

Winrock International

Renewable Energy State of the Industry Report #7

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Contributors:
REPSO Brazil
AHPPER Honduras
Winrock International India
YBUL-Indonesia
REPSO Nepal
PEI Philippines
Solar Engineering Services South Africa

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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*](mailto:mfyodorova@winrock.org).

Brazil – REPSO Brazil

Section 1. Macro Political and Economic Situation

2002 Review. In reviewing 2002, a few events can be selected as having been of major significance for the energy sector and, in particular, for the renewable energy industry. Those events are: **I)** the end of energy rationing; **II)** the enactment of Law 10438; **III)** the issuing of Provisional Measure 64; and, **IV)** the election of a left-leaning President.

I) The end of energy rationing is a highlight of the return of the Ministry of Mines and Energy to the center of the decision-making arena in the electric sector. The Electric Energy Crisis Management Board (GCE), after a successful management of the consumption rationalization plan, proposed a set of measures that aimed at filling service gaps, giving the Brazilian Electric Sector a new face, and trying to rebuild stakeholder confidence (especially investor confidence). The GCE was restructured and renamed the *Electric Sector Revitalization Committee* and its most important reference document was the Progress Report N. 3 (available at www.energiabrasil.gov.br). This document highlighted the decision to auction the energy being freed from the Initial Contracts, the so-called “old energy”.

The new Electric Sector Revitalization Committee did not deviate from the orientation given in the Coopers & Lybrand Consultancy Report, but was still not able to continue the privatization process in the sector, or to complete the reforms foreseen in the Electric Sector Restructuring Plan (RESEB). The Sector’s agents are still struggling to put on track the Wholesale Energy Market (WEM). The news about defaults in the same process abroad (California, Chile, Argentina and, more recently, the UK), and the anticipation of the presidential election campaign, slowed the sector’s reform implementation and privatization. For more information visit www.mme.gov.br.

II) The enactment of law 10438. This piece of legislation, enacted on April, 26 2002, should be welcomed as the most significant regulatory move towards the viability of renewable energies, energy efficiency, poverty alleviation and the universalization of energy services in Brazil.

The law came from Provisional Measure 14, which dealt principally with the contracting of emergency energy and tariff reconciliation for energy distribution companies after the energy rationing. This new Energy Sector Law modified dispositions of the Provisional Measure 14 and added others to the original text, becoming, effectively, a revolutionary legal document of the modern Brazilian energy sector.

Important Acronyms:	
ANEEL	National Electricity Regulatory Agency
BNDES	Brazilian Bank for Social and Economic Development
CBEE	Brazilian Trader of Emergency Energy
CCC	Fuel Consumption Account for power generation in isolated systems
CDE	Energy Development Account
CENBIO	National Center for Biomass Research
Copersucar	Sugar mills cooperative
CPEN	The Centre for Energy Planning
Eletrobras	Holding Company of the State Owned Generation Companies
GCE	Energy Crisis Management Board/ Electric Sector Revitalization Committee
MAE	Wholesale Energy Market
MCT	Ministry of Science and Technology
MME	Ministry of Mines and Energy
Petrobras	Brazilian Oil company (partially state owned)
PIA	Autonomous Energy Producer
PRODEEM	Energetic Development Program for States and Municipalities
PROINFA	Alternative Energy Incentive Program
RESEB	Electric Sector Restructuring Plan
SHP	Small Hydropower Systems
VN	Normative Value
WEM	Wholesale Energy Market

An important aspect that should be highlighted is the shift in incentives brought about by some provisions of the Law. The Thermoelectricity Priority Program (PPT), which supports gas-fired power plants, loses steam to the Alternative Energy Incentive Program (PROINFA). The PPT was the sole driver in the change of technological orientation from large-scale hydro to gas fired power plants and it was conceived to respond to most of the expansion in the generation sector. With the PROINFA and Energy Development Account (CDE) provisions, Law 10438 not only sets ambitious objectives for renewable energy, but defines (guarantees) its participation in the makeup of the Brazilian energy matrix. At the same time, unexpected shortages in gas availability and an unclear regulatory scenario in the gas sector, mainly a gas price policy led Petrobras to halve its planned gas fired power plants. For more information visit www.mme.gov.br

III) The issuing of Provisional Measure 64. One of the provisions of Law 10438 defined the Low Income Consumer as, broadly, those consumers consuming 80 kWk per month of electricity; these consumers will be charged at a lower level. The number of consumers fitting that definition increased considerably, causing an unexpected economic and financial unbalance in the concession contracts signed with the utilities. ANEEL could not agree with the tariff revision since the Law 10438 had already established a tariff revision to make up for utility losses during the rationing period. The last resort was to issue the Provisional Measures 64, on August 26, 2002, directing resources from CDE to cover the financial imbalance referred to above. The renewable energy sector sees this as troubling to the success of PROINFA in the long run. The industry complains that it is not yet known what the expected total amount of CDE is and yet the MP 64 creates another destination for the resources. Additionally, the MP 64 does not set a limit on the usage of CDE funds to cover unbalances caused by the definition of Low Income Consumers. Law 10438 does set limits for the usage of CDE resources to offset production costs for each of the renewable energy technologies considered.

In the aftermath of the Law 10438, the MP 64 poses a setback for renewable energy development. The MP 64 also establishes other provisions; mainly, seeking to identify and discipline new sources of financial resources for the electric sector, such as, for example, the natural gas purchase and transport that will have subsidies from CIDE (Contribuição de Intervenção no Domínio Econômico). For more information visit: www.energiabrasil.gov.br.

IV) The election of a left-leaning president – prospects for the future. A careful reading of the *Workers Party Government Plan* (Concepção e Diretrizes do Programa de Governo do PT – at www.pt.org.br) and also the document “Diretrizes e Linhas de Ação para o Setor de Energia”, published by Instituto Cidadania (www.icidadania.org.br) linked to the Workers Party, shows a drift away from the principles launched in the Coopers & Lybrand document, especially concerning the privatization process.

In fact, great expectations have been created with the arrival of the President, in regard to the improvement of social conditions in the country. There are similar hopes for the electricity sector, since the sector lives in a sort of public-private limbo, where the model initially conceived was not completely implemented and is again under reform to allow for new state-owned companies, such as CBEE, to arise.

The macro-economic policy that will be put in place by the new Government raises some questions. IMF contracts foresee bulky surpluses, which should be used to change the external debt profile. Additionally, the Brazilian economy is largely dependant on external financing. How will the expansion of the electric sector be financed by public resources? The logical solution would be to invite the private sector to invest in the sector. But how to do that in what is almost a regulatory vacuum and without becoming completely dependant on international capital, (especially in a floating money exchange regime)? In addition, the Real plan only allows contracts in national currency, posing a huge money exchange risk for the international investor. Finally, how to implement a market oriented regime in the electric sector, which has yet to build its basic infrastructure and has millions of citizens without electricity service? How to

operate a Wholesale Energy Market with a rarefied transmission grid and without metering resources well-distributed on the grid, essentials for the commercial liquidation of energy transactions? The challenges are enormous. However, the prospects for renewable energy and energy efficiency are good. According to ANEEL figures, in the year 2002, 216 generation concessions were granted, from which 48 were small hydro, 18 were wind power and 150 were thermo power plants. The total authorized capacity goes beyond 6000 MW, whilst the investment amounts to more than eight billion reais.

The private sector has shown interest not only in amortized, but in plain operational vitality assets. Most of the Brazilian hydroelectric power plants are old enough to have paid back all the investments made. However, they are perfectly operational and free of financial risks, meaning that they are able to produce power at still a very low cost and for quite a long time.

Given the regulatory uncertainties of the Brazilian energy market, private sector investors would not commit to building new facilities for power generation, but would be happy to acquire the hydroelectric plants. The risks for investing in new assets are significant; therefore, the private sector will not be easily convinced to invest in the electric sector.

Section 2. Policy Environment

New Energy Minister and Ministry Officials enter into Office. Economist and former Energy Secretary for Rio Grande do Sul State, Dilma Roussef has joined the Energy Ministry. The Ministry Executive Secretary will be Dr. Mauricio Tomalsquin and Dr. Jose Pinguelli Rosa will be president of Eletrobras, both from Rio de Janeiro Federal University. Former Senator José Eduardo Dutra will be president of Petrobras.

PROINFA will regulated by the new government. Considering a request from the new government transition team, the Energy Minister left the regulation of PROINFA to the future members of the Energy Ministry. For more information visit www.mme.gov.br.

CCC and SHP undergo new regulation. Public Hearing numbers 24/2002 and 17/2002 took place in December 2002 and new regulations on the use of CCC and classification rules for SHP are in preparation. For more information visit www.aneel.gov.br

New Planning Body created. Just a few days before the end of his tenure at the Energy Ministry, Mr. Francisco Gomide created a body to be responsible for planning the expansion of generation and transmission in the Brazilian electric sector. The Centre for Energy Planning (CPEN) is expected to define the investments in the medium and long run with the objective of avoiding future energy shortages. For more information visit www.mme.gov.br

Section 3. Project Leads, Partnering Opportunities and General News

Feasible Cogeneration Project for Lumber Industry in Brazil. INEE, the National Institute for Energy Efficiency, one of Winrock International's partners under USAID's BCEEP (Brazil Clean and Efficient Energy Project) is leading studies in the northwestern region of Mato Grosso State. The study is for a cogeneration project using wood residues to produce power, while the steam will be used to dry the newly lumbered wood. The project also emphasizes the need for well-managed forestry and will replace electricity being produced from diesel fuel.

Ocean Waves. The University of Ribeirão Preto – São Paulo, IPT – Institute for Technological Research and EBR – Brazilian Recycling Enterprise will develop a project to try to produce power from ocean waves. According to the researchers the Brazilian potential is over 120,000 MW.

Section 4. Calendar of Events

First Annual Conference on Policies for the Electric Sector Development – 2003 Scenario.

São Paulo – São Paulo,

March 25 – 26, 2003,

For more information call IBC do Brasil – 55-0xx-11-3017-6888,

visit www.ibcbrasil.com.br

or send a e-mail to energia@ibcbrasil.com.br

Solid Waste Management National Seminar

São Paulo – São Paulo,

March 26 – 28, 2003.

Fax: 55-0xx-11-3284-3211

E-mail: senalimp@senalimp.com.br

For further information, please visit the page of the event at: www.senalimp.com.br

X Latin-American and Caribbean Meeting on Small Hydro

Poços de Caldas – Minas Gerais,

May 4 – 8, 2003.

For further Information visit www.xelpah.edu.br

Or e-mail to xeplah@unifei.edu.br

Resolutions South America 2003 - International Fair and Congress on Renewable Energy

São Paulo – São Paulo,

May 15 – 17, 2003

Phone: 55-0xx-11- 3873-7614

E-mail: info@wbe.com.br

BRASIL ENERGIA - International Congress and Fair

São Paulo – São Paulo

May 27 – 30, 2003

Venue: Transamérica Expo Center - São Paulo - SP – Brazil

Phone: 55-0xx-11-3662-4692

www.hanover.com.br

hanover@hanover.com.br

Honduras – Small Renewable Energy Producers Association (AHPER)

Section 1. Macro Political and Economic Situation

Political Scenario. The central government, led by President Ricardo Maduro, at the end of his first year in office, has been given a poor grade. The cabinet has not been able to correct several national problems, such as inflation and a need to reduce government spending. However, other areas such as education and criminal activities have shown slight signs of improvement.

Economic Situation. The local currency, the lempira, continues its decline against the US Dollar. The latest figures show the lempira at an exchange rate of almost L17/1USD.

Important Acronyms:	
AHPER	Honduran Association of Small Scale Renewable Energy Producers
BUN-CA	Biomass Users Network – Central America
CABEI	Central American Bank of Economic Integration
DGE	National Directorate of Energy
ENEE	National Electric Energy Company
FENERCA	Initiative to Finance Renewable Energy Enterprises in Central America.
SERNA	Ministry of Natural Resources and the Environment

The coffee sector, one of the key productive sectors of the country, continues to face a serious challenge due to falling international coffee prices. However, other economic sectors, such as shrimp, tilapia farming and the *maquila* factories, are showing some signs of improvement. The outlook for 2003, according to the Honduran Central Bank, shows inflation of at least 7%.

Section 2. Policy Environment

AHPER law initiative on hold. The law initiative proposed by AHPER to the Honduran Congress has been put on hold. The National Committee for State Modernization asked AHPER to postpone the introduction of the new law to the Honduran legislation, and has asked AHPER for its help in analyzing and determining how the government can help promote renewable energy. AHPER is involved in writing a law proposal aimed at creating the legal and institutional framework suited for the funding, investment and development of small-scale renewable energy projects, which would also promote economic and social growth, especially in the rural sector.

The AHPER proposal was developed with support from Winrock International and FENERCA, a program jointly implemented by BUN-CA and E & Co. Basically, the proposal's key points include:

1. Tax exemptions for equipment, services or materials used for renewable energy projects;
2. A better price for renewable energy generated kW; and,
3. Simplification of the licensing process to construct/operate a renewable energy project.

Please contact AHPER for more information on this law proposal at juan@ahpper.hn

Basis for new framework law presented. The Modernization Commission at the Ministry of the Presidency has made public their preliminary draft for a new Framework Law for the electricity sub-sector. The presentation was made during a national energy forum that took place in the city of San Pedro Sula on November 14. It has been noted that some aspects of this new law could hurt the development of renewable energy projects in Honduras. For example, the new law includes the government's intention to gradually shift the current market (where ENEE buys every Kw generated) to an open market where buying would be ruled by the market (best economic offer). In addition, all of the current benefits for renewable energy development that were developed during past administrations will be abolished, leaving

a weak RE sector. Contact the Modernization Commission for more information, at jmoran@cpme.gob.hn.

