9.2 DISADVANTAGES

1. High Licensing Cost

Tableau (especially Tableau Creator / Explorer / Server) requires paid licenses.
For large organizations or academic institutions, this can become expensive compared to free tools like Excel or open-source BI platforms.

2. Performance Issues with Large Datasets

Electricity consumption data (e.g., hourly smart meter readings) can include millions of records.
Without proper optimization:

- Dashboards may load slowly
- Filters may take time to respond
- Complex calculations may reduce performance

Performance tuning (extracts, indexing, aggregation) becomes necessary.

3. Limited Advanced Statistical Capabilities

While Tableau supports basic forecasting and trend analysis:

- Advanced predictive modeling
- Machine learning algorithms
- Deep statistical analysis

Often require integration with tools like Python, R, or specialized analytics software.

4. Data Preparation Complexity

Electricity datasets may include:

- Missing values
- Time zone inconsistencies
- Multiple data sources (weather, region, sector)

Significant preprocessing is often required before importing into Tableau.

5. Dependency on Data Quality

The accuracy of insights depends entirely on:

- Clean and reliable input data

- Proper aggregation methods
- Correct calculated fields

Incorrect data can lead to misleading conclusions about consumption patterns.

6. Limited Customization for Highly Complex Dashboards

Although Tableau is flexible:

- Extremely customized UI designs may be restricted
- Advanced animations are limited
- Highly technical interfaces may require external embedding

7. Server & Infrastructure Requirements

If deployed on Tableau Server or Cloud:

- Requires server setup and maintenance
- Needs proper configuration for multi-user access
- Performance depends on hardware resources