# Winrock International

# Renewable Energy
# State of the Industry Report
# #8

**January - March 2003**

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# Introduction

The following **Renewable Energy State of the Industry Report** was prepared by Winrock International with funding from the US Agency for International Development (USAID) under the Leaders with Associates (LWA) Agreement. This is the seventh in a series of reports, which is prepared and distributed on a quarterly basis to provide information to RE industry and other stakeholders on what is going on in key countries in terms of market opportunities, policy, finance and projects for solar PV, wind, small hydropower, biomass, and other clean energy technologies.

Winrock International's Clean Energy Group (CEG) was established in 1989 to increase sustainable development in developing countries through the use of renewable energy (RE) technologies, when and where they are the appropriate application. CEG provides technical, political, and market-oriented assistance to public and private sector organizations to assist with deploying commercially-viable renewable energy technologies and building local capacity.

A focal point for Winrock's efforts to expand the awareness and use of energy technologies has been the establishment of an international network of in-country project support offices. Each locally managed office, which represents a country or region in the network, is known as a Renewable Energy Project Support Office, or **REPSO**. Once established, the REPSO becomes a member of the CEG's international technical and financial support network. REPSO programs are designed to stimulate understanding of the ways in which sustainable energy sources can be better integrated into national and multinational development efforts. Winrock currently operates REPSO offices in seven countries. Brazil, Guatemala, India, Indonesia, Nepal, the Philippines and South Africa. In addition, CEG has NGO partners/representatives in the Dominican Republic, Mexico and Peru.

US renewable energy companies have consistently identified market information as one of their most urgent needs. Considering the lack of a dedicated institution to play the market facilitation role and Winrock's network of well-established REPSOs, CEG is in an excellent position to fill this gap by preparing and disseminating current renewable energy market information from the key REPSO countries.

The quarterly reports will provide information to a host of organizations interested in keeping up-to-date on international RE market information including the US industry, the US government and agencies, multilateral and commercial financing agencies, NGOs, universities, research institutions and foundations. It is our hope that by better communicating what is going on in the countries where we work, we can better position US industry to be successful in those markets. In addition, by informing US government agencies, NGOs, financing and funding institutions of worldwide RE happenings, we hope to catalyze the interest, cooperation, discussion and activity of those organizations in this area. In each report, information is provided country-by-country on various topics.

- Information on the macro political and economic situation and the effect on RE;
- General RE market information;
- RE Policy developments;
- RE Finance developments;
- RE Equipment/services procurement notices;
- Partnering opportunities;
- Project leads and RE news; and
- Calendar of Events

The information in the report was collected primarily in the field by local REPSO offices, drawing on primary and secondary sources.

We hope that with positive feedback we can better tailor the information to suit industry needs and expand the scope of the report to cover additional countries. We welcome both general and specific feedback regarding the information contained in the report, especially feedback on any successes that come from leads provided. Questions or comments can be directed to Winrock's Clean Energy Group Industry Liaison, Maria Fyodorova at ***mfyodorova@winrock.org.***

# Guatemala-Fundacion Solar

## Section 1. Macro Political and Economic Situation

| Important Acronyms: | |
|---|---|
| **Acronym** | Description |
| **MEM** | Ministerio Energia y Minas |
| IMF | International Monetary Fund |
| **CCAD** | Comision Cent. Ambiente y Desarrollo |

Based on information available from the IADB (www.iadb.org), some major steps to consolidate macroeconomic stability were taken at the end of 2002. A stand by program has been agreed upon with the IMF that should ensure fiscal discipline and cut the overall public deficit in half to 1.5 percent of GDP. In the financial sector, Congress approved some major laws that will help to complete the cleaning up of weak or failed banks, although there is internal opposition to the style exercised in the recent mergers observed in financial institutions.

Economic growth has been sluggish at a rate close to 2 percent. Traditional exports continue to be affected by poor commodity prices for sugar and coffee, while non-traditional exports have lost market share, hampered by increasing costs and an appreciated currency. Domestic demand has suffered from low consumer and investor confidence as concerns for the security situation remain; civil society polarization has increased in this final year of the Portillo administration and little progress has been made towards implementation of a poverty reduction strategy."

Election prospects continue to be darkened by internal party disputes and the relative uncertainty about who is going to be the FRG party candidate.

## Section 2. Policy Environment

According to the electric sector policy initiatives, the Ministerio de Energia y Minas (MEM) has announced that targeted issues for the present administration have been almost achieved with respect to project execution, policy initiatives submitted to the Congress for approval and also on institutional development in renewable energy. Regarding the latter, while the Law on Incentives for Renewable Energy is pending evaluation in the Congress, the Center for Renewable Energy continues to operate and implement projects mapping renewable energy resources. A new initiative is currently under consideration, aimed at producing a bio-energy policy statement as well as submitting a new law related to the incentives for bio-fuel production. This is mainly being backed by the sugar sector, which is interested in diversifying its products to offset the persistence of low sugar prices internationally.

In the energy sector, it is likely that the strength of the wholesale market will continue and that there will be a continued dynamism in the competitive market link with El Salvador. The contracts segment of the market will continue to have a strong influence on the overall market, with a potential impact on the finishing of the supply contracts that INDE has with the rural distribution companies by the end of 2003, although the government favors the commitment of Empresa de Generacion Electrica (EGEE), in order to maintain subsidy levels at least during this year (happening to be election year), therefore causing mixed signals to market operation. Guatemala continues to be preparing for entry into operation of the agreed electricity market link with Mexico at the end of 2003, or beginning of 2004. This issue will have a strong impact on the market's behavior.

The latest Duke Energy International (DEI) power plant, a $150 million, 165-megawatt thermal generation plant in San Jose, began operations in April 2003, making Duke the second largest player in the market. The new plant will initially use heavy fuel oil and is capable of using advanced emulsified fuel, which is a technically advanced low-cost fuel not traditionally used in Central America, the company said.

Renewable energy developers continue to find it difficult to participate in the market, with only a few projects under construction. There are currently about 90 MW worth of hydro projects under construction, like El Canada (60 MW) and Las Vacas (20 MW).

**Section 3. RE Financing**

CCAD has announced a new $3.3 million initiative partnership project to be signed by the Central American governments and Finland with the objective of: assisting in removing legal barriers, promoting renewable energies and sustainable biomass in current markets, assisting in capacity building and supporting demonstration projects in the region. Information is available from the Regional Coordinator Unit, fax (503) 264 3492 or to the following address: alianza-energia@sgsica.org. Funding opportunities are available for local and regional organizations for renewable energy projects and supporting activities in order to promote renewable energy in the region.

USAID/Guatemala continues to provide incremental support for small-scale renewable energy projects in the Cancuen region of Guatemala. Information is available from funsolar@intelnet.net.gt

**Section 4. RE Equipment/Services Procurement Notices**

No information is available currently on bid/calls for suppliers for RE equipment in Guatemala.

**Section 5. Project Leads, Partnering Opportunities and General News**

An improved fuelwood and stoves rural cooking seminar was held in Guatemala in early April 2003, to present and assess results of a ESMAP/World Bank program. Information is available from funsolar@intelnet.net.gt.

A seminar and workshop on baselines for electricity projects was held in Guatemala in mid April 2003, under support of USAID, the Center for Sustainable Development in the Americas, and Berkeley Labs.

Below are current web sites for organizations related to the electricity sector in Central America, where information is available on different countries' electricity markets, expansion needs, etc.

GUATEMALA

1. Administrador del Mercado Mayorista, www.amm.org.gt
2. Comisión nacional de Energía Eléctrica, www.cnee,org.gt
3. Ministerio de Energía y Minas, www.mem.gob.gt
4. Instituto Nacional de Electrificación, www.inde.gob.gt

HONDURAS

5. Empresa Nacional de Energía Eléctrica, www.enee.hn

EL SALVADOR

6. Ministerio de Economía, www.minec.gob.sv
7. Unidad de Transacciones, www.ut.com.sv
8. Comisión Ejecutiva Electrificación Lempa, www.cel.gob.sv
9. Superintendencia General de Electricidad y Telecomunicaciones www.siget.gob.sv

NICARAGUA

10. Comisión Nacional de Energía, www.cne.gob.ni
11. Instituto Nicaragüense de Electricidad, www.ine.gob.ni
12. Centro Nacional de Despacho de Carga, www.cndc.org.ni

COSTA RICA

13. Instituto Costarricense de Electricidad, www.ice,go.cr
14. Compañía Nacional de Fuerza y Luz, www.cnfl.go.cr
15. Autoridad Reguladora de los Servicios Públicos, www.aresep.go.cr

PANAMA

16. Ente Regulador de los Servicios Público, www.enteregulador.gob.pa
17. Empresa de Transmisión de Electricidad, www.etesa.com.pa

REGIONALES

18. Consejo de Electrificación de América Central, www.ceac-ca.org.sv
19. Comisión Económica para América Latina, www.eclac.cl/mexico
20. Banco Interamericano de Desarrollo, www.iadb.org
21. Banco Mundial, www.wb.org
22. World Resources Institute, www.wri.com

# Honduras – Honduras Association of Small Scale Renewable Energy Producers (AHPPER)

## Section 1. Macro Political and Economic Situation

**Political Scenario.** Two years and three months into his presidency, President Ricardo Maduro Joest has put all his effort into accomplishing the promises he made during his presidential campaign, mainly concerning security and tourism. During 2002, the central government managed to reduce crime rates significantly. For example, kidnappings were reduced by 42 percent, car thefts by 24 percent, bank robberies by 38 percent, theft on businesses by 10 percent and muggings by 20 percent.

**Important Acronyms:**

| | |
|---|---|
| **AHPPER** | Honduras Association of Small Scale Renewable Energy Producers |
| **DGE** | National Directorate of Energy |
| **ENEE** | National Electric Energy Company |
| **CABEI** | Central American Bank of Economic Integration |
| **LMSSE** | Frame Law of the Electric Sub sector |
| **CPME** | State Modernization Commission |

The central government made some advances at reducing corruption as well, such as the creation of the National Committee Against Corruption and the reactivation of the Transparency and Efficiency Unit aimed at centralizing government purchases.

On the tourism front, several programs have been initiated. One of the main projects is the Bay of Tela development, a US$140 million initiative aiming to make the city of Tela one of the main tourist attractions in Central America. In addition, the Ministry of Tourism in conjunction with the Ministry of Security, has created the "Balam Knights," or tourism police, with the objective of providing a crime free environment to tourists visiting the most popular resorts and attractions.

In other administration efforts, a new endeavor by the central government known as "Housing for the People," will give low-income families a 30,000 lempira startup bond so they can afford a house valued at up to 150,000 lempiras. The main goal of this program is to jump-start the construction business, which has been in recession, and to address the housing deficit in Honduras.

You may find up-to-date information about Honduras at the Central Government official website: www.casapresidencial.hn (Spanish only).

**Economic Situation**. In 2002, Honduras registered economic growth of 2 percent. The tourism sector, with significant support from the central government, showed earnings of US$350 million, with an increase of US$80 million in 2001. The assembly of textiles and non-textile items showed a 10 percent increase reaching US$662 million. The prime rate went down 1.3 percent compared to 2001 and inflation for 2002 was 8.1 percent, which represents a 0.7 percent reduction from 2001.

The local currency, the lempira, continues sliding against the US Dollar; the latest figures show the lempira at an exchange rate of almost L17.4045/1 USD. The outlook for 2003, according to the Honduras Central Bank, shows inflation of at least 5 percent.

The central government has established a price ceiling of $35 per barrel on gasoline and diesel prices to counteract any possible negative effects on the world oil prices by the war in Iraq. This measure is meant is to stabilize prices at the pump, which have been increasing rapidly, causing anger among the population and sending prices of goods skyrocketing.

