

# Energy crisis turns attention to coal mining

The Board of Investments is giving priority attention this year to applicants intending to develop the country's coal deposits.

Coal mining is a non-pioneer area of investments now under the Sixth Investment Priorities Plan with a measured capacity of 2,400,000 metric tons.

As shown in the Bureau of Mines reports from 1963 to 1972, coal production dropped from 156,535 metric tons to 37,942 metric tons or a decrease of 76 per cent during the past nine years.

The drop in the use of coal is attributed to the increasing dependency of industry on petroleum and its by-products.

## Alternate source

BOI believes that with the growing cost of acquiring oil from abroad, the country can benefit by utilizing coal as another energy source.

Coal is primarily consumed by cement companies, electric power plants and foundries. At one time locomotives, launches, steamships, barges and the Manila Electric Company used coal to produce power.

Aside from thermal plants and cement kilns, other possible users of coals are sugar centrals, carbon reductant manufacturers, grain driers, lumber kiln-driers and tobacco flue-curers.

## Coal users

The BOI based its 2,400,000 demand for coal by 1976 in accordance with the usage of coal by the following firms:

(1) Coal-fired thermal plants of the National Power Corporation: Liloan, Cebu - 132,000 metric tons; Batan Island, Albay, 230,000 metric tons; Sipalay, Negros Occidental, 60,000 metric tons; and Bislig, Surigao, 125,000 metric tons.

(2) Atlas Consolidated Mining and Development Corporation (six boilers at the Sangi Power Plant), 252,000 metric tons.

(3) Visayan Electric Company, 72,000 metric tons.

(4) Universal Cement Corporation, 43,000 metric tons.

(5) Apo Cement Corporation, 6,000

metric tons.

(6) Sugar centrals, 1,500,000.

## Less output

Last year, the country produced a total of 39,118 tons of coal, 28.16 per cent less than that produced in 1971. The BOI says, the downward trend of production and consumption for the past 10 years makes it impractical to project demand based on past apparent demand.

However, at the end of December, 1971, the total estimated coal reserves of the Philippines were about 125,230,383 metric tons. According to the Bureau of Mines, the grade or analysis of Philippine coal ranges from 8,390 to 14,650 BTU.

The study of the National Power Corporation states that the quality of coal in the Philippines is suitable for fuel for most industries even without beneficiation. Low-grade Philippine coal is said to be available blended with higher-grade varieties for maximum utilization.

At the end of 1972, there were 11 reported coal producing mines in the country. Nine of these are in Cebu.

## Observations

The Board noted that despite its vast coal resources, the country continues to be dependent on imported oil for industry's fuel requirements.

A review of the industry by the Board resulted in the following industry observations:

(1) Lack of developed market.

According to the Board, there is a great potential for coal although potential users prefer to use oil and other fuels because of the unsteady supply of coal and its comparatively high price.

(2) Poor mining conditions.

The existing coal mines are small and operation is intermittent. According to the BOI, mining methods used are crude. Due to the lack of facilities, mining is suspended during the rainy season.

(3) Lack of trained technical men.

There is noted a continuous lack of coal mining engineers like

expert coal drillers and experienced mine foremen.

(4) Lack of capital. The BOI said that capital has not been easy

to attract because the coal mining business has been considered an expensive and risky business.

(5) Lack of cheap means of transport.

According to the Board, the lack of transportation and shipping facilities and the high

cost involved in the movement of coal from the mines to the consumers present additional problems.

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Exhibit I  
PHILIPPINE COAL DEPOSITS  
(As of December 31, 1972)

