INDEPENDENT POWER PRODUCERS FORUM

Spark Spread

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Special points of interest:

- The Emission Trading Concept
- Meiya beats the odds, enjoying profit in China while other power firms buckled
- Power Shortages in China Continue, when will it end?
- Scheme of Control (SOC) to Expire in 2008—What will be the electricity market in Hong Kong be like after that?

Asia's "Hot Gas Capital"

Where will it be: Tokyo; Hong Kong; Singapore; Shanghai?

By Antony Wong

With or without Kyoto, the USA is blessed with the innovative Chicago Climate Exchange. The Blair government has started up the "Climate Group" in the UK which includes such IPPF members as HSBC, BP Global and Baker & Mckenzie. The Rabobank in the Netherlands has a pilot program in the PRC. US$ 10 billion dollar in emission trading in seven short years has been predicted. How will it work? Who makes the money? Here's an update on the concept:

The **Emission Trading Idea** aims at controlling global warming by reducing the amount of the major greenhouse gas, carbon dioxide (CO_2) released into the air. Approximately 12,000 companies from the EU Member States agreed on the new plan in order to reach the criteria set by the Kyoto Protocol.

Under the Emissions Trading Concept, companies may choose to reduce emissions on their own or buy "allowances" from other companies to meet the government's requirement of reducing greenhouse gases. For example, Companies A and B both have to reduce emissions by 50000 tonnes at a cost of 10EUR per tonne. If Company A's reduction costs is only 5EUR, it will obviously opt to reduce the emissions by themselves rather than with Company B. If Company B's reduction cost is 15EUR then the scheme allows the firm to buy allowances from Company A. This would give Company B more incentive in reducing their gas emissions. Although, the price of allowances has not been decided yet by the Commission, it is most likely be determined by market forces.

Before putting the Emission Trading Scheme into practice, the member states must present a National Allocation Plans (NAP). These plans limits the amount of CO_2 emitted by the companies and also determines the mechanism of buying and selling allowances.

The assessment of the allocation plans will be based on 11 categories. These include: ensuring that the proposed quantity of reasonable under the Kyoto agreement. Furthermore, as stipulated in the Kyoto Protocol, other sectors of the Member States like transportation, households and small business, and agriculture, should also be responsible for reducing green-

Power Shortages in China Threaten Manufacturers

and they never seem to end

By Bill Ruccius, IPPF Emissions Committee Chairman

We have all heard the stories and read the articles about the power shortages in China. In 2004 there are shortages in 24 provinces or municipalities – up from 20 in 2003. Manufacturing facilities were being forced to shut down 2 to 4 days a week this summer. If this continues, these manufactures will be unable to meet Christmas orders which could have severe financial consequences and hurt future business as companies look for other sources for next year's orders.

How did this happen? Let's take a look at history. In the early 90's the China economy was growing in the double digits and there were severe shortages of electricity.

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Emission Control Concept

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house gas emissions.

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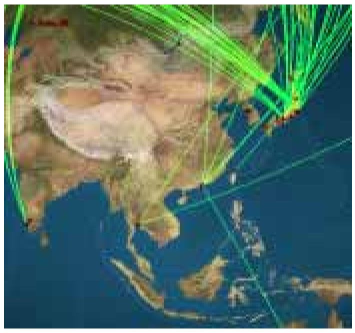
They are responsible for 21%, 17% and 10% respectively, of the total emissions of green-house gases in the EU. All the measures going to be taken by these sectors should be stated in the Allocation Plans.

Recent studies by the **European Climate Change Programme** shows that the concept can help reduce the overall cost of limiting greenhouse gas emissions. The targets of the Kyoto Protocol can be achieved at an annual cost of 2.9 to 3.7 billion EUR; without the emissions trading the costs of reduction would reach as high as 6.8 million EUR.

One of the possible setbacks of this formula is that the prices of carbon will rise due to the reduction in its availability. Carbon will therefore become more expensive. However, the concept implies increased effectiveness through utilization of the principle of privatisation, which may realistically outweigh this side effect.

