Thailand to Push Renewable Energy Strategy

Energy conservation and alternative energy are national priorities in 2006, with continued R&D into renewable energy resources — in particular solar energy, biomass, hydro power and wind energy.

Several factors have influenced the government’s decision to pursue renewable energy (RE) alternatives, including the increased demand for electricity; the high price of oil; growing concerns about the combustion of fossil fuels; and the high investment cost of expanding Thailand’s existing electricity grid.

Thailand’s tropical climate makes it an ideal location for the development of RE technologies, in particular biomass and solar energy, says Siriporn Sailasuta, director general of the Department of Alternative Energy Development and Efficiency (DEDE).

As one of the world’s top exporters of rice, rubber, cassava and sugar, Thailand has huge potential to develop biomass technologies — the gasification process using wood, charcoal and other biomass materials to produce electricity Siriporn says.

In addition, Thailand’s ample sunshine ensures that solar energy (see Focus On) will become an important renewable energy source in isolated areas of the country, despite accounting for less than 1% of Thailand’s total renewable energy at the present time, she says.

“Biomass currently covers a larger share of Thailand’s renewable energy — about 80%,” Siriporn says. “But in the future, solar energy will account for a significant portion of Thailand’s renewable energy sources [10% by 2020] in isolated areas. However, it still needs to undergo further R&D to enhance its efficiency versus cost.”

The Thai government’s National Energy Strategic Plan has set a target to increase the share of renewable energy from 0.5% of the total energy consumption in 2006 to 8% of the yearly consumption by the year 2011.

“I should emphasize that most of the money we [the government] put into promoting renewable energy will create jobs and income in the country — unlike imported oil,” says Siriporn.

“Moreover, the technology developed and expertise gained from renewable energy projects can be exported to our neighbors, thus creating an additional source of income for Thailand.”

To create more awareness of the benefits of renewable energy at the grass roots level, the DEDE is encouraging greater participation by stakeholders — including industries and local communities — in the practical utilization of renewable energy. In addition, the government is promoting renewable energy in vocational schools and even at primary and secondary level, according to Siriporn.

However, renewable energy is not without its problems. The high cost of investment often leads to an even higher production cost compared with conventional technologies. This has proven to be the case with solar energy, which remains an expensive investment for individual consumers, with insignificant savings in energy costs. Unlike Japan, which subsidizes the installation of solar technology for residential use, no such incentive exists in Thailand.

Biomass technology also faces problems due to the seasonal availability and varying quantity of raw materials, while energy conservation and alternative energy are national priorities in 2006, with continued R&D into renewable energy resources — in particular solar energy, biomass, hydro power and wind energy.

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Biomass technology also faces problems due to the seasonal availability and varying quantity of raw materials, while

Continued on Page 11
World Bank predicts 15% growth in Thai exports

Boosted by strong exports, Thailand’s GDP is projected to grow by a healthy 5% this year, provided the current political crisis is short-lived, according to a senior World Bank economist.

Kazi Matin, the bank’s leading economist for Southeast Asia said Thailand’s prime engine for growth this year will be exports which he predicted would reach US$126 billion, up 15% over 2005. Imports are also expected to grow by around 14% to US$134 billion.

According to Matin, Thailand has seen “significant export growth, so much so that exports as a percentage of GDP have risen from 45% in the pre-[Asian] crisis years to 65% today”.

Thailand’s chief exports, accounting for 44% of the total in 2005, include automobiles and automotive parts, electrical and electronics, and non-electrical machinery — all industries that require a relatively high level of skilled labor.

Despite the rise in exports, domestic consumption — Thailand’s second traditional indicator of economic growth — is slowing. Domestic consumption increased 7.3% in 2005, but is projected to rise only 5.5% this year due to higher oil prices, inflation and higher interest rates.

Ceylinco Invests in Thailand

Ceylinco Consolidated, Sri Lanka’s largest company and most diversified conglomerate, has signed an agreement with Commonwealth Commercials Co., Ltd. to form a joint venture in Thailand called Ceylinco Consolidated (Thailand).

Through its e-commerce business, the company plans to market jewelry, real estate and agricultural machinery targeted at small and medium-sized companies.

