

# Baghdad to Have Blackouts Through 2009

**B**aghdad's citizens will face power blackouts through the end of this decade, even under the best post-war recovery scenario, Iraq's deputy minister for electricity said last week.

Around 90 percent of Iraq's national power grid was already damaged or destroyed in the first Persian Gulf War in 1990-91, followed by nearly a decade of inter-

national sanctions that curbed repairs. Power lines were again cut or looted following last year's US-led invasion of Iraq.

Power has been rationed throughout the country, with electricity cut off several hours each day to spread around available supplies.

While conditions have improved, Barga Al-Juburie, who oversees Iraq's electricity sector, said power blackouts in

Baghdad would likely continue at least through 2009.

Blackouts will persist past then if Iraq does not receive enough money to repair and build needed power plants and transmission lines, and if sabotage continues and the country remains unsafe for foreign workers, she said.

"If we have funding and security, then in five years everything will settle down," said Al-Juburie,

who spoke in Washington at a briefing sponsored by the US Energy Association, [enr.com](http://enr.com) reported.

Iraq has about 5,000 megawatts (MW) of available generating capacity, but power demand next year is expected to average 8,000 MW a day and rise to 10,000 MW in 2006, Al-Juburie said.

"Whatever we plan, there is an increase in

demand," she said.

One megawatt powers about 1,000 average North American households, so the number of Iraqi homes would be much higher.

About US\$17.8 billion must be invested in Iraq's electricity sector by 2010 to ensure power supplies will meet demand, Al-Juburie said. Several billion dollars has already been provided by the US government, but it's unclear where the rest of



Iraqi girls sit inside their house illuminated by a gas lamp, due to electric power shortages in Basra, August 14, 2003. (Reuters File Photo)

the money will come from.

Many foreign companies have found Iraq too

violent at the moment for investment or foreign workers.

Al-Juburie said Iraq may

ask the World Bank for power sector loans after the country's elections scheduled for January.

## Alternative to Solar Drying of Grains

**T**WO Filipino inventors are presenting what they say is a viable alternative to the traditional solar drying on highways of harvested grains.

Popoy Pagayon and Teddy Castaneda of the Filipino Inventors Society recently introduced a multipurpose transparent solar collector dryer, which they said could be used even during the wet season and in open fields.

The equipment, made of aluminum, is called the Portasol GTDT (grains thermal speed drying trays) Handywood.

Aside from paddy, the Portasol can also be used to dry corn, mung beans, soybeans, banana chips, and even fruits and fish.

### Solar Energy

According to the Department of Agriculture, the country loses P15 to P17 billion worth of grains annually due to the lack of postharvest facilities. The problem is further compounded by the high cost of energy requirements of existing mechanical dryers.

Ricardo Cachueta, director of the DA's



Utilizing the sun in the drying process costs practically nothing.

Bureau of Postharvest Research and Extension (BPRE), says the key to curbing these losses lies in finding an alternative to bunker fuel. One viable source the BPRE is looking into is solar energy. [news.inq7.net](http://news.inq7.net) reported.

Utilizing the sun in the drying process costs practically nothing, Cachueta says. But traditional methods of sun-drying have problems, and drying grains on the highways is fraught with risks, he points out.

This is where Portasol

comes in.

During sunny weather, the 12-tray set can be laid flat out. In the evening or when the rains come, the trays can be stacked on top of each other and the drying process continues.

The heat of the sun hitting the top layer is conducted to the rest of the aluminum trays below, explains Pagayon. Aluminum, he points out, is a good heat conductor.

The stack comes with a transparent ventilated canopy, which prevents the formation of fungal

mycotoxins and other biogenous serial pathogens normally arising from improper drying and storage practices.

"When covered with [the canopy], the solar collector continues the drying process at night. The paddy won't moisten," Pagayon says.

**Loss Due to Humidity** Castaneda says that as much as 50 percent of grains dried on the pavement is lost to forces above the ground (vehicles, wind and animals) or below.

