

An aerial, grayscale-style rendering of a large industrial or power plant facility. The image shows several long, rectangular buildings with numerous windows and doors, arranged in a grid-like pattern. In the foreground, there are complex structures including what appear to be transformers, power lines, and a fenced-in area. The background shows a flat landscape under a clear sky.

AI Reasoning

Current Challenges & Future Opportunities

Presenter: Steve Chan

Table of Contents



1 Introduction
Hyperscale Artificial Intelligence Data Center (AIDC)

2 Background
A Virtual Tour of an AIDC...

3 The Paradox
Condition Monitoring (CM) & Early Fault Detection (EFD)

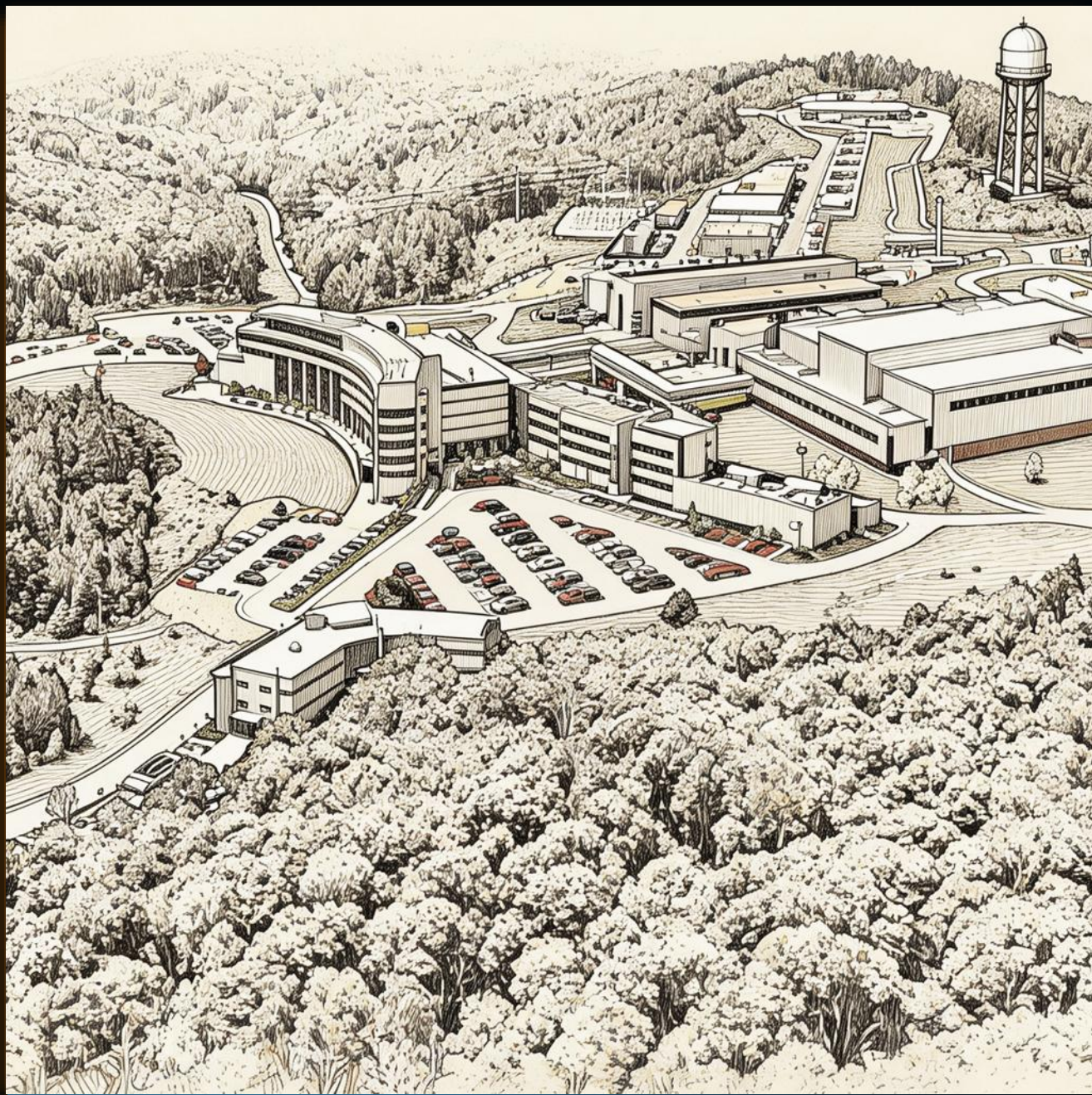
4 Experimentation
Energy Efficiency, Efficacy, and Resiliency...

5 Concluding Remarks
A Fresh Look at Infrastructure...



1 Introduction

Artificial Intelligence Data Center (AIDC)





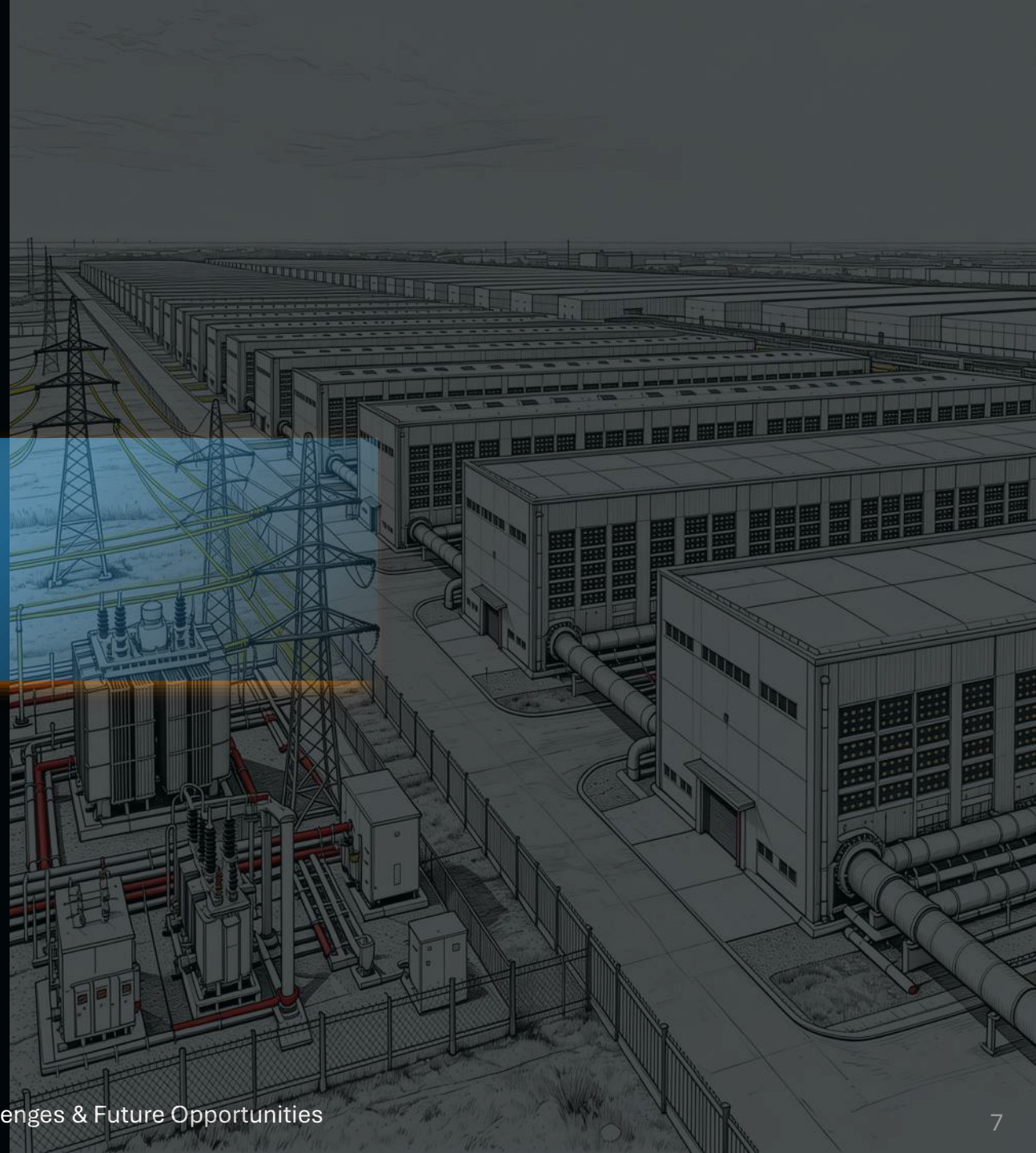


2 Background

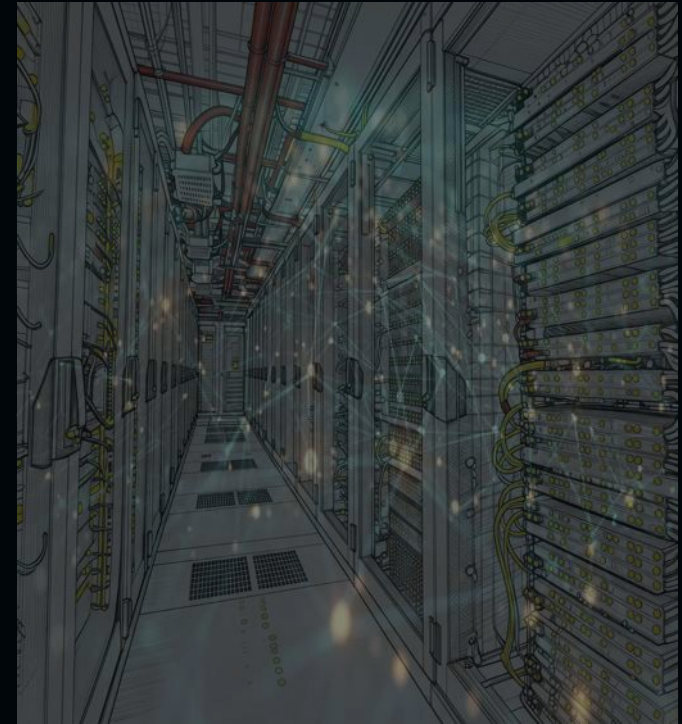
A Virtual Tour of an AIDC...