Section 3. RE Financing

FENERCA workshop with municipalities. FENERCA, a joint program implemented by E&CO and BUN-CA, recently concluded a workshop aimed at municipalities. Mayors from all parts of Honduras gathered in Siguatepeque, a city located half way between the capital city Tegucigalpa and the industrial capital San Pedro Sula to listen to topics such as how to fund renewable energy projects and what financing options are available to Honduran municipalities. The workshop also included topics such as a brief introduction to RE and non-RE topics, social benefits of RE, the National Energy System and legal aspects of renewable energy. A small technology fair was also set up to allow the visiting mayors to see and receive information on RE equipment. In addition, a field visit was organized to a nearby, recently inaugurated, hydro project. This gave many of the mayors, who previously thought of RE projects such as hydropower as environmentally damaging, a new view of RE projects. For complete information contact Rolando Pinzon at DGE at rolpinzon@yahoo.com

CABEI Initiatives. Financing opportunities are 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

210 MW bid opened then cancelled. An international bid for the supply of 210 MW of installed capacity by diesel engines to ENEE was awarded after a long five-week delay during which a committee was created to analyze each bid to demonstrate the central government's commitment to transparency. The company to offer the best price was Luz y Fuerza de San Lorenzo LUFUSSA. After being awarded the contract, the three losing companies AES, Comercial Lainsz and Nacional de Ingenieros filed an appeal and a motion to declare the bidding null. The basis for the appeal was that several irregularities arose from the offer presented by the winning company. After much public debate, ENEE decided to declare the bidding cancelled. The council of ministers decided that the award would be given directly, invoking an emergency decree that enables the buying of electricity without calling for a public bid. ENEE said that the appeal would endanger the country's electricity supply in the near future, because the resolution would take too much time, and that the country would risk falling into an energy crisis. This measure will allow the government not only to award the current 210MW, but also an 180MW bidding that was scheduled to take place in 2003, as well as the gradual retirement of several diesel engines currently operated by ENEE. "This decree will enable us to ensure the supply of electricity and at the same time will comply with the best interest of the country," said Angelo Botazzi, Director of ENEE, he also added, "With this bidding we have gotten prices that are far below the current high prices being paid." The ENEE now has to prepare the contracts and schedule when the contracts will be awarded; later these contracts will go to Congress for their approval.

Section 5. Project Leads, Partnering Opportunities and General News

Hydro project inaugurated. The small hydroelectric project of 457 kW of installed capacity, La Nieve, was inaugurated on November 26th, making it officially the first privately owned hydroelectric project to be operational in the country. President Ricardo Maduro and the Minister of SERNA, Patricia Panting, were present at the inauguration, demonstrating the importance from the government to support the investment in Honduras, especially on renewable energy projects. The project is located in the north zone of Honduras near Lake Yojoa. Please contact Mauro DellOro, from Sociedad Hidroelectrica La Nieve, for further information on this project. hydroprogetti@hn2.com

Second Hydro Project to be inaugurated. The Esperanza Phase I hydro project is scheduled to be inaugurated during the first quarter of 2003. This initiative is being led by Mr. Ronald Turner, a Canadian investor who is located in La Esperanza in the southwest region of Honduras. The project will have an installed capacity of approximately 0.5 MW. The project will provide electricity to the nearby city of La Esperanza. For more information contact Elsie Paz at cisa@multivisionhn.net

Section 6. Calendar of Events

Workshop with Private Sector and NGO's. 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. The workshop is scheduled to take place in the beginning weeks of February. Interested participants, please contact DGE Director, Leonardo Matute, at dge@serna.gob.hn

India – REPSO India

Section 1: Macro Political and Economic Situation

Political Outlook. India continues to face tough challenges on the political front with religious fundamentalism yet again surfacing in Gujarat. The business climate in the state, which is one of India's economic frontrunners, has been adversely affected due to the continuance of such incidents. Meanwhile, the tension in Kashmir and with its neighbor Pakistan continues as well.

Important Acronyms:	
ABT	Availability Based Tariff System
NELP	New Exploration Licensing Policy
APDRP	Accelerated Power Developments and Reforms Programme
WBREDA	West Bengal Renewable Energy Development Agency

With the fresh elections in Kashmir, and with a new government coming in, many expect the situation in the valley to improve. On November 2, 2002, the People's Democratic Party (PDP) president, Mufti Mohammad Sayeed, was sworn in as the chief minister of Jammu and Kashmir and the senior Congress leader, Mangat Ram Sharma, as his deputy.

The success of the Bharatiya Janata Party (BJP, the key party in the National Democratic Alliance, which is running the central coalition government) in Gujarat election has set the tone for the political environment in the run-up to the next all-India general elections slated to take place in 2004. Strong performance by the BJP in Gujarat makes it likely that it will face future elections with a more hard-line (fundamentalist) platform.

Economic Scenario. The Indian economy grew at a faster pace in the second quarter than many had expected as a robust growth in services and manufacturing offset the weak performance of the agriculture sector. India's gross domestic product (GDP) grew at 5.8 percent in the quarter ending September 30, 2002 as against 5.3 percent in the same period last year. India's industrial production expanded by a robust 6.2 percent in October 2002 as against 3.2 percent in the same month last year. The index of industrial production (IIP) grew by 5.5 percent in April-October 2002-03 compared with 2.5 percent in the corresponding period last year. The manufacturing sector registered a growth of 6.4 percent in October 2002 as against 3.5 percent in the year-ago month. Mining grew by 3.8 percent compared with 3.7 percent a year earlier while the electricity sector expanded by 7.4 percent as against a fall of 0.2 percent in October last year. The manufacturing sector grew by 6.4 percent during the second quarter compared with 2.6 percent in the same quarter a year-ago. The agriculture sector was hit by the worst drought in more than a decade. As a result, the farm sector output was flat in the second quarter as against 6.3 percent in the same quarter a year earlier. Financial, insurance and business services expanded by 8.9 percent in the second quarter compared with 7.6 percent in the second quarter of the previous fiscal year. Community, social and personal services grew by 5.7 percent as against 5.4 percent in the year-earlier period. Among the other sectors, which logged significant growth in the second quarter, are mining and quarrying by 5.1 percent, construction by 7.2 percent, trade, hotels, transport and communication by 8 percent and electricity by 4.9 percent.

Fiscal deficit at the end of November 2002 was Rs 833.94 billion, representing 61.5 percent of budget estimate for the fiscal year to March 31, 2003. The Government has set a fiscal deficit target of Rs 1355.24 billion or 5.3 percent of GDP for the fiscal year ending March 31, 2003.

The Reserve Bank of India (RBI) slashed banks' daily minimum cash reserve requirement (CRR) to 70 percent from 80 percent. The new norm came into effect from December 28, 2002. As per RBI, foreign

exchange reserves soared to \$69.508 billion in the week ended December 20, 2002. Foreign currency assets shot up to \$66.198 billion from \$65.125 billion, while gold reserves and special drawing rights (SDRs) remained static at \$3.303 billion and \$7 million, respectively.

Economic Outlook. India's GDP growth is expected to accelerate in 2003-04 and 2004-05 to an average of 5.7 percent, bolstered by growth in the services sector. The current account is forecast to remain in surplus, largely owing to increased services exports. Consumer price inflation, estimated at 4.3 percent in 2002, is forecast to pick up to 5.2 percent in 2003 and 6.9 percent in 2004 as utility prices increase and industrial confidence picks up.

The Tenth Five Year Plan aims at achieving an average growth rate of the Gross Domestic Product (GDP) of 8 percent per annum over the period 2002 to 2007. It also seeks to create the conditions for a further acceleration in the growth rate over the Eleventh Plan period (2007-12) in order to achieve a doubling of per capita income of the country over the next ten years. These are no doubt ambitious targets, but the Tenth Plan is predicated on the belief that the country has the potential to meet these expectations, provided that the appropriate policy measures and institutional changes are implemented expeditiously and effectively.

Section 2: Policy Environment

The last quarter of 2002 saw many developments in policies in the oil & gas sector and the electricity sector. The deregulation moved ahead, the government showed renewed commitment towards the disinvestments process in the oil sector, the Electricity Bill was approved by the Parliamentary Committee, etc. In addition, new policies in the oil & gas and power sector are on the anvil – the gas pipeline policy, the new gas policy, the new electricity tariff policies to name a few.

Oil sector deregulation: The Ministry of Petroleum and Natural Gas has drawn the road map for the complete deregulation of the gas sector by October 2003. The plan envisages a progressive increase in the gas price ceiling from January 2003, when the price will be increased to Rs 4,300 per million cubic meters (MCM) from its current level of Rs 2,850 per MCM. The prices will be further raised to Rs 5,800 per MCM from April 1, 2003, and will become completely market-driven starting October 1, 2003.

Disinvestment: Meanwhile, on the disinvestments front, there have been some developments in the last quarter of 2002. The prime minister, after a high-profile meeting with various cabinet ministers, has announced the much-awaited disinvestments of Hindustan Petroleum Corporation Limited (HPCL) and Bharat Petroleum Corporation Limited (BPCL). The center has decided that while the former would be put up for strategic sale, the latter would be divested using the initial public offering route. The government is planning to divest a part of its holding in Bharat Petroleum Corporation Limited (BPCL) through a global offering of ADRs and GDRs, expected to be one of the largest global offerings by an Indian company. The divestment ministry will take up the ADR/GDR proposal at the next meeting of the cabinet committee on divestment. The global offering will be combined with a domestic float and sale of shares to the company's employees.

NELP: On the New Exploration Licensing Policy (NELP), the union government has been quite active. The center has approved the award of seven deep-water and two shallow water oil and gas exploration blocks to the consortium comprising Reliance Industries Limited (RIL) and Hardy Exploration and Production (India). The blocks were awarded under the third round of NELP, which offered a total of 23 blocks. Of the remaining 14 blocks, nine blocks – five onshore, three shallow and one deep-water – were awarded to the Oil and Natural Gas Corporation (ONGC). The ONGC–Oil India Limited combine bagged one offshore and two onshore blocks. Another ONGC consortium, with Indian Oil Corporation (IOC),

won an onshore block in Mizoram. And the consortium of Gujarat State Petroleum Corporation Limited and Geo-Global won a deep-water block in the Krishna-Godavari offshore area

Petroleum product pipeline policy: On December 5, 2002, the central government announced a petroleum product pipeline policy that is based on a common carrier principle, thereby opening the sector to private players. As far as the existing pipelines are concerned, the common carrier principle would only apply to the excess capacity, but the pipelines being planned for the future would have to be shared with other users (on commercial terms). Currently, the product pipelines have been categorized into three categories: those pipelines that originate from a refinery less than 300 km away; those that are dedicated to supplying products to the final consumer irrespective of the origin of the pipeline and less than 300 km in length; and those that exceed 300 km.

Gas policy: The Ministry of Petroleum and Natural Gas has unveiled the proposed gas policy, which would be based on a pooled-price principle wherein prices of domestically produced natural gas and re-gasified LNG to be imported at Dahej would be combined and consumers offered gas on a weighted average basis. Gas Authority of India Limited has also advocated this mechanism, which is expected to bring down the price of gases to approximately \$3.5 per million British thermal units (BTU).

Move towards building oil buffer reserves: Prime Minister Atal Behari Vajpayee has announced that the government is considering creation of a strategic oil reserve to counter potential disturbances in supplies of crude oil, particularly from the Middle East. "Crude oil prices may shoot up if tensions in West Asia (the Middle East) rise, leading to a prolonged shortage of supplies in the world oil market," said Vajpayee recently. His remarks come against the backdrop of the possibility of a US-led invasion of Iraq, which has heightened concerns about a disruption in oil supplies as well as a rise in prices of fuel in India. According to oil ministry officials, India keeps about 10-12 days of crude stocks. India currently imports 70 percent of its requirement of oil and petroleum products - most of it from the Middle East and particularly Iraq. The projected requirement in India for the year to March 2003 is 108 million tonnes of crude oil compared with production of 33 million tonnes. Consumption of natural gas is expected to be 55 million tonnes compared with production of 24 million tonnes.

Policy for alternative transportation fuel: In September/October, the Ministry of Petroleum and Natural Gas decided to allow supply of 5 percent petrol in nine sugarcane producing states (Andhra Pradesh, Gujarat, Goa, Haryana, Karnataka, Maharashtra, Punjab, Tamil Nadu, and Uttar Pradesh), and four union territories (Chandigarh, Daman and Diu, Pondicherry, Dadar & Nagar Haveli) with effect from January 1, 2003. On the pre-decided date, the centre announced an excise duty rebate of 30 paise per litre on "gasohol", the five percent ethanol blended petrol. The Ministry of Finance has also issued a notification stating that ethanol production is not separate but instead a mere part of the sugar industry as well. Meanwhile, national oil companies Indian Oil Corporation (IOC), HPCL and BPCL have already called for tenders for supply of ethanol for three months.

New power tariff policy: The union government has also claimed that the new power tariff policy, a benchmark for the electricity regulatory commission to set tariffs, is likely to be announced soon. The draft policy is waiting to be passed in the Parliament. It has been prepared by an independent rating-cum-research agency, Crisil, after incorporating views from all stakeholders - the Central Electricity Regulatory Commission, industry bodies, licensees and the generation companies.

Parliamentary Committee clears Electricity Bill: A parliamentary panel has cleared the much-awaited Electricity Bill that proposes to rationalize electricity tariff and bring about transparency in the policy regarding subsidies among others. The Electricity Bill, 2001 proposes to consolidate the laws relating to generation, transmission, distribution, trading and use of electricity, rationalization of electricity tariff and transparency in subsidies. The committee has asked the government to include promotion of competition,

protection of consumer interest, and universal obligation to supply electricity to all in the preamble to the bill. The bill would give the center powers to formulate a National Electricity Policy as well as a tariff policy. It will also permit standalone power generation systems (including those based on renewable sources of energy) for rural areas.

Moves towards ABT: After a delay of nearly two years, the availability based tariff system (ABT) has been introduced in the southern and eastern regions of the country (with effect from January 1, 2003). This is in line with the directive issued by the Central Electricity Regulatory Commission. While ABT has already been implemented in the western region since August, it will be adopted in the northern region by December 1 this year.

Section 3: RE Financing

During the Tenth Plan period, the government has proposed to enhance public funding for the electricity sector as well as encourage public sector undertakings to take up projects through joint ventures with private investors and state governments. As part of these efforts, the Cabinet Committee on Economic Affairs has approved the extension of the Accelerated Generation and Supply Programme up to the Tenth Five-Year Plan, till March 2007. The programme, initiated in the Ninth Five-Year Plan by the Power Finance Corporation (PFC), allows the state utilities to avail of concessional lending with an interest subsidy of up to 4 percent if certain prefixed milestones are achieved.