With an initial investment of US$1 million, the company is planning a number of e-commerce enterprises and is also looking at the feasibility of building a jewelry plant in Thailand through which it would sell its branded fashion jewelry.

Other areas being considered for investment include real estate development in the tourism sector.

Ceylinco has a global presence in more than 200 countries, including India, China, the United Arab Emirates, the U.S., Bangladesh, Singapore and Malaysia.

Thailand will be the third ASEAN country in Ceylinco’s portfolio.

<table>
<thead>
<tr>
<th>By Sector</th>
<th>2004</th>
<th>2005</th>
<th>2006 (Jan-Feb)</th>
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<tbody>
<tr>
<td></td>
<td>Number of Projects</td>
<td>Value</td>
<td>Number of Projects</td>
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<tr>
<td>Agricultural Products</td>
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<td>563</td>
<td>51</td>
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<tr>
<td>Minerals/Ceramics</td>
<td>18</td>
<td>1,612</td>
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<tr>
<td>Light Industries/Textiles</td>
<td>61</td>
<td>207</td>
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<tr>
<td>Automotive/Metal Processing</td>
<td>223</td>
<td>1,286</td>
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<tr>
<td>Electrical/Electronics</td>
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<tr>
<td>Chemicals/Paper Products</td>
<td>107</td>
<td>1,169</td>
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<td>Services</td>
<td>106</td>
<td>853</td>
<td>143</td>
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<tr>
<td>By Country</td>
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<td>Japan</td>
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<td>2,546</td>
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<td>United States</td>
<td>39</td>
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<td>East Asian NICs</td>
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<td>Taiwan</td>
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<td>Singapore</td>
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<td>Switzerland</td>
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<td>Netherlands</td>
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<td>271</td>
<td>32</td>
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<td>By Zone</td>
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<tr>
<td>Zone 1</td>
<td>194</td>
<td>943</td>
<td>236</td>
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<tr>
<td>Zone 2</td>
<td>375</td>
<td>5,100</td>
<td>459</td>
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<tr>
<td>Zone 3</td>
<td>180</td>
<td>1,631</td>
<td>154</td>
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</tbody>
</table>

Source: BOI International Affairs Division
Note: Projects with more than one foreign shareholder are counted twice.

### The BOI Investment Review

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Established in May 2003, Bangkok Solar Co., Ltd. was launched as a bold initiative to supply solar modules to the Thai government’s ‘Solar Home System’ project, according to Nibondh Chetsiri, the company’s vice president.

The ambitious solar project announced by Prime Minister Thaksin Shinawatra in 2003 aimed to bring electricity to 300,000 rural households over the next decade. Bangkok Solar set out to corner a piece of this new market in the renewable energy sector.

“At the time, we literally only had 2-3 months to get ready and make a bid for the project, planned for December [2003]. We found a factory in Hungary that wanted to sell us its solar panel technology, so we bought it — disassembled it — and shipped it back to Thailand where we set up a new manufacturing process,” says Nibondh.

“Part of the government’s requirements for putting in a bid was that the solar panels must be manufactured in Thailand, so the imported technology was essential as nothing like it was available here,” Nibondh says.

Following the government’s decision to delay the bidding process until the following March [2004], Bangkok Solar was able to finish assembling its new facilities and put in a bid for the first phase — to provide solar modules to 153,000 residences in remote regions of the country.

The solar modules were designed to supply AC electricity for 2 fluorescent bulbs (10 watts each) and a 14-inch color TV (45 watts) at a cost of 25,000 baht per household. Coordinated by the Provincial Electricity Authority (PEA) and private agencies, the cost for each solar module was shouldered by the government.

“We managed to win the Northeastern contract — about 22,000 homes, or about one-sixth of the total number of residences in the first phase. We did quite a good job and were consequently awarded another contract to deliver 70,000 modules,” said Nibondh.

Today Bangkok Solar is still the only company in Thailand to manufacture amorphous silicon (a-Si) photovoltaic modules. While it started out as a Thai-Hungarian joint venture with Wallis Group, the company is now 100% Thai-owned with Bangkok Cable Group a majority shareholder.

Supported by the National Science and Technology Development Agency (NSTDA), Bangkok Solar now produces upgraded fourth generation a-Si thin-film solar panel technology.