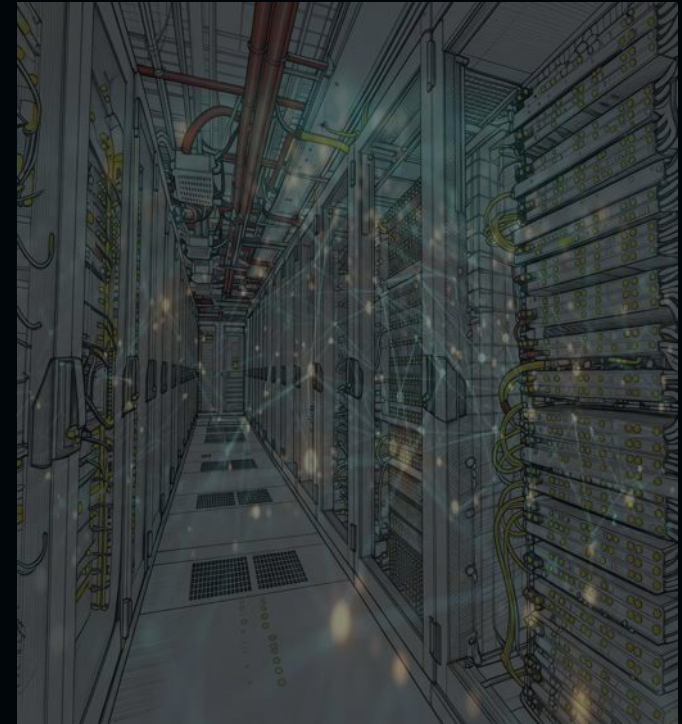
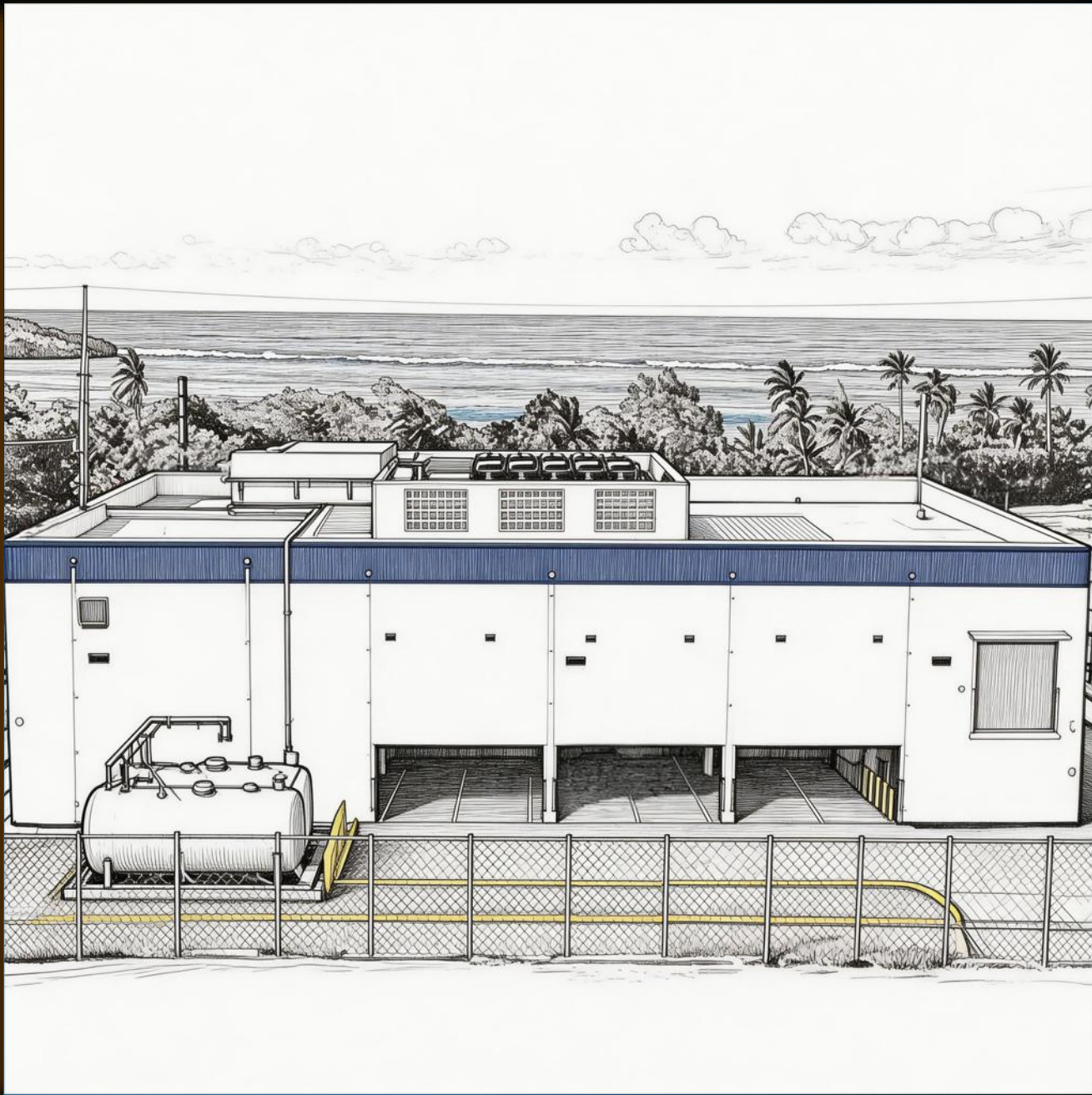
2a Background

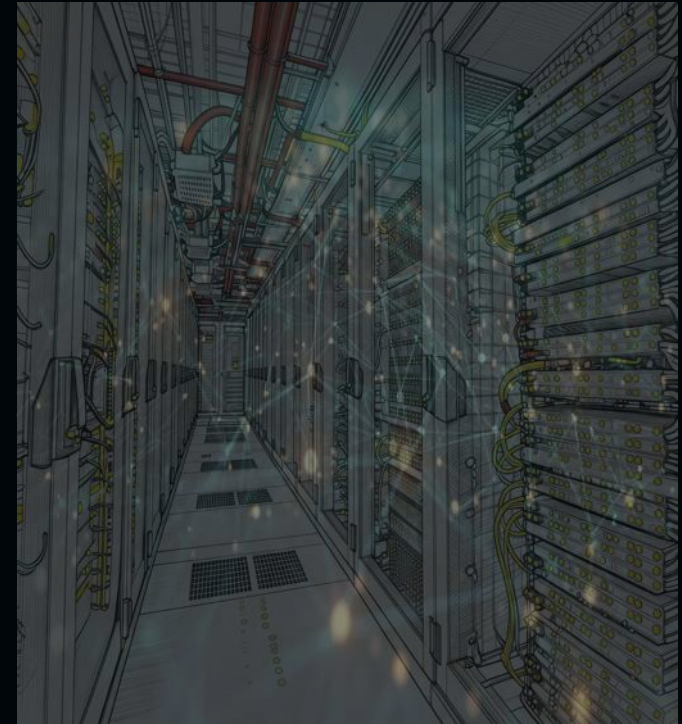
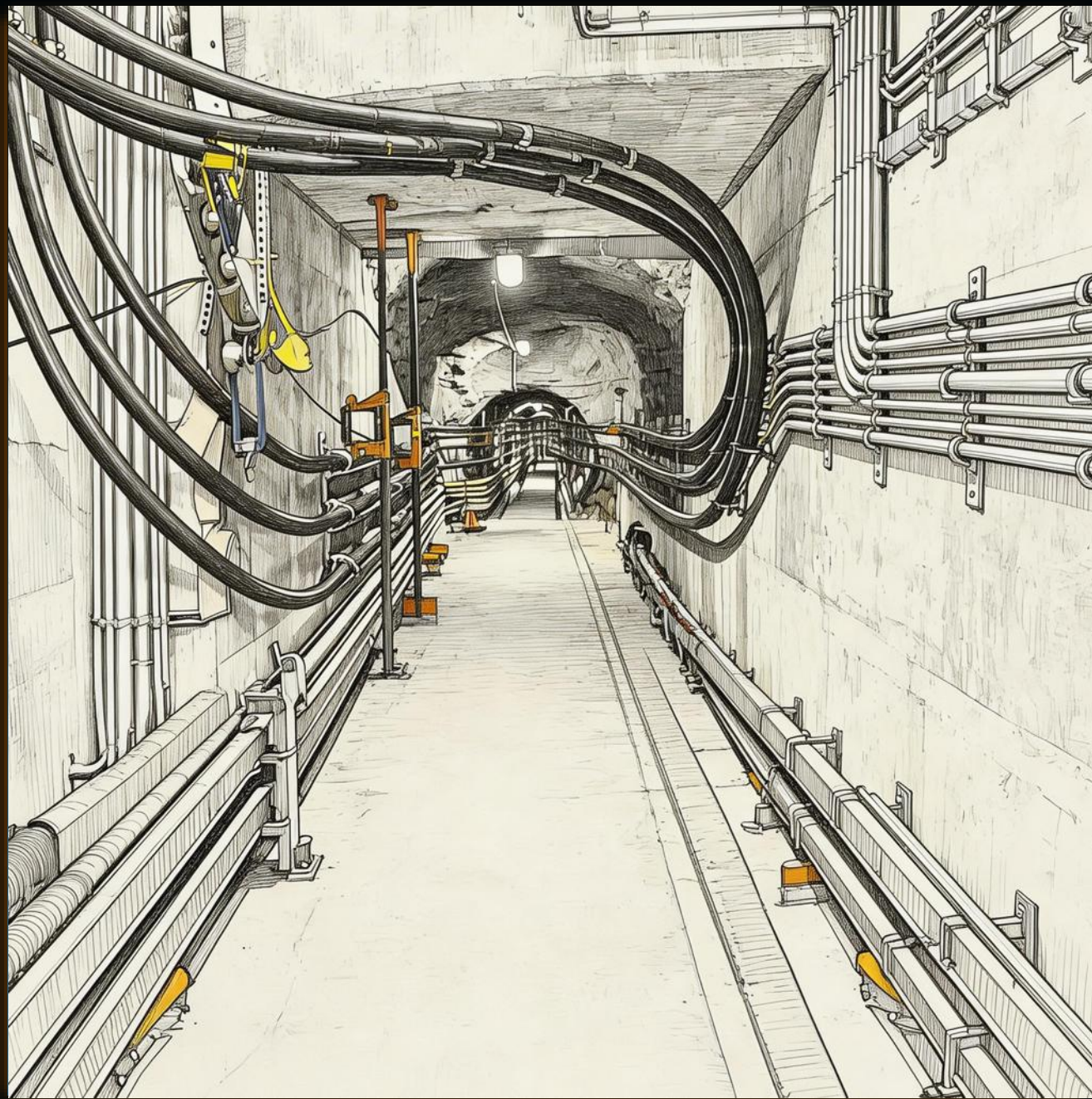
Connectivity...