## Section 2. Policy Environment

**New administration initiatives.** The central government has released two initiatives for an Economic Adjustment with many aspects being addressed such as sales tax, law of tax to the net total assets, adjustment to the rate for generating energy from fossil fuels, cutting public expense and transitional and general dispositions, among others. These measures are intended to increase income and balance the national budget.

The central government continues to work with the support of foreign consultants to reform the Framework Law (LMSSE), which mainly aims to introduce a competitive electric market in Honduras and promote investment by the private sector.

Due to a weak legislation that does not regulate the collection of certain tariffs that Municipalities may charge for rent, usage sales or services, AHPPER has taken the initiative to present a Project Law to regulate such collection or shares of services, sales or rental for project developers. This initiative has been sent to the Honduran Congress.

AHPPER and the Ministry of Government are working together to arrange talks with mayors of certain cities to familiarize them with the taxes, tariffs and rates they may charge for RE projects. AHPPER is also promoting RE projects to the mayors in terms of the social, environmental and economic benefits their towns would receive by allowing an RE project to be developed there.

The CPME has hired a consultant for three months to study the financial barriers and other factors that can turn into obstacles for projects. The objective is to develop the appropriate mechanisms to eliminate the different obstacles faced by developers of RE projects such as high guarantees, high interest rates and no grace periods, among others. For more information, contact Luis Suazo at fsuazo@presidencia.gob.hn.

## Section 3. RE Financing

**CABEI Initiatives.** Financing opportunities continue to be available within the Central American Bank for Economic Integration (CABEI) for the development of environmentally related projects, including renewable energy projects. Funds from the European Union are destined for environmentally related projects at low interest rates and long term pay back periods. At the same time, a fund for pre-investment seed capital is available. These funds can be used to support the elaboration of feasibility studies for environmentally related projects. Contact the Sustainable Department at CABEI for more information, gbarahon@bcie.org.

## Section 4. RE Equipment/Services Procurement Notices

After a long and controversial process, the central government has awarded the contracts for the generation of 410MW of electricity. The winning contractors, Luz y Fuerza de San Lorenzo (LUFUSSA) and AES Honduras will supply a projected 410MW to the national grid, potentially avoiding any shortfalls in electricity availability until 2010. LUFUSSA will begin operations in 2004; its plant will be located in the south of Honduras generating 210 MW thru the burning of bunker fuel. AES will start generating 200MW from its LNG plant in Puerto Cortes in the North coast of Honduras.

**Section 5. Project Leads, Partnering Opportunities and General News**

Update on hydroelectric project development:
The Rio Blanco project started construction in February. Its expected capacity is 5MW. For more information, contact Roberto Nuñez at rnunez@terra.hn or Javier Prats at jprats@terra.hn .

The Babilonia Project is restarting its construction after being delayed due to some financial problems; Babilonia is located in the SE part of Honduras in the region of Olancho. Its expected capacity is 2.586MW. For more information, contact Hector Borjas at energhjb@hondutel.hn

The construction of the Zacapa project has been delayed until the first quarter of the 2004. Zacapa is located on the river of the same name in the Santa Barbara region; its expected capacity is 0.68MW. For more information, contact Jorge Rivera at cenit@edured.net

**Section 6. Calendar of Events**

**AHPPER workshop, June 2003**

As part of a continuing series of workshops, DGE, FENERCA and AHPPER are looking forward to organizing a training workshop on renewable energy for the private sector and non-governmental organizations. The main objective of this workshop is to continue information dissemination on renewable energy and its benefits as a source of wealth, social benefit and environmental protection. In addition, the workshop seeks to increase, promote and encourage the participation of the private sector as a supporter, investor and developer in RE development. For NGOs, the objective of the workshop is to incorporate RE into their work in similar projects and to consolidate the renewable energy field in Honduras. Although this workshop was intended for February, administrative delays have pushed it back to June. Interested participants, please contact DGE Director, Leonardo Matute, at lmatute@serna.gob.hn.

**The Second Forum on Energy, May 8, 2003, San Pedro Sula**
This Forum is being organized by the Chamber of Industry and Commerce of Cortes and the Honduran Private Council for Clean development (CEHDES in Spanish). The objective of the forum is to gather representatives from equipment manufacturers, private sector, public sector, international and national financial institutions, professional organizations and construction companies to promote the development of RE projects, especially hydroelectric plants and the generation of electricity at competitive prices.. For more information contact Moises Zuniga at moises@ahpper.hn

# India – Winrock International India

## Section 1. Macro Political and Economic Situation

**Political Situation**. The current government, led by the Bharatiya Janata Party, is likely to remain in power into 2004, when the next general election is due. The BJP (the lynchpin of the ruling coalition) has been bolstered by its success in the Gujarat state assembly election (which it won convincingly) and has forced the main opposition party, Congress Party, on the defensive.

**Important Acronyms:**

| Acronym | Description |
|---|---|
| BJP | Bharatiya Janata Party |
| CSO | Central Statistical Organization |
| GDP | Gross Domestic Product |
| WPI | Wholesale Price Index |
| MNES | Ministry of Non-conventional Energy Sources |

However, the Congress Party is regaining momentum and could prove a serious challenger to the ruling party if its election victory in the northern state of Himachal Pradesh, in February 2003, leads to further successes in the North East elections, where the BJP is a marginal player. These elections may act as a bellwether for the general election, in October 2004, and the Congress Party's modest resurgence now makes the result uncertain. Though a number of economic reforms are under discussion, the government is not expected to implement major policy reforms until the political climate stabilizes.

**Economic situation.** On the macroeconomic front, GDP estimate for 2002-03 has been scaled down to 4.4 percent by the Central Statistical Organization (CSO). This is largely due to a 3.1 percent decline expected in agriculture. The industrial sector is estimated to grow at 6.1 percent, while the service sector's growth would be 7.1 percent in 2002-03 as per advance estimates of the CSO. Meanwhile, the food grain production is expected to be lower at 183 million tons in 2002-03 compared to 212 million tons in 2001-02.

The industrial growth was 5.3 percent in the April-December 2002 period as compared with 2.5 percent in April-December 2001. The fiscal deficit target for the year 2003-04 has been set at Rs 1,536.37 billion or 5.6 percent of GDP.

Inflation rate in terms of WPI was 4.69 percent for the week ending March 1, 2003. The sharp increase in inflation has been on the low base of the previous year and is largely due to the rise in oil prices.

Meanwhile, the money supply (M3) grew by 12.5 percent from Rs 2,457 billion as on March 8, 2002 to Rs 2,765 billion on the same date in 2003.

While exports have been higher by 20.4 percent in dollar terms in the April-December 2002 period as compared to a decline of 2.2 percent in April-December 2001, the imports increased by 14.5 percent as compared with an increase of 0.2 percent in corresponding period last year.

Forex reserves (excluding Gold and SDRs) stood at $74 billion at the end of the first week of March 2003. Also, net FII investment up to March 13, 2003 was Rs 1,538 million (US$32.1billion).

Analysts forecast that the government's fiscal deficit target of 5.3 percent of the GDP will be overshot in 2002-03. Inflation is forecast to increase slightly in 2003 and GDP growth in 2003-04 is expected to rise to 5.9 percent.

According to the RBI statistics, the macroeconomic situation in the country remains "comfortable, although declines in agricultural production, concerns relating to the fiscal position and international political unrest remain downside risks that could constrain growth." The report (entitled "*Currency and Finance 2001-02*") claims that in the context of various uncertainties, performance of the Indian economy during 2002-03 demonstrated its "intrinsic resilience to shocks." The report further pointed out that despite the drought situation in many parts due to a weak and uneven monsoon after 13 years, food grain stock remains comfortable while the industrial sector is continuously showing signs of broad-based recovery led by all three major constituents - mining, manufacturing and electricity.

**Economic policy outlook.** The government's new budget, unveiled February 28, 2003, includes measures to streamline India's inefficient tax collection and includes public works spending that will help boost the incomes of the poor. Plans to raise privatization revenues from $750 million last year to more than $2 billion this year have also been mentioned in the budget. The budget, however, does not tackle the growing fiscal deficit. According to some analysts, the lack of economic reforms will mean that growth rates will stay below the government's 8 percent target in the next two to five years.

## Section 2. Policy Environment

**Union Budget FY2003 highlights:** There were only a few announcements regarding the energy sector in the Union Budget FY2003; however, the few changes that were announced were significant.

In the power generation segment, the Budget extended mega power project status to all the generating units meeting the norms laid down by the center and the power ministry. This means that incentives for mega projects would become available to all, providing a much-needed boost to the sector in the longer term. In addition, the Budget has reduced the customs duty on high voltage equipment from 25 percent to five percent. Overall, the reduction is encouraging for the power transmission segment, but this might adversely impact some equipment suppliers.

On the oil and gas side, there was no respite for consumers as the Budget FY2003 announced a 50 paise per litre surcharge on petrol and diesel to keep pace with the international price rise. Further, the customs duty on LNG re-gasification plants has been reduced from 25 percent to 15 percent and the concession of Re 0.30 per litre from surcharge on motor spirit, intended for use in the manufacture of ethanol doped petrol, has been continued for one more year, up to February 29, 2004.

Meanwhile, the Railway Budget FY2003 also had some impact on the oil and gas sector. One of the major benefactors of the freight rationalization measures announced in the Railway Budget would be the public sector oil companies, for whom the revised tariffs would mean a total savings of around Rs 1 billion. According to the proposal in the railway budget, freight charges for petrol up to 700 kilometres will be decreased by 10.7 percent and for diesel 7.7 percent. Charges for high-speed diesel will be Rs 99.22 per quintal, up from Rs 107.48, whereas LPG movement would become cheaper by 7.5 percent, from Rs 82.68 to Rs 76.48.

On the renewable energy front, in a bid to encourage indigenous technology development, a special allocation of Rs 200 million has been made to the Council for Scientific and Industrial Research (CSIR) for launching incentive-driven research in the fields of solar energy, wind turbines, and hydrogen fuels as alternatives to fossil fuels.

**Power reforms move ahead**. To date, nine states have already unbundled and corporatized their electricity boards. About 22 states have constituted electricity regulatory commissions and 13 regulators have issued tariff orders.

In yet another attempt to catalyze the reform process, the Central Electricity Regulatory Commission (CERC) has organized a 22-member Central Advisory Committee to look into the reforms and restructuring of the power sector in the country. It would meet twice or thrice a year to discuss new regulatory issues that impact the progress of reforms and restructuring of the power sector. The CERC chairman will be the ex-officio chairman of the committee, which will be comprised of other members of CERC as ex-officio members. Other members include the chairmen and senior members of National Thermal Power Corporation, Infrastructure Development Finance Corporation, Industrial Development Bank of India, National Hydroelectric Development Corporation, Power Grid Corporation of India Limited and Tata Power.

With the state electricity boards' annual losses mounting to over Rs 400 billion, the Economic Survey (which came out in the last quarter) has asked the government to push for reforms and payment of user charges in the power sector, stating that only such an action could push the economic growth by 1.5 percent. Further, improvement in the power distribution area alone could lead to over 1.5 percent of fiscal correction of the GDP. The survey has also pointed out that once reforms in transmission and distribution were in place, it would not be difficult to elicit private investments in generation.

