Mongolia approves construction of first ever IPP in 20 years

A young CEO at 38, Prophecy Coal's John Lee speaks proudly of their mine-mouth power plant project, a first of its kind for Mongolia, and one designed to augment and ultimately replace the country's aging power supply infrastructure.

What makes Chandgana power plant exceptional?
The 600MW project is in central Mongolia and it does have a resource that follows Canadian Independent Standards, Coal 43-101, similar to the Australian George Standard of 1.2B. The coal is very shallow and easily extracted. We are currently in phase one of development of this 600MW thermal coal power plant that will be ramped up to 4200MW after phase two.

We received a mining and construction license in November, making it the first independent power plant project which received licensing in 20 years.

There are four existing power plants in Mongolia, but they have been there as far back as the 1970s and, in technical terms, are already very aged. There are some other projects which were licensed in 1990s but are currently inactive.

The initial 600MW capacity will be dedicated toward domestic consumption. Proposed output increase to 4200MW would enable Mongolia to export power directly into China via existing ultra high voltage lines.

As opposed to many other mine yards that are concentrating production on the Mongolia-Chinese border, with China being their main customers, this project is unique because it is centrally located near existing infrastructure. So, there is a road going right by it. There is a 45kb transmission line and the 220kb line is only about a hundred kilometers away.

It is very accessible, and the railways are just 100 kilometers away. We have all the elements, I mean, not necessarily immediately adjacent, but within reach which makes this project a lot more attractive than some of the other projects which are located farther away. Because our coal resources are so abundant and accessible, we can make double-digit of return of investments of around 20% at a very supportable rate at 70 kWh.

What was the target funding cost of the project and where does your project financing stand now? The target cost is $1 billion. Together, we were able to raise over $80 million in the last two years. But when it comes to project financing, we haven't begun the fund meeting yet because there are different elements that are needed to be in place, primarily, obtaining a mining license.

Prospective investors to the project are mostly from Asia. We have interested parties from Singapore, Malaysia, Thailand, Japan, Korea, and China.

How do you address social and environmental issues in obtaining a mining license? In terms of pollution concerns where herders living nearby would be likely affected, we have to inform the local community of the benefits and also clearly make them understand the disadvantage of having a power plant in the vicinity. We have to find a way to compensate them. We also have several projects in Canada in which we face very similar issues and we've found that through information sharing and direct engagement, we've been able to create good dialogue about all aspects of current and future operations. Compared with Canada, I think Mongolia is an even easier framework. We're planning on working with local communities. We already have a consultant living with them to deal with their concerns. Eventually, I believe that they will make good judgement over the economic investments versus the negative things that come with the projects. There are some animals that drink from the underground water just next to the mining site but we are planning to construct wetlands to treat wastewater.

Why did you choose to invest in Mongolia?
Mongolia's economy is growing and there is a severe power shortage that has been forecasted. Mongolia was lacking foreign investments until around mid of 2005. Coal is a commodity good in early 2000. Prices of coal had more than doubled, tripled or even quadrupled in many cases and Mongolia is really one of the last frontiers in resource exploration. In the last 10 years, Mongolia has received billions of dollars in terms of coal investments which consequently boosted the mining industry and coming along with that is economic growth. Mongolia's GDP has more than doubled in the last five years and the reason for why Prophecy got into this is because of some incidents when we were able to get hold of this coal access, and we were debating internally on what to do with the coal that we have. It's not high-quality ranking coal but Mongolia said that they want to create a market for their own coal. Therefore, the idea of a power plant came about and just at the time when Mongolia needs a lot of power to sustain its growth. There is virtually no large scale IPP market here today. Mongolia
has had no power infrastructure in the last 20 years and the government is only beginning to regulate the industry. As the country’s economy grows, it is going to need power and so the prospect should be good. Currently though, there are always obstacles about the government not getting used to the idea of power from the private sector and there’s a lot of learning curve that has to be met – i.e. how does the IPP work?

**What is your vision for the Mongolian power sector?**

Not necessarily a vision, rather a social responsibility. We are guests in this country and we are very fortunate to have inherited these huge deposits of coal. I think there is some social responsibility to return these assets to Mongolia, especially to the people. I think there is some social responsibility to return these assets to Mongolia, especially to the people. I want to stress how we differ from the other Mongolian stories which you probably heard about.

Our vision is investing on Mongolia, and creating the energy infrastructure to make Mongolia energy eminent. We have about three site technologists today to help us achieve that vision. We are not transforming Mongolia into something different, but we want to help Mongolia sustain its growth, which at this rate would not be sustainable if they didn’t have the matching growth drivers. So far, the economy has doubled from $4 billion to $9 billion in the last five years, but it’s a snail’s pace. If only the additional demand for electricity would be met without importing more from Russia, I believe we could double GDP from $9 billion to $20 billion in the next five years. It would not be such an easy solution. It requires a long-term development plan. We’re very fortunate to have a government that recognizes the need and is working very closely with us to the utmost possible extent.

**Aside from electricity, how would the society benefit from the project?**

We have to help the government find a way to create employment for the people in order to bring the economy into the middle income rank. During construction, we’ll hire 2000 people that will be a mixture of expats and Mongolians. We’re hiring expats but the goal is to hire them and then quickly execute knowledge transfer to the locals. The target is to have 95% of the permanent positions in the operation occupied by Mongolians. In fact, as part of this goal, we are sponsoring local scholarships, conducting training programs and eventually in due time, we’ll hire them.

Another point is a special contribution to the economy. Our coal has been extensively traced to be very clean and conforms with all the international environmental standards.

**Is there public opposition on building the mine-mouth power plant project with regards to the use of coal?**

In Mongolia, there is a crucial need for power. There are very frequent blackouts. The public in general is supportive with all the mining activities coming out this year and to power-generating projects. Mongolia is not exactly a rich country and coal power remains to be the cheapest, most affordable, most reliable and the most accessible in the market. And not to mention, experts are in agreement that with the latest technologies available, we can develop coal-fired power plants with high efficiency and low emission.

**How would you attract talent to work for the power plant considering that the site location is 300km away from the main city, Ulaanbaatar?**

Mongolians are nomads and they’re happy to live in Gers. People have no problem living in rural areas. In fact, there are almost a billion people living in the countryside. The power plant operation requires around 450 people and I don’t think that would be hard to fill. The cultivated area of the country is only 60kms away, so there’s no issue as far as keeping people is concerned.