"There's humidity under the pavement which goes up to the paddy. When the farmers remove the paddy in the afternoon, you will notice that the pavement is wet. So some of the paddy underneath are wet. Drying the wet paddy the next day will cause cracking and splintering of the grains," he explains. "That's why you see many 'split grains' in the market and only few 'whole grains.'"

Flash driers, or mechanical driers, only fulfill part of the task of drying, Pagayon says.

"Even after using the flash drier, farmers still have to dry the paddy on the highway. Flash driers are [used] mainly for storage drying," says Pagayon.

In contrast, paddy dried in the Portasol is ready for milling.

Cachueta says the Portasol could be a breakthrough, especially if it becomes widely accepted and mass-produced.

A 12-tray Portasol set costs P25,200, but Pagayon says it could go down to P10,500 depending on the number of units that will be bought by farmers' cooperatives.

## BP Hopes to Link Up With Chinese Companies

**R**eports indicate BP Plc hopes to take advantage of China's growing clout in the global energy market by jointly tapping oil and gas reserves with Chinese companies in foreign countries, state media said.

Linking up with Europe's largest oil company also makes sense for Chinese oil firms since they have had trouble expanding overseas by themselves, the China Daily reported.

"Now is the time to do more with Chinese companies to co-invest overseas," BP chief executive John Browne was quoted as telling an audience at the Central Party School in Beijing. If BP's plan forms a precedent, it would mean a new Chinese tactic aimed at solving its growing problem of fueling its rapidly expanding economy.

Chinese companies like PetroChina and Sinopec have proved themselves during the past 25 years of co-operation as respectable partners for BP to work with, Browne said, according to the newspaper.

It did not give examples of concrete projects that BP and Chinese companies might cooperate on, AFP reported. "Chinese companies' overseas investments have been no great success yet as several attempts to acquire reserves in places such as the Caspian Sea and Russia have failed at the



A man rides a motorbike past an oil well at a field in the city of Daqing.

last minute.

Co-investment with foreign companies could help up and coming Chinese companies carve a niche in the world energy market, said Zhou Dadi, director of the Energy Research Institute under the National Development Reform Commission.

"It reduces the risks when investing overseas and increases the possibility of success," Zhou was quoted as saying.

China, the world's second-largest oil consumer after the United States, has been a net

importer of oil for the last 10 years as domestic supply fails to keep up with soaring demand.

Crude oil imports for the first nine months of this year were worth 23.6 billion dollars, the National Bureau of Statistics has said.

China's heavy reliance on oil imports will leave it increasingly vulnerable to actual or threatened supply disruptions as "flows through key maritime and pipeline choke points expand",

the International Energy Agency said previously.

## How Thirst For Energy Led to a Thaw

**O**n the sidelines at the UN General Assembly meetings in New York last September, Indian Prime Minister Manmohan Singh and Pakistani President Pervez Musharraf held an historic meeting in which they agreed to seriously negotiate on economic cooperation. One tangible expression of that cooperation would be a 2,700-kilometer natural-gas pipeline from southern Iran to Rajasthan in central India, with Pakistan allowing the pipe to pass through its territory in exchange for a yearly transit fee of as much as \$330 million, plus some of the gas for its own use.

Funny how thirst for energy can make the oldest of foes suddenly eager to cooperate. As India's economy undergoes a dramatic expansion, it finds itself desperate for new supplies of oil, gas, and electricity. And with fierce rival Pakistan—is one way of getting them. Indeed, India is conduct-

ing petroleum diplomacy throughout the region and beyond. In October, Burmese head of state General Than Shwe visited India following a deal with Indian oil major Oil & Natural Gas Corp. (ONGC) that would open up Burma to oil and gas exploration. And India is negotiating with Bangladesh to buy some of its gas and to allow the Burmese pipeline to pass through its territory, [yahoo.com](http://yahoo.com) reported.