**Over the past quarter, three states made renewed attempts toward reforms**. The Tamil Nadu Electricity Regulatory Commission (TNERC) has finally come out with its first tariff order. The commission has set the direction for a phased elimination of cross-subsidization in the state. With the Tamil Nadu state government ruling out any subsidy to the Tamil Nadu Electricity Board, TNERC's order is the first in the country, which will not have any subsidy from the state government. The Assam state cabinet has finalized its new policy for state power reforms. The initiative has been made possible due to a financial commitment made by the Asian Development Bank to the state. The bank has promised $200 million as financial assistance, the disbursal of which is a pre-condition to the reform process. Meanwhile, the Power Sector Reforms Committee set up by the Punjab state government has recommended the unbundling of the Punjab State Electricity Board. According to the committee's recommendations, the state electricity board should be trifurcated into three wings, one each for generation, transmission and distribution. In another development, the chief minister of Jharkhand has ruled out the privatization of the electricity distribution sector in the state. He also said that the state electricity board would not be trifurcated.

**Electricity Bill 2001 finalized.** The Union cabinet, on February 19, approved the Electricity Bill 2001 after incorporating the amendments suggested by the Parliamentary Standing Committee on Energy. Earlier, the parliamentary panel approved the Electricity Bill 2001 with recommendations for some changes. The amendments to the bill would be moved by the Union Minister of Power in the Lok Sabha in the next session of the Parliament. The comprehensive bill, which was initially tabled in the parliament in August 2001, replaces the Indian Electricity Act 1910, the Electricity (Supply) Act 1948, and the Electricity Regulatory Commission Act 1998, and makes it mandatory for the states to implement reforms to take advantage of the central funding. The bill also makes it compulsory for the states to set up regulatory commissions in addition to de-licensing generation and providing open access to transmission lines.

**Uniform policy for renewables.** The Ministry of Non-Conventional Energy Sources has suggested the formulation of a uniform energy policy to strengthen the growth and development of the non-conventional energy sector. At present, there is no comprehensive renewable energy policy for the country. A draft Renewable Energy Policy Statement has, therefore, been prepared for adoption. The objectives of this draft policy statement are to meet minimum rural energy needs; provide decentralized off-grid energy supply for agriculture, industry, commercial and household sectors in rural and urban areas; and, to generate grid quality power.

**Promising developments on the bio-fuels fronts.** On January 1, 2003, the minister of petroleum and natural gas, Ram Naik, formally launched supply of 5 percent ethanol blended petrol, called "Gasohol," across the nation. He stated that initially, the ethanol-blended petrol would be supplied in parts of Andhra Pradesh, Maharashtra, Punjab and Uttar Pradesh starting January 1, 2003, as part of the government's decision to cover the entire areas of the first phase (comprising nine states and four union territories) fully by June 2003. These states are Andhra Pradesh, Goa, Gujarat, Haryana, Karnataka, Maharashtra, Punjab, Tamil Nadu and Uttar Pradesh. The four union territories include Chandigarh, Dadra & Nagar Haveli, Daman & Diu and Pondicherry.

Meanwhile, Indian Railways (IR) has entered into an agreement with the Indian Oil Corporation (IOC) for the production of eco-friendly bio-diesel for its locomotives. IR will offer 500 hectares of land on lease to the IOC to plant jatropha curcas in Gujarat and Rajasthan, which is likely to yield 500-800 metric tons of bio-diesel in the coming two to three years. This exercise will benefit the IR in two ways. First, bio-diesel is less expensive than high-speed diesel (HSD) currently used by the railway locomotives; and, two, the barren railway land would be put to good use. It would also save IR from importing two million tons of HSD and help the country reduce its dependence on imported fuel.

On the policy front, a draft national policy on non-edible oils as biofuels, prepared by the Indian Institute of Science, has suggested a massive national campaign for popularizing the usage of biofuels in the country. The policy suggests that the use of biofuels be encouraged on the lines of ethanol-blended petrol. Biofuels should form five percent of diesel in the next five years and this should be increased to 20 percent by 2010. Fiscal incentives to agencies that promote the generation, sale and use of these fuels have also been suggested.

## Section 3. RE Financing

**Budgets estimates for MNES programs.** The following are the budget estimates for various programs/schemes of the MNES for the year 2003-2004.

| SL.NO | PROGRAMS/ SCHEMES | BUDGET ESTIMATES - 2003-04 (RS IN MILLION) |
|---|---|---|
| 1 | Wind power | 140 |
| 2 | Biomass Power/Cogeneration | 180 |
| 3 | Biomass Gasification | 50 |
| 4 | Solar Power | |
| | Solar Thermal Power | 50 |
| | Solar Photovoltaic Power | 60 |
| 5 | Biogas Plants (NBMMP) | 550 |
| 6 | Improved Chulha | 10 |
| 7 | CBP/IBP | 10 |
| 8 | Rural Energy Entrepreneurship / Institutional Development | 0.5 |
| 9 | Women & Renewable Energy Development | 0.5 |
| 10 | Village Electrification Programme | 1,000 |
| 11 | SPV Demonstration & Utilization Program | 400 |
| 12 | SPV support to industry, interest subsidy on manufacturing Loan | 20 |
| 13 | SPV Water Pumps | 310 |

| | | |
|---|---|---|
| 14 | SPV R&D | 20 |
| 15 | Small Wind Energy Systems | 20 |
| 16 | Solar Thermal Program | 130 |
| 17 | Energy from U&I Wastes | 140 |
| 18 | Information & Publicity | 40 |
| 19 | Energy Parks | 45 |
| 20 | Integrated Rural energy Program (IREP) | 50 |
| 21 | New Technology | |
| | Fuel Cell | 40 |
| | Hydrogen Energy | 20 |
| | Alternate Fuel for surface transport | 40 |
| | Ocean (Tidal) Energy | 30 |
| | Geo-Thermal | 20 |
| | Biofuel | 30 |
| 22 | International Cooperation | 17 |
| 23 | Small Hydro Power | 495 |
| 24 | TIFAD | 10 |
| 25 | Market Development & Export Promotion | 2.5 |
| 26 | HRD & Training | 15 |
| 27 | Regional Office | 20 |
| 28 | State Nodal Agencies | 15 |
| 29 | Technology Commercial Funds | 2.5 |
| 30 | Seminars/Symposium | 5 |
| 31 | Solar Energy Centre | 40 |
| 32 | NIRE | 30 |
| 33 | Centre for Wind Energy Technology | 37 |
| 34 | Equity IREDA | 400 |

**Interest subsidy continues under the Solar Thermal Energy Program**. The interest subsidy scheme under the Solar Thermal Energy Program will continue in FY2003. Under the interest subsidy scheme of the MNES, soft loans are provided by designated banks for installation of solar water heaters based on flat plate collectors, and solar water heaters based on evacuated tube collectors. Solar water heaters of capacity up to a maximum of 5,000 liters are eligible for soft loans from banks. Any individual, institution, association, or small business establishment is eligible for this loan up to 85 percent of the cost of the system at an interest rate of 5 percent per annum repayable in 5 years. End-users (other than individuals) will, however, have to guarantee that no depreciation allowance will be claimed under income tax rules. An additional amount of Rs 300 will also be made available by MNES to the banks as promotional incentive/business development charge for each loan disbursed irrespective of the size of the system.

**Tata BP plans to launch a financing scheme for BIPV systems.** The Rs 2.5 billion Tata BP Solar India Limited plans to offer a financing scheme to popularize its newly launched Building Integrated Photovoltaics (BIPV) laminates system. The new technology could be used as a replacement for building materials like glass and at the same time generate power, which could be consumed locally within the building. The company is in talks with financial institutions to make the new technology available to retail customers. At present, a slew of institutional customers have shown interest in adopting the BIPV technology. BIPV is modular, silent, free from fuel and pollution and provides sound and heat insulation. BIPV laminates are 2-2.5 times more expensive than the normal glass, but it can provide consistent electricity for more than 30 years.

**UNEP initiative.** The United Nations Environment Program (UNEP) has launched a new $7.6 million initiative with two Indian banks – Syndicate Bank and Canara Bank – to offer 18,000 southern Indian households low-cost financing for solar generated electricity. Indian households will be able to purchase systems at an interest rate of approximately five percent, compared to the normal lending rates of 11-12 percent. The new program will be accomplished by combining the two banks and a number of UNEP qualified solar home system vendors. The United Nations Foundation and the Shell Foundation are supporting the program.

**Interest subsidy for rural electrification.** The Cabinet Committee on Economic Affairs (CCEA) has approved a four percent interest subsidy scheme on loans availed by the state electricity boards from financial institutions as a measure to accelerate rural electrification. The proposal, cleared under the Accelerated Rural Electrification Program, intends to ensure 100 percent electrification of all villages by the end of the Tenth Plan period. Also, the interest subsidy would ensure that funds are available for rural electrification at the same cost as in Pradhan Mantri's Gramodaya Yojana. The action plan, cleared by the CCEA very recently, includes an outlay of Rs 1.6 billion in 2002-03 and a grant of Rs 5.6 billion for the Tenth Plan period as an interest subsidy scheme for the accelerated rural electrification program.

## Section 4. RE Equipment/Services Procurement Notices

The following are recent tenders for procurement of equipment in the renewable energy area:

Agency: Maharashtra Energy Development Agency (MEDA)
Estimated cost: Rs 92,19,000
Project state: Maharashtra
EMD: Rs 100,000
Due date: 4-21-2003
Scope: Design, supply, installation, testing and commissioning and post guarantee period annual maintenance contract for: (A) solar energy exhibits, SPV power plant, modification of exiting toy train etc, (B) Bio energy exhibits (C) Wind and hydel power exhibits, (D) Computers with quiz and games.
Contact: MEDA, 191/A, Phase I, MHADA Commercial Complex, Yerwada, Pune 411006; Tel: 91-020-6683633/34; Fax: 91-020-6683631; Email:meda@vsnl.com.

Agency: Tamil Nadu Tourism Development Corporation (TTDC)
Estimated cost: NA
Project state: Tamil Nadu
EMD: Rs 33,500
Due Date: 4-14-2003
Scope: Providing solar water heating systems in certain TTDCs units.
Contact: TTDC, Tamil Nadu Tourism Complex, Wallajah Road, Chennai- 600 002; Tel: 91-044-5367852, 5367853; Fax: 91-044-5381567; Email: ttdc@md3.vsnl.net.in.

Agency: Department of Ocean Development
Estimated cost: NA
Project state: Tamil Nadu
EMD: NA
Due date: 4-8-2003
Scope: Supply of 150 Watts, 24V solar power packs.
Contact: Department of Ocean Development, Block No. 9 & 12, CGO Complex, Lodhi Road, New Delhi-110003; Fax: 91-011-24360336, 24360779; Email: ocean@dod.delhi.nic.in.

Agency: Eastern Railways
Estimated cost: NA

Project state: West Bengal
EMD: NA
Due date: 5-2-2003
Scope: (1) Supply solar panel 30PW/12V as per specifications, (2) Self regulating type battery charger single phase AC input & 24V DC X 10 Amps output to charge.
Contact: Chief Administration Officer, 3 - Koilaghat Street, Kolkata-700001.

Agency: Punjab Energy Development Agency
Estimated cost: Rs 44,75,000
Project state: Punjab
EMD: Rs 90,000
Due date: 4-7-2003
Scope: Providing, fixing, erection, commissioning and testing of the following items: (i) Atrium roof structure with hyperbolic paraboloids, rainwater gutters, glazing, louvers with provision for fixing of solar panels over the cut-outs on the top of the existing space frame structure, (ii) Suspended bridge with hollow and pipe arrangement. (iii) Down draft wind tower with spherical nodes and pipes for low energy comfort cooling system.
Contact: Punjab Energy Development Agency, SCO 54-56, Sector 17-A, Chandigarh; Tel: 91-0172-702062; Fax: 91-0172-701863; Email: peda@nic.chd.in.