Though the thin-film amorphous silicon is not quite as efficient as the crystalline-based silicon imported to Thailand by other companies like Solartron, Nibondh believes the cheaper cost and research currently being done by NSTDA to make the thin-film more efficient means amorphous silicon has a promising future.

“The initial investment in the technology to produce thin-film amorphous silicon is higher, but we believe it has more potential as we can produce it here, thus reducing the cost in the long-term. With crystalline silicon you have to rely on importing the solar cells so there’s little room to improve the cost,” said Nibondh, adding that NSTDA and a number of Thai universities were working on improving the efficiency of thin-film amorphous silicon.

Bangkok Solar has already caught the eye of foreign companies looking to import its Thai-made solar panels. Last year it was approached by a German buyer MAASS — a subsidiary of Germany’s Sun Energy Group — looking for suppliers to meet the high demand for solar energy from its European customers.

“Germany is only able to produce about half of its total demand for solar energy, the rest they have to import,” says Nibondh.

Bangkok Solar’s production area currently covers around 4,000 sq m with the capacity to produce 120,000 solar modules a year, or 5 megawatts of electricity. However, following a contract signed with MAASS, the company is building a new 10,000 sq m facility that will increase its output considerably.

“This year we have a contract with MAASS to produce 300,000 modules and in 2007 we are committed to delivering 500,000. By 2008 we expect to be delivering them around 900,000 a year,” said Nibondh.

With its year-round sunshine, Thailand is slated to become one of the most important solar markets in Asia after Japan. It is already home to Southeast Asia’s largest solar-powered electricity generating station located in Mae Hong Son Province.

A 2004 EPIA/Greenpeace study projects that by 2010, Thailand’s solar energy market will be worth over US$200 million, creating jobs for more than 2,000 people. — By Paul Davies
FAQs for Potential Investors in Thailand

Last month ‘Why Thailand’ looked at some of the specific costs of doing business in Bangkok compared with other key cities in the region. This month we provide answers to some frequently asked questions on the day-to-day cost of living for expatriates as well as general information on infrastructure, human resources, investment requirements and benefits.

What is the average number of days needed to register a new company?
On average, it takes about 33 days to start a new company in Thailand.

<table>
<thead>
<tr>
<th>What is the average rental per square meter a year?</th>
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<tbody>
<tr>
<td>Centrally located office space</td>
<td>US$180/square meter per year</td>
</tr>
<tr>
<td>Out-of-town office space</td>
<td>US$75-$120/square meter per year</td>
</tr>
<tr>
<td>Industrial premises</td>
<td>US$22.20/square meter per year</td>
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What is the average annual salary for different employees?

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<tbody>
<tr>
<td>Secretary</td>
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<tr>
<td>Junior (graduate executive)</td>
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<td>Middle manager</td>
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<tr>
<td>Hourly rate</td>
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<tr>
<td>Lowest cost per year (48 hrs/week)</td>
</tr>
<tr>
<td>Cost for a housekeeper</td>
</tr>
</tbody>
</table>

How much does a one-minute telephone call to the United States cost?
The price of a one minute call to the US ranges from $0.15 to $0.23.

What percentage of the population is literate?
Literacy rate of population age 15 and above:
Male 97.1%
Female 93.9%

What percentage of the population have a university-level education?
UNESCO estimates that 2,251,453 Thais were enrolled in tertiary education in 2003 and that 7.9% of Thailand’s total population had a post-secondary education in 2000. They estimate that 16.8% of the urban population has attained a post-secondary education. UNCTAD’s 2005 World Investment Report states that the number of tertiary level students in Thailand ranked 12th in the world.

How many university-level educational institutions are there in Thailand?
Thailand has over 130 universities, both private and public. Foremost institutions include (in alphabetical order):
Chiangmai University
Chulalongkorn University
Kasetsart University
King Mongkut’s Institute of Technology (KMIT)
Mahidol University
Thammasat University

Please provide an overview of the main strategic transport links in Thailand.