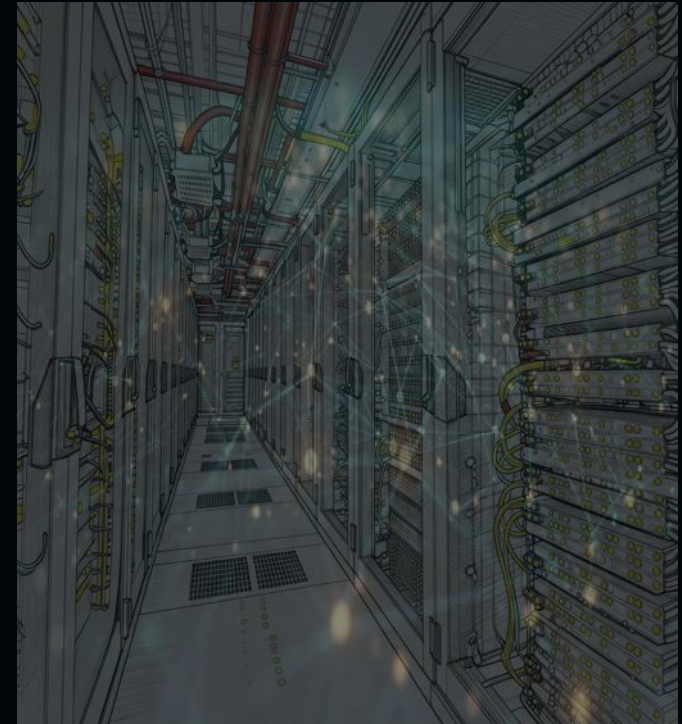
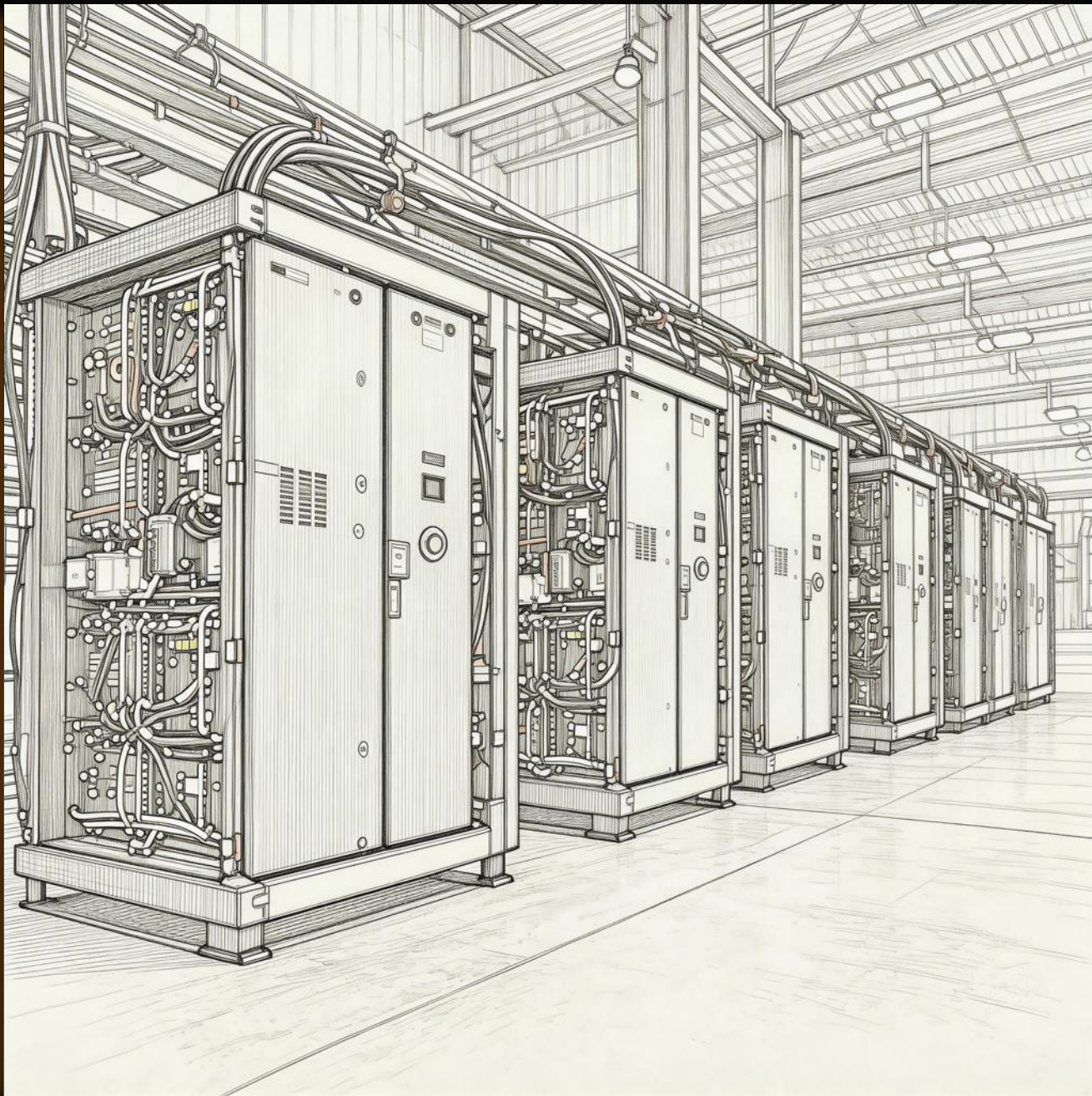


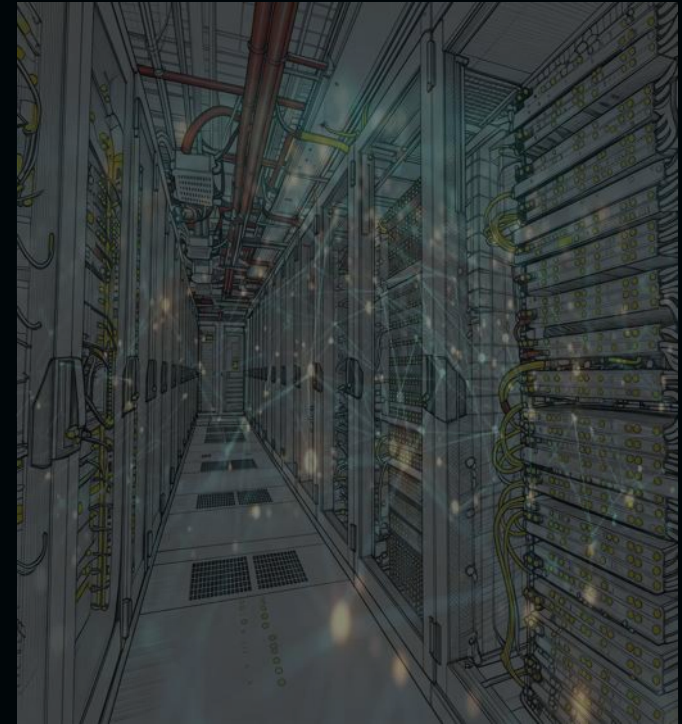
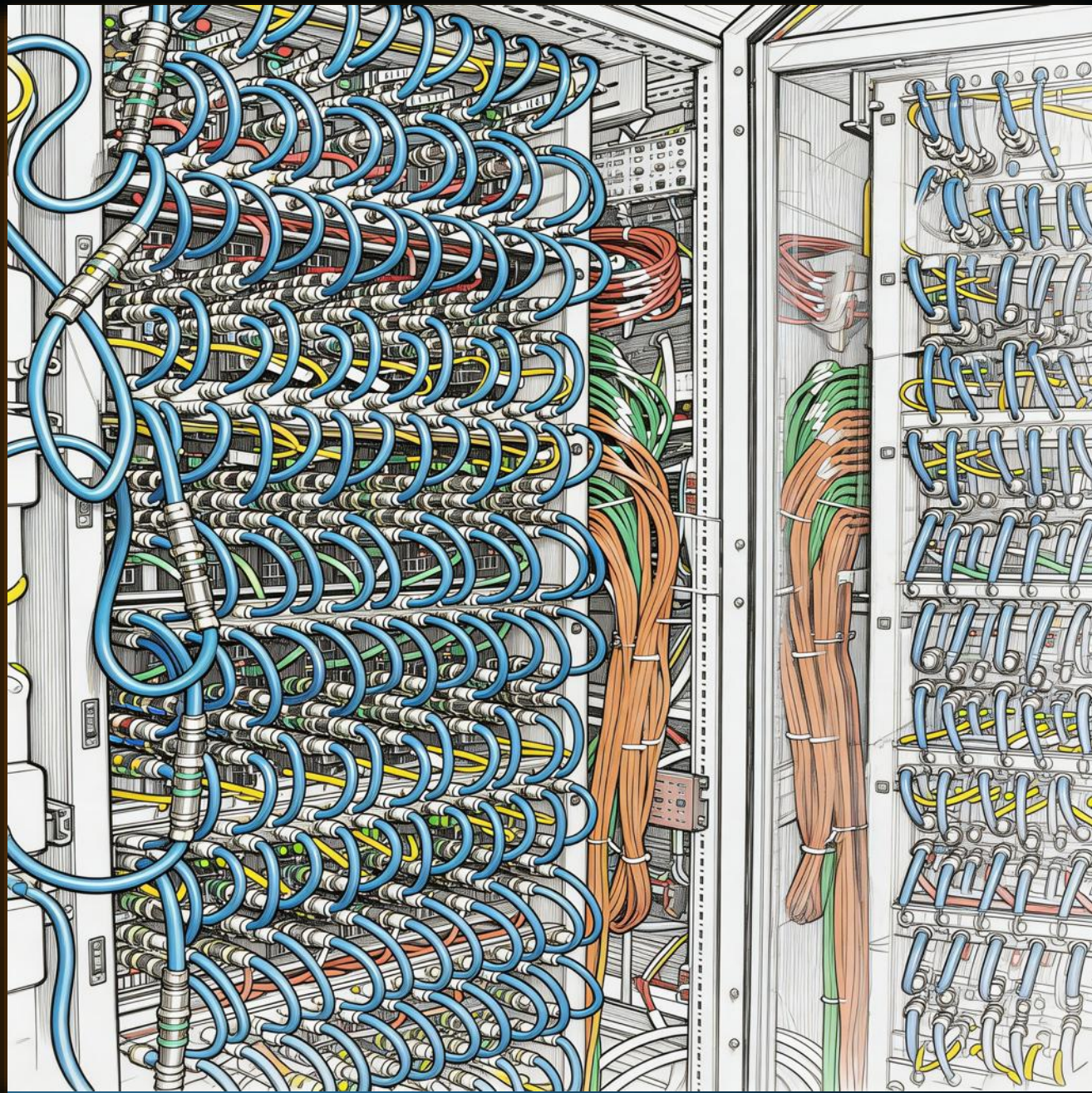


