

Objective

3E has developed a prototype of a tool to validate plant deployments.

It validates that indicators have data and that it is consistent with the plant configuration, e.g. the current power must be inline with capacity of the plant. Currently the values are generated in Excel.

3E wanted to productize the tool and add a couple of additional features, like for example additional checks on more levels and an extra PDF report to be shared with the customers.

Scope

- Data engineering solution to build a scalable reporting module
- Integration with the Legacy DB
- View and understand data and data relationships
- Develop multiple tab based report
- Integration testing
- Selection based report generation providing analytical data
- Multiple reports in different Excel tabs

Challenges

- Complex Legacy Data structure & formulas
- Continuous interactions with client technical teams to understand requirements & develop scripts

Benefits

- Reduction in manual efforts to fetch the data
- Quicker Data availability
- Complex computations for various indicators

Key features

- Complex report generation for a single plant
- Generation of real time as well as historical data for analysis

Technology

- Python mainly using Pandas & NumPy libraries
- Legacy DB