- 79,180 km of highways link all 76 provinces.
- Toll motorways will reach 4,150 km by 2016.
- Rail systems span 4,880 km, connecting to neighboring countries.
- 4,000 km of inland waterways and 8 deep-sea ports serve major shipping points, including Bangkok, Laem Chabang, Maptaphut, Songkhol, Phuket.
- There are over 30 commercial airports nationwide and 6 major international airports, including those in Bangkok, Chiangmai, Chiangrai, Phuket, Hat Yai, and U-Tapao. The Thai government projects Bangkok’s new international airport, Suvarnabhumi Airport, will open in 2006. It will be Asia’s largest handling up to 45 million passengers per annum with the potential to expand and handle up to 120 passengers a year.
- From 2005-9, US$42.5 billion in infrastructure mega-projects will further enhance mass transit and multi-modal logistics.

What percentage of the population has telephone connections?
In 2004, there were, on average, 10.2 fixed telephone lines per 100 inhabitants.

Number of Fixed Lines per 100 Inhabitants (1999-2004)

source: TOT Corporation Plc. (formerly the Telephone Organization of Thailand)
Remark: *Exclude public pay phone
What percentage of the population owns a mobile phone?
Mobile phone penetration (only those registered) in Thailand has almost reached 45% of the population, according to Economist magazine. Thailand’s mobile phone subscriber levels have increased seven-fold since 2000.

What percentage of the city or region’s population uses the internet?
Around 7 million people use the Internet in Thailand, equivalent to 11.9% of the population in 2004 according to Thailand’s National Electronics and Computer Technology Center (NECTEC). NECTEC estimates users outside Bangkok increased by 116% between 2001 and 2004.

Number of Internet Users (1998-2004)

What percentage of the city or region’s population receives broadband/DSL internet communications?
Thailand has had one of the world’s fastest growing broadband markets, growing by almost 50% between December 2004 and June 2005, according to Point Topic, a leading web-source on broadband. Broadband lines have now reached over 225,000. Within the next 2 years, the government will install 250,000 computers with broadband internet access in schools, with a long-term goal of providing a total of 500,000 computers to achieve a ratio of one computer for every 15 students.

Where are the best housing areas in Thailand?
Bangkok, Pattaya, Chiangmai, and Phuket offer top-quality housing. In a 2005 AMCHAM (American Chamber of Commerce) survey, low-cost, high-quality housing was rated one of Thailand’s greatest strengths.

What is the annual rental of a four-bedroom house (in US dollars)?
In central Bangkok, annual rent for a four-bedroom house ranges from $21,000 to $54,000. Outside Bangkok, annual rent ranges from $9,000 to $45,000.

Please describe the best private hospitals.
Some of the premier hospitals include Samitivej, Bangkok Nursing Home, Phayathai, Bangkok, Vichaiyut and Bumrungrad Hospital, which is Asia’s first internationally-accredited hospital (by the U.S. Joint Commission on Hospital Accreditation).

Bumrungrad hospital has 500 internationally-trained doctors and treats around 350,000 foreign patients from 150 countries a year. It is also touted as the world’s best international hospital, providing luxurious, state-of-the-art healthcare at one-eighth U.S. costs.

Please describe the best international schools.
There are 64 international schools in Bangkok and 24 outside Bangkok, offering instruction in English, French, German, and Japanese languages.

The International School of Bangkok, Rama Rudee International School, Bangkok Patana School and New International School of Thailand offer the prestigious International Baccalaureate program. Other accredited schools include Lyce Francais International de Bangkok and Thai-Japanese Association School. Graduates of Thai international schools have successfully won admission to leading universities around the world.

What are the current strategies used to promote investments to Thailand?
Thailand promotes itself as a production and export hub, especially in target industries: automotive, fashion, electronics, alternative energy, services, tourism, and agro-industry. Thailand highlights its advantages as a production base for increasingly higher value-added products and services that benefit from its proactive pursuit of free trade agreements.

What are the three most important benefits for investors in Thailand?
1) Competitive costs and ease of doing business in Thailand make it a highly attractive investment destination.
2) Thailand also offers investors a stable and liberal political, social and economic environment.
3) Thailand’s human resources are one of its greatest strengths. Thai workers are highly trainable, friendly, and dedicated.

What investment incentives are available to potential investors?
BOI incentives:
- Land ownership
- Admission of foreign experts/technicians to the country
- Fast-track work permit/visa facilitation
- Up to 8 years corporate income tax holidays and duty reductions/exemptions for machinery, raw materials for:
  - Promoted activities
  - Investment location (3 Zones)
- Additional income tax reductions for Zone 3

— By Renee Santo
With the rising price of oil and other conventional fuels, the Thai government is turning to solar and other alternative forms of renewable energy to enable it to meet the growing demand for power — expected to double over the next 15 years.