Location Owned and/or Operated	Estimated Reserve (MT)	Heating Value (BTU)	Status	Remarks
<b>Albay</b>				
Rapu-Rapu, Batan Is.	16,693,000	8,680-12,300	Not operating	Explored
	2,000,000	NA	Prospect	Explored
Rapu-Rapu, Batan Is. (Villamez Coal Mining Corp.)	2,585,000	8,500-12,300	Not Operating	Explored
<b>Antique</b>				
Semirara Is., Caluya	2,277,000	8,390-12,410	Not operating	Explored
Semirara Is., Caluya	9,982,742 (Positive)	NA	NA	NA
	2,349,219 (Probable)	NA	NA	NA
Semirara Is., Unong	4,664,988 (Positive)	NA	Not Operating	Explored
	2,172,722 (Probable)	NA	NA	NA
	3,600,000	NA	Prospect	Explored
<b>Catanduanes</b>				
Hitoma, Carmoran	30,000	12,800-13,200	NA	NA
Hitoma, Manambag	581,000	13,040-15,010	Not Operating	Explored
	993,200	Bit.,	Not operating	Explored
		13,000-15,000		
Panganiban Region	750,000	11,280-14,650	Not operating	Explored
Panganiban, Ermitaño	180,893 (Proved)			
	212,126 (Probable)			
Payo Region	410,619	Medium Volatile	Non-operational	NA
		11,000-14,000		
<b>Cebu</b>				
Argao, Dalaguete	8,515,000	12,340-14,490	Operating	Explored
Northern Camanani	13,671,000	13,800	Operating	Explored
Danao City (Azcar Enterprises)	55,162	10,505-11,780	Operating	Explored
Danao City - Casapostela, Duramen	11,979,000	10,080-10,250	Producing	Explored
Danao City - Calumay - humayan (Atty. Ramon Durano)	18,000	10,600	Operating	Explored
Danao City - Barrios of Mantija, Camanani, Kapilyahan (Azcar Mining Dev. Corp.)	34,600	9,400-11,600	Operating	Explored
Naga, Alpacó (Bernardo Cirico)	120,000	9,500-10,340	Operating	Explored
Naga, Toledo City (Base Coal Mines)	184,887	9,870-12,290	Operating & Producing	Explored
Toledo City	38,000	11,598	Operating	Geological
Uling	774,000	8,887-12,610	Operating	Geological
Mindoro Oriental				
Bulabaco	4,014,000	8,390-12,040	Not-operating	Explored
Mamis Oriental				
Manticao (Ma. Cristina Chem. Industries)	13,000	Lignite to Sub-bit, for carbide manufacture	Operating	Explored
<b>Negros Occidental</b>				
Calatrava - Taboco	3,398,000	8,760-12,680	Not operating	Geological
Calatrava - San Carlos	32,000	NA	Not operating	Explored
Calatrava - Bagonbon	146,704 (Positive)	Sub-bit, Coal	Not Operating	Explored
	372,851 (Probable)	NA	NA	NA
Calatrava - Macasidloc	8,000	8,500-10,000	NA	NA
<b>Quezon</b>				
Polillo Is., Burdeos	2,295,000	10,060-12,790	Not operating	Geological
Polillo Is., Burdeos (Commonwealth Ceramic Corp.)	12,165	Sub-bit., Hi-Heating Value	Not operation	NA
Polillo Is., Burdeos	430,000	11,000-13,000	NA	NA
<b>Sorsogon</b>				
Garbo	112,000	10,269	Not operating	Geological
Surigao del Sur				
Bislig-Lingag	4,582,000	11,010-14,260	Operating	Geological
Zamboanga del Sur				
Nalangas (CETOC)	16,805,000	12,270-13,900	Operating	Explored
Nalangas, Butong-Deplalan	6,221,805	NA	Prospect	NA
Kabasalan, Slay (Gov'l. Reservation)	1,500,000	High Volat. To Low Volat. Bit.,		
		11,123-13,680		
<b>Leyte</b>				
Villaba, Baleta San Vicente (Luzon Stevedoring Co.)	525,000	3 - 6% bitumen	NA	NA
Total 125,230,383 MT				

SOURCE: BUREAU OF MINES.

# COAL MINING

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The Board believes that a plant with an annual capacity of 56,100 tons is of economical size. With BOI incentives, total cost of this plant is around P1.5 million with P790,822 going into the purchase of machineries and equipment.

Revenues at P65.00 per metric tons can reach P3,650,400 per annum. Net profit after tax is estimated at P439,086.

According to the

Bureau of Mines, Rapu-Rapu, Batan Island in Albay has a total estimated coal reserve of 18,693,000 metric tons; Northern Camansi, Cebu, 13,671,000 metric tons, and Carmen, Danao City, 11,979,000 metric tons.

Other rich deposits of coal are found in Antique, Catanduanes, Nalagas, Zamboanga del Sur (16,805,000 metric tons), and Negros Occidental. Many of these coal mines, although explored, are not operating.

**LIVING UP TO A NAME:**



Our name. It means the top. The summit. It motivates us to achieve management excellence in our operations.

It symbolizes too management's youth and expertise in mineral exploration, mining and ore-dressing technology.

And because living up to our name is enough incentive, we are proud to share in the government's efforts to create new jobs for Filipinos, generate foreign currency for our country and produce copper and gold to serve society.