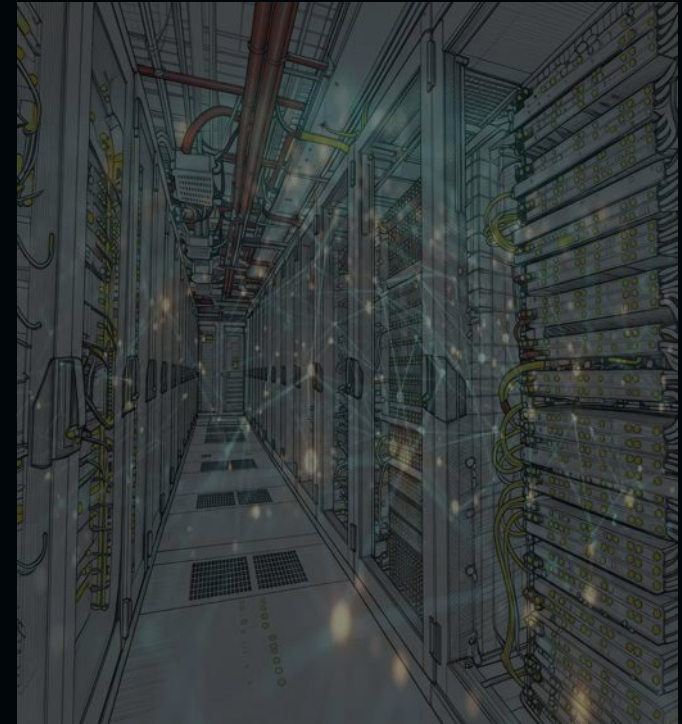


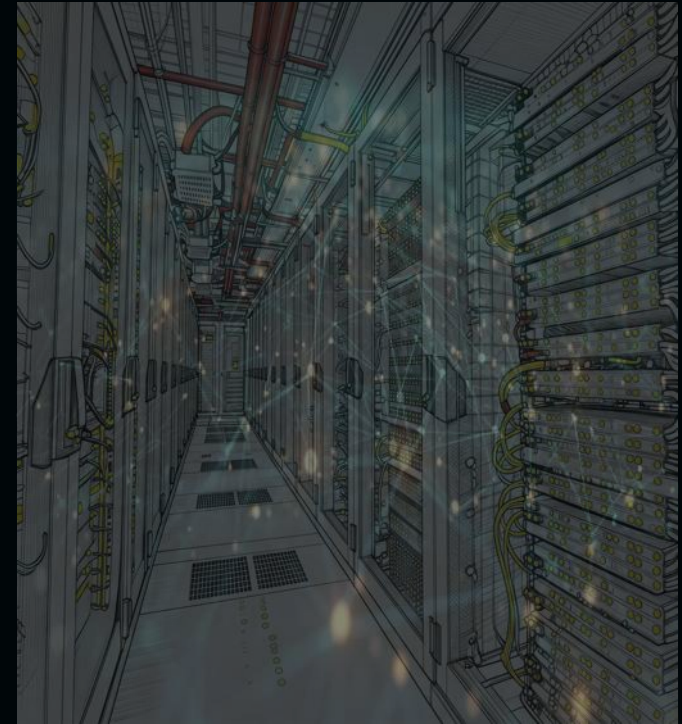
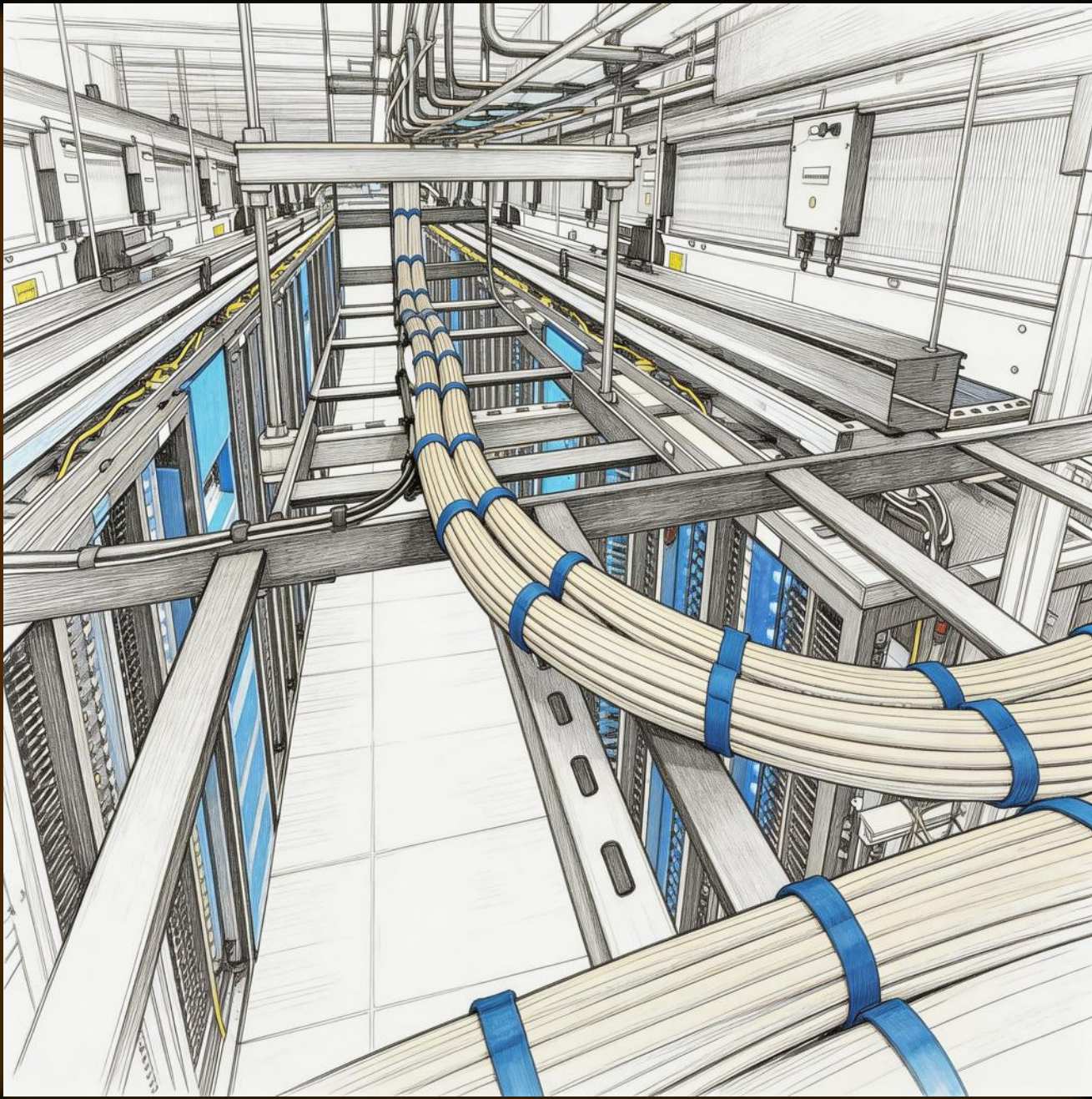


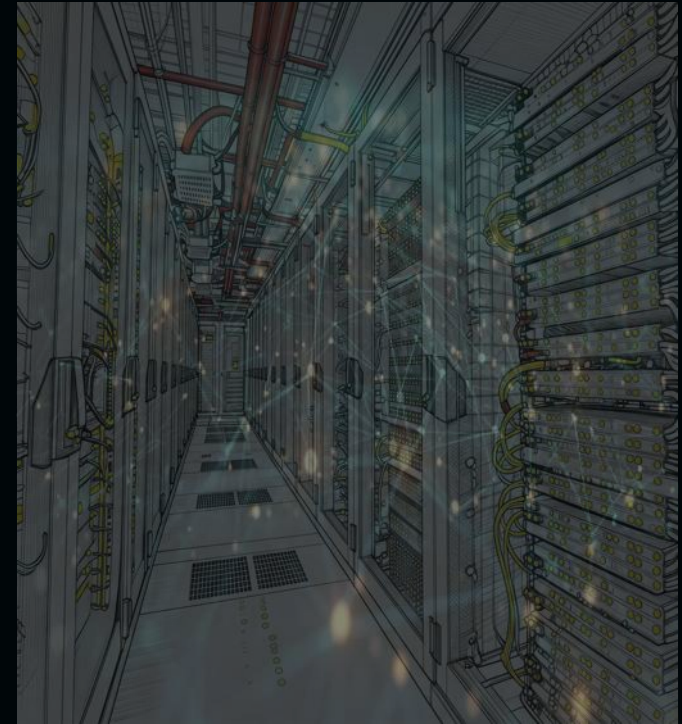


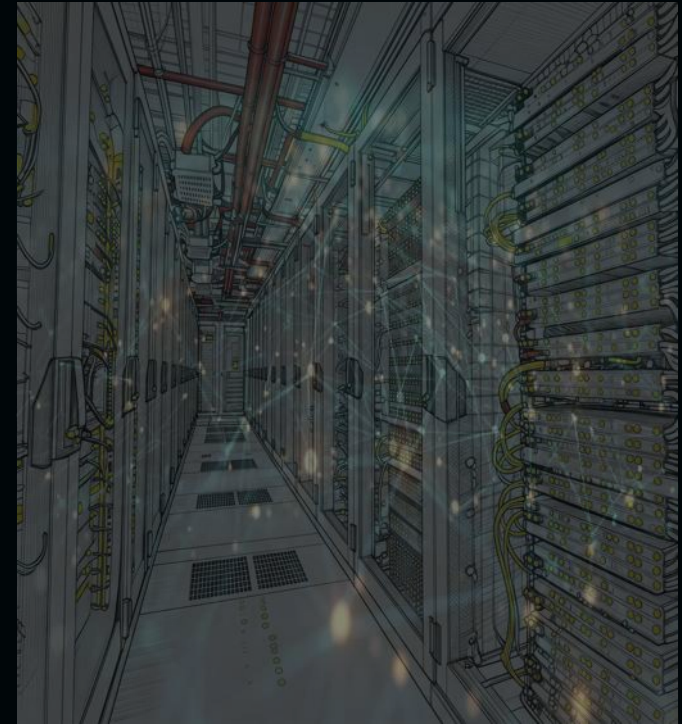
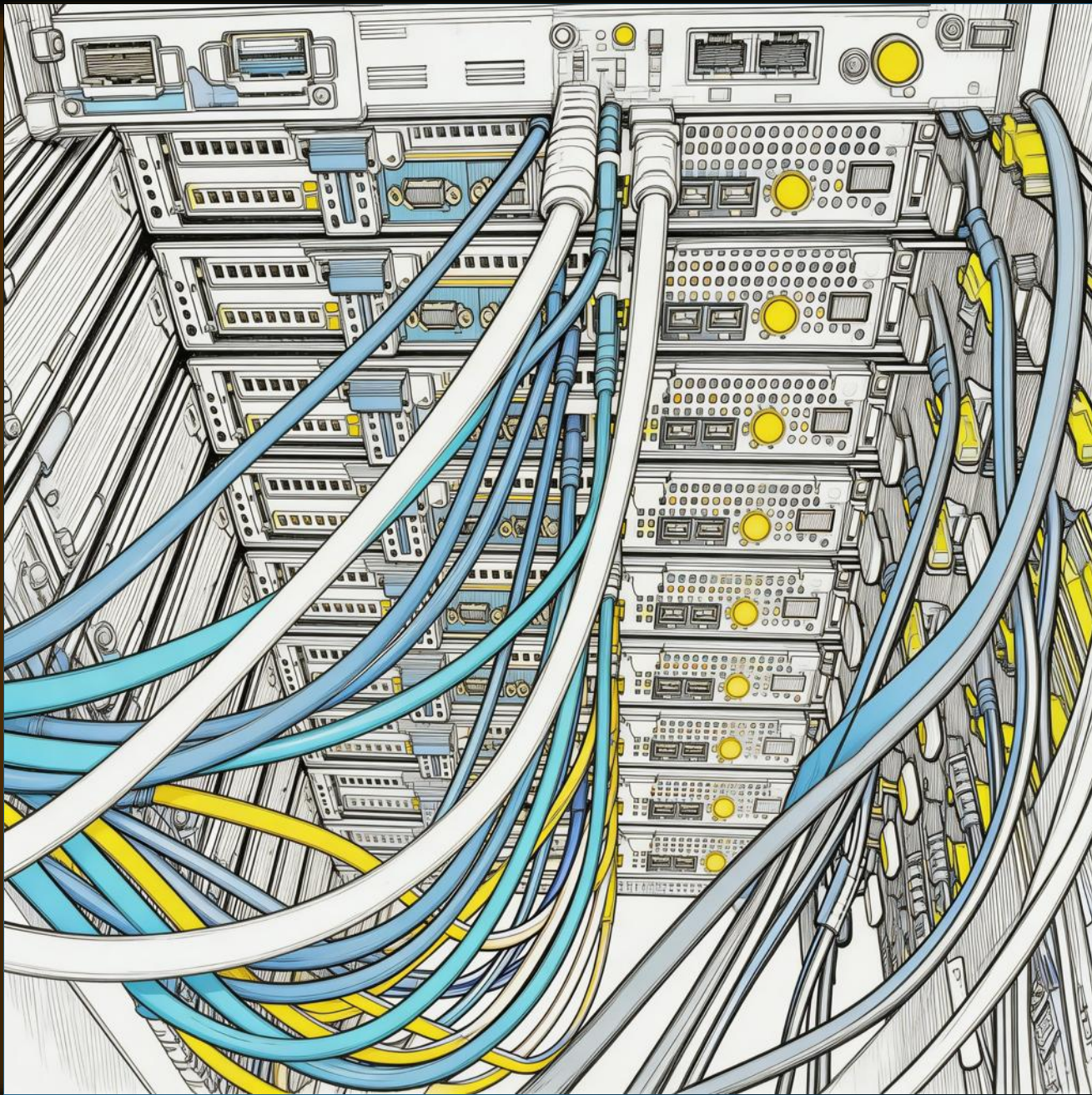