Thailand’s domestic demand for electricity is increasing by about 13% a year, reaching more than 21,000 megawatts (MW) in 2005. While the demand for electricity will depend on the growth rate of GDP, it is estimated to top 50,000 MW by 2020.

Dr. Porponth Sichanugrist, director of the Technology Management Center (TMC) at the National Science and Technology Development Agency (NSTDA), heads a seven year project supported by the government to develop solar cell energy. The project, started in 2005, is developing a novel technology using low-cost thin-film amorphous silicon solar cell panels.

“The solar cell technology is a promising way to solve capacity problems during periods of peak demand as it’s a clean energy with no environmental waste,” says Porponth.

According to Porponth, who graduated with a doctorate in Physical Electronics from the Tokyo Institute of Technology, Japan’s strategy for solar energy development provides a good model for Thailand’s own fledgling solar energy policy.

As part of its national energy strategy, Japan plans to use solar energy to meet 10% of its peak demand by 2030. Japan currently uses around 10 times the amount of electricity used by Thailand.

“Thailand is also considering this 10% peak supply method as a way to avoid an energy crisis,” said Porponth. “The primary target is to install 5,000 MW of solar cell technology by 2020.”

As of 2005, Thailand has installed a total of 30 MW of solar cell technology, most of which has gone into the Solar Home System project also known as the Ua-thorn Electricity Program. The project provides homeowners in isolated regions of Thailand with solar modules enabling residents to collect and store electricity during daylight hours. This is achieved by a 120 watt solar panel capable of powering two florescent bulbs and a 14-inch color TV. The technology used for the project was developed by the TMC and transferred to a private company for production (see Company Spotlight).

With the global solar cell market expected to grow by 30% — and by 30-40% in Thailand — Porponth says there is a growing need for foreign companies to invest in Thailand’s solar cell manufacturing industry.

In its attempt to reach a total capacity of 5,000 MW by 2020, the Thai government is actively encouraging foreign solar cell manufacturers to locate and produce in Thailand. The Board of Investment (BOI), for example, gives producers of solar cells its maximum incentive of 8-years of income tax holiday. The government’s initial plans also include installing solar cell paneling on the roofs of government-owned buildings and then developing a number of solar energy power plants. A requirement for
setting up a joint venture or Thai-owned solar cell manufacturing facility is that materials are developed locally.

Thailand is making some cutting-edge advancements in solar cell research, making it a leader in Asia. Its latest thin-film amorphous silicon solar-cell technology pioneered by the TMC can convert 15% of solar power into electricity, higher than most other amorphous silicon solar cell systems on the market, which can manage only around 8%. The higher the ratio, the better is the cost effectiveness.

However, to push solar-cell development even further, the TMC needs to continue development work for actual production, says Porponth.

While the TMC is already working with the private sector and has provided its fourth generation thin-film amorphous silicon cell technology to Thai companies, it is now planning the mass production of a new generation of amorphous silicon cell technology that will be produced in a joint venture with a well-known Thai company.

“We can’t reveal the details yet, but we are planning large-scale production of this new solar cell module in a joint venture. It would mean building a new plant to produce the solar cell product. We hope to sign an agreement sometime this year,” says Porponth.

The venture would give the company the sole right to produce and sell the new technology. The government hopes it will promote Thailand as a first-class producer of solar cell energy in Asia. “We believe we have found the right partner with whom we can market this product on a large scale domestically and internationally,” says Porponth.

He added that as the market for solar cell production is guaranteed by the government, the return on investment for manufacturing plants could be very high — up to 50%.

“Since solar cell manufacturing is using a high level of technology, it’s good for Thailand’s competitiveness and sustainable growth, and it could become an important export in the future.” — By Paul Davies

### Solar Energy Technologies Used in Thailand

**PV (Photovoltaic) Electricity**

Solar cell power generation is categorized by three systems:

- **PV Stand Alone System:** This power generation system is designed for rural application with no power transmission lines. The system comprises of solar cells or a PV panel, battery charger, battery and DC/AC converter.
- **PV Grid Connected System:** A power generation system designed for generating electricity which is then sold back to the main grid by using a converter to change a DC to AC and directly supplying the transmission line system. This type of solar generation is used in urban areas or sites accessed by the general power grid. The system is comprised of a PV panel and DC/AC converter connected to the main grid.
- **PV Hybrid System:** This system can be combined with other types of renewable energy systems such as wind and hydro power to produce electricity.

