

## Practical Techniques of Improving State Estimator Solution

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**Abstract :** State Estimator became an intrinsic part of Energy Management Systems (EMS). The SCADA measurements received from the field are processed by the State Estimator in order to accurately determine the actual operating state of the power systems and provide that information to other real-time network applications. All EMS vendors offer a State Estimator functionality in their baseline products. However, setting up and ensuring that State Estimator consistently produces a reliable solution often consumes a substantial engineering effort. This paper provides generic recommendations and describes a simple practical approach to efficient tuning of State Estimator, based on the working experience with major EMS software platforms and consulting projects in many electrical utilities of the USA.

**Keywords :** convergence, monitoring, state estimator, performance, troubleshooting, tuning, power systems

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