therefrom oblige us to subject them to the most searching scrutiny and to view them in the largest possible framework, in time and space. We are dealing here with a national patrimony which must be applied not only for the immediate welfare of the Canadian people but also for generations yet to come for whom we hold these non-renewable resources, actual or potential, in trust. This is a sobering thought which requires a sober and sagacious response. I believe that the bill now before the House meets this requirement.

In conclusion, Mr. Speaker, I suggest that as the Minister of Energy, Mines and Resources (Mr. Greene) is the sponsor of the bill, it