Agency: Northeast Frontier Railways
Estimated cost: NA
Project state: Assam
EMD: NA
Due date: 4-18-2003
Scope: Supply of solar power system, cells lead acid train lightings (volt and mono block 450 AH capacity) complete in container, batteries - lead acid train lighting 2V, 210 AH capacity, PVC sheet in rolls, batteries (lead acid) for air conditioning, batteries (complete acid) for diesel Locomotive starter.
Contact: Northeast Frontier Railway, Maligaon, Guwahati, Assam - 781 011.

Agency: Himachal Pradesh State Electricity Board (HPSEB)
Project state: Himachal Pradesh
Scope: Implementation of 10 hydroelectric projects of 7 MW to 100 MW capacity in the private sector on a build-own-operate-maintain basis.
Contact: HPSEB, Vidyut Bhawan, Simla – 171004; Tel: 91-177-203253; Fax: 91-177-203253; Email: hpseb@hpseb.delhi.nic.in

## Section 5. Project Leads, Partnering Opportunities and General News

**Project leads/ Partnering opportunities:**
Most of the following projects will be established by private investors using a variety of energy sources. They are listed by state:

**Jammu & Kashmir (J&K):** The J&K Energy Development Agency is encouraging the development of solar power plants in Jammu and Kashmir. The Agency is offering four potential sites to private investors for development of 8.4 kWp capacity plants at four primary health centres: Uri in Baramulla district, Kupwara in Kupwara district, Darhal in Rajouri district and Mendhar in Poonch district. Developers will be required to design, supply, install, test, commission and maintain the plants for five years inclusive of two years of warranty. (Contact: J&K Energy Development Agency, Department of Science & Technology, Directorate of Jammu & Kashmir, Civil Secretariat, Jammu - 180001)

**Chhattisgarh**: The Board of Directors of Jindal Steel & Power Limited (JSPL) has approved the development of a 55 MW captive power plant in Chhattisgarh at an estimated project cost of Rs 2.07 billion. The plant will meet the company's increasing internal demand. The project is scheduled to be commissioned by September 2004. The company has been producing power at low cost by utilizing waste hot gasses and coal rejects. JSPL supplies its surplus power to the state SEB. The company has commissioned its 2.5 million ton capacity coal washery with a project outlay of Rs 360 million. (Contact: Jindal Centre, 12 - Bhikaji Cama Place, New Delhi- 110066, India; Tel: 91-011-6188345-60; Fax: 91-011- 6161271, 6170691; Email : jindalsp@del3.vsnl.net.in)

**Himachal Pradesh**: Delhi-based Ginni International proposes to implement the 3x1.65 mw Balsio Hydroelectric power project in the Chamba district of Himachal Pradesh at a cost of Rs 291.1 million. The Balsio project has been planned as a run-of-the-river scheme on the Balsio Nallah, a tributary of Baira Khad in Ravi basin. The surface type powerhouse of the plant would be located on the right bank of the Nallah utilizing a gross head of 85 metres for generation of the total 4.95 MW of power.

**Haryana**: The chief minister of Haryana has announced plans to set up cogeneration plants in sugar mills across the state so that the waste can be used to generate electricity. In fact, Haryana Vidyut Prasaran Nigam Limited has already signed its first-ever power purchase agreement (PPA) with the Devi Lal Cooperative Sugar Mills for purchasing power from the cogeneration power plant to be set up at the sugar mill, having an excess capacity of 3 MW. Three more cogeneration plants in Haryana are in the pipeline, and are also expected to ink PPAs with the state utility.

***General News***

The Pune-based wind energy equipment major, Suzlon Energy has received a $22 million order to set-up wind energy turbines in Minnesota in the US. The company has already commissioned the first two turbines, each for 24 MW. This is the first wind energy project export by an Indian company to the US. This has been the first time Suzlon had been commissioned to do a plant in sub-zero temperatures.

BHEL has received an order to set up a steam turbine generator valued at Rs 140 million from the Chincholi Sugar Mills in the Gulbarga district of Karnataka. The generator will be installed in the cogeneration plant of the sugar mill. The scope of work includes the manufacture, supply, supervision, erection and commissioning of the 26 MW plant.

The Power Finance Corporation’s proposal to set up the India Power Fund has been approved, which will invest in equity to kick start power projects in the country. PFC had earlier appointed SBI Capital Markets as advisor for the proposed fund.

GAIL (India) Limited has submitted a proposal to the union government for creating the “Green Quadrilateral, a national gas grid as a clean energy corridor.” The authority proposes to create a nationwide pipeline network for the transportation of natural gas connecting the various production sources to the major consuming centers in different parts of the country.

The electronics division of BHEL has supplied and commissioned solar photovoltaic (SPV) systems for use in expanding rural telecommunications network. Till now, BHEL has supplied 15 SPV sets with a capacity of 15 kW.

The Himachal Pradesh cabinet has approved the allotment of 30 small hydroelectric power projects of up to five MW to 25 private sector companies. The overall project, which is targeted towards adding a capacity of 60 MW, is expected to bring in investments worth Rs 3.6 billion.

**Section 6. Calendar of Events**

Biofuels: Progress, Problems, Policies and Procedures
Venue: Hotel Le Meridian, New Delhi, India
Dare: May 19-20, 2003 New Delhi, India
Contact: Winrock International India, 7, Poorvi Marg, Vasant Vihar, New Delhi – 110057, India; Tel: +91-11-26142965; Fax: +91-11-26146004; Email: winrock@winrockindia.org; Web: www.winrockindia.org

**International Conference on Green Power**
Venue: New Delhi. INDIA
Date: October 16- 17, 2003
Contact: World Council of Power Utilities, Council of Power Utilities; Email: info@IndiaCore.com

For further information on any of the items contained in this report, please contact:

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***Fax: +91-011-6146004***
***Email: sunil@winrockindia.org***

# Indonesia - Yayasan Bina Usaha Lingkungan (YBUL)

## Section 1. Macro Political and Economic Situation

**Important Acronyms:**

| Acronym | Description |
|---|---|
| DGEEU | Directorate General of Electricity and Energy Utilization |
| PLN | State Company Electricity Utilization |
| BI | Bank of Indonesia (The Central Bank) |
| GDP | Gross Domestic Product |
| CPI | Consumer Price Index |
| IMF | International Monetary Funds |
| DPR | House of Representative |
| ADB | Asia Development Bank |
| YBUL | Yayasan Bina Usaha Lingkungan |
| trn | Trillion |
| bn | Billion |

**Outlook for 2003-2004.** President Megawati Soekarnoputri is facing rising disaffection with her rule. Her political effectiveness is expected to suffer in the next 18 months in the lead-up to the parliamentary and presidential elections as the major parties in the House of People's Representatives (DPR, the lower house of parliament) jostle for public support.

Fiscal policy will remain tight, owing to budgetary constraints, but monetary policy will ease in 2003, before higher global interest rates prevent further interest-rate cuts in Indonesia in 2004. Real GDP growth is expected to slow in 2003 as a result of weak external demand for goods and services, and slower growth in private consumption. Rising unemployment will depress consumer sentiment. Growth in 2004 will strengthen in line with the expected recovery in OECD import demand. Inflationary pressures will fall over the forecast period owing to weaker wage growth and a stable rupiah. The current account will remain in surplus in 2003-2004, but its share of GDP will fall.

**Economic policy.** In January 2003, the government partly reversed utility price increases in response to public outrage. The IMF continues to support the government and the Consultative Group on Indonesia agreed to lend US$2.7 bn in January 2003. Interest rates continue to fall, partly because of rupiah appreciation. Foreign debt repayments are putting pressure on the budget.

**The domestic economy.** Real GDP grew by 3.6% in 2002 fueled by strong growth in private and public consumption. The rate of inflation stood at 10% by the year-end as wage increases and utility price increases offset lower imported inflation. Unemployment continues to rise, pushing more and more people out of formal employment, into the informal economy.

**Foreign trade and payments.** The value of merchandise exports (custom basis) grew by 1.2% in 2002, whereas imports grew by 0.9% resulting in a trade surplus of US$ 25.8 bn. China became Indonesia's fourth largest export market in 2002, with exports to China growing by 35.8% year on year. The tourism industry appears to be recovering quickly from the negative impact of the October 2002 Bali bombings. The current account in 2002 benefited from a lower level of interest payments owing to low international interest rates and the debt rescheduling by the Paris Club of creditor nations.

**Fiscal Policy.** The latest draft of the 2003 budget predicts a deficit of 1.8% of GDP (Rp.34.4 trn, or US$3.86 bn), but this could prove overly ambitious in the light of the optimistic underlying macroeconomic assumptions. The government's allocation of an additional Rp.10.63 trn to stimulate business activity in the wake of the October 2002 Bali bombings will almost certainly fall far short of demands for additional spending from the various affected ministries and is too small to have a major impact on overall GDP growth. Revenue expectations are also likely to prove ambitious as the economy is not expected to grow as fast as the government's 4% assumption. Furthermore, the government may be forced by public protest to postpone, moderate or even cancel its program of reducing subsidies on fuel and electricity prices. Even if the price increases are enacted as planned, the government was forced in early January to pledge a series of tax breaks to boost consumer spending and help businesses to contain production costs, to offset the negative impact of the price increases.

Fiscal policy is expected to remain tight in 2004 with the government targeting a deficit of below 1% of GDP. The rise in international interest rates will, however, increase the government's debt-servicing obligations (domestic and external debt servicing accounted for 43% of current expenditure in 2002) and there is likely to be additional expenditure in an election year. This will be offset by a stronger economy in 2004, bossing government revenue and enabling the deficit to fall slightly to 2.1% of GDP.

**Monetary policy.** Bank Indonesia (BI, the central bank) gradually reduced interest rates over the course of 2002. The benchmark rate paid on one-month Bank Indonesia certificates stood at 12.24% at the end of February 2003, compared with over 17% at the end of 2001. Interest rates came under temporary upward pressure in the wake of the Bali bombings and as a result of rupiah volatility, but had started to ease again by December 2002. BI officials have already declared their intention to continue to cut interest rates over the course of 2003.

**Economic growth.** Preliminary data for real GDP growth in 2002 shows the economy growing by 3.6%, slightly up from a revised 3.5% in 2001, as result of solid growth in private and public consumption and an 8.3% contraction in import demand. Growth in exports of goods and services is expected to recover in the second half of 2003 and maintain this momentum into 2004. Public, private and foreign investment growth is expected to remain weak at least until the second half of 2003, when opportunities provided by the state asset-disposal program should attract capital. Import demand will track investment trends and also start to recover in the second half of 2003 and continue to grow relatively fast in 2004.

**Inflation.** The consumer price index(CPI) rose by 0.8% in January 2003 to give a year-on-year rate of 8.7%, down from 10% in December 2002. Forecast of average annual inflation of 9.3% in 2003 assumes that the government partly manages to introduce the proposed utility price increases-if this does not happen, inflation will be lower. Import-price inflation will be low, owing to the relatively stable rupiah and the falling average tariff level. Domestic demand will be subdued, limiting the ability of producers to pass on the higher production costs resulting from the utility price rises. Inflation is not expected to fall significantly in 2004, owing to stronger economic growth. The increased demand and a number of supply bottlenecks in the labour market and in the provision of utilities will push up average wage costs and utility prices, respectively.