The question, can all this come together without having an Emissions Trading Exchange positioned in Asia?



And, where will it be?

PFI 9th Annual Conference-

Financing Power & Energy Projects in Asia

Thomas Project Financial International is going to present the "Financing Power & Energy Projects in Asia Conference" on the 7th and 8th October 2004 in the Raffles Hotel, Singapore. Latest changes and developments in the Asian power, oil, gas and petrochemical industries will be the focus. Key issues will be delivered by the region's leading power and energy specialists. This event is sponsored by ANZ Investment Bank and Simmons & Simmons.

Power Shortages in China

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"We all heard the story about how circumstances had changed and we can't expect to get paid what we thought we had been promised"

The government at the national, provincial and local levels attacked the problem by approving new power generation and attracting foreign investment in the sector with promises of higher tariffs and minimum take quantities. By the late 90's when this new generation started coming on line the economy had slowed down dramatically – some say 0-2% growths in some years – and there was oversupply. We all heard the story about how circumstances had changed and we can't expect to get paid what we thought we had been promised. Premier Zhu put a hold on all new power generation development. From 1991-2000 electricity demand grew at an average of 8.8%. In 2002 and 2003 demand grew by 10.5% and 15.4% respectively and we are back to the shortages of the early 90's. Isn't central planning great?

One of the worst hit provinces is Guangdong. The shortage is 2300-2700 MW year round and demand is growing at 18.5% per year.

Here is the installed capacity of Southern China:

Guangdong	**35,880 MW**
Hong Kong	**11,683 MW**
Guangxi	**7,520 MW**
Guizhou	**7,069 MW**
Yunnan	**8,769 MW**
Hainan	**1,780 MW**

Guangdong already imports a lot of electricity from the west and is working on bringing in more. By 2005 they plan to import 10,500 MW. The problem is this still will not be enough. Guangdong accounts for 57% of the electricity consumption in the south but has only 10% of the natural resources. Any solution will have to be a regional one. There will have to cooperation among the provinces on transmission line cost and ownership, building the rail lines and rolling stock to transport coal, agreement on pricing of electricity, attracting investment for the new generation and many other things. We all know how independent and protective the provincial governments have been in the past so I don't think things will change overnight. If I owned one of the manufacturing facilities in Guangdong I wouldn't be counting on the government to fix the problem quickly. I would be actively looking for a source of generation that I could count on. IPPF members have the knowledge and resources to help and I hope these manufacturers will give us the opportunity to offer solutions.

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Meiya Defies History and Makes Miracles

Learn the success story of Meiya, one foreign company which strategically overcomes difficult government bureaucracy and enjoys profits in China

By Perry Tan

China is notorious for being a graveyard for foreign power companies, yet to the surprise of many, one foreign firm, Meiya Power, has stood tall against all odds and thrived in the mainland while other power firms buckled under the pressure of government bureaucracy. An article from the *"Far Eastern Economic Review"* by Kimberly Song describes Meiya Power's success story.

The success of foreign-based power firms in China is a rarity, it is apparent that Meiya Powers has found its niche in both satisfying the consumers, stakeholders, and most importantly the Chinese officials. The fact that Meiya Power has been making a profit since its first operational year is a testament that the company has defied the fate of many other foreign firms.

Since then, Meiya Power has stepped into China's economy in the early 1990's and has continually expanded its business in the mainland. Meiya Power now owns 14 power plants in Asia, with an output of over 4,000MW of power. Success breeds success and Meiya Power has yet to cease in doing just that.

Meiya's succeeded like no other foreign firm did because it adapted quickly to the business environment in China. Power plants require long-term contracts that lock rates for project financing, fuel supply and prices for up to 20 years. Yet in China, the deals between the companies and the government are never stable, resulting in renegotiations of multimillion dollar deals made previously between the firm and provincial power agencies. This resulted in many IPPs suing these agencies but to no avail under the current Chinese legal system.

