

Opinion: How can geothermal development in Indonesia be fixed?

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In a guest post, Hezy Ram describes his views on what is wrong with geothermal development in Indonesia – or better the real lack of it – and how this could be fixed.

In a guest article, Hezy Ram of Ram Energy International, provides his views on what is wrong with geothermal development in Indonesia and how it can be fixed.

Earlier this year, I was a speaker in the GeoPower Indonesia & Philippines conference which took place in Jakarta in June 2013 (<http://www.greenpowerconferences.com/GE1306ID>).

As one of the keynote speakers I listened to the sessions for about three days before it was my turn. My comments were an attempt to provide the perspective of an international geothermal developer sharing his experience. Naturally, I was expected also to offer my observations on the current situation of the geothermal industry in Indonesia and so I did. My conclusion was quite grim: as we all know Indonesia in Geothermal is like Russia as (conventional) natural gas is concerned. Both countries controlled about 40% of the world reserves respectively. While Russia is clearly a major energy player in the world, Indonesia failed to make good use of its great natural (and clean) energy resource and consequently ranked far behind other countries (developed and developing) when you consider the amount of power that comes from its geothermal resources. As a way to demonstrate how bad the state of geothermal development in Indonesia is consider the following example: Iceland with about 300,000 people generates about 600 MW of geothermal power which is about 50% of what is the current generation of Indonesia with about 240 million people. The real concerning part of my comments was my prediction that the situation in Indonesia is NOT going to improve albeit efforts made by the various governments to address the challenge. So far my prediction seems to be holding (even the one project that was moving along, back by real “deep pockets” is being delayed for whatever reasons).

The Challenges:

Much discussion took place in conferences, newspapers, official statements and so on as to what are the issues hampering the development of this industry. Any excuse from the nationalization of geothermal power plants in the 90s by an irresponsible government at that time, to the lack infrastructure and anything in

between. I believe that the real culprit here is really the framework within which the private developers are expected to operate. I firmly believe that it is the responsibility of the Government of Indonesia to use fresh optics and prepare and execute a new roadmap to remove the imbedded obstacles which were the impediments to the development of the industry. The overall should be radical and will probably will take years to implement. But barring it, I see no real future for a massive private investment in this sector. There is plenty of private capital that will be attracted to the geothermal sector in Indonesia, but it is waiting on the sideline until the time will be ripe. The current attempts of the government to fix the issue by publishing every so many months more attractive tariffs for this sector are like giving aspirins to a dying patient. So here in my opinion the three biggest obstacles

1. The elephant in the room- Pertamina, Indonesia Power etc.

It is my educated opinion that Government in both Developed and Developing countries need to make a decision as to how they would like to see the geothermal sector developed for the benefits of the consumers, the economy etc. They can either control the development and own 100% the resource and the power plants and thus control the power rates or, they have to rely solely on the private sector to develop the potential in the country. In the first instance, Governments use their budget to operate in this sector and allocate funds that otherwise would go for health, education and so force while relying on cheap money and “creative” accounting to keep the power rates artificially low. This is the case in Iceland, Cost Rica and Kenya for instance. The other set of countries do not wish to use their budgets to compete with the private sectors and allow it to flourish by bringing private capital. The USA on one hand, Nicaragua, Guatemala and some chose this route and are doing quite well. A case in point will be the Philippines which started years ago following the governmental route, but midway through the process, the Government of the Philippines changed its mode and decided to privatize this sector. The result is that the Philippines with a much smaller potential has now about 2,000 MW in operation (compared to Indonesia’s 1,200 MW).