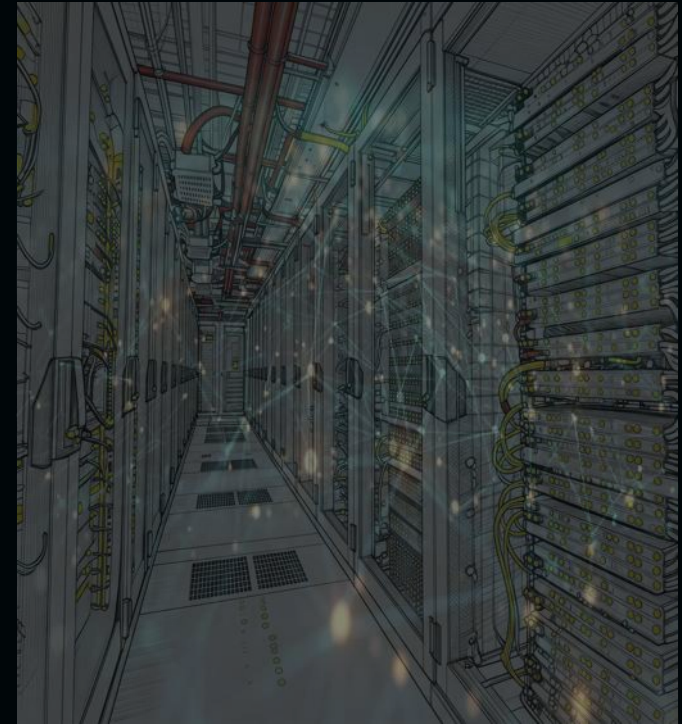
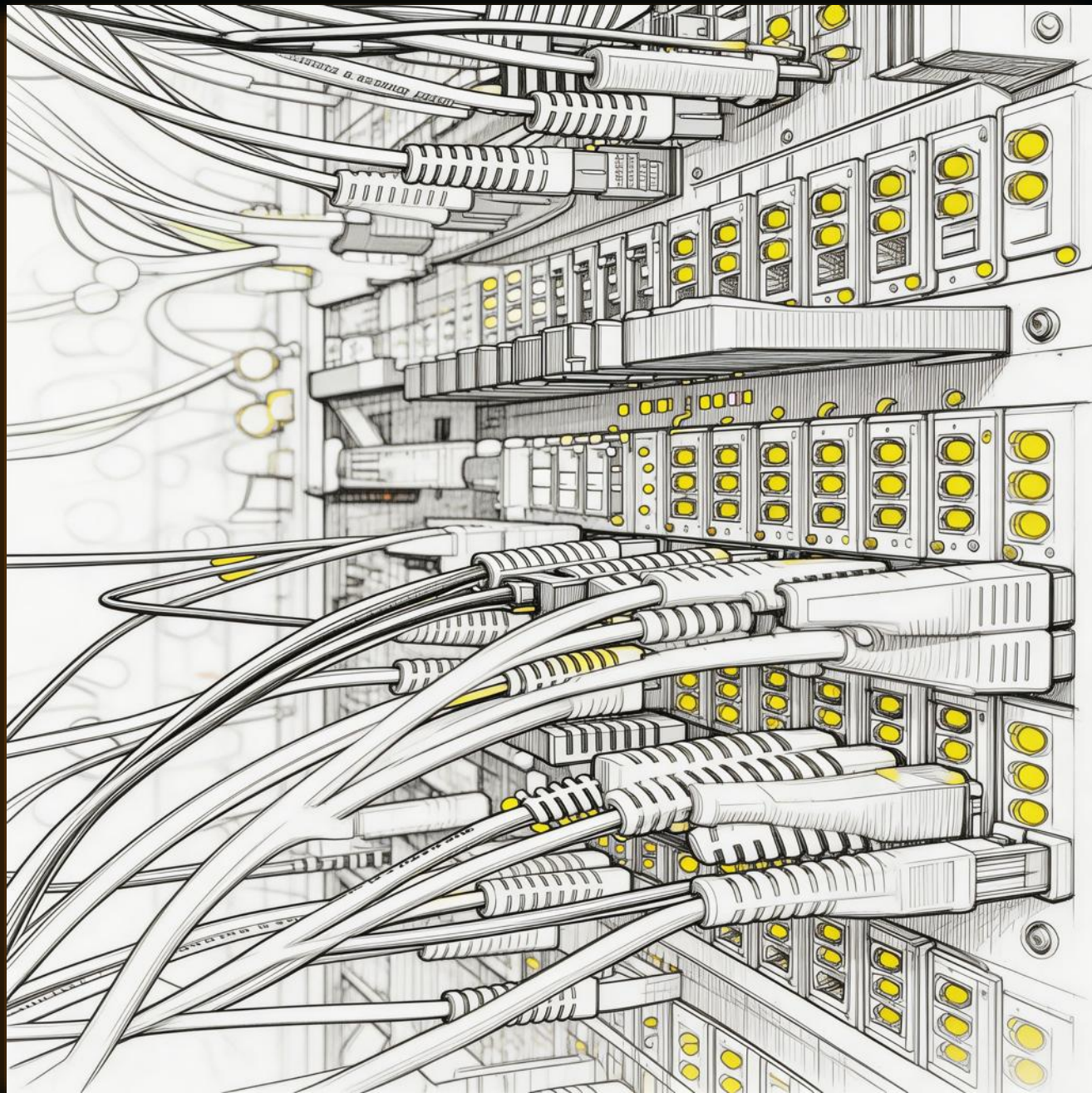


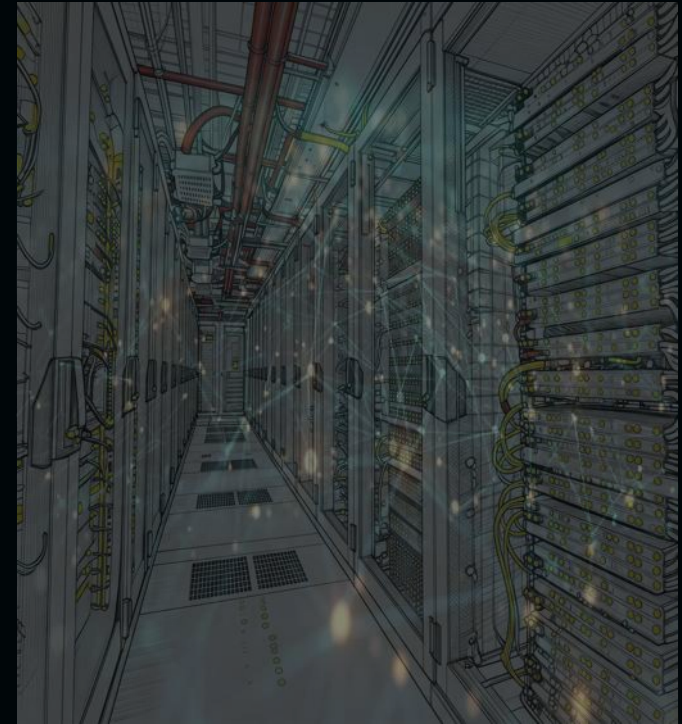
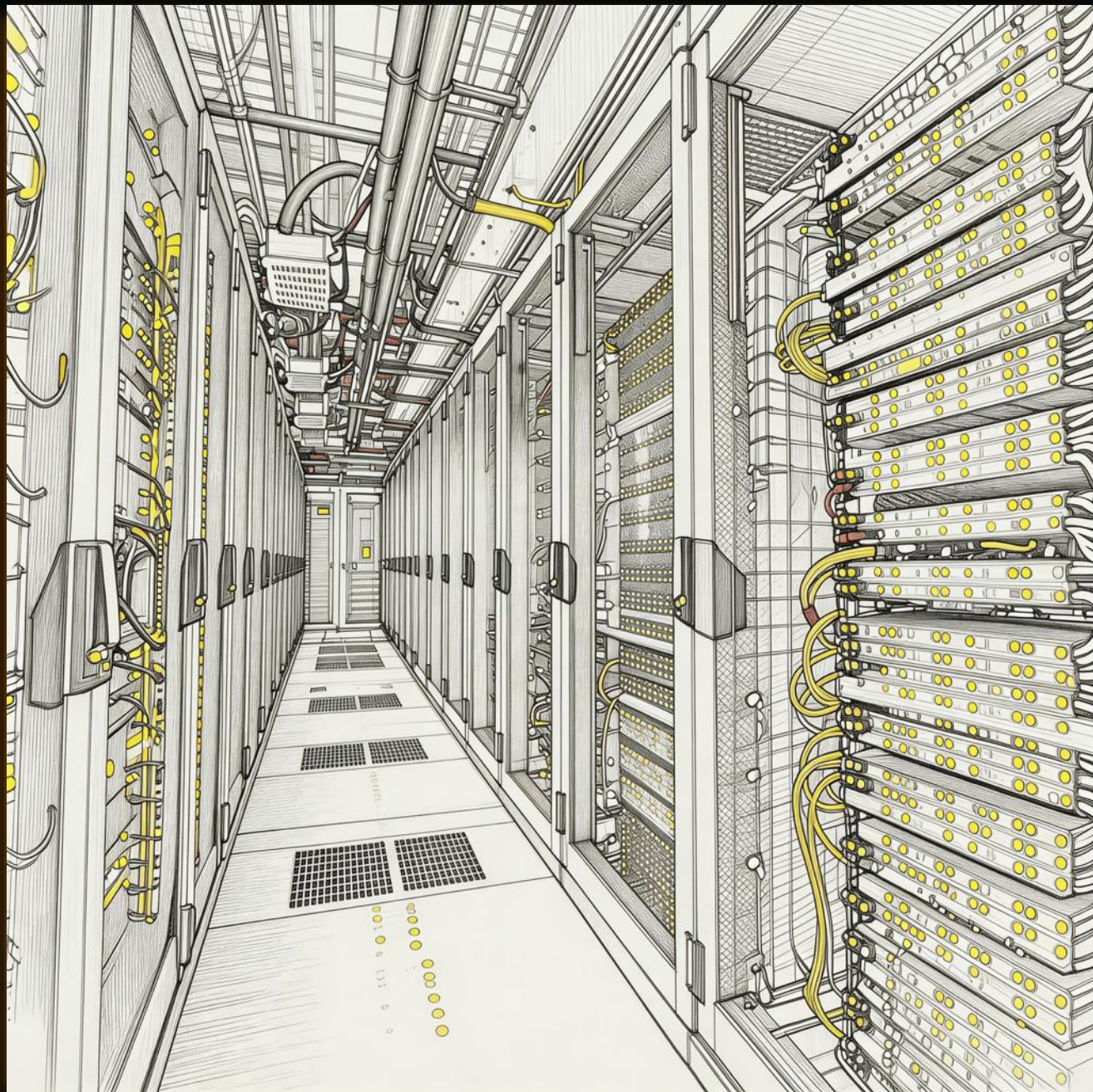