To ensure better utilization of funds for power sector reforms, an Accelerated Power Developments and Reforms Programme (APDRP) has been formulated by the government. It is aimed at promoting investment for distribution reforms. The funding under the APDRP is proposed to be 50 percent on investment stream and 50 percent on incentive stream. The focus is to ensure that investment must result in quantifiable physical and financial benefits in the selected circles. The government is also making concerted efforts to channel adequate investment to ensure the completion of national grid by the end of the Eleventh Plan. This would enhance the inter-regional transfer of power.

For the Tenth Plan period, a total of Rs 71,670 million has been ear-marked by the Ministry of Non-Conventional Energy Sources. Of this, Rs 61,670 million is the outlay for central schemes and the balance is for the centrally sponsored schemes.

To promote use of biomass-based power in the state, the Tamil Nadu Energy Development Agency has announced a capital subsidy of Rs 10 million per MW to biomass power projects in addition to a 33 percent subsidy for battery-operated vehicles. The biomass cogeneration projects and those based on direct combustion would receive an interest subsidy of two to three percent and biomass gassifiers would be eligible for a two percent subsidy.

Meanwhile, the Ministry of Finance and Company Affairs has changed the depreciation norms for energy saving equipment. The ministry has notified that the depreciation allowance as percentage of written down value for the energy saving equipment stands reduced from 100 percent of 80 percent from the assessment year 2003-04 (with effect from April 1, 2003). The list of equipment has been enhanced under the “energy saving equipment” category.

Section 4: RE Equipment/Services Procurement Notices

Registration of suppliers to Bharat Heavy Electrical Limiter’s (BHEL) Electronics Division, Bangalore

The company is looking for suppliers in the area of electronic equipment and energy efficiency distribution equipment. The enrollment registration shall be made as per the standard procedure of BHEL, after evaluation of technical capability of the firm, along with other statutory requirements. Contact: A. Umashankar, DGM (MM/M&C), BHEL Electronics Division, Mysore Road, Bangalore – 560026. Tel: 91-080-6740142, Fax: 91-080-6740137

Invitation of bids for setting up 10-Body 7-Effect free flow falling film tubular evaporator plant of 100 TPH water evaporation capacity

Under the Second Renewable Energy Project, financed by International Bank for Reconstruction and Development, the bank is inviting bids for turnkey construction work of the plant. The procurement rules are as per the World Bank procurement under IBRD loans and IDA credits. For more information, please contact: sunil/winrock@winrockindia.org.

Section 4: Project Leads, Partnering Opportunities and General News

Project leads and partnering opportunities:

Opportunity to enter the small hydro sector in Kerala: The Kerala state government has opened up the small hydropower generation projects segment for private sector investments. In the first phase, 62 projects with an installed capacity of 162 MW are expected to be put in place. The state electricity minister has announced that tenders for the projects would be invited soon and the projects would then be allocated through a competitive bidding process by March 2003. The Kerala State Electricity Board would purchase the power generated from these and claim 15 percent transmission losses and wheeling charges. The promoters would be allowed to use 75 percent of the power generation or 50 percent of the annual power requirement, whichever is lower.

General News:

Green Power Corporation to take up bigger projects: The chief minister of West Bengal has given an “in-principle” approval to convert the West Bengal Renewable Energy Development Agency (WBREDA) into a full-fledged corporate entity called Green Power Corporation. This follows the need for greater fund availability to finance the addition of installed non-conventional generation capacity in the state. The newly formed corporation would take up bigger projects, of up to 25 MW, as against the smaller projects of around 2 MW that WBREDA has been undertaking till now.

Orissa to sell mini-hydro plants: The Orissa government has decided to sell off seven mini hydroelectric power plants in the state, which were lying defunct. The installed generation capacity of these units range between 300 KW and 2 MW and had been earlier declared unviable because of the cost of power offtake, which was coming to Rs 4 per unit. The decision to this effect was taken on November 8, at a meeting chaired by the state energy minister.

BHEL wins BASL contract: The Bharat Heavy Electricals Limited has been awarded a Rs 155 million contract from Bannari Amman Sugar Limited (BASL) for supply of steam turbine generator. The scope of the work envisages the manufacture, supply, erection, and commissioning of the STG and auxiliaries for BASL’s sugar cogeneration plant at their Nahangud sugar factory in Karnataka.

Reliance finds gas in the Krishna-Godavari basin. The main highlight in the gas sector Reliance Industries’ discovering natural gas in the very first well it drilled in the deep-water block in the Krishna-Godavari basin off the Andhra Pradesh coast. This is considered the country's biggest natural gas discovery in nearly three decades and one of the largest gas discoveries in the world this year and

Reliance has achieved a 100 percent success rate in all the five exploration wells drilled so far in the block. The in-place volume of natural gas is in excess of seven trillion cubic feet, equivalent to about 1.2 billion barrels or 165 million tonnes of crude oil. RIL was awarded two deepwater blocks in the Krishna-Godavari basin under the first offering of the New Exploration Licensing Policy (NELP) in consortium with Niko Resources of Canada.

Iran offers pipeline deal. Ahead of Iranian President Mohammad Khatami's visit to India, Iran has offered India a pipeline deal that is difficult to reject, although India is worried that the pipelines may be sabotaged by anti-India militants in Pakistan through which it will pass. Under this package, Iran would sell gas to India at \$1.8 per mmbtu¹. The Iranian gas would be available at half the going rate for liquefied natural gas, that is \$3 to \$4 per mmbtu. Meanwhile, Italy's Snamprogetti and Australia's BHP are reportedly studying the viability of both an inland and a costlier undersea pipeline project. The undersea pipeline would be less vulnerable to sabotage. To allay India's fears of sabotage, Iranian officials have proposed a global corporate ownership of the pipeline. An international consortium of bankers and energy majors would own and operate the pipeline. It will be the consortium's responsibility to buy gas from the National Iranian Oil Company and sell it to India.

Captive power policy amended in Madhya Pradesh. The Madhya Pradesh state government has amended the captive power policy of the state. It has withdrawn the mandatory condition applicable to industrial units with captive power plants whereby they were expected to draw 50 percent of their monthly electricity requirement from the state power board. While this will allow the industries to use power entirely generated by their captive plants, it could adversely affect the state electricity board's revenue, since industrial consumers constitute the more lucrative category of consumers.

Privatization moves in Maharashtra. The Maharashtra state cabinet has given an in-principle approval for the privatization of power distribution in Navi Mumbai and Pune. Though the MSEB has been planning on it for some time now, the process for privatization never got off the ground due to opposition from the trade unions.

NTPC forays into distribution. The National Thermal Power Corporation (NTPC) has announced that it would foray into electricity distribution in Kanpur in Uttar Pradesh through its distribution subsidiary, NTPC Electricity Supply Company Limited. The power utility has impressed upon the Uttar Pradesh state government to adopt the Delhi distribution model in Kanpur, under which the state government would support the supply entity till the transmission and distribution losses are brought down to a manageable level.

Tariff rationalized in West Bengal. The West Bengal Electricity Regulatory Commission has removed cross-subsidy on power tariff and announced a uniform rate for both domestic and commercial consumers in the metropolitan area served by private power utility CESC Limited. The power tariff per unit for 2001-02 was fixed at Rs 3.90, effective from April 2001. Cross-subsidy, on which the power tariffs in the state were based till date, have been totally eliminated and the tariff has been recalculated on the basis of the directive given by the Supreme Court. The tariff announced would be applicable uniformly to both sets of consumers irrespective of the number of units consumed.

Section 5: Calendar of Events

India International Clean Energy Expo 2003, CLEAN 2003

Location: Bangalore, India

¹ million metric British thermal unit

Date: February 20-23, 2003
Contact: Tel: 91 80 5547434
Fax: 91 80 5542258

E-mail: pdaexpo@vsnl.com

Website: www.cleanenergyexpo.com

The India Infrastructure Show 2003

Organized by: Confederation of Indian Industry

Date: Not yet decided

Contact: Deepak Juneja (Email: deepak.juneja@ciionline.org) or Prabha Nair (Email: prabha.nair@ciionline.org)

Confederation of Indian Industry

4th Floor, Core 4A, India Habitat Centre

Lodi Road, New Delhi - 110 003, India

Tel: 91-11-2468 2230 – 35

Fax: 91-11-2468 2229/2236

Web: www.tiisindia.com

Delhi Sustainable Development Summit 2003

Location: Delhi

Organized by: Tata Energy Research Institute

Date: February 6-9, 2003

Contact: The Summit Secretariat

TERI, Darbari Seth Block, Habitat Place, Lodhi Road, New Delhi–110 003

Fax: 91-11-2468 2144 or 2468 2145

Tel:91-11-2468 2138 or 2468 2100/11

E-mail program@teri.res.in

Indonesia - Yayasan Bina Usaha Lingkungan (YBUL)

Section 1: Macro Political and Economic Situation

Outlook for 2002-2003. The president, Megawati Soekarnoputri, has restored relative political stability and improved Indonesia's relations with international creditors, but her personal popularity has diminished as her ultra-conservative policies and aloof style have alienated her traditional supporters. Economic policy continues to be determined by IMF targets, but progress with some of the key reforms, such as the scale of state assets, is likely to be slow. Economic growth continues to be driven by household and public consumption, but some recovery in investment is expected by privatization. Inflation will continue to fall, helped by a stable rupiah exchange rate. Export performance is expected to pick up towards the end of 2002, but will be matched by a simultaneous rise in import growth. The current account will remain in surplus in 2002-2003, owing partly to successful debt rescheduling, which has reduced the interest payment bill.

Important Acronyms:	
METI	Indonesian Renewable Energy Society
MKI	Indonesian Electric Power Society
MPR	People's Consultative Assembly (lower house of parliament)
PLN	Perusahaan Listrik Negara- National Electricity Company
SPPT	Small Power Purchase Tariff

The political scene. The annual session of the People's Consultative Assembly (MPR) has voted for the direct election of all political representatives, including the president and vice-president. The government was threatening a tough military response to the ongoing separatist violence in Aceh, but reached a peace agreement with the rebel group to halt enmities on the December 9, 2002. The legal cases launched early in 2002 against members of the political elite are drawing to a close. For the most part, the defendants have been found guilty, but the penalties have been minimal. The East Timor human-rights tribunal has been criticized internationally for the lack of convincing cases by the prosecution.

Economic policy. Bank Indonesia (BI, the central Bank) increased the pace of monetary relaxation in July and August in the light of falling inflation and the stabilization of the rupiah exchange rate. The government has presented the draft budget for 2003, which envisages a reduction in the deficit to 1.3% of GDP, down from an expected 2.5% in 2002. The budget relies heavily on cuts in subsidies and a tax increase will be difficult to implement in the year before an election.

Economic forecast. A significant recovery in Indonesian export demand is unlikely until 2003. However, the terms of trade will be moving in Indonesia's favor, with steady oil prices (averaging US\$ 24/barrel in 2002-2003) and strong rebounds in the prices of a number of Indonesia's non-oil commodity exports, notably rubber (in 2003), palm oil (2002), and cocoa (2002 and 2003). US interest rates are now expected to be cut by an additional 50 base points in the second half of 2002, which will reduce the cost of servicing Indonesia's variable-rate debt. Upward pressure on interest rates is now only expected in the second half of 2003.

Economic growth. Real GDP is forecast to expand by 3.8% in 2002, up from 3.3% in 2001, as a result of solid growth in private consumption and a 9.4% contraction in import demand. Investment growth, both public and private, is expected to fall for the year as a whole, but is likely to start expanding in the second half of 2002 owing to lower interest rates, opportunities provided by the state asset-disposal programs and a tentative recovery in confidence, resulting from the more stable political environment. Import demand will track investment trends and also start to recover in the second half of the year, but a massive drop in the volume of imports in the second half of 2001 means that annual import growth will still contract. Economic growth is expected to rise to 4.8% in 2003 as investment spending continues to

recover (admittedly from a low base) and export demand picks up. Private consumption growth is forecast to slow, as pent-up demand is stated, but will continue to make a positive contribution to growth as a result of public-sector salary increases and relative consumer price stability.

Inflation. The consumer price index rose by 10.6% year on year in August, slightly up from 10.1% in July. The monthly increase was almost entirely owing to cuts in state fuel and electricity subsidies, which are pushing up the cost of food and transportation. Inflation is now expected to meet the budget target of 9% by the end of the year, but the annual average will remain high at 11.7%. Apart from the subsidy cuts, there is minimal inflationary pressure in the economy. Growth is still too low to create inflationary pressure, the rupiah is steady or appreciating, unemployment is high, and there is considerable spare industrial capacity. Inflation is expected to fall further in 2003, to an average of 8.7%. Further cuts in subsidies, higher public-sector wages, stronger economic growth and higher excise taxes will, however, prevent a sharper deceleration.

Exchange rate. The rupiah stood at Rp.8,900 = US\$1 at the of November, having appreciated by 14.9% since the beginning of the year. The currency has been supported by speculative investment capital (taking advantage of interest-rate arbitrage opportunities), greater political stability, trade surpluses and rising international package agreed with the Paris Club of official creditors in April 2002. The currency is not expected to appreciate further in the light of heavy debt-servicing obligations in the second half of the year and only modest export revenues. Some further strengthening of the currency, to an annual average rate of Rp.8,730=US\$1, is forecast in 2003.

External sector. Indonesia recorded a healthy merchandise trade surplus of US\$25.9 billion in the first seven months of 2002, but in the light of weak export revenue this was largely the result of an 18.2% year-on-year collapse in the value of imports. Sign of a recovery in Indonesia's terms of trade, led by rises in the price of crude palm oil, wood pulp and cocoa, suggest that export revenue will be stronger in the second half of the year. Import demand is also expected to revive, owing to rupiah stability, solid growth in private consumption and relative political stability. These trends are expected to continue into 2003, helped by a recovery in global demand and higher levels of international trade. Thus the merchandise trade surplus (fob-fob) is expected to rise in 2003 to US\$24.5 billion, up from an expected US\$22.4 billion in 2002. The overall current-account surplus is expected to rise in both 2002 and 2003 from the provisional figure of US\$6.9 bn in 2001 as a result of the solid trade performance and lower deficits on the income account. The current-account surplus is forecast to reach US\$7.5 billion in 2002, or 4.2% of GDP, rising to US\$9.7 billion in 2003, or 4.6% of GDP.