**PV Hot Water Technology**

Heating water using solar energy is categorized by three systems:

- **Natural Circulation:** This system uses an insulated storage tank installed above the PV panel to utilize the natural circulation principle.
- **Pump Circulation:** A mechanical pump is used in larger circulation systems requiring a significant volume of water to generate heat.
- **Hybrid Hot Water generation:** This type of technology integrates hot water generation with waste heat from cooling systems — such as air conditioners — with the use of a heat exchanger.
Travel Thailand 2006

Over the next decade, Thailand’s tourism sector is expected to attract an ever-increasing number of global tourists drawn to the kingdom by its scenic beauty, cultural heritage and friendly people. The Ministry of Tourism and Sports is anticipating 15 million visitors this year, a rise of 13% over 2005, with many tourists attending world-renowned Thai festivals and events. Highlighted here are some of this year’s best-known events:

April
Songkran Festival (April 13-15)
The Songkran water festival marks the beginning of the traditional Thai New Year and takes place nationwide over a three-day national holiday. Water-throwing — a key element of this event — is the Thai way of purging past misfortunes and starting the New Year afresh. Apart from Bangkok, regional cities such as Nong Khai, Khon Kaen, Hat Yai, Sukhothai, Chiang Mai and Pattaya also carry out their own variations of the festival reflecting local customs.

May
Samui Regatta 2006 (May 21-27)
This week-long sailing extravaganza is held just off Thailand’s third largest island, Koh Samui, in the Gulf of Thailand. In addition to boat racing, the event hosts a number of glamorous networking parties where guests can enjoy sumptuous cuisine. Promoted as an international yachting event, the regatta this year is expected to host around 230 competitors from Asia, Australia, New Zealand, Europe and the Americas.

June
Royal Barge Procession (June 12)
This month Thailand begins commemoration of the 60th anniversary of King’s Bhumibol Adulyadej’s accession to the throne with celebrations and events centered around Bangkok’s gilded palaces and temples. A highlight of the celebrations is the Royal Barge Procession attended by royal dignitaries and guests from more than 20 countries. During the procession an impressive flotilla of ornate barges passes down the Chao Phraya River in a ritualistic show of grandeur which dates back centuries. Visitors to Thailand can watch the procession from one of many river restaurants that host special nights to watch this colorful event.

July
The Candle Festival (July 10-11)
Taking place in Thailand’s northeastern city, Ubon Ratchathani, the candle festival marks the beginning of the Kingdom’s Buddhist lent. Beautifully-carved candles can be seen during the procession which also includes Thai art exhibitions and a variety of Thai cultural performances.

August
Sporting Events (August 26 & 27)
Local and international bikers are welcomed to participate in the Bhumibol Dam International Mountain Bike Championship 2006. The race sets out from the scenic Bhumibol Dam in Tak Province on June 26. Alternatively, join some of the world’s most tested athletes on the marathon, half marathon, or mini marathon in Songkhla Province taking place on June 27.

September
Longboat Racing (September 9-10)
You can join the cheering crowds along the riverbanks of the Chao Phraya River for this event held annually in the ancient capital, Ayutthaya. Vigorously competitive teams from all over Asia and the Pacific ensure a lively and spirited fight for the region’s best rowers.
China Town Food Festival in Bangkok (September 22-23)
This event, held in the world’s biggest “China Town,” sees Yaowarat Road closed to traffic and spring to life with food vendors offering everything from shark fin and bird’s nest soup to dumplings, toasted chestnuts, Chinese sweetmeats, appetizers and other concoctions. Not only is it a Chinese food-lover’s haven, it’s an opportunity to watch the chefs in action as they display their skills to street audiences. Thai and international cuisine is also popular at the event.

