



## Money Printing Company

A factory “with plenty of money” but with an efficient way to spend, only the exact amount of energy they need to produce it.

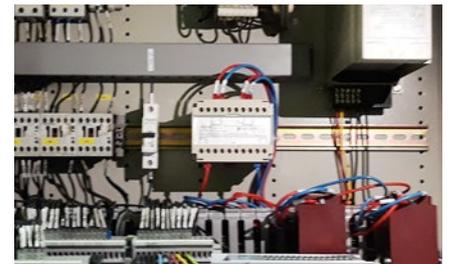
PERUM PERURI is a state-owned money (IDR rupees) printing company located in Indonesia, with offices in Jakarta, Karawang and Surabaya. They have drawn to export their money manufacturing capacity at the service of other countries as well. PERUM PERURI in its aim to be more sustainable and making constant energy conservation in their manufacturing process decided to float a Power Factor Correction System and Solution tender in 2017, in which CIRCUTOR along with its local skilled and experience system integrator PT. ELCO POWER SYSTEM, were awarded because of the technological solution offered along with the value for money. Besides they built the counter performance contract and include the scalability of the solution, as part of a full integrated Energy Efficiency solution plan.



As a matter of fact, CIRCUTOR is vastly experienced in correcting the unnecessary wasted energy commonly known as “reactive energy” produced by the motors among other loads. However, what made this project special and peculiar were the technical and physical constraints and little challenges that CIRCUTOR had to overcome. With such hidden difficulties, only by being a vanguard manufacturer on Power Factor and Harmonics Mitigation products with expert local partner, you are really able to deploy, offer and install the right solution that end user, in this case PERUM PERURI, needed.

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**In less than 7 months, the application was able to return the customer’s investment...**  
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Our solution was a customized **OPTIM-FRE** capacitor panel (2400 kVAR) fitted with reinforced detuned filters (harmonics distortion protection). It was conceived to compensate the power Factor at Medium Voltage coupling point but with a step-up voltage transformer in low voltage and thyristors driven operation. We had to bring the current sensing from 2 different sites at the same time with a summation CT to the “brain” of the panel, which is our Power Factor Regulator **Computer Smart III**, and far away from the capacitor panels. In less than 7 months, the application was able to return the customer the investment,



with full operational system so far. Not only that, but thanks to the Electric Parameters incorporated in our automatic power factor regulator we had the chance to offer our **PowerStudio SCADA** energy supervision system, as part of the solution of comprehensive monitoring and to control all the time the status of the panel and the benefits of constant energy savings.