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 (Parliament) resulting in an agreement to raise fuel prices every month starting August 2002, while in the year 2005 there will be no oil subsidies, the oil market will depend on the international market. The increases are set to go ahead, and the Government acknowledges that they are a vital stepping-stone to economic recovery.²

² Since the time this report was written, the planned subsidy cuts have been repealed. The subsidies, which came into effect on January 1, spurred protests in cities throughout Indonesia (mainly union workers and students) for nearly two weeks. On January 16th, the government agreed to do away with the price increases for telephone calls, and less than a day later, announced it would reconsider the increases for fuel as well. Finance Minister Boediono explained the reversal to representatives of the IMF and World Bank at the annual Consultative Group on Indonesia (CGI) meeting in Bali by saying the "social unrest" caused by the protests was doing greater harm to the economy than the subsidies. Jakarta is also understood to have been concerned that recent protests against the increases in charges could have linked up with more strident ones against a US-led war in Iraq. Although the donor institutions had been strong supporters of the subsidy cut, Indonesia was still able to obtain a \$2.7 billion loan to help the country balance its budget and repay foreign debts. Still, this is the smallest loan Indonesia has received since the 1997 Asian Financial Crisis. Representatives of over 30 bilateral donors and multilateral agencies called on Indonesia to redouble its efforts to improve the climate for investment as a means to stimulate growth and poverty reduction.

Shortage Power Problems by PLN. Currently PLN is having problems with power shortages in 29 regions. For the year 2003, all regions in the country will face shortages of electricity, since demand for electricity continues to increase despite the crisis. In many regions, PLN lacks power supply. PLN does not have the funds to extend its grid or to build new power plants, nor can it maintain its current operations. As a result, blackouts have begun to occur in many regions. PLN is actively looking for funds to build new power plants and is interested in working with private companies to generate power for 2003 - especially based on renewable energy resources.

Section 2: Policy Environment

The Indonesian Ministry of Energy and Natural Resources has produced a “decree of the Minister of Energy and Natural Resources concerning Guidance on the Undertaking of Electricity Generator Small Scale TERSEBAR.” In this document, electricity produced by an up to 1 megawatt hydro power plant capacity is to be mandatorily purchased by the utility PLN at a prescribed tariff.

In November 2002, the Parliament members approved the new Electricity Bill. There is little policy support for public and private investment in renewable energy.

YBUL has been actively participating in promoting the idea of integrating renewable energy sources into the energy mix. Even though it is still in its very early stage and far from being complete, it seems that YBUL’s and others’ efforts have had positive results in the form of government policy change toward renewable energy.

YBUL has been closely working together with other relevant sectors of the stakeholder institutions, such as METI (Indonesian Renewable Energy Society), Team Kecil ET (Small Team Renewable Energy), MKI (Indonesian Electric Power Society), PLN (the utility), and the government. Some tangible results of the advocacy and information dissemination efforts are the formation of a special team at the Ministry of Energy and Mineral Resources - the renewable energy small team; the inception of the PSK TERSEBAR (by the Director General of DGEEU and the Minister of Energy and Mineral Resources) to replace the old PSKSK/PSKSKSM; and, the integrated concept to Sustainable Development, the Green Energy Program by the Director General of Electricity and Energy Utilization.

Section 3: RE Finance

The Small Power Purchase Tariff (SPPT) for the private sector in the hydro sector is a potentially excellent instrument for the installation of mini and micro hydro schemes, provided that the old tariffs are reviewed.

At present, no ‘green loans’ are available from the Indonesian banking sector. Financial support to hydro energy projects can be granted by:

- Presidential aid (funding for rural development and/or poverty alleviation);
- Direct support for hydro projects by the government and the Ministry of Mines and Energy
- Bilateral aid programs and technical assistance between Indonesia and EU member states or other countries, including the United States;
- Loans and credit from international development agencies and banks; and,
- Commercial loans and equity for photovoltaic solar home systems can be accessed from the Solar Development Capital program.

Section 4: RE Equipment/Services Procurement Notices

The renewable energy team formed at the Ministry of Energy and Mineral is identifying commercial projects to implement. The team is also looking at ways that the project can legally obtain the commitment of both central and regional governments and PLN. Six projects have been selected out of 15 project proposals for implementation to demonstrate the economic feasibility of various renewable energy technologies. They are: Three biomass cogeneration projects: (10.3 MW Palm Oil Waste, 3 MW Rice Husk, 8 x 18 kW Rice Husk); 6500 PV SHS units - hybrids of biomass, wind and solar for small scale application; Three 145 kW micro-hydro projects. The Ministry is looking for investors in these projects. For more information contact Mr.Lolo Panggabean at YBUL: lolo@ybul.or.id

Section 5: Project Leads, Partnering Opportunities and General News

Yayasan Bina Usaha Lingkungan (YBUL) has a pilot pico-hydro (15 kW) project to provide light and for productive uses in a rural village in Garut, West Java. This project is being managed by the local community. Currently, YBUL is preparing similar projects for 10 (ten) sites in West Java, Sumatra and West Papua. YBUL is leading a micro-hydro project on the Dewata tea plantation in partnership with PT.Chakra (owner of the plantation) and PT.Hexa Prakarsa Teknik (local turbine manufacture). During preliminary discussions of the project, the price of fuel was heavily subsidized at Rp.600 per litre. At that time, it was still cheaper to produce electricity by diesel, compared to the cost of micro-hydro generation. However, in view of future price increases for diesel, the tea plantation's management decided to invest in two 120 kW micro-hydro power plants to substitute more than 90% of diesel fuel. By the end of 2002, the price of diesel was at Rp.900 per litre and the micro-hydro plant is now, by far, the more cost-effective solution.

The investment in the plant was US\$ 330,000 calculated over its life span. The plant will have a pay-back period of 5-6 years. Inauguration of this project on December 14, 2002 was carried out by the Indonesian Coordinator Minister of the Economy, Mr. Dorodjatun Kuntjorojakti. This project was successful in combining different resources, including those from USAID (through YBUL), the German GTZ and Swiss ENTEC and SECO.

The benefits of the Dewata micro-hydro power plant can be summarized as follows:

- The micro-hydro power plant has triggered the afforestation of the surrounding forest to ensure the supply of the river water;
- The pollution of the diesel generators will be terminated and will be another "quality feature" of the Dewata tea;
- The use of the micro-hydro power plant saves diesel, which amounts up to 320,000 litres per year. This means not only a significant financial saving, but also a reduction in carbon dioxide emissions of 975 tons per year.
- The micro-hydro power plant guarantees low costs for electric energy for the future, thus safeguarding the employment in the plantation.
- The power generated will not only be used for the factory, but also to provide electricity for staff housing.

Currently YBUL is preparing similar projects in other places. Contacts can be established with Mr.Lolo Panggabean at lolo@ybul.or.id or Mr. Suroso at rosso@ybul.or.id.

Nepal – REPSO Nepal

Section 1: Macro Political and Economic Situation

Political Situation. In early Fall 2002, Prime Minister Sher Bahadur Deuba dissolved the parliament and called for a new election. In October, he submitted Article 127 of the Constitution to His Majesty the King, hoping for a one-year extension before midterm elections. Deuba had submitted the article after consulting with all political parties, who supported its use. However, in a surprising turn of events, the King instead decided to dismiss Deuba's government, and assumed executive power himself to avoid a vacuum in governance.

Important Acronyms:	
AEPC	Alternative Energy Promotion Center
DoED	Department of Electricity Development
NEA	Nepal Electricity Authority
NHE	Nepal Hydro and Electric
RSS	Renewable Energy Center
SAARC	South Asian Association for Regional Cooperation
FNCCI	Federation of Nepali Chambers of Commerce and Industries

The Nepali Parliament consists of both an upper and lower house; only the lower house (elected representatives) has been dismissed. However, there is a great deal of confusion over whether the 60-member Upper House, the Rastriya Sabha, should continue to meet in the absence of a working lower house.

Despite opposition from the two major political parties, the Nepali Congress and the Communist Party, the King has managed to pull together a cabinet made up mainly of representatives from small political parties including the Rastriya Prajatantra Party (RPP), Nepal Sadhbhabana Party (NSP), Nepal Samata Party and others. Some technocrats including medical doctors, water resource experts and social workers were also given an opportunity to serve in the cabinet. The cabinet has been assigned to hold elections, carry on day- to- day administration, create a peaceful atmosphere throughout the country, maintain friendly relations with Nepal's friends abroad and maintain law and order.

The Nepali Congress and CPN-UML are opposed to the King's move, demanding that another cabinet be formed under their direction, or that a referendum be held to legitimize parliament's dismissal. In addition, the party working underground as Maoist insurgents, who are responsible for launching an increasingly violent movement in the country, have demanded an election for a Constituent Assembly.

The nearly seven-year-old Maoist insurgency has claimed the lives of approximately 8,000 people, over 4 thousand of whom were killed after the imposition of a state of emergency in November 2001, according to the figures released publicly by the Home Ministry and Royal Nepal Army in Katmandu in October. Of those killed, 6,011 are said to be Maoist rebels, 873 civilian policemen, 773 civilians, 97 armed policemen and 219 army personnel.

A top Maoist leader said they are ready for cease –fire, provided the government was prepared for a political solution to the crisis. Mahara, who was the chief negotiator for the Maoists in last year's failed peace talks with the Deuba government, denies the Maoists are a terrorist organization

The US government has committed to continued military assistance to the government of Nepal to combat Maoist insurgency. The announcement came following the Maoist's admission that they were responsible for the murders of two security personnel attached to the US Embassy. Deputy Chief of Mission Robert Boggs said the US government plans to provide 38 million dollars during the fiscal year

2003 for Nepal's sustainable development and its fight against terrorism. Of the total amount proposed, he said that around one billion rupees would be allocated to the Royal Nepal Army for the purchase of light arms and non-lethal military hardware. The US has pledged an additional 10.4 million dollars for development in terrorist affected areas in Nepal, meant for rebuilding infrastructure and other essential physical facilities, aiding the victims of terrorism and for income generation schemes.

Economic Situation. Nepal is going through an extremely difficult period economically. During this period, development expenditures have hit rock bottom, revenue mobilization has been frustrated and the trade deficit has widened. According to the report of Nepal Rastra Bank, government expenditure during the first three months declined by 3.7 percent compared to the same period last year, for a total of 196 million dollars. Development expenditures declined sharply 21 million dollars. Cut-backs in government expenditure did draw down the budgetary deficit by 5.6 percent during the period.

According to statistics collected by the Central Bank, revenue mobilization during the first three months declined by 3.1 percent. Imports increased marginally by 1.8 percent, while exports declined sharply by 20.5 percent. This may in part be due to the many factories currently without power, due to terrorist bombings of power stations. Foreign currency reserves as of mid-October 2002 stood at 1.5 million dollars, which is an increase of 2.3 percent compared to the same period last year. For the first two months of the FY 2002/03, the overall balance of payments remained favorable at 4.5 million dollars. However, during the review period, the current account deficit increased sharply by 133.6 percent to 84 million dollars due to a sharp decline in net service income, in contrast to a decline of 16.2 percent last year. On the external front, total exports declined sharply by 20.5 percent to 84 million dollars during the review period in contrast to the rise of 2.3 percent during the same period last year. During the review period, exports to India declined by 31.5 percent to 78 million dollars in contrast to a marked growth of 41.6 percent during the same period last year. Exports to other countries also dropped by 3.9 percent to 72 million dollars.

Finance Minister Dr. Badri Prasad Shrestha recently announced an economic reform program pledging to tighten government expenses further, to streamline development works and to finalize the Tenth Plan, which commenced six months ago without a final approved draft. Whether another budget will be announced under the Royal Ordinance is not yet clear. The provisions of the reform package are donor friendly, said experts commenting on the reform scheme. The plan focuses on development activities in villages, especially in terrorism affected areas.

The Chand government emphasized economic diplomacy for boosting economic and trade ties between Nepal and her friends in the world. A specific committee for the purpose has been formed. Although economic diplomacy has been emphasized for quite some time in government circles, the move to translate it into practice has been launched only at this time.

In a move demonstrating the government's commitment to financial austerity, increased prices for petrol and cooking gas were announced on November 22. The prices of kerosene and diesel have not been increased. The Nepal Oil Corporation (NOC), the state-owned fossil fuel monopoly, says the price change is unfair, and should be applied on all products. They also said that if the government does not increase prices of kerosene and diesel, the NOC will require financial assistance of around 25 million dollars from the government for importing petroleum products for December.

Nepal's security issues continue to discourage international investment and delay aid projects, including a \$20 million ADB project on eco-tourism slated for 2003, and several World Bank irrigation projects in mid-western Nepal, where construction was halted on several projects near completion, due to lack of explosives. The security forces have tightened the supply of explosives for development projects due to security reasons.

Section 2. Policy Environment

The Nepali government continues to show interest in working with development agencies to promote sustainable development and renewable energy. At COP-8 of UNFCCC in New Delhi, Assistant Minister for Environment and Population Gopal Dahit called for international support, both financial and technical, in many areas like strengthening institutional capacities, integrating watershed management and forestry programs with climate change issues, promoting hydropower projects and alternative energy sources. Nepal has recently created a National Commission on Sustainable Development, which will coordinate environmental and development work.

Minister for Water Resources, Mr. Deepak Gyawali, said that grants for renewable energy were appropriate for irrigation and rural electrification in a poor country such as Nepal, while at a workshop on "Strengthening the Role of Micro-finance Institutions in the Renewable Energy Technology Market." The workshop was organized by Winrock International for the representatives of micro finance organizations with the objective of enhancing their capacity to channel credit for renewable energy technology to rural areas.

The Department of Electricity Development (DoED) is to introduce security standards for the construction and operation of hydro-electricity projects. The purpose of the standards is to minimize accidents during construction and operation of electricity projects. Butwal Power Company has assisted with the development of these standards. Although other countries adopted such standards long ago, Nepal has yet to implement such standards in projects – private and public. The standards appear relevant, as Nepal gets some 527 MW electricity from hydropower projects, with 412 MW from power plants under Nepal Electricity Authority and 125 MW from independent power producers (IPPs).