Indonesia now has several companies owned partially or wholly by the Government of Indonesia such as Pertamina (100%), Indonesia Power and Geo Dipa (owned by PLN and the Treasury). As long as these companies will continue to draw on the national budget, the Government will not make the right decisions which will foster the private development of the geothermal sector. Here is an example – Pertamina just announced the development of a 20 MW geothermal plant in Mauku. Not surprisingly, JICA had agreed to provide the debt for this project to the tune of \$80 million with 0.7% interest rate with a 40 years tenure. This generosity is of course based on the fact that Pertamina is owned by the government of Indonesia which guarantees this obligation. Such loan to a private developer would entail say 8.5% coupon and may be 15 years of tenure. This difference is huge here and is \$43/MWh. Now imagine the Government of Indonesia which is already subsidizing heavily the rate payers being presented by two options. Say a private developer who needs 11.3 cents/kWh or a government owned developer who can supply the power for 7 cents/kWh. The effect on the budget is clearly negative, but the temptation is there. Combine it with the ability of the politicians to arrange jobs and budgets to their contacts and you can see why the private sector is in

disadvantage. The only way out of this mess is to privatize the geothermal activities across the board and leave the Government only as the regulator of the sector.

2. Federal vs. District governments

This subject is well known and was already identified as a major impediment to the development of the geothermal sector in Indonesia. It is clear that the central Government wishes to provide the local municipalities with greater autonomy. Whether this development was initiated because the difficulties to control far away regions (something done quite effectively by China with 4 times the population) it matters no. The fact is that the geothermal concessions or licenses are allocated by the municipalities which many times lack the expertise in this area. It is also a source of under the table deals which are not necessarily in the best interest of the country. Hence the built in conflicts when the developer is now trying to move through the federal government labyrinth of regulation and laws. Being not necessarily the best one to develop such resource is clearly an impediment to the process. In that case, the model should follow other countries like Turkey and the US. The concessions are to be afforded to the highest bidder who can also demonstrate its ability to take this project through.

3. Clarity and consistency

Once the Government of Indonesia decides to get serious about the private sector as the preferred alternative to develop the geothermal sector, it needs to engage in enacting the relevant regulations and laws which will secure a “level playing field” for the investors who will come en mass once the framework is in place. These regulations should be clear, transparent and consistent. Probably completely the opposite of the situation today which lacks clarity and consistency.

A few data points to consider;

- Standard PPA – this will save years of negotiations and millions in legal fees. A PPA which is bankable will do miracles to attract investors. No need to “invent the wheel” again as the world is full of examples of such bankable PPA
- Land related issues – While the geothermal resource is owned and managed by the Government, the surface rights may become a contentious item which may delay development for years. Quite a few countries had come up with solutions which balance the needs of all parties involved including the private land owners.
- A fair and transparent tariff commensurate with what is needed to attract private capital. There is no way that any structure will address all the potential permutations as they relate to locations, technologies as the current regulations try to do. This kind of matrix is nothing but an invitation to abuse the system. Again, Turkey’s approach makes that much sense and it is clearly a winner
- Taxes, ability to grant security in the project assets, streamlined processing of permits and licenses are all necessary to assure the developer that he is in control of his destiny.
- Finally, issues that I do not consider to be of import if everything is in place

- No need for sovereign guarantee if the electricity sector will be restructured and the costs will be accounted for properly. Once geothermal will be established as the low cost producer, the sovereign guarantee is not required.
- No other guarantees are required to be provided by the Government. The World Bank (through MIGA) offers today any type of insurance the lenders may require; all the way from taking to convertibility and much more.
- No other financial support from the Government is necessary either. There is enough support in the international community which can address issues such as exploration risk.

Summary:

The fate of the geothermal development in Indonesia hinges now more than ever on the actions (and inactions) of the Government of Indonesia. Until such time that the Government (or more likely the office of the President) has decided to address this issue head on based on the points I have raised above, the private sector will stay away from Indonesia. So any future development of this essential power source will depend on the interests of the politicians in charge. Let us hope that the situation will change in years to come as geothermal can be a “game changer” for the economy and the society in Indonesia

The author has over 25 years of experience in developing and financing geothermal projects in developed and developing countries and is a desired speaker on the industry affairs in international forums.

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