"Yet in China, the deals between the companies and the government are never stable, resulting in renegotiations of multimillion dollar deals made previously between the firm and provincial power agencies"

Although Meiya Power abided by these long-term contracts as the basis for its business model, the firm is well aware of the possible changes of the volatile contract and is often prepared for these changes. As a result, Meiya understood contract issues better than any other foreign IPPs. Meiya's edge over other IPPs not only includes its understanding of the contract issues; the company has also prudently located its power plants at strategic locations which pleased government officials. In the mid-1990s, while most foreign IPPs targeted its investment in major cities such as Shanghai and Guangzhou, Meiya Power opted to invest in the under developed regions of China. This gave Meiya certain advantages such as less competition and also pleased the central government as Meiya helped develop the rural regions of China. In the long run, this made negotiations between the company and government officials easier.

Meiya first established power plants in rural counties such as Jingyuan - the firm has now expanded its business to more developed cities in China and even abroad such as the takeovers of power plants from Mirant and Entergy in Korea and coastal Jiansu respectively.

In foresight, Meiya's miracle seems to be sustainable, as CEO Colin Tam plans to continue its expansion in China and abroad. The funding of these projects will most likely be financed by listing the company on the stock market in Hong Kong. If all goes well, be prepared to expect Meiya Power to be a key player in the power industry throughout Asia.

The Next Gold Rush

The Chinese Government's plan to solve electricity crisis gives rise to money-making opportunities

As a solution to solve the electricity shortage crisis in China, the government plans to sell up to 11 power plants to foreign investors, according to the *Financial Times* on August 18.

The sales, which are expected to commence in the next few months, will draw up to $2 billion in investment. The idea is to increase China's the electricity capacity by the sale of the plants. These funds will then be ploughed back into more power capacity. Provided with such a money-making opportunity in the economically-booming country, international power firms will definitely welcome this invitation to return to China. .

By Kristen Lee and Antony Wong

AmCham Events

By Perry Tan

IPPF Keeps in Touch with Project Finance Formulas and Changes

Recent breakthroughs in project finance formulas have changed the way in which major infrastructure projects are being packaged. These changes have affected industries ranging from power companies, airport companies and even industrial parks.

The Asian Development Bank has further boosted the continual development of these private firms. Nowadays, deals in the People's Republic of China are being negotiated between not only multilateral institutions but also multinational companies and local banks.

The changes of how the different industries operate over the years have been rapid; therefore one must keep in touch to remain competitive.

A recent **AmCham seminar by the Energy Committee on August 26, 2004** informed a group of industry decision-makers regarding the changes on how the industries operate with case studies and examples. This event was held at The American Club in Hong Kong.

Emerging Fuel and Vehicle Trends:

How Different Could the Future Be?

"The use of advanced gasoline and diesel fuels in high performance vehicles will achieve higher efficiency and lower emissions and furthermore, lower prices of commercial vehicles."

Interesting question…As fuel and vehicle technologies continue to advance through the ages, there has been an increase in demand for not only the performance of vehicles, but also how environmental friendly they are. The use of advanced gasoline and diesel fuels in high performance vehicles will achieve higher efficiency and lower emissions and furthermore, lower prices of commercial vehicles.

The concept of the "ultimate" vehicle has been proposed recently, whereby a gasoline or diesel drive system is combined with an electric system. This "ultimate" vehicle will have high performance yet is still environmental friendly. In fact, these gasoline-electric hybrid engines have entered both the Japanese and American market in recent years with their sales exceeding original expectations. Scientists are now taking one step further, in an attempt to use hydrogen and fuel cell vehicles in the coming decade.

So just how different could the future be? Mr W. Buford Lewis, Manager of the Fuels Development & Policy Planning for ExxonMobil Refining & Supply Company will be the speaker for this AmCham event—**"Emerging Fuel and Vehicle Trends"** of the future.

