

CHAPTER V

CLOSING

1. Conclusion

This research aims to evaluate the potential of Green Sukuk as a financing source for the small-scale geothermal power plant from the financial and legal aspects. A thematic analysis was conducted towards relevant regulation and interviews with an expert to evaluate the legal potential. A cash flow, Sensitivity Analysis, and Monte Carlo Simulation are conducted towards the modified Financial Model to evaluate the investment decision criteria.

From the legal perspective, financing a small-scale geothermal power plant with Green Sukuk is possible considering the perspective of SBSN nature, legal perspective, and practical perspective. The project proponents, on the other hand, cannot precisely request the Green Sukuk instrument. The project proponents would most likely fall into Project Underlying Sukuk under present practice, and the procedure would follow the APBN cycle and the Green Framework. If project proponents meet the Project Financing Sukuk's readiness criteria, the mechanism complies with PP 56/2011 and the Green Framework. To fulfill the criteria in PP 56/2011, a possible strategy for the project is to be procured by a Satker under

the Ministry of Energy and Mineral Resources, then be handed over to a BLU that conducts a KSO agreement with a BUMN for the operation.

From the financial aspect, the financial feasibility analysis is conducted with a cash flow, Sensitivity Analysis, and Monte Carlo Simulation. The NPV value and simulation result is optimistic despite the relatively high value of capital expenditures. The IRR value and simulation result also exceeds the projected Green Sukuk coupon, the GOI bonds coupon, and the investor's required return (bond's price). Therefore, it is financially feasible for the Government to develop a small-scale geothermal power plant with the Green Sukuk fund.

Therefore, it can be concluded that proposing Green Sukuk as the financing source of a small-scale geothermal power plant is possible with certain requirements and assumptions.

2. Limitation

This research contains limitations that may undermine the obtained results.

1. The first limitation is the researcher's technical inexpertise in geothermal power plant construction. The researcher may fail to understand the nature and complexity of geothermal development affect the financial assumptions and modeling and the legal evaluation.
2. The second limitation is the researcher's limited knowledge of the practical role management and business cycle in geothermal development in a public context, such as the role and relationship between the line ministries, municipal governments, geothermal

management BUMNs, construction BUMNs, and PLN. This research constructs the assumptions from the resources in journal articles, news, laws, and BUMN websites.

3. The third limitation is the for-profit assumption in the Financial Model. Generally, the project held by the ministries is not mainly for-profit. Therefore, the Financial Model might be applicable in a limited context, such as in the BLU scheme.

3. Recommendation

3.1 For the project proponents

There are also some potential recommendations for project proponents to benefit from Green Sukuk for green infrastructure financing.

- a. Green Sukuk, and SBSN in general, can be a part of a blended-financing scheme. For example, the project proponent can use a Public-Private Partnership/PPP scheme for the power plant construction and use Green Sukuk to fund the electricity grid/network or other similar projects.
- b. The chance of getting SBSN allocation can be more significant if the project proponents manage the roles and scheme well. One example is the strategy to change the Satker to be BLU and sign a KSO contract.
- c. The project proponents are highly encouraged to ensure the project's readiness to increase the chance of getting a Project Financing Sukuk allocation. PFS is beneficial for the project proponents because the fund

is guaranteed. The earmarked nature of PFS also shows more apparent impacts of SBSN on infrastructure and economic development.

3.2 For the future research

There are some recommendations for future research to refine and sharpen the research analysis.

- a. Future researchers may consider collaborating or conducting interviews with the experts in geothermal development to ensure consistency with geothermal technical nature and complexity.
- b. Future researchers may consider collaborating or conducting interviews with experts in public geothermal development's practical role management and the business cycle.
- c. Future research may use Social Cost-Benefit Analysis/SCBA to evaluate the potential for government projects that do not aim to generate revenues.
- d. Future research may apply more than one project with a different infrastructure type to gain more generality.