**Exchange rate.** The rupiah has been appreciating since a temporary downturn in the wake of the Bali bombings and stood at Rp.8,850 = US$1 in the last week of February. In the first half of 2003 the rupiah will benefit from the expected weakness of the US dollar, high international oil prices and the promise of loans from the IMF, multilateral and bilateral creditors. The currency is expected to come under some pressure in the second half of the year, owing to lower oil prices, continued weak investment inflows and high debt-servicing obligations. By 2004 the tourism sector should have largely recovered and net foreign direct investment is expected to make a positive contribution. Political uncertainty surrounding the outcome of the elections in 2004 will be lead, however, to heightened rupiah volatility and a slight depreciation of the average exchange rate for the year to Rp.9,104:US$1.

**External sector.** The merchandise trade surplus is estimated to have reached US$23.1 bn in 2002, up from US$22.7 bn in 2001, as a result of strong export prices (for Indonesia's key commodity exports, such as oil, rubber, cocoa and crude palm oil) in the second half of the year and a slump in imports. Import demand was particularly weak in the final quarter of the year as domestic confidence and investment deteriorated following the October 2002 Bali bombings. The terms of trade for Indonesia's key commodity exports are forecast to continue to improve over the course of 2003. The volume of exports will be boosted by higher levels of international trade in the second half of the year. In line with the greater export demand, import demand will also recover in the second half of 2003, albeit from a low base. The trade surplus will rise slightly to US$22.2 bn. In 2004 lower oil prices will limit export revenue growth and a modest increase in investment demand will lead to a fall in the trade surplus to US$23.2 bn.

**Fuel Price Increases.** Oil subsidies were the third largest source of capital outlay for the government, after funds allocated for regional autonomy and payment of debts and interest. To reduce fuel subsidies and determine a new affordable price, the government has completed its consultation with the DPR, resulting in an agreement to raise fuel prices every month starting August 2003

**Shortage Power Problems by PLN**. Currently, PLN is experiencing power shortages in 29 regions; however, demand for electricity continues to increase. In many regions, PLN lacks supply. PLN does not have the funds to extend its grid and build new power plants, nor can it maintain its current operations. As a result, blackouts have begun to occur in many regions.

## Section 2. Policy Environment

The Ministry of Energy and Natural Resources of Indonesia has produced a decree concerning Guidance on the Undertaking of Electricity Generator Small Scale TERSEBAR. Under this decree, power produced up to 1 MW is required to be purchased by the national utility - PLN - at a prescribed rate. Small scale power is often made available from renewable energy technologies and therefore this new decree is expected to help with the proliferation of RE projects in Indonesia. Active participation of YBUL in the development of this decree contributed to a clear positive result in the form of government policy change toward renewable energy development in Indonesia.

## Section 3. RE Financing

Due to the current state of power shortages in 29 regions of Indonesia, PLN has been receiving funding from the Asian Development Bank (ADB) for "The Outer Islands Project". Eleven renewable energy (10 micro-minihydro and one small geothermal) projects have been identified to be financed by the ADB, based on several criteria: meeting demand, cost-benefit, socio-economic and poverty conditions, environmental benefits, issues concerning affected people (health, employment, etc.), possible private sector investment, technical condition (location, small-scale size) and community development. Total capacity of 61.6 MW (360.1 GWh/year) to replace the use of diesel oil of 108,030 kl/year, improving local system, capacity and increasing the quality of supply. The total project cost is US$187,929,147 (ADB Loan 63% and 37% from PLN). The project is set to begin operations in 2004.

The World Bank is funding a large hydroelectric project outside of Jawa – Bali System and Madura islands. The total amount of the loan is US$140 million and the project will begin development, at the earliest, in September 2003.

## Section 4. RE Equipment/Services Procurement Notices

In November 2002, the Indonesian Parliament approved a new electricity law. In this law, renewable energy was explicitly mentioned and specific policy objectives related to support for public and private investment on renewable energy were identified. Article 7, in the new law is: "Government and local government must provide electricity development funds to help poor communities and construct electricity supply facilities in un-electrified regions and rural areas."

Various regional government leaders have earmarked various renewable projects for development in their regions. Provided that the political and social situation improves, and the legal assurances are in place, renewable energy has considerable potential for development in Indonesia.

## Section 5. Project leads, Partnering Opportunities and General News

The Pangkalan Brandan palm oil project to use waste-based cogeneration technology of the capacity of 10.2 MW has been promoted in many possible ways, such as during sessions of the Minister's Small Team for the promotion of renewable energy. The realization of this palm oil cogeneration facility, however, has not yet materialized due to a lack of a funder. The Indonesian utility, Indonesia Power, a sister company of PLN, has been introduced to this project by YBUL, in a collaborative process with Broanzeoak Ltd, who is the owner of the project.

There is a similar project in TORGAMBA, a project whose feasibility study was supported by YBUL (USAID's fund), which has also been recently revisited due to the new policy of the government regarding the utilization of small power, and in this case renewable energy. No concrete outcome has yet been produced to date, facility not yet financed or constructed.

## Section 6. Calendar of Events

**Renewable Energy Indonesia 2003, and the 2nd International Exhibition for all Renewable Energy Technologies**
October 1-4, 2003
Indonesia, Jakarta
For more information: http://www.caddet-re.org/events/index.php

# Nepal – REPSO Nepal

## Section 1. Macro Political and Economic Situation

**Political Situation.** The Government and the Nepal Communist Party (NCP) have recently agreed on a ceasefire in a bid to end the latter's seven-year violent political movement. Talks to translate the ceasefire into a lasting peace are presently being planned. In conjunction with this, Prime Minister Lokendra Bahadur Chand called an all-party meeting, but significant political parties such as the Nepali Congress (NC) and the Communist Party Nepal-United Marxist Leninist (CPN UML) did not attend. Chand's own party, the Rastriya Prajatantra Party (RPP), was also notably absent.

**Economic Situation.** Nepal Rastra Bank, (NRB) Governor Tilak Rawal has reiterated that the NRB would carry out serious measures to bring about the smooth and orderly development of the banking sector in the country. He recently indicated that some of the joint venture banks are not stable and their condition seems fragile. He suggested that these banks need to improve and reform policies in accordance with the directives of the NRB. Mr. Rawal affirmed that the NRB has intensified inspection of the operational practices of the banks in recent months, and explained that these inspections are not intended to humiliate any institution, but to reinvigorate the weak ones.

| Acronym | Important Acronyms: Description |
|---|---|
| **AEPC** | Alternate Energy Promotion Center |
| **ADB** | Asian Development Bank |
| **ATN** | Appropriate Technology Nepal |
| **CPNUML** | Communist Party Nepal -United Marxist Leninist |
| **DANIDA** | Danish Association for International Development Assistance |
| **DCS** | Development Consultancy Services |
| **DoED** | Department of Electricity Development |
| **EIDD** | Engineering & Industrial Development Directorate |
| **EU** | European Union |
| **IRG** | International Resource Group |
| **ISAP** | Institute of South Asia Policy Study |
| **JICA** | Japan International Cooperation Agency |
| **NABIL** | Nepal Arab Bank |
| **NBB** | Nepal Bangladesh Bank |
| **NC** | Nepali Congress |
| **NCP** | Nepal Communist Party |
| **NEA** | Nepal Electricity Authority |
| **NORAD** | Norwegian Agency for Development |
| **NRB** | Nepal Rastra Bank (Central Bank of Nepal) |
| **OPEC** | Organization of Petroleum Exporting Countries |
| **PDF** | Power Development Fund |
| **RBB** | Rastriya Banijya Bank |
| **RPP** | Rastriya Prajatantra Party |
| **SAARC** | South Asian Association for Regional Cooperation |
| **SMEC** | Snowy Mountain Engineering Company - Australian company |
| **UMN** | United Mission to Nepal |

**Collective effort needed for raising SAARC region living standards.** Prime Minister Chand has said that all seven nations in the South Asian Association for Regional Cooperation (SAARC) should work together in various sectors including finance, power and trade, to collectively raise the standard of living of the people in the region. Speaking at a program organized by a private sector institution, the South Asia Policy Studies Centre, in Kathmandu, Chand said regionalism should be emphasized, as South Asia does not have an alternative to regional cooperation. SAARC Secretary General Q A M A Rahim pointed out that SAARC countries are rich in water resources, which should be utilized for the collective prosperity of the region.

## Section 2. Policy Environment

**ADB postpones electricity tariff hike.** The ADB, which has been threatening to cut aid if electricity rates are not raised, has of late postponed these plans on the assurance that the NEA will improve internal capability. NEA Executive Director Janak Lal Karmacharya recently briefed the ADB about the internal reform plan, which included among other things, raising internal capacity, checking leaks and augmenting income. The ADB had provided a loan of 50 Million dollars for the development of NEA's reform plan and the conditions of the loan agreement stipulated NEA's return rate at 6 percent, self-financing ratio at 23 percent and loan capital proportion at 1.2 percent. NEA's failure to meet these requirements resulted in ADB pressuring NEA to raise rates.

**Purchasing private sector power.** NEA has removed the ceiling on purchases of power from the private sector. This enables the NEA to purchase power from any private sector producer and at any amount. Four years ago, the NEA had pursued a policy of purchasing power from private sector power projects up to 50 MW. The new measure seeks to encourage producers and investors. The NEA is the lone power purchaser in the country, and has finalized power purchase agreements of 121 MW thus far.

**Community in power trade.** In a move towards increasing community participation in electricity distribution, NEA has introduced a community wholesale price in the electricity tariff scheme. This is a major reform in itself and the move is expected to increase employment opportunities as well. A program was organized recently in the capital to discuss community participation in electricity distribution.

### Section 3. RE Financing

**Easy loan for solar energy.** A meeting was held in Palpa recently to discuss ways to facilitate the rural loan scheme, in particular for solar energy. Organized by DANIDA's Alternative Energy Promotion Centre cooperation program and the Rastriya Banijya Bank (RBB), the program emphasized the need to promote concessionary loans for the sector in the broad interests of rural people. Training Officer Lalbabu Prasad, coordinator Saroj Rai and RBB representative Ramchandra Subedi underlined the need to financially enable the rural poor to utilize solar power saying that this would "help people living in darkness to march forward towards light and development." Speaking on behalf of the producers, Gopikrishna Sitaula stated a dire need to facilitate solar energy loans in backward areas. Altogether 30 participants had attended the program.

### Section 5. Project Leads, Partnering Opportunities and General News

**REP kicks off.** Nepal has commenced the Rural Electrification Project (REP) to make power available to an additional 150,000 people in three years. This will ultimately make electricity accessible to 227 village development committees. The REP is jointly financed by loans from the Asian Development Bank (50 million dollars), and the Organization of Petroleum Exporting Countries (10 million dollars).

**Assistance sought for Kulekhani III.** The Government of Nepal has sought help from Japan to implement the Kulekhani III hydroelectricity project in order to avoid peak hour load shedding. The cost of the project is estimated at 70.76 million dollars and efforts to secure assistance for this project are already underway. JICA, it might be recalled, had undertaken the project's refined feasibility study and a report to this effect is soon to be submitted to the government of Japan. The installed capacity of the project will be 45 MW, compared to the originally estimated capacity of 14 MW. Construction is scheduled to begin around 2004 along with tender procedures, and the project is expected to be completed in 2007. The project uses water discharged by the country's first reservoir hydroelectricity project, the 60 MW Kulekhani I and Kulekhani II.

**Efforts towards RE.** Efforts are being made for making loans easily available to rural people for domestic solar electricity. In 2004 RBB will initiate loan schemes ranging from 250 to 300 dollars. This is expected to motivate many rural people to take advantage of solar power in their own backyards.

**Loans for power development in high demand.** The issue of loans for power development was strongly voiced at the 36th anniversary of the Agricultural Development Bank in Kathmandu recently. Speakers urged the bank to prioritize and increase investments to provide power in backward rural areas. Finance Minister Dr. Badri Prasad Shrestha said that privatization of the corporations will be undertaken in a transparent manner. The Agricultural Development Bank, according to the Acting General Manager Jalan Kumar Sharma, currently invests over 100 million dollars in rural areas through 511 bank offices, and has transactions with some 432 thousand customers.