Don't miss this opportunity to catch a glimpse of the future with Mr. W. Buford Lewis for the **AmCham "Energy Committee Luncheon Meeting"** on **August 31, 2004** at the JW Marriot Hotel. This event will cost AmCham members $320 and non-members $430.

Power Panic in the Pearl River Delta II

The upcoming AmCham event on September 16, 2004 at the JW Mariott Hotel in Hong Kong will pick up from the previous AmCham "Energy Committee Luncheon Meeting" regarding the ongoing examination of the power generation/energy situation.

The previous meeting has already brought onto awareness that PRC statistics are usually vague and unreliable. PRC figures often conflict with other numbers and worst of all, differ from the facts. The figures for the installed power generation in the PRC range from 380,000MW to 410,000MW depending on the source. Guangdong has an installed capacity of 36,000MW, less than 10% of the total for PRC; yet it is responsible for no less than 30% of the manufactured goods for export with a growth rate of 10% to 15% a year!

These contradictions are only a glimpse of the problems PRC figures present and this meeting will address and bring upon awareness of these issues. This luncheon meeting will cost AmCham (HK) members $350 and non-members $450. Sign up now! (Call AmCham/HK 852—25260165 for information)

SOC Decisions Loom

Scheme of Control to Expire in 2008 – Delay in Consultation Paper

By Bill Ruccius, IPPF Emissions Committee Chairman

The Scheme of Control (SOC) is the contract between the Hong Kong government and the two integrated electrical utilities – China Light and Power and Hong Kong Electric. The SOC has led to two of the best utilities in the world in Hong Kong and delivered excellent electrical service to customers. Some people say it has also led to high electricity prices. The SOC expires after 2008 and the question is what should the electricity market in Hong Kong look like after that.

We all know the various experiences with deregulation (I like to call it re-regulation) of electricity markets around the world and there are some lessons to learn from these examples. One thing to keep in mind is that each market is unique and we can't just copy one model. Let me put forward a proposal for how I think things should look in Hong Kong post 2008. Then everyone can comment, tear it apart or offer alternative proposals.

The first thing that needs to be done is establish an independent commission to investigate and develop the new rules for the future electricity market. The mandate for the commission is to balance the interests of the utilities and the consumers and come up with a plan that is fair to everyone. After 2008 this commission will also be the one who reviews electricity prices for all classes of customers, approves capital expenditures and regulates the industry. In the US these are called public utility commissions. This commission needs to be established immediately to start developing the new rules and oversee the market today. There are large capital expenditures being made each year by both utilities whose costs should be recovered over 20-30 years. It is important for both the utilities and the customers to know how these costs will be recovered after the SOC expires and if the expenditures make since under the new set of rules.

> **"One thing to keep in mind is that each market is unique and we can't just copy one model"**

My proposal is that the 2 utilities should continue to serve their markets much as they do now. They will be responsible for determining the requirements for their markets and submit their plans to the commission for review and approval. One thing that should change immediately is all new generation requirements identified by the utilities should be awarded on a competitive basis. As an example lets say HEC says that their studies show that they will need 300 MW in 2008 and 300 MW more in 2011 and they can do this for a certain price. The commission can then lead a process of taking bids from independent power producers to provide this new generation. Of course there will be appropriate requirements to insure that the new generation is reliable and is compatible with the grid. This is a first step in introducing competition that has been very successful around the world.

The SOC allows the utilities to earn 13.5% on net fixed assets. Some people make the claim that this leads to over investment and higher electricity prices. This formula needs to change after 2008. I would propose a formula for return on equity. I don't know exactly what this should be but it needs to be high enough for the utilities to attract capital at reasonable prices and in line with other regulated, integrated utilities in the world. Maybe one of our financial members can come up with a proposal that accomplishes this so that a fair return is achieved as interest rates and financial markets change over the years.

Obviously there is a lot more that needs to go into the new electricity rules but we don't have the space to go into everything. These are just a few basic and important ideas from my viewpoint. So now you can tear this apart and present your ideas. Let's hear from you.

