the Philippines, a major achievement of a developing country of the Third World in the use of new and renewable sources of energy.

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Philippine Energy Policy for the 80s

Philippine energy policy for the 80s will tend to follow the general directions established in the mid-70s. Its application, however, should reflect the realities of this decade as well as the progress achieved and experience gained over the past several years.

The Philippines, traditionally relying on oil for 95% of its commercial energy requirements, considers this fuel to be too expensive for meeting the growing energy demand of most sectors of the economy. Accordingly the country, since 1974, has embarked on a policy that: (a) promotes judicious and efficient use of energy through a responsive pricing policy and a package of fiscal incentives; (b) reduces oil dependence in favor of more economical and preferably indigenous alternatives.

Supporting this dual policy thrust, the government has played a catalytic role through selective investments, enabling legislation, national energy policy planning, and coordination of program execution. The vigorous enlistment of foreign and private sector investment in upstream resource development continues to play a role.

By 1981, the implementation of aforementioned energy policy initiatives had resulted in a decline in the country's dependence on imported oil, from a high of 96% in the mid-70s, to 79%. Energy consumption growth rates after 1974 have been contained, on the average, to levels below real economic growth movements.

In the near future, the energy investment program targets further reduction of imported oil dependence to 43% by 1986 on the strength of projects that are now either under construction or committed.

While the 70s presented general mobilization challenges, higher real costs of money and more difficult access to foreign exchange dominated financing are expected in the 80s.

In Philippine energy sub-sectors, policy application needs to recognize specific market conditions and the accomplishments to date.

The value of oil as foreign exchange earning or expenditure prompts policymakers to maintain an aggressive oil exploration posture. Though considerable success has been achieved in geothermal exploitation and use, the country still needs to displace around 2,000 Mw of baseload of oil thermal plants, a need advantageously fulfilled by geothermal systems. On another front, coal policy is expected to heavily favor the development of domestic production. Projected demand for coal for the next 6 years indicates substantial import requirements, though prospects of increasing indigenous reserves continue to be favorable.

The country continues to face challenges in the electric power industry, biomass energy development, and energy pricing. Policy options in these instances have been developed, but it is clear that time is needed to reach a satisfactory state of affairs.

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Cooper Basin Gas Liquids and Crude Oil Development Project

Gas liquid and crude oil reserves have been proved in the Cooper basin in the northeast sector of South Australia. Engineering developments necessary to exploit these reserves and bring them to market include Moomba field wells, a liquid recovery plant, a 310-mi (500 km) pipeline from Moomba to Stony Point and fractionation facilities at Stony Point. Markets for the products to be sold—lag, condensate, and crude oil—have been determined.

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Mesozoic-Cenozoic Tectonic Evolution of Western North America—Alternative to the Orocline

A time-lapse sequence for the Lower Jurassic of North America–Siberia positions is used, geared to Mid-Atlantic opening rates and pole of rotation, to show a possible linkage between the Pacific and Arctic Oceans. With a pervasive and long-lasting right lateral movement on all terranes west of the Rocky Mountain Trench (Tintina system), one can perceive Alaska, Yukon, British Columbia, and the western states as a complex of transported microplates joined by transform faults and sutures. The modification of these boundaries and the creation of structural salients in the northern Cordillera are credited to a lower Tertiary collision of the Alaskan Brooks block and Chukotka with the eastward moving Kolyma shield complex. The concept introduces a possible linkage between the extinct Kula-Farallon Ridge and the Alpha Cordillera and credits spreading within the Arctic to Barents Shelf migration by spreading away from Alaska, between the Nansen fracture zone and the Taymyr trend.

The microplate fabrics of both Alaska and eastern Siberia favor accretionary processes, with all blocks carried out of the Pacific region or along the west edge of the North American craton, rather than rifting away from Arctic Canada.

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Status of Circum-Pacific Map Project—Southwest Quadrant, Mid-1982

The Geographic and Plate-Tectonic Maps of the Circum-Pacific Map Project, Southwest Quadrant, have already been published. The Plate-Tectonic Map is a best guess for many areas, because much remains unknown about spreading centers, plate boundaries, and passive margin features.

Compilation of the Geologic Map is practically complete, with modification of guidelines so that quadrant geology can be adequately summarized. The fundamental geologic elements within the Quadrant are fragments of Gondwanaland encircled by oceanic crust and plate boundaries; passive margin-style Mesozoic and Cainozoic deposits were added to the Gondwana Paleozoic and Precambrian terrain while interactions at the boundaries between the Pacific, Australia-India, and various Asian Plates were producing other kinds of deposits. Units hosting energy and mineral resources are also emphasized.

The concurrent draft compilation for the Quadrant Tectonic Map directly complements the Geologic Map. The draft basically shows plate interiors and plate margins, each divided into basement and cover rock areas. Major orogenies are emphasized and detailed subdivision results in about 50 kinds of mostly strato-tectonic units.

Drafts for the quadrant Energy Resources Map are in progress, but little progress has been made on the Mineral Resources Map. Most of the work on the Geodynamics Map is the responsibility of project headquarters.