

## Analisis Valuasi Usaha Pembangkit Listrik Tenaga Mini- Hidro dengan Metode Value at Risk = Valuation Analysis of Mini Hydro Power Plant Using Value at Risk Method

Satria Mulia Purnomo, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=9999920526295&lokasi=lokal>

---

### Abstrak

Disepakatinya perjanjian Paris membuat Indonesia berkomitmen dalam transisi energi terbarukan. Komitmen ini mendorong Indonesia dan PLN dalam membuat RUPTL yang membuat potensi tenaga air di Indonesia semakin meningkat. Meningkatnya potensi tersebut membuat investor tertarik investasi ke usaha PLTM. Namun demikian, usaha PLTM masih memiliki risiko yang membuat biaya fluktuatif sehingga membuat prospek terganggu dan menimbulkan keraguan dalam investasi. Untuk mengatasi masalah tersebut, penulis membuat model proyeksi keuangan menggunakan discounted cash flow model dengan pendekatan risiko menggunakan value at risk metode monte carlo agar dapat mengukur valuasi PLTM secara lebih akurat serta dapat memberikan bahan pertimbangan kelayakan investasi. Dari analisis yang telah dibuat, didapatkan bahwa terdapat tiga variabel risiko dalam PLTM, yaitu loss factor, biaya operasional dan pemeliharaan, dan biaya retribusi air. Dalam keadaan normal mengikuti PPA, NPV PLTM masih bernilai positif yang menandakan investasi masih layak. Dalam bahan pertimbangan kelayakan investasi, peneliti menggunakan price book value dan tingkat return modal, dimana didapatkan bahwa PLTM masih layak dijual dan layak diinvestasikan.

.....The Paris agreement made Indonesia committed to the renewable energy transition. This commitment encourages Indonesia and PLN to make RUPTL which increases the potential for hydropower in Indonesia. This increased potential has attracted investors to invest in the MHP business. However, the MHP business still has risks that make costs fluctuate, disrupting prospects and causing doubts in investment. To overcome this problem, the authors created a financial projection model using a discounted cash flow model with a risk approach using the value at risk monte carlo method so that it can measure MHP valuations more accurately and can provide investment feasibility considerations. From the analysis that has been made, it is found that there are three risk variables in the MHP, namely loss factor, operational and maintenance costs, and water retribution costs. Under normal circumstances following the PPA, the NPV of MHP is still positive, indicating that the investment is still feasible. In considering investment feasibility, researchers used price book value and the rate of return on capital, where it was found that PLTM is still worth selling and worth investing in.