

Project 9. Expansion of Smokeless Briquette Production Plant

Project abstract	
Project background	<p>Today, the air pollution has become one of the serious social and environmental issues of Ulaanbaatar, a capital city of Mongolia. Accordingly, the state and local governments are working continuously to solve this issue. As being one major measure, the government announced an open tender to build a plant that produces smokeless briquettes in 2006 that will substitute raw coal, a major contributor to the air pollution. Sharing with the same vision to preserve the environment, Tugrug Nuuriin Energy LLC (TNE) participated in the tender and won with its attractive proposal to produce briquettes with its clean technology and own abundant coal reserve. Today, TNE has successfully built up the demonstration plant that has the demo capacity to produce 1,8 thous. tons of briquettes per year, and is ready to go to the next level that is the expansion of the existing plant into commercial plant, which will produce 60,0 thous. tons of smokeless clean briquettes per year.</p>
Total proposed cost or needed investment for the project	USD 13 million
Estimated investment profit rate	Approximately 10%
Timeline for investment repay	6 years
Brief of project implementation plan	
Timeline of a project	16 months
Project scope	<ul style="list-style-type: none"> - Coal Processing and Energy Producing - Environmental Protection
Project objectives	To contribute to the reduction of air pollution level in Ulaanbaatar city through producing and supplying environment-friendly clean and smokeless briquette for the city ger households and industries.

Desired outcomes of a project	<ul style="list-style-type: none"> - 25% of UB city ger households will be supplied with 60,0 thousand tons of clean briquettes that are economically beneficial and efficient. - UB city air pollution level will be reduced by 20%
Project inputs and resources	Smokeless briquettes will be produced at the plant that has crushing, gasifying and briquetting equipment. The expanded plant will annually process 150,0 thousand tons of brown coal using its 30 gasifiers. The brown coal will be extracted from the mine and delivered to the plant located right beside it.
Project implementation and production venue	Tugrug Nuur Basin, Tuv province, 180 km south east of Ulaanbaatar.
Production capacity	6 millions of 10kg bags of briquettes per year
Project risks, constraints, exclusions and special cases	<p>The only potential risk concerning the successful project implementation could be natural phenomenon. Because of the landscape structure, the open pit mine could be flooded with water during rainy season. To avoid this situation, the water trenching will be used to drain the water. When there is harsh winter or extreme weather going to happen, the plant can run in both winter and summer. Except heavy snow that blocks all road access for our distribution network, an extreme weather will have little effect on our production. The heavy snow would hardly last for months. The products would usually be shipped in advance to distribution centers.</p> <p>Except the climate factor, there is no other potential risk to be anticipated.</p>
Target markets	<p>Immediate target market:</p> <ul style="list-style-type: none"> - UB city ger district households (150,000 families) <p>Mid-to-long term target market:</p> <ul style="list-style-type: none"> - Heat Only Boilers and Steel Smelting Plants
Cooperation mode with investor	<ul style="list-style-type: none"> - Joint Venture - Equity - Loan
Brief economic estimation	All detailed estimation is in appended Project Business Proposal
Additional information and appendixes	Project Business Proposal is appended
Company related information	

Qualifications of the company	Turgug Nuuriin Energy /TNE/ LLC is founded in 2005 in Mongolia. From the start of operation, TNE has been working in coal processing field. It has its own coal deposit that has an estimated reserve of 300,0 thousand tons of brown coal. After a comprehensive study on coal processing technologies, TNE acquired Thermo coke-S technology, originated from the Europe, because of its ecology-friendly features and well suitability to local conditions. Mr. Dugerjav, TNE CEO, is well educated professional having PhD in mining and highly experienced in coal processing field.
Previous experience on similar projects	TNE built the coal processing and briquette manufacturing demonstration plant and started its operation in 2008.
Ability to work on time and within budget	The company has well experienced international management team and educated staff, who worked together for the past 2 years of the project demonstration stage and are proved to achieve the goal within the set time and budget.

Project personnel

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