Analisa skema bisnis pengembangan dan penentuan harga listrik panas bumi di Indonesia = Analysis of the business development schemes and electricity prices determination of geothermal in Indonesia

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Abstrak

Indonesia saat ini memiliki potensi panas bumi mencapai 29.038MW yang tersebar di 276 lokasi. Namun ironisnya, dengan potensi sebesar itu, hanya sekitar 4% potensi yang sudah dimanfaatkan. Saat ini Indonesia menempati posisi 3 (tiga) pengembangan PLTP di seluruh dunia dibawah Amerika Serikat dan Filipina. Hal yang perlu diperhatikan adalah walau potensi panas bumi Indonesia sangat besar, pengembangan PLTP menemui beberapa kendala. Dari sisi pentarifan, harga dasar listrik masih rendah serta resiko investor terutama kegagalan ketika eksplorasi cukup besar sehingga kurang mendorong berinvestasi. Sehingga diperlukan analisa terhadap skema bisnis pengembangan panas bumi di Indonesia, serta faktor-faktor pendukungnya.

Tesis ini menganalisa skema bisnis pengembangan panas bumi di Indonesia serta penentuan harga listrik panas bumi di Indonesia dalam kaitan penerapan mekanisme risk sharing sebagaimana yang diterapkan oleh Filipina dan Selandia Baru dalam pengembangan panas bumi. Teknik yang digunakan adalah teknik Quantitative Strategic Planning Matrix (QSPM) sebagai analisa secara kuantitatif guna mengukur kelebihan, kekurangan, peluang serta ancaman dari masing-masing strategi alternatif terhadap skema bisnis pengembangan panas bumi di Indonesia.

Hasil penelitian menunjukkan bahwa dari 3 (tiga) strategi alternatif yang dirumuskan berdasarkan Matriks SWOT, maka strategi alternatif - 3 yang dipilih untuk diterapkan di Indonesia dengan nilai Sum Total Attractive Score (STAS) dari faktor-faktor internal utama sebesar 3,69 dan faktor-faktor eksternal utama sebesar 3,86, yaitu mempersempit kesenjangan harga listrik panas bumi dengan melakukan mitigasi resiko serta menekan tingkat resiko proyek dimana pelaksanaan tender dilakukan setelah eksplorasi, dengan demikian pengembang dapat menentukan teknologi, skema peralatan, dan biaya investasi dengan lebih akurat (Site Specific). Dalam strategi alternatif - 3, proses tender dilakukan oleh PLN atau BUMN yang ditugaskan secara khusus (Badan Pelaksana Panas Bumi) sehingga mitigasi resiko eskplorasi tergabung dalam satu badan yang diharapkan dapat menurunkan harga listrik panas bumi serta mendukung iklim investasi panas bumi di Indonesia.

.....Indonesia currently has geothermal potential reaches 29.038MW spread over 276 locations. But ironically, with the potential for it, only about 4% of the potential that has been utilized. Indonesia currently occupies the position of 3 (three) the development of geothermal power plants around the world under the United States and the Philippines. The thing to note is that despite Indonesia's geothermal potential is enormous, the development of geothermal power plants to meet some constraints. Of the tariff, the price of electricity is low and investors' risk of failure, especially when exploring large enough to invest less encouraging. So that the required analysis of the business scheme of geothermal development in Indonesia, as well as supporting factors.

This Tesis analyze the business scheme of geothermal development in Indonesia as well as the determination of the electricity price of geothermal in Indonesia in relation to the application of risk sharing

mechanism as implemented by the Philippines and New Zealand in the development of geothermal energy. The technique used is the technique of Quantitative Strategic Planning Matrix (QSPM) as a quantitative analysis to measure the strengths, weaknesses, opportunities and threats of each alternative strategy to the business schemes of geothermal development in Indonesia.

The results showed that of 3 (three) alternative strategies are formulated based on the SWOT matrix, then the alternative strategy - 3 selected to be implemented in Indonesia with Total Attractive Score (TAS) of the major internal factors of 3.69 and external factors main of 3.86, which is narrowing the price gap of the geothermal power to mitigate risks and push the level of project risk which the tender after the implementation of exploration, so the developer can define the technology, equipment schemes, and investment costs with more accurate (Site Specific). In the alternative strategy - 3, the tender process conducted by PLN or BUMN which specifically assigned (Badan Pelaksana Panas Bumi) so that exploration risk mitigation incorporated in the same agency that is expected to lower the price of geothermal power and geothermal energy to support the investment climate in Indonesia.