The Nepal Electricity Authority is planning to launch an "internal privatization" to tackle high costs and electricity leakages. The process intends to develop some branches as for-profit centers, implement business-minded operational schemes, and achieve financial independence. The NEA spends 42 percent of revenue in power purchase, most of it in US currency, for buying electricity from the private sector. The Asian Development Bank is helping NEA to work out the profit centers scheme. NEA is currently engaged in turning Katmandu, Lalitpur, Biratnagar, Birgunj, Pokhara and Nepalgunj branch offices into profit centers. The Government, under long-term plan, intends to develop these centers into Public Limited Companies.

Deepak Gyawali, the water resources minister, recently emphasized the need to make decisions with local people and according to local needs before going ahead with hydropower development projects in the country. At the start of the International Consultation Conference on Water Resources Development in South Asia and the Report of the World Commission on Dams on December 8 he said "We are quite dependent on multinational agencies to develop hydropower projects in our country. But we should be clear about our needs and situation and we have to make our decisions on our own." He hailed locally made hydro-electric projects like the 3 MW Puwakhola, 20 MW Chilime, and 183 KW Syangekhola and called for efforts to develop similar projects to benefit the locals.

Nepal Electricity Authority issues notice for the applicants of agreement on power purchase. In view of the confusion about documents to be presented before applying for agreement on power purchase, Nepal Electricity Authority has issued a notice to help promoters make sure that appropriate papers have backed their application. The details of the notice:

- The survey license issued by Water Resources Ministry, HMG or District Water Resources Committee (as per the law)
- Company registration certificate (as per the present Company Act)
- Permanent Account Number (PAN) from Internal Revenue Department
- Company's Documents specially related to structure and management
- Company' Memorandum and Articles of Association
- No objection letter from Village Development Committees of areas concerned on water use
- Letter of Intent from banks or financial institutions with regard to their willingness to invest
- Initial Environmental Examination report or Environmental Impact Assessment report pursuant to prevalent legislation.
- In case the project site is inside the reserve or national park, Environmental Impact Assessment report
- Techno-economic feasibility of the project concerned

NEA will study the documents carefully and if necessary will seek clarification about details before concluding the agreement on power purchase. The notice has been issued in the name of Power Trading Department.

Section 3. RE Equipment/Services Procurement Notices

Contact addresses of some RE professional associations who may have further information

Nepal Biogas Promotion Group: nbpg@nbpg.wlink.com.np

Nepal Micro Hydro Development Association: micro@nmhda.org.np

Section 4. Project Leads, Partnering Opportunities and General News

Despite security concerns, progress on numerous development schemes and business deals continues, and new projects are being planned.

The private sector-run Indrabati Third Hydropower Project has begun producing electricity on an experimental basis. The 7.5 KW project is operated by National Hydro Power Company Ltd., which sells the power to Nepal Electricity Authority under a power purchase agreement. The dam, tunnel, powerhouse and 28 kilometer Indrabati-Panchkhal 66 KV Transmission Line has been tested and found fit for production and transmission of power. It is linked with the national grid at Panchkhal. Nepali investors hold 80% of the equity in the project.

Australia's Snowy Mountain Engineering Corporation (SMEC) and India's Power Trading Corporation (PTC) recently signed a memorandum of understanding regarding the 750 MW West Seti Hydropower Project in West Nepal. However, a PPA will have to be executed before the developers can attain financial closure to commence construction. The government gave the license to SMEC to operate the project six years ago. The arrangement is to give Nepal 15 percent of electricity produced as a royalty and sell the rest to PTC for 30 years. SMEC plans to sell electricity at 5.12 US cents per kWh. The rate is lower than the rate NEA pays when buying power from the private sector. Indian officials are stressing purchase of power in Indian rupees, said an official concerned. The Department of Electricity Development plans to move forward on the construction of the project over seven years at an estimated cost of 860 million dollars. This the first project in Nepal with this level of foreign investment. Unfortunately, about 1,500 people from three districts such as Achham, Dadeldhura and Baitadi will be displaced due to the construction of this project.

Recent research indicates that cattle dung could produce electricity conveniently for rural areas. The Renewable Energy Center (RSS) report recently said that 2 kg of cattle dung combined with soil salt, copper and zinc could be charged by a 4.8 D C volt battery to power a lamp or radio. The technology, called a Bio-energy cell, costs 80 dollars and is handy in rural areas. The dung used once can last two weeks and produce enough energy for a lamp and radio for about four hours before needing to recharge the battery. This is considered highly important as only five percent of the rural population has access to electricity at present, compared to 18 percent of the total electrified population. Supplying electricity is very costly in Nepal: it costs 2,000 to 4,000 dollars to supply electricity in rural areas and ultimately causes the NEA to operate at a significant loss.

The Uttaranchal State Government of India has proposed a new hydro-electricity project, Sarayu – Kali Jalagam – the estimated cost of which stands at 300,000 dollars. The project will use Nepal's western border river Mahakali and will be implemented next year following endorsement by the Central Government of India. It aims at to build a reservoir in the river and producing electricity and irrigation facilities. The Indian papers have quoted the Minister as saying that the project would directly benefit the border districts of Nepal and four districts in India. The new proposal comes at a time when the detailed feasibility study of another project, the Pancheshwar Hydropower project, remains incomplete, despite pledges from both Nepal and India. Additional schemes, including one to build a reservoir around Jhulaghat and Purnagiri region for lift irrigation in the Kumaon region and a more general economic development project for the Pancheshwar region are also under consideration.. Nepal has not yet officially commented on the Sarayu – Kali Jalagam proposal.

Remote area residents of Pyuthan and Myagdi have benefited from an energy development program undertaken by Local Development Ministry in cooperation with the UNDP. The program is focused on poverty alleviation and energy development and aims at organizational development, saving, capital mobilization, skill development, technical promotion, environment management, and women's empowerment. The program has been in operation for four years, and has successfully augmented income levels. The program is currently in operation in Armal, Chimkhola, Muna, Lulang Marang, Okharbot and Bim.

Micro Hydro Electricity Projects (generally of up to 100 kW production capacity) benefit six percent of the country's population at present. Although introduced some forty years ago to electrify villages far beyond the reach of transmission lines, the projects have not been able to address many rural people. According to the information made available by the Alternative Energy Promotion Center (AEPC), the country generated 1300 kW electricity per annum as the result of a 1999 Danish aid program, compared to 400 kW in previous years. Micro Hydro Electricity Projects do not have adverse impact on environment; can be built locally and with local manpower, and have limited infrastructure. There are 4 approved manufacturers in the business. The cumulative production of Micro Hydro Electricity Projects stands at 13.521 MW. Planners aim to produce additional 10 MW of electricity during the Tenth Plan period. A sum of about 1 billion dollars has been invested into MHEP schemes since 1962, said the Officer of AEPC Mr. Surya Kumar Sapkota. Some 229,857 households or 1,252,720 people are benefiting from such projects in 62 of 75 districts. Meanwhile the Science and Technology Ministry has decided to provide a subsidy for the projects. The remote village of Simjung in Gorkha district had the first hand encounter with electricity this month thanks to the 4 KW electricity scheme from Tusare and Baghmare streams built in cooperation with a number of institutions and personal contribution of US \$ 200 per household.

Solar energy could be a reliable alternative source of power for the 82 percent of the population deprived of electricity in the country, said experts at the second General Meeting of Solar Electric Manufacturers Association Nepal. The Solar Energy Company has installed solar panels in 25,000 households. It plans

to have additional 12,000 panels this year. Secretary of the Science and Technology Ministry informed that the Tenth Plan period would witness 52,000 solar panels attached to various households in 52 districts, 2,000 solar driers in 20 districts and 100 solar pumps in 15 districts. President of the Association Yug Ratna Tamrakar called upon the government to support the local solar energy production companies for expediting rural electrification. Executive Director of Alternative Energy Promotion Center Dr. Madan Bahadur Basnet observed that the subsidy for solar energy has not been discontinued. In the meanwhile residents of Kavre district have displayed keen interest in developing solar energy. Lotus Energy, Katmandu Power company and Wisdom Light have installed solar energy in 900 household in Koshihari and Dandapari vicinity. It costs nearly 500 to 1,000 dollars to install solar energy. Some 25,000 households will soon join the solar energy consumers in the district. Alternative Energy Promotion Center of HMG and DANIDA are helping the process of solar energy installation.

A seminar on demand-side energy efficiency, the idea of reducing the demand for electricity among consumers, saving both energy and money, was recently organized in Katmandu by USAID, the Federation of Nepali Chambers of Commerce and Industries (FNCCI) and NEXTANT (a consulting firm based in US). It emphasized the need to found an Institution to educate and distribute equipment and technology that can save power and reduce demand for electricity. Representatives of energy consumers were present at the seminar.

Norway is to provide Nepal financial assistance worth 30.6 million Norwegian Kroner (4.4 million USD) to do a feasibility study on a 250 MW project in Upper Tamakoshi, Dolakha district and repair a 12.3 MW Jhimruk Hydro-electricity Project in Pyuthan which was destroyed by terrorists eight months ago... Mrigendra Bahadur Shrestha engaged in the feasibility study said the Upper Tamakoshi project is expected to produce one kilowatt of power at a cost of \$1100 dollars.

Water resources minister Deepak Gyawali called upon the political parties to urge terrorists not to destroy hydro-electricity projects for the broad interest of the people and the country. "They should join the campaign for protection of such schemes." Mr. Gyawali observed that development projects, especially infrastructure, should not be destroyed even in wartime and called upon political parties to stress that political ideologies should not be an excuse for the destruction of facilities meant for the people and development. The energy experts who participated in the symposium pointed out the need for alternative energy in areas where grid electricity cannot be supplied for many years to come. The experts also said that rural areas should be a priority for future distribution of electricity.

In total, the Nepal Electricity Authority has suffered a loss of \$1,900,000 due to the destructive activities of terrorists. The loss is specially felt in rural and remote areas, said an official in NEA's distribution and consumers' services department.

Terrorism is not the only obstacle to electrification projects. NEA loses about one quarter of its total power production due to pilferage and other factors, said financial management department chief Uttar Shrestha. But the Authority has not been able to prevent it for the last 15 years. Leakage is currently estimated at 24.58 percent, some of which is caused by technical inefficiencies. Seventeen years ago, when the NEA was founded, the loss stood at 30 percent. In two years, the figure was reduced to 25 percent. Since then, no progress has been reported in the control of loss of energy. The Authority spends a handsome amount of money every year in the name of leakage control. Although there is a law for controlling illegal power tapping, it has not been enforced properly. As mentioned in the policy section, the Nepal Electricity Authority is planning to launch "internal privatization" to address the leakage problem.

Philippines – Preferred Energy Inc. (PEI)

Section 1. Macro Political and Economic Situation

10-month Portfolio Investment Inflow Up.

Portfolio investment reached US\$ 1.128 billion in the first 10 months of 2002, slightly higher than the \$1.085 billion posted in 2001. Official data obtained from the Bangko Sentral ng Pilipinas (BSP) showed that inflow during the ten-month period was greater than the \$935.9 million outflow. Net portfolio investments at the end of October 2002 yielded \$192.4 million, for a 275 percent growth over 2001 net inflows of \$51.2 million. BSP Governor Rafael Carlos Buenaventura said the “comfortable” interest rate differential between the domestic and international rates contributed to the improvement in portfolio investments.

Some analysts said the slight improvement in the amount of portfolio investment for 2002 softened-up the negative effects arising from the domestic and international developments, which eroded the value of the local currency against the US dollar. It also sustained the surplus in the country’s balance of payment (BOP) position amidst the slower foreign borrowings of the government in the second semester of the year.

Imports grow 20.8% in September. Philippine merchandise imports in September 2002 rose 20.8% from a year earlier to 3.02 billion dollars, outstripping growth in exports. Exports in September rose 16.6% to hit 3.18 billion dollars, the National Statistics Office (NSO). The trade surplus in September was 164 million dollars, which was 29.4% down from the same month last year. Total imports from January to September rose 9.3% over the same period last year to 25.13 billion dollars, while exports rose 8.8% to 26.03 billion dollars. The Philippines recorded a trade surplus of 904 million dollars in the first nine months of the year, down 3.4% from the same period in 2001. Japan was the single largest source of imports to the Philippines in September, accounting for 624.9 million dollars or 20.7% of the total. The United States was second with 19% and South Korea third with 6.5%

Subic Bay Freeport Investments Up 63% in 9 Months. Investments in the Subic Bay Freeport rose by 63% to P1.86 billion in the first nine months of the year from P1.14 billion in the same period last year. Subic Bay Metropolitan Authority (SBMA) Chairman Felicito C. Payumo said that the increase in investment “is a clear indication that despite the economic difficulty, the Subic Bay Freeport continues to attract investments, both foreign and local, to boost the local economy and snowball employment in the region. He also said the Subic Bay Freeport offers an ideal place for investment, citing the strategic location, tax incentives, environment and skilled workers. Based on a report from the SBMA Investment Processing Department, there were 140 new business approvals that include 59 new lease agreements and 81 sub-lease agreements that are expected to generate P1.86 billion in committed investment.

Important Acronyms:	
AMORE	Alliance for Mindanao Off-Grid Renewable Energy Program
BOP	Central Bank of the Philippines
DBCC	Development Budget and Coordination Committee
DOE	Philippines Department of Energy
ERC	Energy Regulatory Commission
JCPC	Joint Congressional Power Commission
Ledac	Legislative-Executive Development Advisory Council
MERALCO	Manila Electric Company (
NPC or Napacor	National Power Corporation
PCCI	Philippine Chamber of Commerce and Industry
PEZA	Philippine Economic Zone Authority
PNOC	Philippine National Oil Company
PSALM	Power Sector Assets and Liabilities Management Corporation
SPEED	Special Pricing to Enhance Electricity Demand
Transco	The National Transmission Co.