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**TABLES OF NATIONALIZATION LAWS AND THEIR REQUIREMENTS**

LEGAL PROVISIONS	SUBJECT MATTER	REQUIREMENTS	
		NATURAL PERSONS	JURIDICAL PERSONS
<b>BANKING</b>			
1. Rep. Act. No. 337 as amended by P.D. No. 71 (General Banking Act)	Regulating the establishment and operation of banking institutions.		Seventy per cent of voting stock of the institution must be owned by Filipino citizens, except new banks established by consolidation of branches or agencies of foreign banks in the Phils. Two-thirds of the members of the board of directors must be Filipino citizens.
2. Rep. Act. No. 4093 as amended by P.D. 119 (Private Development Bankers' Act)	Regulating the establishment of private development banks.		Seventy per cent of voting stock of the institution must be owned by Filipino citizens, except new banks established by consolidation of branches or agencies of foreign banks in the Phils. Two-thirds of the members of the boards of directors must be Filipino citizens.
3. Rep. Act. No. 720 as amended by RA Nos. 1097; 5929 and P.D. 122 (Rural Banks' Act)	Regulating the establishment and operation of rural banks.		Capital stock must be 100% owned and held by Filipino citizens. All members of the board of directors must be Filipino citizens.
4. Rep. Act. No. 3779 as amended by RA 4378, Sec. 4 (b)	Capital structure of savings and loan association		Sixty per cent of the capital stock must be owned by citizens of the Philippines.
5. Rep. Act. No. 4860 Sec. 3, as amended by RA 6142	Re-lending by gov't. financial institutions to private sector of foreign loans obtained by these institutions.	Limited to Filipino citizens.	At least 70% of the outstanding and paid-up capital of corporation or partnership must be held by Filipinos until loan is fully paid.
<b>CIVIL AERONAUTICS</b>			
1. Sec. 5, Art. XIV, Const. of the Phil.	Grant of franchise, certificate, or any other form of authorization for the operation of a public utility.	Grantee must be Filipino citizen.	Grantee must have at least 60 per cent Filipino capital.
2. Republic Act No. 776	Issuance of permit to engage in domestic air commerce and/or air transportation.	Grantee must be Filipino citizen.	Grantee must have at least 60% Filipino capital.
<b>COCONUT INDUSTRY</b>			
Rep. Act. No. 1369	Granting of loans to finance establishment of coconut centrals and mills.	Grantee must be Filipino citizen.	Grantee must be a corporation or association with majority Filipino capital.
<b>COOPERATIVES</b>			
1. Com. Act. No. 565; RA 2023	Organization of cooperative associations.	A cooperative association maybe formed by 15 or more persons who are citizens of the Phil. or the U.S. or of both, residing in the Phil.	Any corporation or association with at least 61 per cent Filipino or American capital may organize a cooperative association.
<b>FINANCING COMPANIES</b>			
Rep. Act 5960	Regulating the establishment and operation of financing companies.		60 % of the capital stock should be owned by citizens of the Philippines and must have a paid-up capital of at least P500,000; 2/3 of the members of the board of directors of the corp. must be Filipino citizens; if the managing partners must be Filipino.
<b>FISHING AND OTHER AQUATIC RIGHTS</b>			
1. Sec. 20, Public Act No. 4003 (Fisheseries Act)	Issuance of license to operate vessels to catch fish in territorial waters of the Philippines; transfer or assignment of right.	Licensee must be citizen of the Phil. or the United States or of any other country granting similar right to Filipino citizens; transferee or assignee must have qualifications as licensee.	Licensee must have at least 61 per cent Filipino or American capital; transferee or assignee must have qualifications as licensee.
2. Sec. 22, Public Act No. 4083, as amended by CA No. 471	Issuance of license as fisherman to work on vessel engaged in commercial fishing.	Licensee must be citizen of the Phil. or the U.S. or of any other country granting similar right to Filipino citizens.	Not applicable.
3. Secs. 24 and 32, Public Act No. 4003	Issuance of license to take marine mollusca; transfer or assignment of right.	Licensee must be citizen of the Phil. or the U.S. or of any other country granting similar right to Filipino citizens; transferee or assignee must have qualifications as licensee.	Licensee must have at least 61 per cent Filipino or American capital; transferee or assignee of stock must have qualifications as licensee.
4. Sec. 25, Public Act No. 4003 as amended by CA No. 471.	Issuance of license for operation of pearling or shell-collecting boat; transfer or assignment of right.	Same as provided for in Sec. 24, Public Act. No. 4003, <i>supra</i> .	Same as provided for in Sec. 24, Public Act No. 4003, <i>supra</i> .
5. Sec. 27, Public Act No. 4003, as amended by CA No. 471.	Issuance of shell-driver's license to take marine mollusca or shell thereof.	<i>ibid.</i>	<i>ibid.</i>
6. Secs. 39 & 44 Public Act No. 4003	Granting of concession to fish for, collect or gather sponges in territorial waters of the Philippines; transfer or assignment of right; issuance of special permit.	<i>ibid.</i>	<i>ibid.</i>