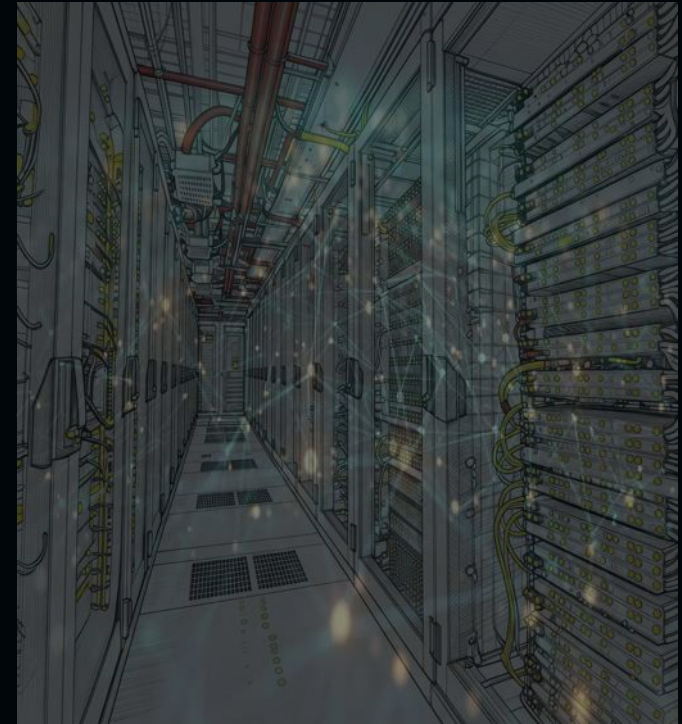
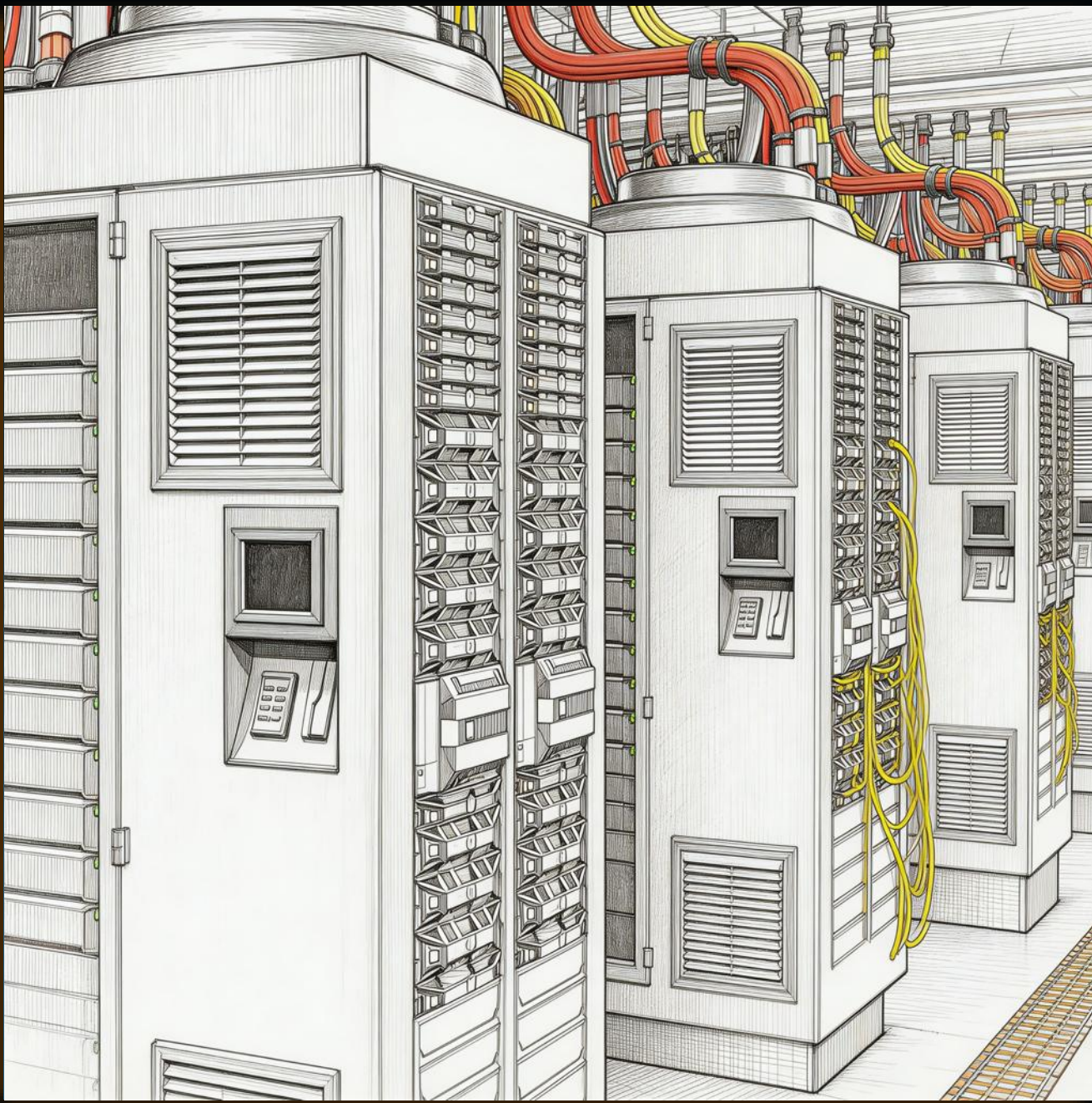