According to India's Planning Commission, India needs to triple its power generation over the next two decades to feed its fast-growing technology and manufacturing industries. Beyond that, it needs lots of oil and gas for its autos and household cooking needs. But India is even shorter on energy resources than neighboring China. It imports 73% of its oil, largely from the Middle East, spending about \$21 billion a year, or 4% of its gross domestic product. Those imports will only increase: Research by

Bombay's Strategic Foresight Group predicts that by 2030, 90% of India's oil and gas will be imported. So India is reaching out to its neighbors. "Finally, India has recognized the need to engage in larger energy diplomacy," says Leena Srivastava, director of the Energy & Resources Institute (TERI), an energy think tank in New Delhi.

Leading the charge to find new oil and gas supplies is ONGC, with \$11 billion in annual revenues. Through subsidiary ONGC Videsh Ltd., the government has been scouring the world, acquiring stakes in existing oil fields, and securing the rights into the future. The strategy is to go to oil-rich countries where US companies cannot go or to developing nations with which India has long-standing diplomatic ties. Thus, since 2001, ONGC Videsh has spent an estimated \$11 billion investing in 14 oil and natural gas projects in Sudan,

Russia, Vietnam, Iran, Iraq, and Burma.

Everywhere it goes looking for petroleum, India is shadowed by China. It is sometimes outbid for oil concessions by China's three largest oil companies, which have more money to spend. So the Indian government is now starting to use its diplomatic clout. While bidding for a 20%, \$1.7 billion share in Sakhalin I, an offshore oil and natural gas field, in 2001, New Delhi exploited its 50-year-old diplomatic alliance with Russia to win the deal.

If good diplomacy makes good economics, it works the other way, too. The "peace pipeline" that is to run from Iran through Pakistan will cost billions but is expected to save India \$300 million a year in energy transport costs. Pakistan will get its transit fee, a share of the pipeline gas, plus the right to buy diesel fuel from India. Meanwhile, India also wants to trade power for

Bangladeshi gas, an energy swap that could serve to relieve border tensions. And Nepal has extra hydroelectric energy it could sell to its neighbors. The implications of the various proposed energy deals are vast, since they will connect South Asia to new road and power grids in Southeast Asia. "Once roads, an electricity grid, and a natural-gas pipeline are linked, India will be a welcome addition to ASEAN," says TERI's Srivastava, referring to the Association of Southeast Asian Nations. "It will really open up Asia."

Skeptics doubt that the energy linkups will do more than paper over long-standing enmities. Still, in India's case, neither the government nor the business establishment is willing to let a shortage of energy curb the country's rise as an economic power. So whatever geopolitical obstacles may get in the way, the diplomacy of energy will continue.

## S. Arabia Earns \$2.5b From Oil Prices Rise

**S**audi Arabia's public spending is projected to rise by \$8 billion (some \$2 billion) per year during the next five years, an economic report by the National Commercial Bank said.

According to Arab News, the report indicated progress in the kingdom's economic situation this year on the back of mounting oil prices.

Average Saudi oil export prices are expected to reach \$33 per barrel during this year, posting a 22.2 percent increase compared to prices in 2003, the report said, [menareport.com](http://menareport.com) reported.

The current oil prices are \$14 higher than the prices estimated for the 2004 fiscal budget. "An addition of every dollar to oil prices will help the Kingdom earn \$2.5 billion annually,"

the NCB report said.

Oil revenues account for some 75% of Saudi Arabia's total revenues and this revenue will continue to go up in the remaining period of the year.

The bank predicted that total government spending this year would stand at \$265 billion, including the spending on security, defense and ongoing fight against terror.

The Kingdom's non-oil sector is expected to grow by 4.7 percent this year compared to 1.9 percent in 2003. The public sector is to achieve a growth rate of 3 percent and the private sector 6.1 percent.

However, the report pointed out that the private sector's contribution to the GDP would go down from 40 percent to 36.3 percent this year.