**EU keen on Trolley Bus.** The Kathmandu based office of the Chargé d' Affaires of the EU has made a special request to the former minister for transport, PL Singh, to continue his initiative towards expediting the possibility of resuming the electric transport service.

**Annapurna Group keen on 20 MW Madi-I.** Annapurna Group P. Ltd. is keen to produce electricity from Madi-I (20 MW project) by September 2006. The estimated cost of the project is 28 million dollars.

**Norway keen on Upper Tamakoshi.** NEA Executive Director Mr. Janak Lal Karmacharya has confirmed that NORAD has sought permission from HMG/N to carry out detailed feasibility study of the 250-MW Upper Tamakoshi hydro-electricity project.

**RE exhibition held.** AEPC and ATN jointly organized a one-day exhibition on RE technology in Nuwakot district. RE technologies like parabolic solar cookers, solar PV modules, briquette stoves, and improved cooking stoves were displayed.

**Nepal in World Water Forum.** Nepal participated in the World Water Forum held in Kyoto, Japan in March 2003.

## Section 6. Calendar of Events

No upcoming RE-related events.

# Philippines – Preferred Energy Inc.

## Section 1. Macro Political and Economic Situation.

**Investments more than double year on year.** Combined investments registered with the Board of Investments (BOI) and the Philippine Economic Zone Authority (PEZA), the country's main investment generating agencies, more than doubled year on year to PhP10.3 billion (US$189.085 million) for the first two months of 2003. The Department of Trade and Industry (DTI) reported that the improvement was spurred by a number of big investments in the Visayas and Mindanao regions. DTI Sec. Manuel A. Roxas II said the latest figures reflected an increase of 106.5% from the PhP5.0 billion in investments registered with the two government agencies during the corresponding period last year. The BOI accounted for PhP7.19 billion in investments involving 31 projects, up 74.27% from last year's PhP4.13 billion which involved 35 ventures. Some PhP2.64 billion of the current tally were foreign investments, while PhP4.55 billion were local investments. The PEZA, meanwhile, accounted for PhP3.08 billion in investments involving 40 projects, up 262.93% from last year's PhP850.462 billion. Foreign investments accounted for PhP3.02 billion while local investments totaled PhP64.443 million.

**Important Acronyms:**

| | |
|---|---|
| **ADB** | Asian Development Bank |
| **ARC** | Agrarian Reform Communities |
| **BOI** | Board of Investment |
| **BTRD** | Batangas Transmission Reinforcement Project |
| **BOP** | Balance of Payment |
| **BSP** | Bangko Sentral ng Pilipinas |
| **DANIDA** | Danish International Development Agency |
| **DBCC** | Development Budget Coordinating Council |
| **DOE** | Philippines Department of Energy |
| **DST** | Documentary Stamp Tax |
| **DTI** | Department of Trade and Industry |
| **EC** | Electric Cooperatives |
| **GDP** | Gross Domestic Product |
| **ICC** | Investment Coordinating Committee |
| **INEC** | Ilocos Norte Electric Cooperative |
| **LEDAC** | Legislative-Executive Development Advisory Council |
| **NEDA** | National Economic Development Authority |
| **PEP** | Philippine Energy Plan |
| **PEZA** | Philippine Economic Zone Authority |
| **PNOC-EDC** | Philippine National Oil Company-Energy Development Corporation |
| **PSALM** | Power Sector Assets & Liabilities Management Corporation |
| **SPEX** | Shell Philippines Exploration B.V. |
| **SPOTS** | Solar Power Technology Support |
| **TRANSCO** | National Transmission Corporation |

**NEDA sees Q1 growth of 4.2%**. The economy is expected to grow by 4.2% in the first quarter mainly due to the strong performance of the service sector, as disclosed by National Economic and Development Authority (NEDA). NEDA Director General Romulo Neri said the country's gross domestic product (GDP) is likely to grow between four to 4.5 percent during the first three months of the year. Dir. Gen. Neri said the economy was already picking up momentum from the transport and information technology sectors and even from mining. He said the growth in the transport sector was likely to come from the shipping industry while backroom services and other outsourcing projects were expected to propel the IT sector on top of the contributions of the electronics industry. Mr. Neri also said there was an upward momentum in the mining sector not only from the multi-billion dollar Malampaya project but also from basic metals.

**RP posts $141-M BOP surplus**. The country started the year right with the balance of payment (BOP) position registered a surplus of $141 million. The amount, however, was significantly lower than the $806 million surplus recorded a year ago. Bangko Sentral ng Pilipinas (Central Bank of the Philippines, or BSP) Deputy Governor Armando M. Tetangco, Jr. said the BOP position was based on the net change in the central bank's net international reserves. The BOP account represents the country's total financial transactions with the rest of the world. Its components include direct and portfolio investments, as well as trade in goods and services with other countries. A strong BOP position helps strengthen the value of the local currency as it boosts the government's dollar stock and helps the BSP meet the demand for dollars from importers.

**Export to boost RP economy in 2003**. Exports would likely remain a major source of growth for the Philippine economy this year, with shipments seen rising seven percent from 2002, according to S&P/MMS International Chief macroeconomic forecaster David Cohen. Merchandise export in 2002 rose nine percent to 35.061 billion dollars, supported by strong intra-regional trade. The government had targeted export growth at five to eight percent, upgrading the original four percent forecast due to the strong performance of electronics. Although the December exports growth was below 18 percent (year-on-year) rise, the trajectory is still encouraging. For 2003, Mr. Cohen is looking at a seven percent growth for Philippine exports.

**Imports surge brightens recovery prospects**. Imports reached 2.92 billion dollars in January, up nearly 14 percent from a revised 2.57 billion dollars in December and 45 % from 2.01 billion dollars a year earlier, the government reported. Higher imports usually signal a rise in exports, being mostly inputs for electronic manufacturers, the main export. Data released by the National Statistics Office showed that imports of electronic parts and components, accounting for more than a quarter of total imports, rose by 20.5 percent from December to 754.56 million dollars in January. The Philippines expects 2003 imports to grow six to nine percent from the previous year and exports to increase by five to eight percent.

**Merchandise exports register 2.3 percent increase**. Despite a weakening peso and a continuous barrage of price hikes, the Philippine economy got off to a good start in January, 2003 when merchandise exports registered a 2.3% increase to $2.691 billion from $2.631 billion during the same period last year. A report released by the NSO revealed that aggregate receipts for the top 10 exports for the month of January 2003 amounted to $1.937 billion, or 72% of the total exports. Electronic components remained as the country's top earner, contributing 56.45 of the aggregate export revenue for the month. Coming in at close second are articles of apparel and clothing accessories, with a combined share of 6.6% and an aggregate receipt of $178.37 million.

**Transco income seen increasing by 5% in 2003**. The National Transmission Corporation's (Transco) expects its net income to improve by five percent to 14.4 billion pesos in 2003 from 13.7 billion pesos in 2002 due to an increasing demand for electricity. Demand for electricity in 2001 was pegged at 7,465 megawatts – 5,618 MW in Luzon, 893 MW in the Visayas and 954 in Mindanao. This jumped 10.5 percent in 2002 to 8, 249 MW – 6,308 MW in Luzon, 941 MW in the Visayas and 1,000 in Mindanao. For this year, Transco has projected that demand would improve by 7.1 percent to 8,833 MW or 6,752 in Luzon, 1,007 in the Visayas and 1,074 in Mindanao.

**Inflation edges up to 2.7% in January**. Consumer prices edged up to 2.7% in January compared to the 2.6% registered in December last due to increases in the cost of services, the National Statistics Offices (NSO) reported. The 2.7% inflation rate recorded for January is in line with the 4.5% - 5.5% target for this year. The government had expected inflation to hover at around 2.6% to 2.8% for January. Bangko Sentral ng Pilipinas (BSP) Governor Rafael B. Buenaventura said the January inflation rate, which was generally flat from December provided the BSP more leeway in its monetary policy. NEDA Director General Romulo Neri said this was due to increases in international prices of oil coupled with the depreciation of the peso against the dollar.

**Section 2. Policy Environment.**

**Malacanang wants 14 priority bills passed by June**. Pres. Gloria Arroyo submitted for Congressional approval 14 priority measures deemed crucial to the government's pursuit of economic recovery, social equity and reforms. During a Legislative-Executive Development Advisory Council (LEDAC) meeting in Malacanang, the President urged members of the Cabinet, senators and Congressmen to concentrate their efforts on pushing the government's socioeconomic agenda. Specifically, the President wants the following bills passed before Congress was to go on break on March 22:

- Amendments to the Anti Money Laundering Act;
- Farmland as Loan Collateral Act;
- General Appropriations Act;
- Transco Franchise bill;
- Documentary Stamp Tax (DST) Rationalization Act;
- Securitization Act;
- Rationalization of Key AFP Positions bill; and
- The Absentee Voting Act.

The President said she likewise hopes to see the passage of the following measures before Congress ends its second regular session on June 6:

- The proposed National Authority for Revenue Administration bill;
- Excise Tax on Automobiles bill;
- Indexation of Sin Taxes measures;
- Rationalization of Pay Scale for the Judiciary bill;
- Department of Housing bill; and
- Anti-Terrorism Act.

**Government set to review economic targets**. The continued increase in crude prices has prompted the Development Budget Coordination Committee (DBCC) to consider revisiting the government's economic and fiscal target for this year, said Budget Secretary Emilia Boncodin. Ms. Boncodin said the Cabinet-level DBCC would meet again to assess whether there was a need to adjust the targets, although changes, if any, were not to happen immediately. Boncodin said the DBCC has asked its technical working group to simulate how rising fuel prices would affect the 2003 targets. Crude prices have increased by about 42 percent to 37 dollars per barrel, above the government's assumption of 26.35 dollars per barrel.

**Government sets focus on eight-point agenda**. Despite political distractions, the government is vigorously pursuing the eight-point program President Gloria Arroyo announced and intends to achieve all eight points before a new administration takes over. The President's agenda, which she seeks to accomplish in the next six months, includes the following:

- Strengthen small and medium scale enterprises;
- Jumpstart the mass housing program;
- Reduce Mindanao-Luzon-Mindanao transport costs;
- Build massive infrastructure to decongest Metro Manila;
- Increase fiscal resources through the Presidential Commission on Good Government;
- Make Makati the prime shopping capital of the Philippines;
- Develop the Bagong Nayong Pilipino in the reclamation area in Roxas Blvd.;
- Stimulate investments in the agriculture sector.

**DOE to regulate operation of natural gas pipeline**. The Department of Energy (DOE) is being given the authority to regulate the construction and operation of natural gas pipelines and related facilities for the transmission and distribution and supply of natural gas. This was proposed under the proposed Downstream Natural Gas Industry Act. Under said legislation, the energy department is also being mandated to issue permits, initially for a period of 3 years after the effective date of the law, for the construction of pipelines and other related facilities. However, before any entity can engage in the natural gas pipeline ventures, it would need first to secure a Congressional franchise license because such facilities have been declared as public utilities. Also, the Energy Regulation Commission (ERC) shall be given the sole regulatory powers to establish the rates and related terms and conditions for the downstream natural businesses; from transmission, distribution to supply. The development of the downstream natural gas industry is one of the key areas that the current administration has wanted to focus on; so it would be able to generate fresh investments.