October
Vegetarian Festival (October 21-30)
This nine-day celebration which takes place in Bangkok, Trang and Phuket sees devout Chinese Buddhists sticking to a vegetarian diet whilst performing a variety of ceremonies at Chinese temples around the country. During famed merit-making processions in Phuket, exhibitions of elaborate body piercing for self-mortification draw amazed crowds of onlookers. Smaller towns in the south such as Krabi and Phang-Nga celebrate the festival on a smaller scale.

November
Festival of Lights (November 9-16)
Purge your sins and pay respect to the goddess of water during Loy Krathong — known also as the “Festival of Lights” — when thousands of small candle-lit banana boats or krathongs are launched into the Chao Praya River. Loy means “to float” while krathong refers to the “banana leaf vessel” that resembles an open lotus bloom. Spectacular kratong processions and cultural performances take place nationwide including renowned celebrations in Sukhothai and Ayuthaya Provinces.

December
Phuket King’s Cup Regatta (2-9 December)
Phuket King’s Cup Regatta is Asia’s biggest and most popular yachting event, held annually in the first week of December to coincide with the birthday of its royal patron, H.M. King Bhumibol Adulyadej on December 5th. More than just a regatta, the week-long event consists of glamorous parties and networking events with five days of racing in seven different yachting classes. A world-renowned event, the regatta is attended by some of the world’s best-known yachting enthusiasts.

Ayutthaya World Heritage Celebration (13-19 December)
Thailand’s former capital Ayutthaya celebrates its glorious past in December with a variety of traditional theater and dance performances held in the grounds of the city’s ancient ruins. For over 400 years from the 14th to 18th century, Ayutthaya was one of Asia’s most prosperous cities, boasting magnificent palaces, temples and shrines.

For more information about the programs, visit: www.thailandgrandfestival.com or www.tourismthailand.org. Note that event dates are subject to change.
Destination: Pakistan
Senior Executive Advisor Vittaya Praisuwan led a fact-finding mission to Pakistan to explore bilateral investment opportunities. The sectors of particular interest included textiles, food processing, construction and alternative energy.

Apart from networking with the Chambers of Commerce and the Boards of Investment in Peshawar, Islamabad and Karachi, the delegation also visited companies in a range of sectors, including gems and jewelry, and energy production.

The fact-finding mission was from January 28 to February 3.

Destination: Japan
A BOI delegation visited Japan to hold investment promotion seminars and to meet with potential investors from January 20-25.

Investment seminars were held in Tokyo, Nagoya and Osaka, where Senior Investment Promotion Officer Boonrux Sophyakhajon, gave presentations about the Thai machinery and tooling industries. One-on-one meetings with individual investors were also conducted.

In Osaka, the delegation visited firms in the automotive parts, and mold and die sectors.

Destination: U.S. and Canada
A BOI delegation visited the U.S. and Canada from February 23 to March 5 to attract investments in the automotive sector. In Detroit, Deputy Secretary General Sudjit Inthaiwong delivered an investment promotion presentation to U.S. investors. The delegation also visited a number of Detroit-based automotive producers.

In Toronto, Canada, the delegates visited firms in various sectors, including automotive and software.

By Sonklin Ploymee, Krisada Wechwitayakhlung, Kritawit Madhyamankura and Alisa Kukarja
Thai-Spanish Business Forum
Secretary General Satit Sirirangkamanont presented Thailand’s investment opportunities at the Thai-Spanish Business Forum on February 23 in Bangkok. The forum, which serves to inform Thai and Spanish investors about investment climates in both countries, was presided over by His Majesty the King of Spain Juan Carlos I. At the event, Spanish investors also learned about the investment opportunities of Thailand’s mega-projects.

MOU with RSB Bank
BOI Secretary General Satit Sirirangkamanont and Vice Chairman of Malaysia’s RSB Bank Dato Abdulla, signed an MOU on February 24 to strengthen their cooperation in promoting Malaysian investments in Thailand as well as investments from other ASEAN countries. The signing ceremony was witnessed by the Malaysian Ambassador to Thailand H.E. Dato Shaarani Ibrahim.

Chinese Ministry of Commerce Delegation
On February 28, BOI Director of Marketing Division Duangjai Asawachintachit met with a delegation from the Chinese Ministry of Commerce. The purpose of the visit was to discuss and outline cooperation between the Ministry and the BOI in bilateral investment promotion.