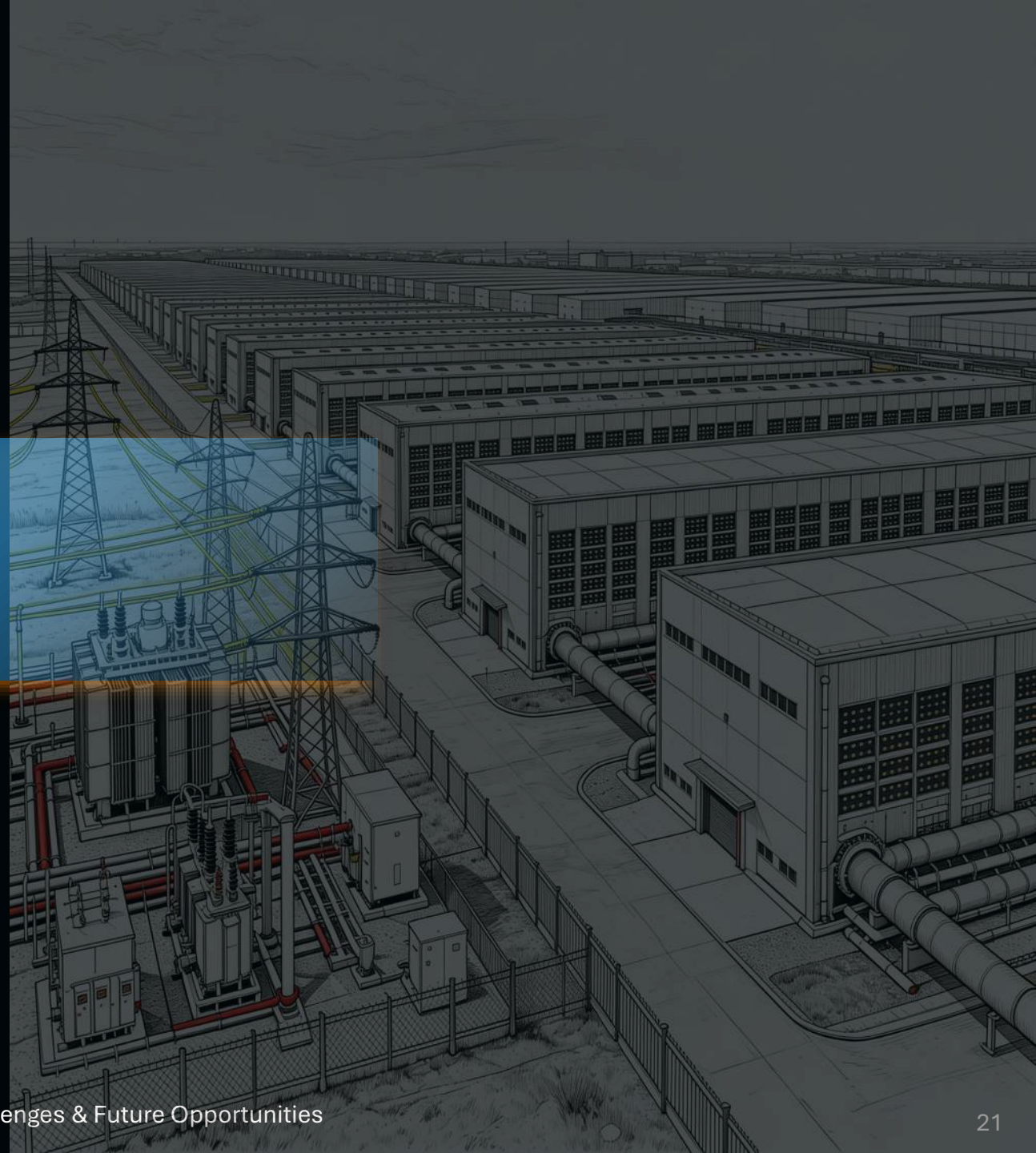


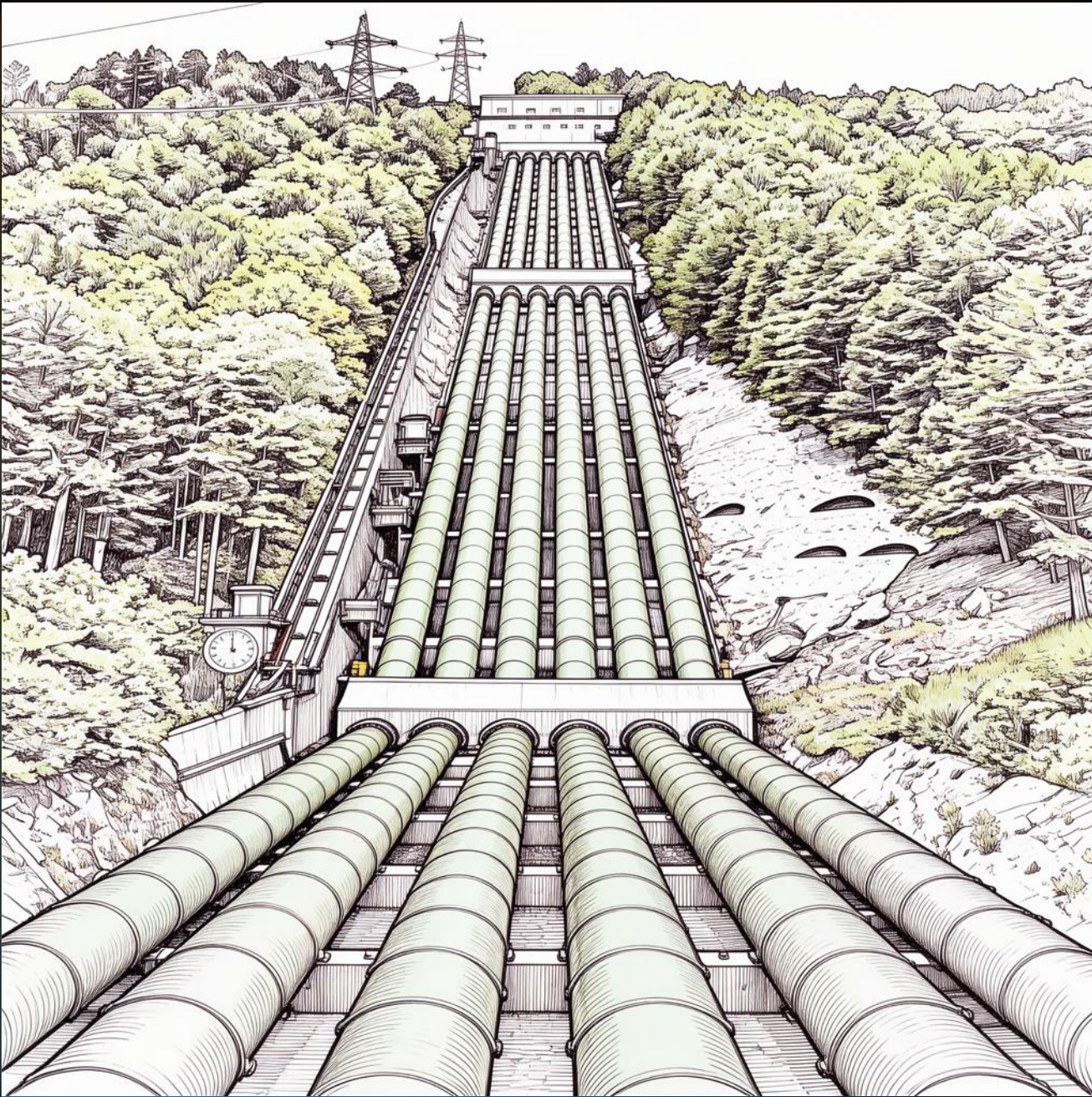


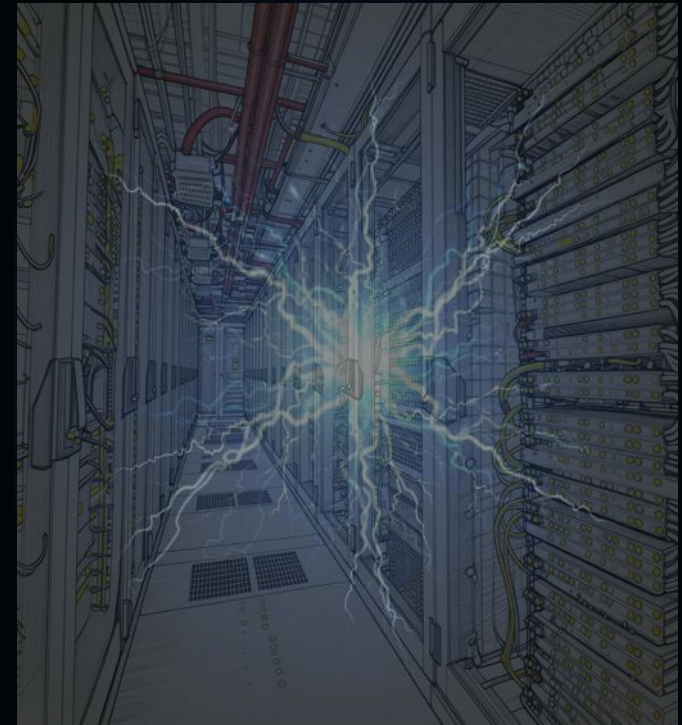
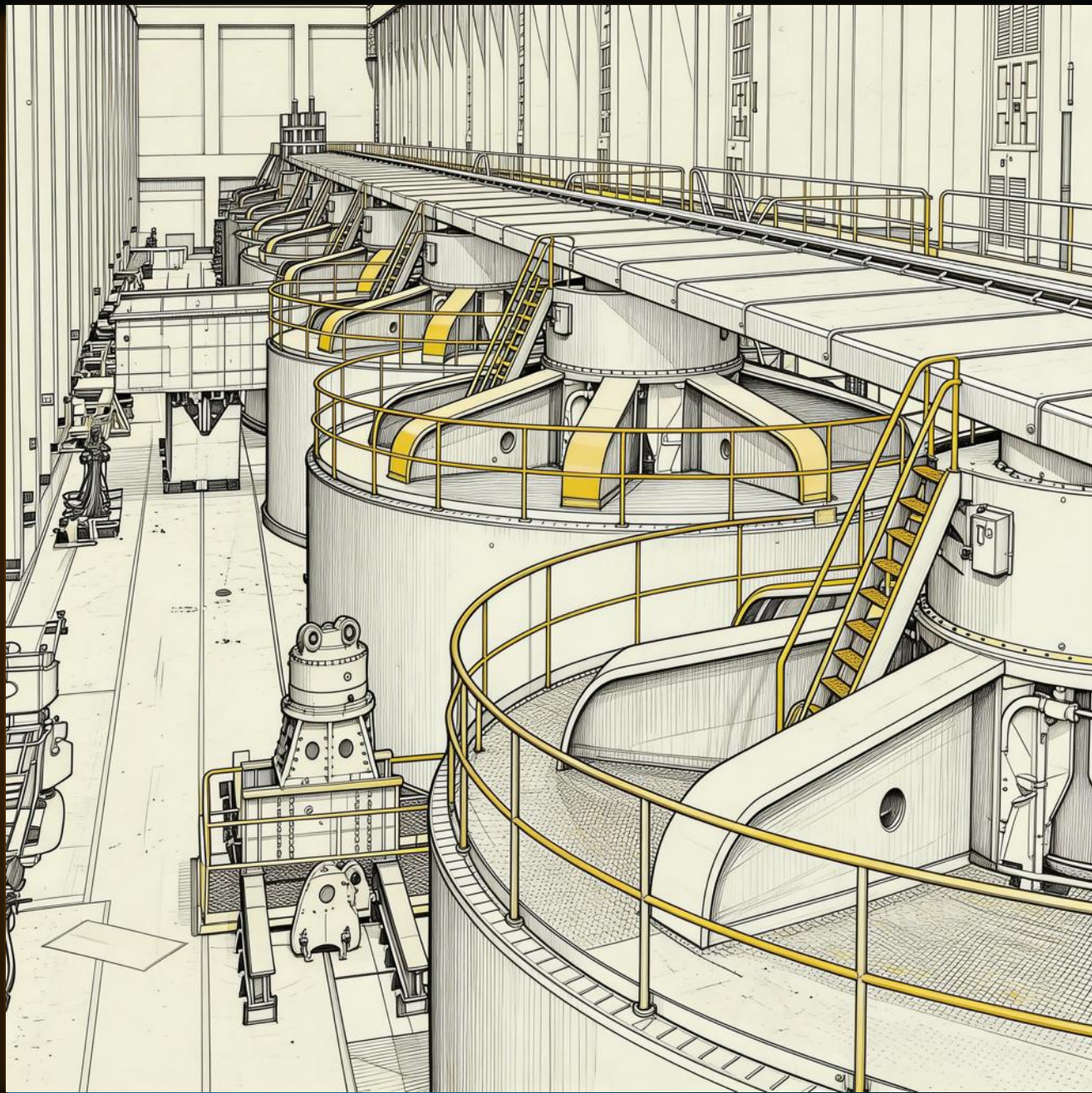


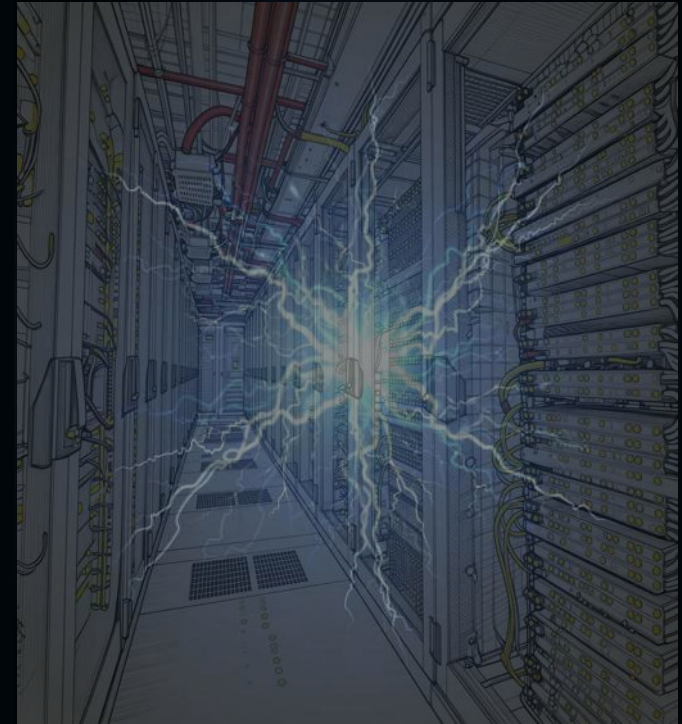
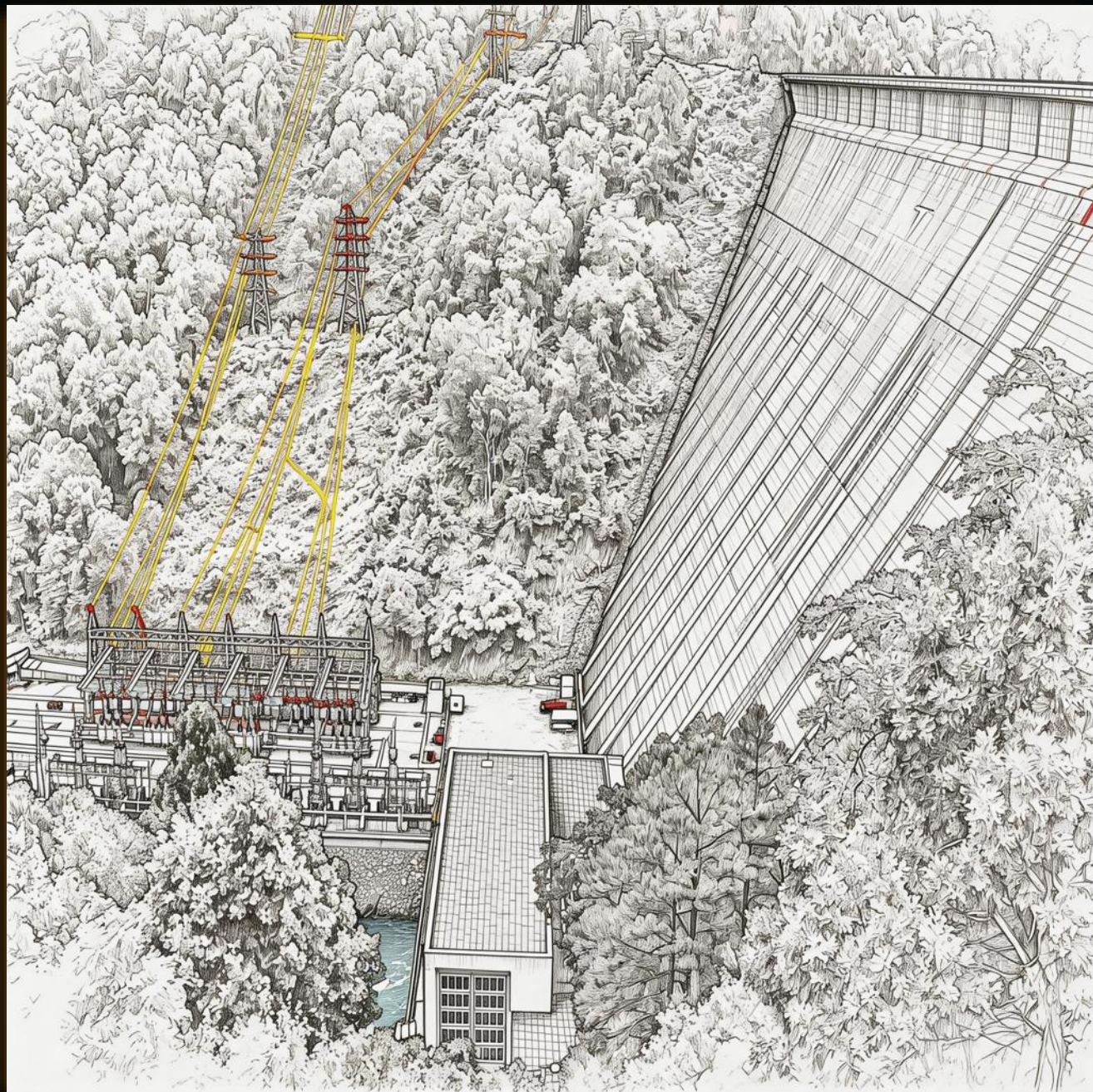
2b Background