President Arroyo Switches on RP's Biggest Natural Gas Power Plant. President Arroyo ceremonially switched on the 1,200 megawatt Ilijan combined cycle power plant in Ilijan, Batangas, the country's largest natural gas power facility. Described as one-step towards national self sufficiency, Pres. Arroyo said the Ilijan power project is important infrastructure not only for Batangas province, but for the entire country. At present, more than 52 percent of the Philippines' total energy requirement is supplied by indigenous resource. Five years ago, the Philippines was importing 60 percent of the energy requirement.

BOP surplus seen at \$200 M in 2003. The Bangko Sentral ng Pilipinas (Central Bank of the Philippines, or BSP) has revised upward its target balance of payments (BOP) position to a surplus of US\$200 million for 2003. BSP is targeting a BOP surplus of \$150 million this year, a marked improvement over the \$100 million deficit the government predicted early this year. If its projection is realized, this year will mark the first time the country will avoid a BOP deficit since the outbreak of the 1997 East Asian financial crisis. Moreover, the investment climate seems to have improved as shown by the rise in net portfolio investments. A strong BOP position helps strengthen the value of the peso as it boosts the government's dollar stock and helps BSP meet the demand for dollar from importers.

3rd Quarter GDP Growth Seen At 3.9 – 4.4%. The domestic economy is expected to register growth of 3.9 – 4.4% in the July – September quarter despite a slowdown in agriculture, and may exceed a 4.0% growth this year, according to Socioeconomic Planning Secretary Dante Canlas. The government target for GDP growth is 4.0-4.5% this year. Robust growth in the services sector helped boost the economy in the period July - September. In the last quarter, the GDP growth is expected to rebound to 4.4 – 4.9%. The growth projections are on track. Services and industry will sustain growth. For the full year, Canlas said the services sector would likely grow by 5.0-5.5% and the industry sector by 3.3-3.7%. Agriculture is expected to show growth of 2.7-3.6%. Canlas also said the El Nino dry spell did not seem to have an impact on Philippine productivity.

DTI Upbeat on 2002 Export Performance. The Department of Trade and Industry (DTI) said exports would experience 10% growth this year with increased intra-Asian trade providing the boost. DTI Secretary Manuel Roxas II said the Philippines has posted one of the strongest export growths in the region, up 8.8% as of the end of September, compared to the same period last year when products sold overseas contracted by 16% due to a global economic slump. He added the figures suggest a good export growth despite weak demand from traditional markets such as the US and Japan. Electronics remains one of the country's leading export products, accounting for 53.6% of the pie, with a value turnover of \$26.039 billion as of end-September. The Philippines' major export growth areas were Hong Kong, China, Malaysia, Korea, the Netherlands and Taiwan. Mr. Roxas noted that exports to nontraditional partners such as China and Hong Kong grew by 70% and 60%, respectively. Mr. Roxas added that domestic demand is likewise on the upswing as lower inflation, interest rates, good agricultural performance and higher remittances from overseas Filipino workers contributed to increased personal consumption.

NEDA Chief Expects 2002 Inflation at 3.5%. Inflation is expected to average 3.5% for 2002, better than the targeted 4.5%-5.5%, despite concerns over a conflict in Iraq, NEDA Secretary Dante B. Canlas said. He said that stable food prices and no further shocks to world crude oil prices are expected to keep inflation down. These are the two factors that are the most volatile.

Section 2: Policy Environment

Department of Trade and Industry Upgrades Year-end Export Target. The Department of Trade and Industry (DTI) revised its year-end export growth rate target upward on the back of the latest export

figures for the month of September. The DTI changed its year-end target of 4% growth to at least 7-10% after the National Statistics Office (NSO) reported that Philippine merchandise export went up to 16.8% in September. With this, earnings from exports for the month amounted to some \$3.190 billion, from only \$2.71 billion during the same month last year. It was the sixth consecutive month of increase, sending signals that trade performance is on track. With the continued growth of electronics, the DTI expressed optimism that the growth rate will hit 10% at most. With the 10% projection, the DTI sees exports hitting \$34.3-\$35.3 billion by year's end. Last year, exports amounted to \$32.1 billion.

Oil Firms Start Buying Cleaner Fuels. The country's major oil companies have started placing orders for petroleum products that are compliant with quality standards set under the Republic Act 8749 or the Clean Air Act (CAA), after Congress suspended its deliberations on a proposed joint resolution calling for deferment of the policy on fuel specifications. Oil companies like Caltex Philippines and Petron Corporation said they would not oppose the decision of Congress and instead expressed readiness to comply with the law. By next year, the aromatic content of unleaded gasoline is mandated to be reduced to 35 percent from the current 45 percent and the benzene content of the gasoline product should be 2.0% by volume from the current 4.0% as specified under the Clean Air Law.

Congress Approves Transco Bill. Congress approved the bill privatizing state-owned transmission lines in an effort to generate the needed revenues for the government. House Bill No. 4882, that seeks to grant the National Transmission Corporation (Transco) a franchise to operate, finally got approval from the Lower House. The passage of the bill will enable a future private concessionaire to take over 12,500 circuit kilometers of transmission lines and 7,500 kilometers of sub-transmission lines in three grids all over the country, currently under the helm of state-own National Power Corp. The approval of the Transco bill is an exercise of political will by the legislature to implement reforms to re-energize the nation's economy.

Local Electric Cooperatives May Be Allowed To Automatically Adjust Power Rates. The Energy Regulatory Commission (ERC) said it is planning to allow electric cooperatives to automatically adjust electricity rates, as soon as the co-ops meet preconditions set for the condonation of loans to the government. ERC Chairman Fe S. Barin said the commission is keen on implementing this move so that end-consumers can immediately feel the commensurate reduction in electricity rates as a result of the loan. This is the result of the Executive Order (EO) 119, which authorizes, among others, the canceling of electric cooperatives' outstanding loans to the government incurred for the purposes of financing the rural electrification program. The condonation of electric cooperatives' loans, which amount to about 18 billion pesos, is hoped to result in a reduction of electricity rates in the rural areas by an average of P0.44 per kilowatt-hour.

National Power Corporation, Electric Cooperatives Ink MOA On Power Discount. NPC signed a memorandum of agreement (MOA) with the country's largest electric cooperatives for the implementation of the Special Pricing to Enhance Electricity Demand (SPEED). SPEED is a program adopted recently by the NPC and the Manila Electric Company (MERALCO) to give a 92-centavo discount to large industrial and commercial electricity users nationwide. The SPEED program, which is a joint initiative by the DOE and the DTI, was originally intended for 656 large industrial and commercial customers in the Meralco franchise area covering Metro Manila and nearby provinces such as Bulacan, Rizal, Cavite and Batangas. But the pricing incentive program's coverage is now being expanded to benefit clients of different distribution utilities and electric cooperatives outside the metropolis. Among those electric distribution companies that have signed the MOA with NPC to implement SPEED are the Angeles Electric Coop.; Cabanatuan Electric Coop.; Cagayan Electric Power and Light Co.; Dagupan Electric Coop.; Iligan Light and Power Co.; Cebu Electric Coop.; San Fernando Electric Light & Power Co.; and Visayas Electric Co. With this MOA, it is anticipated that different industries such as feed mills,

beverage, and bottling plants, shopping malls, fertilizers, food processing plants and software manufacturing plants, among others, will start to enjoy reduced power prices.

Malacanang Sets Priorities For Next Six Months. Pres. Gloria Arroyo has committed to zeroing in on an eight-point work program for the next six months to boost the economy and bring results that could be felt way past her term. Boosting demand tops the program's objectives. Other focus areas are:

- a push for the development of small and medium enterprises (SMEs);
- a focus on private sector development of housing by removing policy bottlenecks;
- projects that could reduce cargo rates from Mindanao to Luzon;
- promotion of Makati City, the country's premier business and financial district located in the heart of Metro Manila as an urban tourism destination targeting women shoppers from the Asian region, particularly Japan;
- decongesting Metro Manila roads through railway and other transport infrastructure projects linking the city to outlying provinces.

2003 GDP Takes Into Account Scenarios. The broader 4.2%-5.2% growth range announced for the 2003 gross domestic product (GDP) is consistent with possible scenarios government planners have been discussing, a National Economic and Development Authority (NEDA) official said. NEDA noted a wider 4.2%-5.2% GDP growth span next year because of the need to consider the possible impact of the increasing tension in the Middle East.

Increased Use of Malampaya Natural Gas Pushed. President Arroyo is pushing for the use of natural gas in public utility vehicles, promising incentives that could help minimize the country's dependence on petroleum for the transportation sector. The President urged the transportation sector to use compressed natural gas (CNG). Among the incentives being worked out is allowing bus units using CNG to use the C-5 road. Another incentive is for the Department of Trade and Industry (DTI) to classify natural gas conversion kits as spare parts so that importers of this item can avail of a 1% tariff rate. The Board of Investment will work out other incentives relating to the conversion kits while the government, through the Department of Science and Technology, will promote the development and manufacture of locally made kits.

RP Aims For 52% Energy Self-Sufficiency By 2004. The Arroyo administration aims to raise the country's energy self-sufficiency level from 45 percent in 2000 to about 52 percent by 2004. Under the Philippine Energy Plan (PEP) for 2002 to 2011, the national government, through the Department of Energy (DOE), will carry out programs to accelerate the exploration, development and utilization of indigenous resources. The PEP said these programs include the adoption of technologies for both power and non-power applications. The program also considers the need to diversify sources and types of imported fuels, while ensuring a balance between cost and security of supply. The energy program provides a 10-year perspective on the country's energy sector amidst structural reforms that are swiftly transforming the economy. It also deals with the specific implementation strategies and programs for the various energy sub-sectors. The PEP outlines the energy sector's blueprint in support of the thrust of the Arroyo administration of balanced economic growth, a robust market-based industry and poverty alleviation through social equity and good governance.

Section 3: RE Financing

PNOC-EDC May Transfer Wind Power Project to Visayas. The PNOC-Energy Development Corporation (EDC) is looking at the possibility of putting up the proposed Phase II of the wind power

project in the Visayas. PNOC is conducting a feasibility study to determine if they could shift the planned Phase II of wind power in the Visayas area from the present Ilocos Norte location. Mr. Sergio Apostol, EDC Chairman and President, said they are considering three (3) areas: Antique City, Northern Samar and Northern Cebu as possible sites for the wind power facility. Mr. Apostol said they thought of shifting the location of the wind project since there is a projected demand for electricity in the Visayas region for 2004. At present, he said they are negotiating for a loan that will finance the second and third phases of the project. They are now currently talking with the governments of Spain, Sweden and the Netherlands about possible financing. EDC is planning to put up a 120 MW wind power development project that will be divided in three phases. In February this year, the Japan Bank for International Cooperation (JBIC) approved a loan pledge of about US\$48 million to fund the first phase of the wind project. The loan will be utilized for the engineering, design and construction of 40 MW turnkey wind farm, including a substation and a 42 kilometer, 230 kilovolt (kV) transmission line from Burgos town to the National Power Corporation substation in Laoag City, Ilocos Norte. Contact Person: Mr. Sergio Apostol, President & CEO, PNOC-EDC, Tel No. (632) 840-1446

Power Sector Loans Approval Seen. The Asian Development Bank (ADB) is expected to approve within the month two loans worth US\$140-million for the local power sector. The first loan of US\$40million will fund the implementation of the Wholesale Electricity Spot Market (WESM), and is part of an \$80 million loan package co-financed by ADB and the Japan Bank for International Cooperation (JBIC). The loan will also finance the National Transmission Company's (Transco) Luzon transmission upgrading project and its Mindanao substation upgrading project. The second loan of US\$100 million will be half of the third and final installment of a US\$600 million program. The loan will fund the Power Sector Reform Program, ADB country director Thomas Crouch said. Contact Person: Mr. Thomas Crouch, ADB, Tel No. (632)632-4444

7,150 MW New Power Capacity Eyed in 10 Years. Investment in the deregulated power industry is projected to hit P 388 billion over the next 10 years, for an estimated additional capacity of 7,150 megawatt, as outlined in the updated power development program. According to Energy Undersecretary Jocot de Dios, around P51.813 billion of the needed investments already account for the committed capacity of 1,000 MW; and the bulk amounting to P336.2 billion would represent indicative capacity of 6,150 megawatts. Since the future industry will operate under a merchant scenario, the private power generators will have to determine the specific plant projects and what type of fuel they would utilize, the energy official stressed. De Dios divulged that under the revised PDP, the supply-demand gap in the Luzon grid has been projected to close in 2008 rather than the previous forecast of 2007. A high probability of power shortages is forecast in the Visayas and Mindanao starting in 2005 if not enough new capacity comes on stream before that period. To date, the country's total installed capacity is at 14,702 megawatt with dependable capacity standing at 12,910 MW, while excess capacity is at 1,955 MW. The energy department noted that while there is an excess capacity, demand growth and plant retirements will likely lead to capacity shortages. Contact Person: Undersecretary Jocot De Dios, DOE, Tel No. (632)840-2201

Section 4: RE Equipment/Service Procurement Notices

ICC Approves P6.7 Billion Projects in Luzon and Mindanao. The Investment Coordination Committee (ICC) has approved three of five projects that will minimize the occurrence of power outages and blackouts in Luzon and Mindanao, and facilitate the efficient implementation of the Wholesale Electricity Spot Market (WESM). Getting the biggest share is the Luzon Transmission Line Upgrading Project worth P2.9 billion. The project involves the upgrading of transmission lines from the San Miguel Substation to the Concepcion Substation, the Concepcion substation to the Mexico Substation and the Mexico Tie Line. The project also covers the replacement of power circuit breakers (PCB) and

accessories for the new San Miguel, Concepcion \, and Mexico substation and the reconfiguration of the PCB and accessories for the Bacnotan substation. It also involves the expansion of the Bauang, San Esteban and Dasmarias substations. The Final Market Management System for the Wholesale Electricity Spot Market (WESM) project, worth P1.38 billion, includes the development of power trading and pooling system software and computer hardware to control and process transactions and functions associated with the wholesale spot market. The third project is the Mindanao Substations Expansion Project worth P721 million that will ensure reliable and stable supply of power in Mindanao. The project involves the expansion of six substation linked to the Mindanao grid to accommodate future demand increase. The project involves the installation of additional transformers including switching and protection equipment in substations, which are located in Sta. Clara, Kibawe, Butuan, Bislig, Davao and Tindalo. Contact Person: National Power Corporation, Tel No. (632) 921-3370

Transco Asked To Approve Boracay Submarine Cable. The Aklan Electric Cooperative (Akelco) urged the National Transmission Co. (Transco) to accelerate bidding for the installation of a submarine cable which will distribute power to Boracay island from the Caticlan transmission substation. The newly installed Akelco general manager Eric Bocoy, said that while the existing infrastructure still has the capacity to meet Boracay's present power requirements, it will not be enough to meet projected demand in the next two years. Mr. Bocoy noted that the planned installation of the 69-kV submarine cable connecting Boracay to Caticlan will address the projected increase in the island's power demand. Power demand is projected to double within the next two or three years. Transco, he said, has committed to release the project bid within the next six months to one year. Contact Person: National Power Corporation, Tel No. (632) 921-3370

Section 5: Project Leads, Partnering, Opportunities and General News

Unocal Joins Oil Exploration in Philippines. California based energy company Unocal Corporation said its subsidiary Unocal Sulu Ltd. has signed a deal with a local oil exploration group led by Alcorn (Production) Philippines Inc to do a feasibility study on the Galco oil reserve in the northwest area of Palawan province. Unocal said the deal gave it an option to buy a share of the consortium's service contract if the study showed favorable findings. Phase I of the study will involve seismic data processing and interpretation, geological and reservoir engineering studies and preliminary facilities analysis. Positive results in Phase I would mean proceeding to Phase II, a more detailed technical analysis and engineering design. The Galco oil and gas reserve, discovered in 1981 at 1,100 feet deep is believed to hold 30-50 millions of oil. Contact Person: Alcorn (Production) Philippines.