Swedish Delegation
BOI Director of Marketing Division Duangjai Asawachintachit welcomed investors from Sweden on March 6 who came to learn about investment opportunities in Thailand’s health care and tourism sectors.

Continued from page 1
other renewable energies like wind offer unreliable returns due to the fluctuation in wind levels.

“To promote the use of these technologies, we need to have a strong support policy and suitable measures that support RE technologies — enabling them to be competitive with conventional energy technologies,” says Siriporn.

In this area some headway has been made with the Thailand Board of Investment (BOI) opting to increase promotional privileges to companies initiating energy conservation activities, including the exemption of import duties on replacement machinery or equipment for companies setting up renewable energy operations.

Siriporn says the BOI incentives give recognition to the importance of renewable energy. However, investment in RE projects is still considered a long-term, high risk investment.

“For RE technologies to succeed, the government must do more to support RE investors — such as increasing corporate income tax exemptions from 8 to 13 years, as well as increased tax relief on import duties for machinery,” says Siriporn. — By Paul Davies

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Facts about Thailand

Population
65 million
Population of ASEAN
570 million
Literacy
96%
Minimum wage (Bangkok)
US$4.60/day

GDP (2005)
US$177.58 billion
GDP growth (2005)
4.5%
GDP per capita (2005)
US$2,732
Projected GDP Growth
4.75-5.75% (2006)
4.5-6.0% (2007)

Current account balance (Feb 2006)
US$1.2 billion
Capital and financial account (2005)
US$7.5 billion
International reserves (Feb 2006)
US$54.4 billion
Capacity utilization (Feb 2005)
72.3%

Corporate income tax
10-30%
Withholding tax
10-15%
Value added/sales tax
7%

Source:
Bank of Thailand (BOT)

GDP at Current Prices

Source: NESDB

Exchange Rates

Source: BOT

Stock Exchange of Thailand Index

Source: SET

Top 10 Exports (2005)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Description</th>
<th>Value (Billion US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Automatic data processing machines and parts thereof</td>
<td>11.861</td>
</tr>
<tr>
<td>2</td>
<td>Motor cars, parts and accessories</td>
<td>7.750</td>
</tr>
<tr>
<td>3</td>
<td>Electronic integrated circuits</td>
<td>5.224</td>
</tr>
<tr>
<td>4</td>
<td>Polymers of styrene, polystyrene, etc. in primary forms</td>
<td>4.204</td>
</tr>
<tr>
<td>5</td>
<td>Rubber</td>
<td>3.714</td>
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<tr>
<td>6</td>
<td>Precious stones and jewellery</td>
<td>2.335</td>
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<tr>
<td>7</td>
<td>Radio-broadcast receivers, television receivers and parts thereof</td>
<td>3.777</td>
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<tr>
<td>8</td>
<td>Garments</td>
<td>3.162</td>
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<tr>
<td>9</td>
<td>Iron and steel and their products</td>
<td>2.909</td>
</tr>
<tr>
<td>10</td>
<td>Chemical products</td>
<td>2.663</td>
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</table>

Source: Customs Department

Top 10 Imports (2005)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Description</th>
<th>Value (Billion US$)</th>
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<tbody>
<tr>
<td>1</td>
<td>Crude oil</td>
<td>17.004</td>
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<tr>
<td>2</td>
<td>Machinery and parts</td>
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<tr>
<td>3</td>
<td>Electrical machinery and parts</td>
<td>9.546</td>
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<tr>
<td>4</td>
<td>Iron, steel and products</td>
<td>8.304</td>
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<tr>
<td>5</td>
<td>Chemicals</td>
<td>7.346</td>
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<tr>
<td>6</td>
<td>Electrical circuit panels</td>
<td>7.286</td>
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<tr>
<td>7</td>
<td>Office, office and household goods</td>
<td>6.613</td>
</tr>
<tr>
<td>8</td>
<td>Other metal ores,metal waste, strips and products</td>
<td>6.540</td>
</tr>
<tr>
<td>9</td>
<td>Jewellery including silver bars and gold</td>
<td>3.952</td>
</tr>
<tr>
<td>10</td>
<td>Parts and accessories</td>
<td>3.215</td>
</tr>
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Source: Customs Department