

## Pengembangan Formula Aliran Daya Newton Raphson dengan Injeksi Arus

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### Abstrak

This paper describes about the rarely Newton Raphson formulation for solving the power flow problem, consist of the injection  $2n$  current equation written on rectangular coordinate. The Jacobian matrix has same structure such as admittance matrix knot ( $Z_n \times Z_n$ ), where each network branch represented by block ( $2 \times 2$ ). Execptable for PV bus. Diagonal-of block ( $2 \times 2$ ) from jacobian equation was proposed as some in admittance matrix knot. The result indicate that the proposed methods for solving the power flow is faster, its than the conventionally Newton Raphson formulation, expressed in imbalanced power condition which written in polar coordinate.