**President Arroyo approves Transco privatization plan**. President Arroyo has approved a two-step privatization plan of the National Transmission Co. (Transco), Energy Secretary Vicente Perez said. Sec. Perez said the plan would allow privatization of the government's transmission assets even while it waited for Congress to grant Transco a franchise license. Following the President's approval, the government can carry out the first phase of the Transco privatization - soliciting and awarding bids to maintain, operate, rehabilitate and expand the company's nationwide high-voltage transmission grid. The second phase, when the concessionaire takes over as the grid operator, will have to be carried out when Congress grants the franchise license. With the privatization process underway, Sec. Perez said the President was confident "the Transco privatization will gather investors' interest worldwide and eventually result in the award of a concession by the middle of the year".

**Section 3. RE Financing.**

**Spain to provide $64.7 M Facility for Solar Project.** The Department of Energy signed a memorandum of agreement with the Department of Agrarian Reform to develop a $64.77 M dollar solar power electrification project for model agrarian reform communities (ARC). The program, dubbed Solar Power Technology Support (SPOTS), and envisioned to benefit 80 agrarian reform communities, or ARCs, is expected to kick off by January 2004. An ARC is an agrarian community where farmers who own their land are given support in building production capacity and other forms of technical assistance. The Spanish Government will provide funding for the two-phase program under a mixed credit facility, according to information from the DOE. Of the total project cost, $54.35 M dollar will be financed through a loan and $10.42 M dollars will come from the Philippine government. The first phase of the three year SPOTS will cover 40 ARCs in Mindanao. The second phase will begin in mid-2004 and will cover 40 other ARCs around the country. Systems that will be installed in the selected ARCs include solar-powered irrigation pumps, incubators, hatcheries, lights for schools and barangays and vaccine refrigerators for rural health clinics. Contact Person: Department of Agrarian Reform, tel. No. (062)924-7563

**Northwind Power to start building $25-M Wind Project**. Danish firm Northwind Power Development Corp. will soon start construction of its $25.06 M wind farm project in Bangui Bay, Ilocos Norte following clarifications made on some provisions of its energy supply contract with the local Ilocos Norte Electric Cooperative (INEC). Sec. Perez said the power firm has committed to commence the construction of the country's first wind farm project by the second quarter of this year. The 25 megawatt project is funded by the Danish International Development Agency (DANIDA) and slated for completion by the first quarter of 2004. Northwind will construct the project under the build-own-operate scheme. This is one of the two wind power projects slated for construction as part of the government's efforts in the development of renewable energy sources in the country. The other is the Philippine National Oil Co.

Energy Development Corp.'s 40-MW wind power project in Burgos, Ilocos Norte. Once completed, the two projects combined will be the largest wind farm in Asia.

**TRANSCO seeks alternative project funding**. The National Transmission Corp. (Transco) is looking at alternative sources of funding for the $70-million Leyte-Cebu transmission project, after the Asian Development Bank (ADB) recently withdrew its support for the project, said Power Section Assets and Liabilities Management Corp. (PSALM) President Edgardo M. del Fonso. Del Fonso noted that the Leyte-Cebu transmission project is a priority project this year under Transco's capital expenditure. Last month, the Transco board approved the budget ceiling for the Leyte-Cebu project contract at $68.49 million. The bids could be opened by June this year and awarded by August. The PSALM chief said that Transco would borrow to fund only its capex requirement and not its operations. Transco is set to bid $2.2 billion worth of transmission assets in July this year. The number of local and foreign investors interested in acquiring these assets has been increasing since PSALM announced their privatization in January. In June, Transco is set to sell its sub-transmission assets worth P5.5 billion. Contact Person: National Power Corporation, Tel No. (632)921-3370

**Section 4. RE Equipment/Services Procurement Notices.**

**PNOC, Marubeni to sell geothermal services in Asia.** Philippine National Oil Company (PNOC)-Energy Development Corporation (EDC) and Marubeni of Japan will form a joint venture company that will provide geothermal construction services throughout Southeast Asia. A memorandum of understanding (MOU) was signed by EDC Chairman and President Sergio Apostol and Marubeni Corporate Vice-President for Infrastructure Group Mamoru Sekiyama in the presence of President Arroyo during her recent state visit to Japan. This is a partnership of the best in geothermal resource development. With EDC's world class expertise in geothermal resource development and Marubeni's financing and technical expertise and capability in the development, financing, construction and operation of power generating plants, we are confident that we can provide excellent service to our neighbors in Southeast Asia. Mr. Apostol said EDC and Marubeni also intend to develop affordable and reliable sources of power as well as build additional power plants in the Philippines. According to the EDC chief, the two firms are also planning a joint ownership of the 104 megawatt Mt. Apo Geothermal Power Plants in Kidapawan, North Cotobato. In turn, Marubeni committed to invest $100 million for the expansion of the power plant capacity and to build more geothermal facilities in the area. Contact Person: Mr. Sergio Apostol, President & CEO, PNOC-EDC, Tel. No. (632)840-1446

**Section 5. Project Leads, Partnering Opportunities and General News**

**ICC okays $299M power projects**. The Investment Coordination Committee (ICC) has approved two projects worth US$299.4 million that will allow more people in the rural areas to gain access to electricity and provide the poor access to financial services. The Rural Power Project worth $244 million aims to increase access to electricity services through private sector participation. The project also aims to promote the utilization of new and renewable energy sources (NREs) and achieved the transformation of electric cooperatives (ECs) into more viable and competitive entities. The project involves the rehabilitation and upgrading of the existing system of at least ten (10) electric cooperatives. It covers the installation of small scale power generations/mini grids in Palawan and Davao del Sur with a target of 8,000 connections and provision of some 10,000 PV systems for dispersed rural population for the first years. Contact person: NEDA, Tel No. (632)631-0945 or Mylene Capongcol, DOE, Tel No. (632) 840-2120

**UK firm eyes Negros Occidental Co-generation plant**. UK-based Bronze Oak is planning to build a 50 megawatt co-generation plant in Victorias, Negros Occidental, according to Dept. of Energy. DOE Assistant Secretary Francisco Benito said the group has submitted a proposal to put a co-generation plant that will run on biomass. Biomass, is a new and renewable energy (NRE) source being developed by the DOE, which comes from the residue of animal and plant wastes. Based on the Philippine Energy Plan (PEP), the Bronze Oak project will be completed by 2005. It is included in the indicative capacity that will be generated by that year, the DOE official said. Bagasse, wood wastes and coconut residues are generally used for in-plant power generation and process heating in the industrial sector such as sugar milling industry, wood processing plants and coconut oil mills. Contact Person: Asst. Sec. Francis Benito, Tel No. (632)840-2201

**RP, UK inked agreement to boost energy cooperation**. The Philippine and British governments signed a memorandum of understanding to boost cooperation in the energy sector. Under the agreement, a joint inter-government committee will be established to facilitate joint projects, especially in the use of indigenous energy resources. Energy Secretary Vicente Perez said the tie-up with the British government would strengthen partnerships in renewable energy technologies, cleaner fossil fuel technologies and power sector management methods. The UK energy industry is well advanced down the path of energy deregulation. We can learn from their experiences and probably tap their expertise and resources to make our own energy sector successful, Sec. Perez said. Contact person: DOE- Tel No. (632)840-2201

**Oil share in RP generation mix down to 11.08%.** The Philippines is becoming less and less dependent on imported fuel, with the share of oil in the country's generation mix dropping to 11.08 percent as of December 2002, from 20.9% in December 2001. The drop in the use of oil to generate power is consistent with the Arroyo administration's thrust to do away with the use of imported fuel. This will enhance the utilization of indigenous sources of energy including geothermal, hydro, natural gas and other new and renewable energy sources like ocean, wind and biomass. The use of coal-fired power plants also dropped from 38.7 percent in 2001 to 36.75 percent last year. The lower dependence on imported oil can be attributed to the entry of natural gas into the system, which contributed about 7.87 percent of the entire generation mix last year. Commercial use of natural gas started in 2001.

## Section 6. Calendar of Events

**PowerTrends 2003** – The $4^{th}$ International Exhibit on Current and Alternative Sources of Energy for a Clean Environment will be held on September 17-19, 2003 at the World Trade Center, Metro Manila. The event is being sponsored by The Department of Energy, Department of Science and Technology, Department of Environment and Natural Resources Administration, Department of Trade and Industry, National Power Corporation and National Electrification Administration. The trade exhibition will incorporate ***Renewable Energy 2003,*** an International Technology Exhibition on New and Renewable Energy and ***Electec 2003,*** the International Technology Exhibition on Electrical and Electrotechnical Engineering.

# South Africa – Palmer Development Consulting (PDC)

## Section 1. Macro Political and Economic Situation

**Important Acronyms:**

| Acronym | Description |
|---|---|
| **ANC** | African National Congress |
| **DAEC** | Durban Alternative Energies Company |
| **DME** | Department of Minerals and Energy's |
| **ESI** | Electricity Supply Industry |
| **NER** | National Electricity Regulator |
| **SHS** | Solar Home Systems |
| **NEPAD** | New Partnership for Africa Development |
| **PetroSA** | Petroleum Oil and Gas corporation of South Africa |
| **COSATU** | Congress of South African Trade Unions |
| **NUM** | National Union of Mineworkers |
| **JSE** | Johannesburg Securities Exchange |

During January, the Minister of Social Development, Dr. Zola Skweyiya welcomed the development to form a network of community-based organizations that will tackle socio-economic challenges like poverty and HIV/AIDS, and to enhance sustainable development especially among the rural poor. According to Dr. Skweyiya, the formation of such a network of community organizations is long overdue. Apart from the fight against poverty and HIV/AIDS, it will also be involved in building and enforcing partnerships for sustainable development in the form of financial support for community-based organizations.

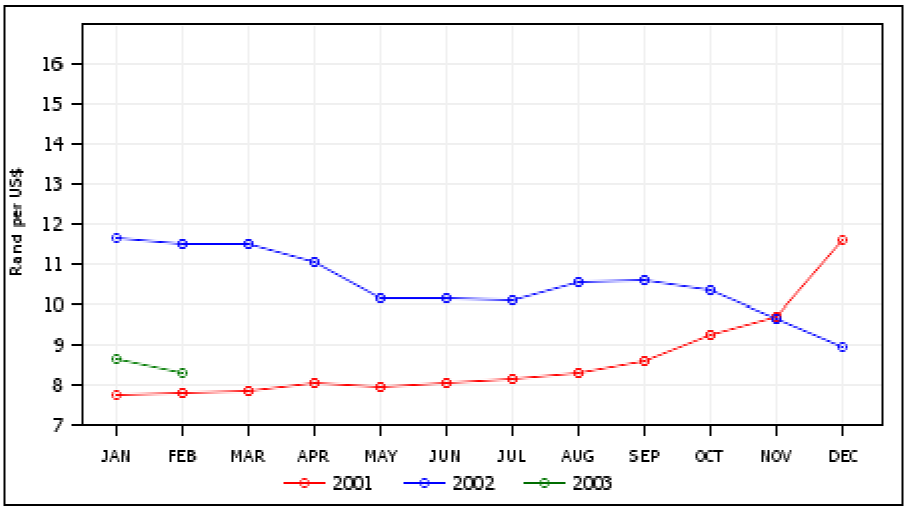
The strengthening of the NEPAD initiative and the development of strategies for moving forward on the resolutions of the World Summit for Sustainable Development also form part of this initiative. The government foresees getting a bonus of R1.6 billion in the form of a special dividend from the state-owned oil and gas company, Petroleum Oil and Gas Corporation of South Africa, (PetroSA). The dividend, to be paid in March, will help compensate the government for privatization income that is lower than expected. This development comes despite PetroSA experiencing a R200 million fall in its net profit. This raises interesting questions about the extent to which government is using special dividends from parastatals to make up for the shortfall in expected privatization efforts. During March, the consumer price inflation slowed down for the third consecutive month, but economists said that the movement is unlikely to persuade the Reserve Bank to cut interest rates. The Banks' CPIX inflation measure (consumer price inflation excluding mortgage cost) rose by an annual 11.3% in February, compared with 11.8% in January. This is slightly better than the 11.5% consensus forecast. The Bank has aimed to limit CPIX between 3% and 6% next year.