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POLLUTEC CHINA 2004:

Tap into A World of Business Growing Market of Environmental Protection

POLLUTEC, the leading exhibition brand for international environmental protection, will be holding an exhibition in Shanghai, China. Visitor profiles include government officials, scientists, bankers, decision makers, and many other experts from an array of fields. Exhibitors include representations from the fields of water treatment, air pollution, noise abatement, waste, and many more.

China is the ideal place for exploring and expanding the market of environmental protection, particularly in Shanghai, the commercial and industrial hub of China. Generating over 60,000 tonnes of waste everyday, Shanghai is one of the most polluted places in China.

With a government budget of US$90 billion, and the newly erected Clean Protection Laws, there is a high market demand for foreign companies to provide services of environmental management techniques in China.

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IPPF is a non-profit organization working towards the best practices in the power generation industry. Members of the organization strive for a level playing field, transparency, Rule of Law and a better overall investment environment in Asia as related to the IPP industry. The IPPF geographic focus includes all developing economies of North East Asia and the Americas.

The IPPF maintains a steady drumbeat of speakers, panels and workshop presentations through cooperating conference organizers, chambers, and other NGOs. A growing number of these activities are developed and staged by the IPPF itself.

As of now, the organization consists of 31 enterprises and companies throughout the globe.

www.ippfpowerasia.com

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Independent Power Producers Forum

Striving for best practices in power generation across Asia

Arctas Capital Group
Arizona Asian Pacific Trade and Consulting
Baker & McKenzie
Bechtel Asia Pacific
BHP Billiton China
BP Asia Pacific Pte Ltd
Ceejay International Ltd
Chevron Texaco Worldwide Power & Gasification
Coudert Brothers
Deloitte Touche Tohmatsu
Dresdner Kleinwort Wasserstein
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Kyushu Electric Power Co Ltd
Lippo / Tati Group
Lucent Asia Pacific
Marsh Inc.
Meiya Power Co Ltd
Morgan Stanley Asia
Nexant, Inc.
O'Melveny & Myers
PB Power
Shell Gas & Power
Simmons & Simmons
Total China
Troutman & Sanders LLP

Greet Our New Members

By Joel Laykin, Secretariat, IPPF

Three companies joined the IPPF in August bringing our company membership up to 31 with 58 listed individual plus 22 alternates spread around the globe. We list them below with their joining date.

August 3, **Coudert Bros**

An international law firm with offices in Tokyo, Singapore, and Hong Kong serving elements of the Power Generation Industry, Coudert has appointed Douglas Miller in Tokyo and Lance Miller in Singapore as the listed members with Barry Metzger in New York and Christopher Stephens in Hong Kong as alternates.

Website – http://www.coudert.com/

August 4, **Arctas**

A strategic advisory firm focusing on private investments, acquisitions and project development headquartered in Houston where both listed members are based— Messers Shawn Cumberland and David Haug.

Website – http://www.arctas.com/

August 14, **Cee-Jay International**

Headquartered in Hong Kong with offices in London. The listed members are Messers John Goss and Alex Chan. Cee-Jay is our first "publishing/ corporate communication" member, specializing in the Energy/ Power Generation Industries. They publish "ChinaPower and Energy News".

Website – http://www.pilotpr.co.uk/

Power-Gen Asia

By John Goss

POWER-GEN Asia boasts the largest exhibition floor space that is dedicated to the power generation and transmission and distribution industries in Asia. This key power event also features the most comprehensive conference schedule that covers strategic power generation and supply issues.

The combination of conference and exhibition allows delegates to learn about the latest technologies on offer for Asia and then visit the exhibition to view those technologies and meet the companies in person.

POWER-GEN Asia has established itself as the power event where the key players Asia's power industry are in the same place at the same time.

The event is endorsed by Thailand Ministry of Energy, the Electricity Generating Authority of Thailand, Cogen 3 and the Independent Power Producers Forum (IPPF).

More information about this event can be obtained from:

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Or visit: http://www.powergenasia.com