DOE Mulls Proposal for Batangas – Cavite Pipeline. The Dept. of Energy (DOE) is studying a proposal for the construction of a natural gas pipeline from Batangas to Cavite (BatCave). DOE Undersecretary Jose De Dios said that DOE has received proposals to build such a pipeline from Batangas to Cavite or to Pasay. The proposed pipeline would cover 35 kilometers under the sea. Aside from the proposed BatCave, there are two other proposals to build a gas pipeline from Batangas to Manila (Batman I) or Bataan to Manila (Batman II). According to DOE, there are some issues that they have to resolve regarding the proposal. A number of companies have already expressed interest in building the proposed \$100 million Batman I including Shell Petroleum Exploration B.V., the major operator of the Malampaya gas project; First Gas Power, PNOC-Exploration Corp., Chevron Texaco; Mashhor Group of Brunei, Petronas of Malaysia and some Japanese and European power firms. Contact Person: Department of Energy, Tel No. 840-2201

NPC To Draw Down On \$189 M KfW Loan. The state-owned National Power Corporation (NPC) is scheduling a drawdown of at least \$189 million from a German lending firm, Kreditanstalt fur Weideraufbau (KfW), to bankroll the company's electrification program in off-grid areas. Upon the

privatization of the power firm, the Strategic Power Utilities Group (SPUG), which would remain an attached agency of NPC, will take jurisdiction over the electrification of areas that are isolated from the grid. According to NPC Officer-in-Charge President Roland S. Quilala, the combined credit of NPC and spinoff National Transmission Corporation (Transco) from the German bank is around \$839 million. Part of the budget is the \$189 million that will be use for SPUG electrification projects. In the electrification program for off-grid areas, the government is promoting the use of new and renewable energy sources, such as solar, wind and mini-hydro. It has been the government's commitment to energize all barangays nationwide, including those in remote areas, by 2006. The working target has actually been revised from year 2004 by the Arroyo administration. Contact Person: NPC, Tel NO. (632)921-3370

Cabinet Approves \$90M TIPCO Power Project. The Cabinet has approved a 90 million dollar partnership between the Formosa Group, one of Taiwan's largest conglomerates and the Trust International Paper Corp. (TIPCO), one of the Philippines largest paper producers and sole paper exporter. The project is to build a co-generation power plant at the TIPCO complex in Pampanga province, north of Manila. The Cabinet reviewed the operating plans of the 50 megawatt coal-fired, steam-powered co-generation power plant and verified its compliance with government environmental requirements. The government will have to closely monitor the company to ensure that it will follow what is stipulated in its environmental compliance certificate. Under the project plan, the Formosa group will build the plant to supply the TIPCO paper mill with low-cost energy. The plant will create substantial savings for TIPCO, which annually spends 600 million pesos on electricity. The cost cut would improve the export competitiveness of TIPCO, which sells up to 70% of its production to Hong Kong and Taiwan. Contact Person: TIPCO

Government Secures \$23M Grant For Energy Program. The government has secured more than \$23 million from the United Nations Development Program (UNDP) and several local firms to fund the implementation of a five-year development program for renewable energy sources in the country. UNDP, through the Global Environmental Fund, will provide \$5.14 million in funding support. The remaining \$18.22 million will be provided by the companies involved in the renewable energy industry, including Philippine National Oil Co. (PNOC), PNOC-Energy Development Corp., the American firm Smith Bell, the Solar Laboratory and the Renewable Energy Association of the Philippines. The five-year renewable energy development program called "Capacity Building to Remove Barriers to Renewable Energy Development in the Philippines" (CBRED) aims to reduce the growth of greenhouse gas emissions by replacing fossil fuel use in the country through increased development and utilization of clean renewable energy. To remove these barriers, the CBRED will provide financing mechanisms that will serve as a buffer fund to encourage investors to embark on the use and commercialization of renewable energy systems and technologies. Among the financing mechanisms being considered are the establishment of a Project Preparation Fund that may be used to finance renewable energy feasibility studies, a Micro-Finance Fund for small renewable energy projects and a Loan Guarantee Fund that will be used as a guarantee for larger renewable energy projects. Contact Person: Mr. Francis Benito, Tel No. (632)840-1817

PNOC-EC Seeks Strategic Partners For Mindoro Venture. The PNOC – Exploration Corporation (EC) is looking for partners for its exploration contract in offshore Mindoro. EC spokesman Rudolph C. Dimen said that this is part of their continuing effort to promote exploration activities. They are willing to give shares of their Geophysical Survey and Exploration Contract (GSEC) 100 to interested investors. Mr. Dimen believes that GSEC 100 may hold significant oil reserves outside of Northern Palawan, where a huge oil and gas reserve was discovered by Shell Philippine Exploration B.V., Texaco of US and PNOC-EC. Since the start of the year, EC has been intensifying its operation in oil, gas and coal exploration in preparation for its stock offering slated within the year. EC wants to enhance their operations so investors will be encouraged to invest in the company. Aside from GSEC 100, EC is also exploring two more oil and gas prospects, the Cherry and Tablas sites in offshore Mindoro. EC President,

Rufino Bomasang, said they need to tap new partners for these exploration projects, and to find funding of at least \$5 to \$10 million for each project. Contact Person: Mr. Rufino Bomasang, Tel No. (632)840-1450

SPEX To Invest \$400 M In Malampaya Oil Rim. The consortium led by Shell Philippines B. V. (Spex) is ready to commit \$300 to \$400 million fresh investment for the advance stages of development of the proposed oil rim beneath the Malampaya natural gas field, as long as the reserves prove to be commercially viable. The analysis of the extended well test (EWT) for the oil rim is due for completion this month. The drilling of the well started last year and was finished in April.

If the analysis yields positive results, SPEX managing director Jeremy W. Cliff said that the stakeholders in the project, which include Chevron Texaco and the Philippine National Oil Company (PNOC) will again meet with the government on policy initiatives that will determine if they will decide to provide additional investment for the project. Mr. Cliff mentioned that if the analysis of the reserves is positive, then they are hoping to talk with the government by next year. Contact Person: PNOC, Tel No. (632)555-0254

RP, UK To Cooperate In Development Of New and Renewable Energy Industry. The Philippines and United Kingdom are close to forging partnerships for the development of a local renewable energy sector, after three years of discussing technological and financial issues. The successful harnessing of local renewable energy is expected to result in lower domestic power rates and less dependence on oil-producing countries. British Deputy Ambassador David Campbell said that joint venture deals “could be forged anytime now,” The visit of Energy Secretary Vince Perez to London last week may have been the clincher. The United Kingdom, said Mr. Campbell, has pioneered the development of numerous renewable energy sources as a result of the UK’s policy that a portion of its energy requirement must come from indigenous sources such as wind, solar, biomass, municipal and industrial waste. Contact Person: Dept. of Energy, Tel No. (632)840-2201

ADB readies \$815M RP Projects. The Asian Development Bank (ADB) presented its proposed 2003 – 2005 country strategy for the Philippines covering 15 projects worth \$815 million. These projects will emphasize social and environmental development and poverty reduction. Included in ADB’s pipeline of projects for the three-year stretch are the following:

1. Enhancement of Rural Livelihood in Mindanao Uplands Program (2002);
2. Microfinance for Rural Development Program (2003);
3. Higher Education Development Project (2003);
4. Nonbank Financial Governance Program II (2003);
5. ARMM (Autonomous Region for Muslim Mindanao) Basic Education Development Project (2004);
6. Mindanao Basic Education Development Project (2004);
7. Health Sector Development Program (2004);
8. Metro Manila Urban Services for the Poor (2004);
9. Rural Roads Development Project (2004);
10. Integrated Coastal Resources Management Project (2005);
11. Solid Waste Management for Metro Manila (2005);
12. Road Sector Improvement Project (2005);
13. Fourth Airport Project (2005); and
14. SME Development Project (2005)

Energy Sector Celebrates Energy Week. The Department of Energy’s Secretary Vincent S. Perez led the Energy Sector in the celebration of Energy Week from Dec. 3-9, 2002 with the theme, “Empowering the Filipino through Renewable Energy”. Among the activities were:

- Ceremonial switch-on of 608 barangays electrified through New and Renewable Energy
- Program Launching for Enertext 2920
- Energy Labeling for Compact Fluorescent Lamps
- Anti-Idling Campaign
- Program Launching of Fuel Economy Rating Program for Asian Utility Vehicles
- Various Seminars on Energy Efficiency, Hydro Power Assessment and Rehabilitation, CDM, Fuel, Conservation and Efficiency in Road Transport, Energy Safety and Efficiency Measures for Households,
- CNG for Transport

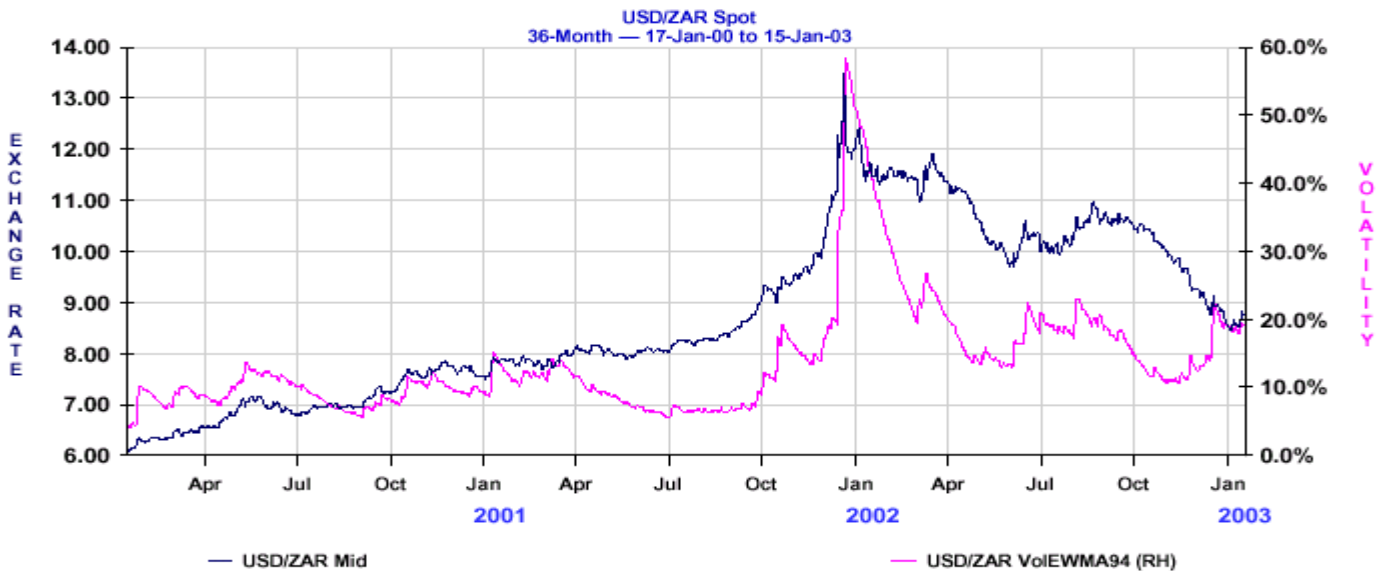
South Africa – Solar Engineering Services

Section 1. Macro Political and Economic Situation

Political Situation. President Bush’s State of the Union Address was generally well received in South Africa, especially “by so many for whom so much could be done”, referring to President Bush’s promise of aid for AIDS in Africa.

South Africa is entering a phase of cautious confidence, by contrast to most other African countries south of the Sahara. After a very shaky start, especially as regards his HIV/AIDS stance, President Mbeki while not winning any popularity polls, is gradually gaining the confidence of the nation. His foreign policy in both world terms and within the African context is gaining in stature, and South Africa is playing a greater and greater leadership role especially within the African continent. Most fiscal and commodity indices are positive as indicated in the next section dealing with the economic situation. On the political front, tensions between the ANC and the S. A. Communist Party/Congress of South African Trade Unions alliance continue to mount, and it is now a matter of time before the alliance splits. The World Summit for Sustainable Development (WSSD), while somewhat of a disappointment in terms of targets set and commitments pledged, was a major success in terms of SA’s ability to successfully host a mega-conference. The New Partnership for Africa Development (NEPAD) was one of the few developing country proposals that gained ground at the recent World Economic Forum (WEF) in Switzerland. The S. African representatives at the WEF were reportedly extremely well received.