Eskom announced its plan to hike electricity prices to above the inflation rate in its effort toliberalize the power market. The National Union of Mineworkers (NUM) and the South African Consumer Union criticized the price increase, stating that this will have a negative effect on the inflation rate, and will limit consumer spending on essential services. Although Eskom announced its plans for the price hike in March, it is still needs to be approved by the National Electricity Regulator.

January also saw electricity consumption rising for three consecutive months by comparison to last year for the same period. There was a 869 GW rise in consumption compared to 2002. The production of electricity for the three months ending January 2003 was 2.2% or 1240 GW greater than the previous months.

The ANC-led government experienced an increase in popularity, partly due to the favorable budget for the coming financial year, as well as individual tax cuts, with the lower-income groups in particular benefiting to a large extent. Tension between the government and the main trade-union alliance, COSATU, has been eased somewhat, partly due to the government's announced intention to slow down the privatization process (especially of Eskom) to some degree. However, a 30% sale of generation capacity for the immediate future is still on track, with 10% earmarked for black empowerment.

***Economic Situation***. The South African currency gained strongly in value against the US Dollar, particularly during February and March. It was hoped that the prime interest rate would be lowered by the Reserve Bank in the light of the stronger Rand, but this did not happen. The Reserve Bank and the financial portfolio committee seem hesitant to lower the rate. This may be in part due to the fact that international monetary markets are uncertain given the middle-East situation and because of the volatility of oil prices. Regarding the strengthening of the Rand, some analysts consider there to be a downside to the weakened US Dollar as the export sector is bound to feel the pinch of reduced foreign currency income.




**RAND / US DOLLAR EXCHANGE**



Telkom, the fixed-line telephone monopoly became formally listed on the Johannesburg Securities Exchange, as well as the New York Stock Exchange, during the first week of March. This happened after Telkom reduced its listing share-price dramatically, probably to increase participants in the market. Just after listing, the JSE Telkom share price fell substantially, but when the listing and trading on the New York Stock Exchange started two days after, the share-price rose substantially again on the JSE. It is known that shares from emerging markets, especially from telecommunications, are high-risk, but with the possibility of a substantial rate of return should the market stay stable. South Africa is no exception, as can be seen by the trading volumes of these shares on the New York Stock Exchange, so much so that the chief under-writers issued additional shares. What is of note is that Telkom, with its healthy share price, is in a relatively good position compared to other large international telecom firms such as Deutsche Telekom, which are going through a difficult time financially at the moment. In addition, the IT sector is having a difficult time, as in other parts of the world. Of note is the large IT firm Dimension Data (Didata), which lost a fifth of its market value in one day's trading on the JSE during March, partly due to the weakened dollar against the Rand, as it is an exporter of IT related products.

**Section 2. Policy Environment**

As the government prepares to liberalize its power sector as part of its broader energy policy, the parastatal Eskom is planning to hike electricity prices to above the level of the inflation rate. The planned overhaul is to merge the distribution functions of Eskom and local authorities into six Regional Electricity Distributors (RED's), amd the transmission sector is to be divided into an independent state-owned organization. Also, the generation sector will be partially privatized, but current excess capacity is expected to run out by 2007.

The National Electricity Regulator (NER) has developed a draft policy for energy efficiency and demand side management within the South African electricity industry. The policy is intended to provide a framework for the promotion and implementation of demand side management options, and in particular by electricity distributors supplying electricity to residential, commercial and small to medium industries. The NER also has made available a discussion document outlining a proposed regulatory framework for the economic regulation of the electricity supply industry (ESI) in South Africa. The document describes the refinements made to the rate of return methodology introduced by the NER in 2001 to regulate Eskom, and outlines the application of the 'rate of return' method, and sets out the rules the NER will use in the assessment of applications for price and/or revenue increases.

Almost 1000 impoverished households in villages in and around Pongola in northern KwaZulu-Natal were connected to the electricity network in mid-January. The programme forms part of the government's programme to bring solar energy to poor rural households countrywide during the next five years in the on-going electrification programme in South Africa. Households pay about R58 per month for their electricity use and equipment maintenance while the capital cost of the systems are subsidized by government. According to the Department of Minerals and Energy electricity demand is low in poor households, but the solar systems will supply basic electricity for lighting, radio, black and white television. as well as cell phone battery charging. It is estimated that the rural electrification programme which will be run along business lines, will cost R3 million and is expected to create some 400 job opportunities.

Bonesa, the South African efficient lightning initiative recently completed a landmark pilot project at the University of Natal to retrofit all six floors of the University's EG Malherbe Library with compact fluorescent lamps. The replacement uses a 1 x 36 W luminaire with a triphosphor lamp, saving the university about R250 000 per year.

***Agreements.***

- The European Investment Bank has announced a loan of R300 million for the electrification of three provinces, the Western Cape, KwaZulu-Natal and the Limpopo Province.
- South Africa and Namibia agreed to boost trade links with Namibia saying it will host an investment conference for South African business this year. The two countries also resolved to improve co-operation in the tourism industry. Also discussed was the AUZIT Corridor, a tourist project that seeks to link the Southern port of Namibia to the Northern Cape. The bulk of the corridor falls within Namibia, but South Africa will provide the bulk of the technical expertise.
- The South African Minister of Minerals and Energy has entered into a partnership with the National Development Agency (NDA) through the signing of a memorandum of understanding in an effort to eradicate poverty through the Integrated Energy Centre Programme and the Rural Electrification and Income Generating Projects. Eskom also contributed to this initiation with funding of R15 million. The implementation for the NDA will focus on training at least 20 people from municipalities, communities and NGO's on general energy issues. The NDA has committed a budget of R300 000 per province to fund the training sessions. Three projects have been identified, with two projects in the Northwest province and one project in the Free State.

## Section 3. RE Financing

***The Emerging Enterprise Zone of the Johannesburg Stock Exchange (JSE).*** Also called EEZ, this internet site assists those seeking help in starting small enterprises by putting them in touch with those who can help. It is specifically targeted at the SMME market by providing updated information as well as online training and support. It has a facility, which allows the user to present a business plan, which can be honed down for presentation to particular investors. The website address is: www.jse.co.za

***Poverty Alleviation Subsidy*** As part of the South African government's free electricity initiative, 1 million households are targeted to receive 50 kWh electricity per month, free of charge. This initiative will be funded from the national fiscus, costing approximately R483 million, with R100 million set aside for the improvement of billing systems. For SHS the lessee will receive a discount of R48/month (approximately $4/m). This cost is being met by the national Fiscus. This program will be instituted in the NuRa concession area as from 1 February 2003.

## Section 4. RE Equipment/Services Procurement Notices

No significant notices of Renewable Energy tenders or procurement of services could be found, either in the available journals, or on the Internet sites visited. It seems that the uncertainty in the international financial markets also had a negative influence in this regard.

## Section 5. Project Leads, Partnering Opportunities and General News

***The Coega Industrial Development Zone:*** The new deepwater port is being developed and is ideally situated to serve as a transshipment hub port for locations throughout Southern Africa. It will have a vast industrial park suitable for heavy, medium and light industries, with purpose-built industrial infrastructure for investors. Apart from the modern R2,65 billion deepwater port facility, transportation links and logistics infrastructure will also be supplied.

***Angolan post-war economic boom:*** As Angola gears up for a post-war economic boom, a number of South African companies are exploring opportunities and operating in Angola such as Mvulaphanda Holdings, Trans Hex and SAB Miller. The Angolan government has a large oil-income and is beginning to increase infrastructure investment, larger expenditure on services and goods. An example of this situation is the $30 million building on the Luanda shoreline recently erected by De Beers. Tourism, fishing and a broad energy sector investment offers a potentially profitable investment option, should the political situation remain stable.

***Eskom's capital sector investment to supply the mining sector:*** In the light of planned privatization of a part of the generation sector of electricity industry, it is notable that Eskom is planning to make a R50 billion capital investment in order to meet the demand of the growing mining sector. Its income has increased during the 2002-2003 financial year with 9,8%, hiking the profit margin to R37 billion. During July 2002 Eskom declared dividends of R 549 billion to Government, and as Government plans to sell generation capacity, earmarking 10% for black empowerment, clearly there exists a large investment opportunity in this regard.

***Excel Petroleum entering petroleum market.*** Empowerment Company Excel Petroleum has entered the large jet-fuel market with its inclusion in the consortium of companies that supply jet-fuel to airplanes at

Johannesburg International Airport. The move is part of a growth strategy that is expected to double the company's turnover to R5 billion in 2005.

***Eskom-SABRE-GEN Programme:*** Eskom through the SABRE-GEN programme initiated research jointly with the Department of Minerals and Energy, CSIR and other partners into the development of a database of solar, wind and hydro renewable energy potential in South Africa.

## Section 6. Calendar of Events

***Proposal for Co-Funding*** – A Symposium on Actions for Sustainable Biomass Energy Management will be held in October 2004 in Goabeb, Namibia. The focus will be sustainable biomass energy management in Southern African countries with a review of the existing declaration on biomass energy, as well as actions undertaken versus the description of the biomass energy situation in the SADC region. Beneficiaries or participants herein would typically be NGO/GO decision makers, entrepreneurs, donor organizations and producers and promoters of efficient biomass technologies and techniques. The organizer is PRoBEC – the Program for Biomass Energy Conservation in Southern Africa, and it is to be implemented by GTZ (Deutsche Gesellschaft fuer Technische Zusammenarbeit), and the DRFN (Desert Research Foundation of Namibia). For more information, please see: www.zaprobec.co.za.

***Short course: Analysis, operation and control of power systems:*** April 14 – 16, 2003, Cape Town, South Africa. Contact: Carol Koonin, tel. +27 (0)21 650-2694, ckoonin@powerelec.ee.uct.ac.za previously exposed to them. For more information, please see: www.integratedcommunications.co.za.

***Sustainable Energy Symposium***. An open invitation. 15 April. Mineralia Building, Pretoria, South Africa. For more information, please see: seccp@earthlife.org.za

***Technology and Management for Sustainable Buildings:*** 26 to 30 May 2003 in Cape Town. Hands on conference on sustainability in the built environment. Contact Glaudin Kruger for more information at: kruger@jaywalk.com.

***Africa Energy Forum***, June 22 – 24, 2003, Lausanne, Switzerland. This annual event promotes investment in Africa's energy sector by providing a forum for African governments and the international business community to explore opportunities associated with the expansion, restructuring and privatization of the energy sector. Contact: Rachel Hirschler, EnergyNet Ltd, tel. +44 (0)20 547-0698, fax +44 (0)20 541-3244, rachel@energynet.co.uk

***World Wind Energy Conference 2003***. Renewable Energy Exhibition. November 23-26, 2003. Cape Town, South Africa.

***The 5th Annual Power Generation Conference***: March 25-27, 2003 Johannesburg, South Africa. Achieving sustainability in energy provision for a brighter future. Contact Maggie Pienaar for more information: maggie.pienaar@terrapinn.co.za.

***Domestic use of Energy:*** March 31 to April 3, 2003, Cape Town. Contact Nico Buete for more information: due@ctech.ac.za, or www.ctech.ac.za/conf

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