Important Acronyms:	
ANC	African National Congress
DAEC	Durban Alternative Energies Company
DME	Department of Minerals and Energy’s
NER	National Electricity Regulator
SHS	Solar Home Systems
NEPAD	New Partnership for Africa Development



Source: Telekurs

www.thefinancials.com

Economic Situation. The fundamentals for the local South African currency (Rand) are strong, and the Rand has strengthened relative to the US \$, as indicated in the graph *above*. Inflation has declined for the first time in 15 months and the consumer price index (CPIX) stood at 12.4%. Food prices, the main

driving force, dropped 2.1 percentage points in December. The gold price reached the highest level in 6 years, due mainly to uncertainties in the Gulf. Overall, South Africa is quoted as the fastest growing tourist destination in the world at present. The South Africa banking sector has consistently been ranked in the top 10 internationally.

As such, South Africa represents a favorable climate for overseas investment. The Department of Trade and industry have a range of incentives to encourage local investment. Details in this regard are available on the Department of Trade and industry web site: "Trade & Investment South Africa." www.dti.gov.za

Section 2. Policy Environment

Non-grid Electrification. The Department of Minerals and Energy's (DME) non-grid electrification program has continued to make progress. The current situation is as follows.

Concessionaires. The Solar Vision Group operating in the Northern Province, RAPS/Nuon, now known as NuRa, operating the Northern KwaZulu/Natal (KZN) concession and the EDF/Total Group, who have the Central KZN concession, have signed agreements with the NER and are busy with an 18-month pilot phase of the solar home systems program. Renewable Energy Africa (REA) and Durban Alternative Energy Company (DAEC) plan to enter into similar agreements with the NER shortly. To date, Solar Vision and NuRa have installed approximately 800 and 900 SHS, respectively. The NuRa program was officially launched by the King of the Zulus (King Goodwill Zwelathini) at an impressive ceremony at Mkuzi in Northern KZN. The Shell/Eskom Joint Venture in Southern KwaZulu/Natal and Northern part of the Eastern Cape, had installed 6100 SHS during the first phase of operations, but has since removed some 1400 SHS due to poor payment records or tampering. They have resumed installation again, but the actual number of SHS installed is not known.

Durban Alternative Energies Company (DAEC), the only non-Eskom concedante, has reviewed 5 regions within the Durban Metro where grid electricity is not readily available. A decision was made to concentrate on area two in the following geological survey map. According to an initial manual count this area has by far the largest number of potential SHS of the five regions. A detailed energy audit will be conducted in this area by the University of Natal. The objectives of the survey are to establish the number of prospective SHS, schools, clinics and shops that would be available for non-grid electrification in the Durban metro, the opportunity for use of biogas, and the importance of ownership. The DME utility approach precludes ownership by the user. Subject to a positive outcome of this survey, DAEC would probably contract one of the DME appointed service providers (Shell, EDF or NuRa) as program implementers.

The NuRa SHS comprises a 50Wp module, a 100AH battery and energy management system, housed in a robust GRP vented box and all mounted on a treated Gum pole. Electricity is supplied to 4 high efficiency lights and plug points for B/W TV and radio. The energy management system is actuated by means of a small metallic token which down loads technical information relating to the SHS and uploads the customer's payment records. The two way information is transferred to the token at the time the customer makes his monthly payments.

Parallax, a private consulting engineering company are currently undertaking a project funded by USAID via the Department of Environment and Tourism (DEAT) to test a SHS project involving private purchase and ownership rather than the DME utility model. Negotiations have been concluded with the relevant tribal and other authorities in the Bulwer region of KZN and implementation is to commence shortly.

Agreements:

- Agreement has been reached between the DME and the NER to take overall responsibility and pay the non-grid service providers for an initial 18-month period. This agreement will be extended by mutual agreement at the end of this period
- Interim Service Provider agreements have been signed between the NER and three service providers, and a further two such agreements are in the pipeline
- The DAEC will be approaching the NER to finalize its position as Concedante for the Durban Unicity Area as soon as the survey confirms the viability of the SHS program in the Unicity area. (i.e., are there sufficient prospective customers to justify a SHS program?)
- Eskom's role is now to provide information on planned grid extensions and that of auditor, to make random checks in order to confirm that non-grid service providers installation claims are factual. Subsidy payments from the NER to the non-grid service providers has not occurred yet, but will also be routed through Eskom for the present.

The following contract arrangements have now been finalized by the DME/NER:

- The original subsidy amount of R3500 (currently about US\$350) has been implemented. A request to increase the subsidy to at least R3800 (about US\$380) has been submitted to the NER/DME. This is required to compensate for the very substantial increase in module costs since the subsidy was first agreed, due to the falling value of the Rand, in spite of its current gains.
- The connection fee has been reduced to R120. This fee is required from the customer before installation of the SHS.
- The monthly "lease" fee has been set at R58/month and at least one concession has been granted further funding to enable it to reduce monthly payments to R18/month. This comes into effect at the beginning of February 2003. Collection of this R18 could easily cost more than the amount collected. This additional funding to alleviate poverty and fulfill the government's promise of "electricity for all" has been approved for a three-year period. It is not known if the poverty alleviation subsidy will be extended thereafter. The proposed poverty alleviation subsidy for grid-connected dwellings is a free supply of the first 50kWh/month, and will be funded by the municipalities.
- The DME non-grid electrification program does not envision ownership of the SHS passing to the homeowner. This is believed to be a major flaw in this program, and is expected to add substantially to the number and resulting cost of maintaining SHS. Maintenance is the responsibility of the program implementers in the present DME program. Theft may also prove to be more of a problem than the service providers currently anticipate, unless ownership is introduced. The Parallax study should provide interesting insight in this regard. DAEC would like to leave the decision of ownership vs. lease up to the homeowner.

For further information contact: iakotze@mepta.pwv.gov.za

Section 3. RE Financing

Poverty Alleviation Subsidy. As part of the government's commitment to free basic services to all South Africans, two programs have been launched. The first provides 6k liters/month of water within municipal boundaries and will be supplied free of charge. This program has already been implemented in Durban. The cost of this service is to be borne by the municipality. The second program will provide for a limited supply of free electricity to all consumers that have either grid electricity or SHS that are incorporated in the government's SHS concession program. The program envisages that the first 50kWh of grid electricity will be supplied free of charge. This program could have been introduced immediately on all credit meters by simply editing the computerized accounting system. However, it is not that simple in the case of prepayment meters. Either the prepayment meters had to be modified or replaced, or the

computers at all prepayment card-vending stations had to be upgraded and linked to a central monitoring station. This has now been completed in Durban, and the 50kWh/month free electricity will be instituted in the Durban metro area starting March 1, 2003. This cost is borne by the municipality and recovered from consumers. For SHS the lessee will receive a discount of R40/month. This program will be instituted in the NuRa concession as from 1 February 2003.

South African Grantmakers Association (SAGA) SAGA is an independent association providing services to organizations involved in funding sustainable development programs in Southern Africa. SAGA assists in the reduction of poverty and the promotion of human rights, by encouraging more effective and professional flow of donor support to poor and marginalised communities. A recent conference held on September 27 and 28, 2002, was addressed by overseas speakers from the Philippines, United Kingdom, Brazil, and foundations including the Kellogg and Ford Foundations, and the Kenya Community Development Foundation. More information on SAGA is available at www.donors.org.za

Section 4. RE Equipment/Services Procurement Notices

Call for Projects - the Johannesburg Climate Legacy: the Johannesburg Climate Legacy funded by GEF, UNDP and IUCN has sent out a call for project proposals to fund development projects and build capacitated institutions and individuals, as well as leave a sustainable development “legacy” after the Summit. Some 16 projects from the original 32 have been selected as “climate neutral.” The intention was that funding for the projects would be raised from local and international JCL companies, donor agencies, governments, NGOs and individual delegates who attended the WSSD. A budget of \$50m was required in order to fund the 16 projects and pay for the services of consultants who were to raise the funds. Regrettably only approximately \$5m was ultimately raised, and about half of this was needed to pay the consultant costs. A decision is to be made shortly as to which projects will be funded with the balance of the funds. Further details can be obtained from Ms. A Boillie: alexandra.baillie@iucn.org

RFQ – 100 Low cost solar water heaters for use in low cost housing: Tenders from three companies have been selected for this project involving the supply and installation of 100 solar water heaters (SWH) for use in the *Durban Metro SWH pilot* project. The solar water heaters were required to deliver at least 50 liters of water above 45C per sunny day, and the ceiling price was set at \$200. The project is funded by USAID via Winrock International, and funding allows a 50% subsidy on the capital cost of the SWH. Sales have been slow, and despite the subsidy, low income customers have difficulty in raising the upfront capital cost of \$100 excluding installation, or as much as \$150 including installation. However, there is considerable interest in the SWHs and in spite of the high initial cost, approximately 45 of these SWH have been purchased and installed. The next phase of the project involves the adoption and scaling up of the project to the entire Durban Metro area. Banks will service these small loans provided close to 100% guarantees can be provided. Sources of such guarantees are currently being investigated. For further details contact W. Cawood at the following e-mail address: Soleng@solarengineering.co.za

Section 5. Project Leads, Partnering Opportunities and General News

New Internet Platform for Renewable Energy Projects: This item was listed in the previous news letter, and is repeated as the information is still valid. Everyone is now offered the possibility to advertise and to list their company or products or project requirements on the Internet on www.international.solar-contact.com in cooperation with www.energy4tomorrow.com

KfW concession – Eastern Cape The German development bank Kreditanstalt fur Wiederaufbau (KfW) concession in the Eastern Cape has not been awarded to a service provider yet, so this constitutes an

opportunity for both module manufacturer and balance of system (BOS) suppliers. This concession financed by the German Government via KfW (\$14.36m) involves at least 30 000 SHS coupled with a thermal energy supply. Either the DME or the RAPS group could be contacted in this regard. DME contact address is Dr. I. Kozte. iakotze@mepta.pwv.gov.za and Mr. Jurie Willemse of RAPS contact number +27-12-998 8280, e-mail jurie@raps.co.za.

Durban Metro Housing SWH program: Some SWHs contracts are likely to be issued in line with Durban Metro Housing SWH programs mentioned above. Contact addresses for these projects are. Durban Metro Housing (willcawood@solarengineering.co.za)

Solar Water Heaters with electrical back up: SWH required in Madagascar to elevate 3k liters/hour from a minimum temperature winter temperature of 20C to 30C. Must have electric back up to ensure temperature during cloudy weather. For further details contact Pierre-yves Guerin (austral@eastcoast.co.za)

Ecotourism in South Africa: As mentioned in an earlier paragraph, South Africa is listed as the fastest growing tourist destination in the world. A window of opportunity exists for investment in the rapidly growing Eco-tourism industry. These opportunities range from the design, supply and installation of renewable energy equipment, to the purchase of game farms and tourist destinations while the price is still relatively low and the Rand is greatly undervalued. South Africa represents one of the greatest opportunities for developments in the Eco-tourism industry. For further information see: www.satsa.com, www.aatravel.co.za, www.ectourism.co.za, www.mpumalanga.com, www.parks-sa.co.za, www.timelessafrica.co.za, www.capetourism.org, frsa@iafrica.com,

Section 6. Calendar of Events

SA Energy Management Association: 10th to 17 February 2003 in Cape Town, Port Elizabeth, Durban and Johannesburg. Program includes case histories from energy audits. Contact Denis Van Es (dvanes@eng.uct.ac.za)

The 5th Annual Power Generation Conference: 25 to 27 March 2003 Johannesburg Achieving sustainability in energy provision for a brighter future Contact Maggie Pienaar (maggie.pienaar@terrapinn.co.za)

Domestic use of Energy: 31 March to 3 April 2003 Cape Town. Contact Nico Buete (due@ctech.ac.za) or www.ctech.ac.za/conf

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 (kruger@jaywalk.com)

South African Utilities prepayment conference and exhibition: 10 to 11 June 2003 in Cape Town. Opportunity to discuss prepayment industry in SA and showcase Sa vast experience in this field to overseas visitors. Contact Le-Ann Hare (le-ann@spintelligent.com)

Contact Information

REPSO Brazil

Mr Claudio Ribeiro
REPSO Brazil
Rua Dr. José Peroba, 349 12º andar
Costa Azul 41760-320
Salvador – BA Brasil
Phone/Fax. + 55-71-341-1665
E-mail. jnewman@winrock.org.br
cribeiro@winrock.org.br

Fundación Solar –

REPSO Central America

Dr. Ivan Azurdia Bravo
Mr. Francisco Aguirre
Fundación Solar
15 Avenida 18-78
Zona 13, Ciudad Guatemala, Guatemala
Tel. + 502-360-1172/5776/5793
Phone/Fax. + 502-332-2548
E-mail. funsolar@intelnet.net.gt

REPSO India

Ms. Shyamala Abeyratne
Mr. Saroj
No. 7 Poorvi Marg
Vasant Vihar
New Delhi, India 110 057
Phone. + 91-11-614-2965
Fax. + 91-11-614-6004
E-mail. winrock@vsnl.com

YBUL - RENI Indonesia

Ms. Yani Witjaksono
Dr. Lolo Panggabean
YBUL
Jl. Hang Lekir VI / No. 1
Kebayoran Baru
Jakarta Selatan 12120
Indonesia
Phone. +62-21-720-6125
Phone/Fax. + 62-21-722-0905
E-mail. ybul@indo.net.id

REPSO Nepal

Mr. Bikash Pandey
Mr. Ratna Sansar Shrestha
Winrock International
APROSC Building
Ram Shah Path, P.O. Box 1312
Kathmandu, Nepal
Phone. + 977 1 254 687 / 255 109/110
Fax. + 977 1 262 904
E-mail. bpandey@winrock.org.np
rsansar@winrock.org.np

PEI - REPSO Philippines

Ms. Grace Yeneza
Preferred Energy, Inc. (PEI)
10/F Strata 100 Building
Emerald Avenue, Ortigas Center
1600 Pasig City, Metro Manila
Tel. + 63-2-631-2826/ 63-2-631-3078
Fax. + 63-2-632-7097
Email . pei@compass.com.ph

REPSO Southern Africa

Mr. Will Cawood
Solar Engineering Services
P.O. Box 628
KLOOF 3640
South Africa
Tel. + 27 31 764 6292
Fax. + 27 31 764 1266
E-mail. c101@mweb.co.za