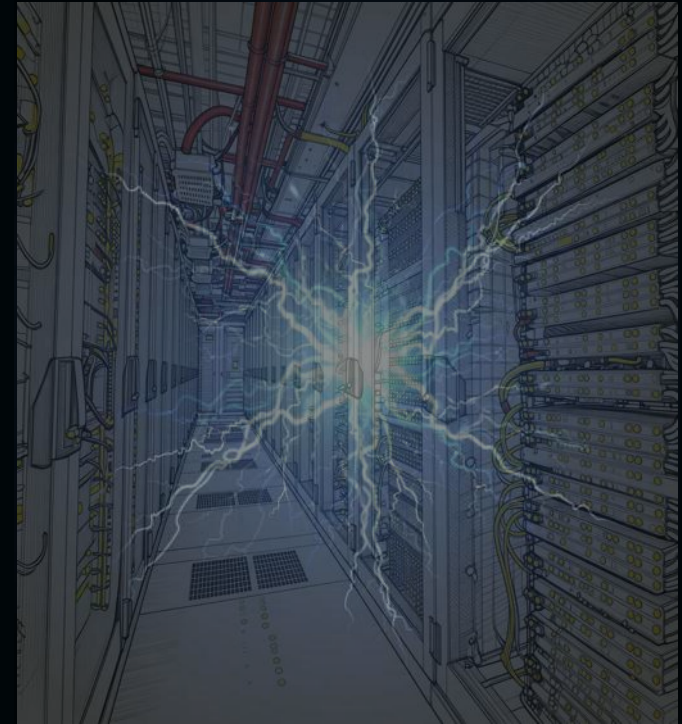
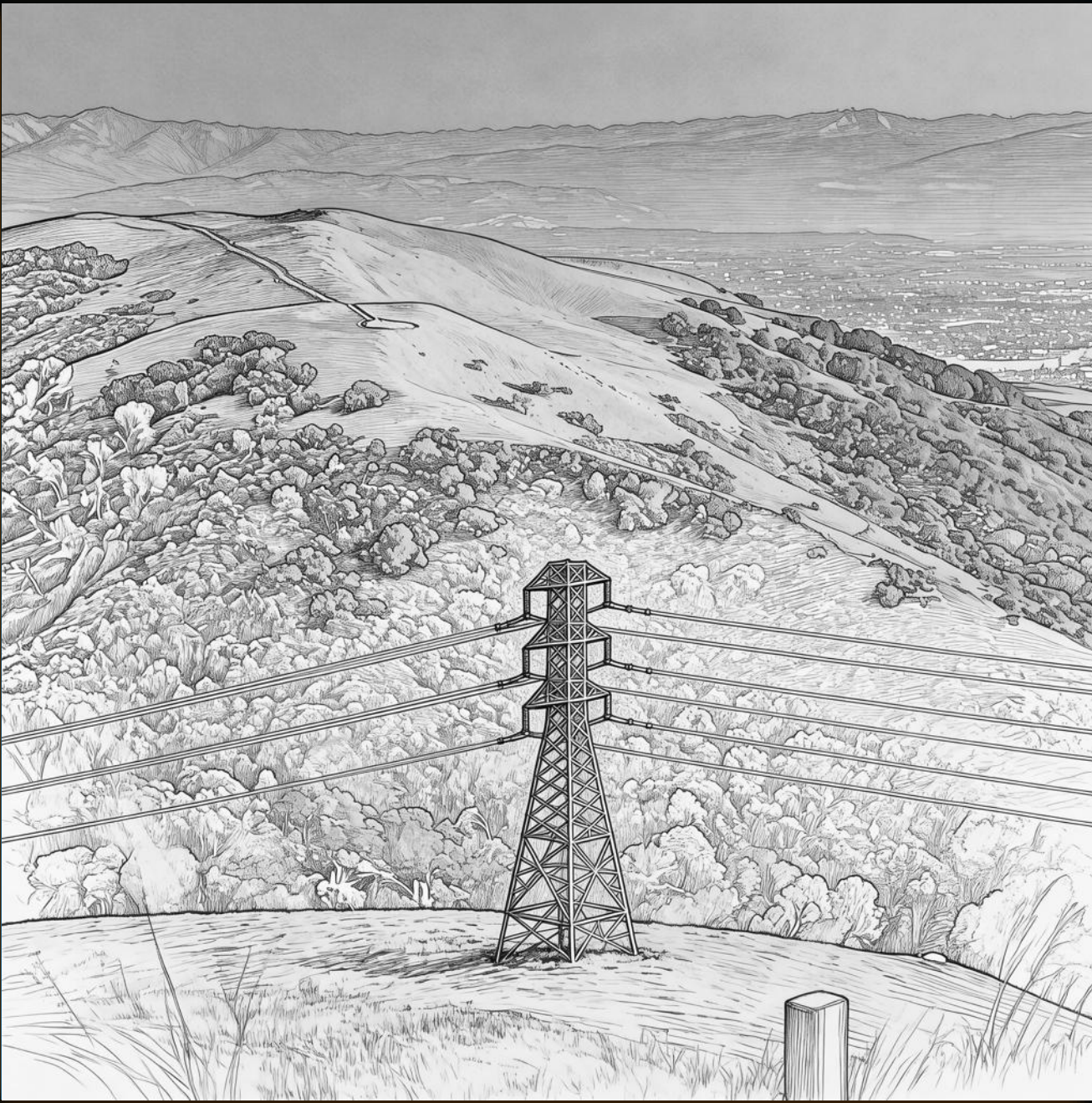
Power...

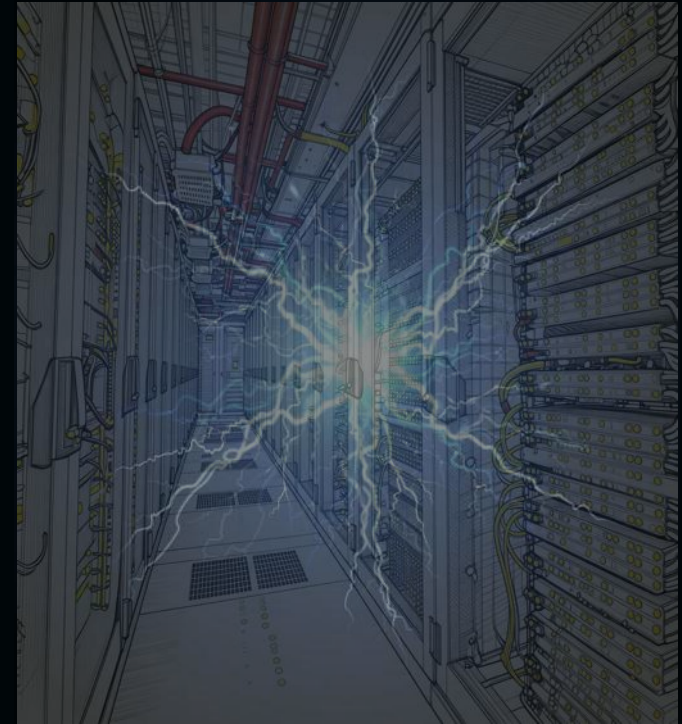
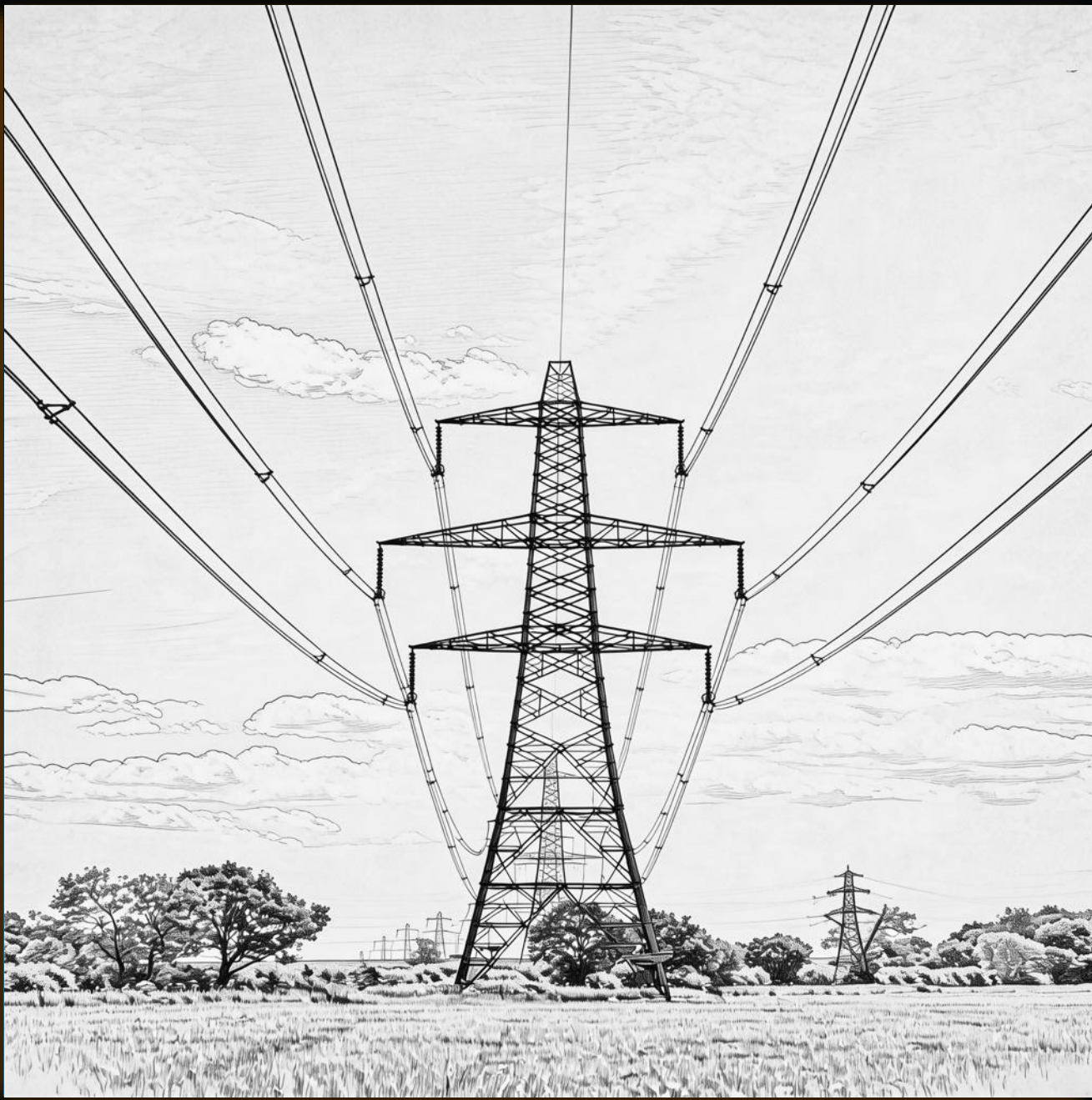


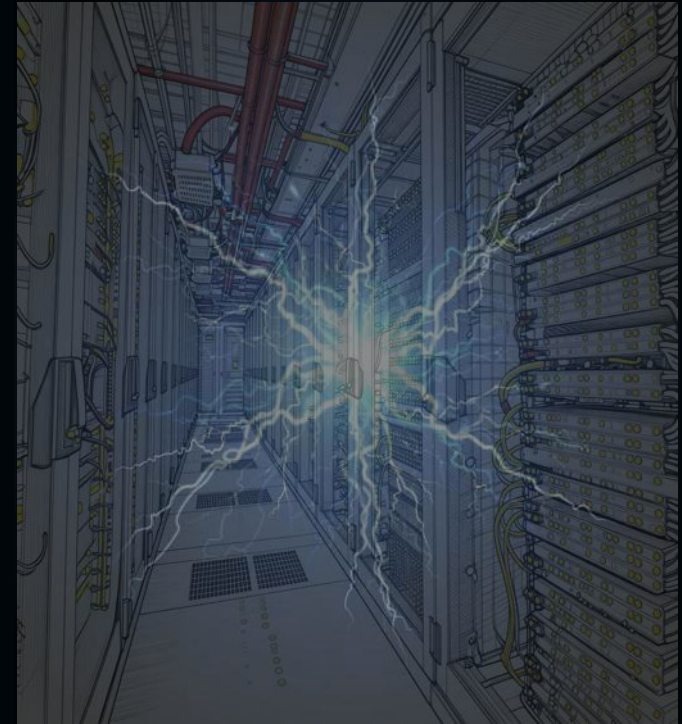
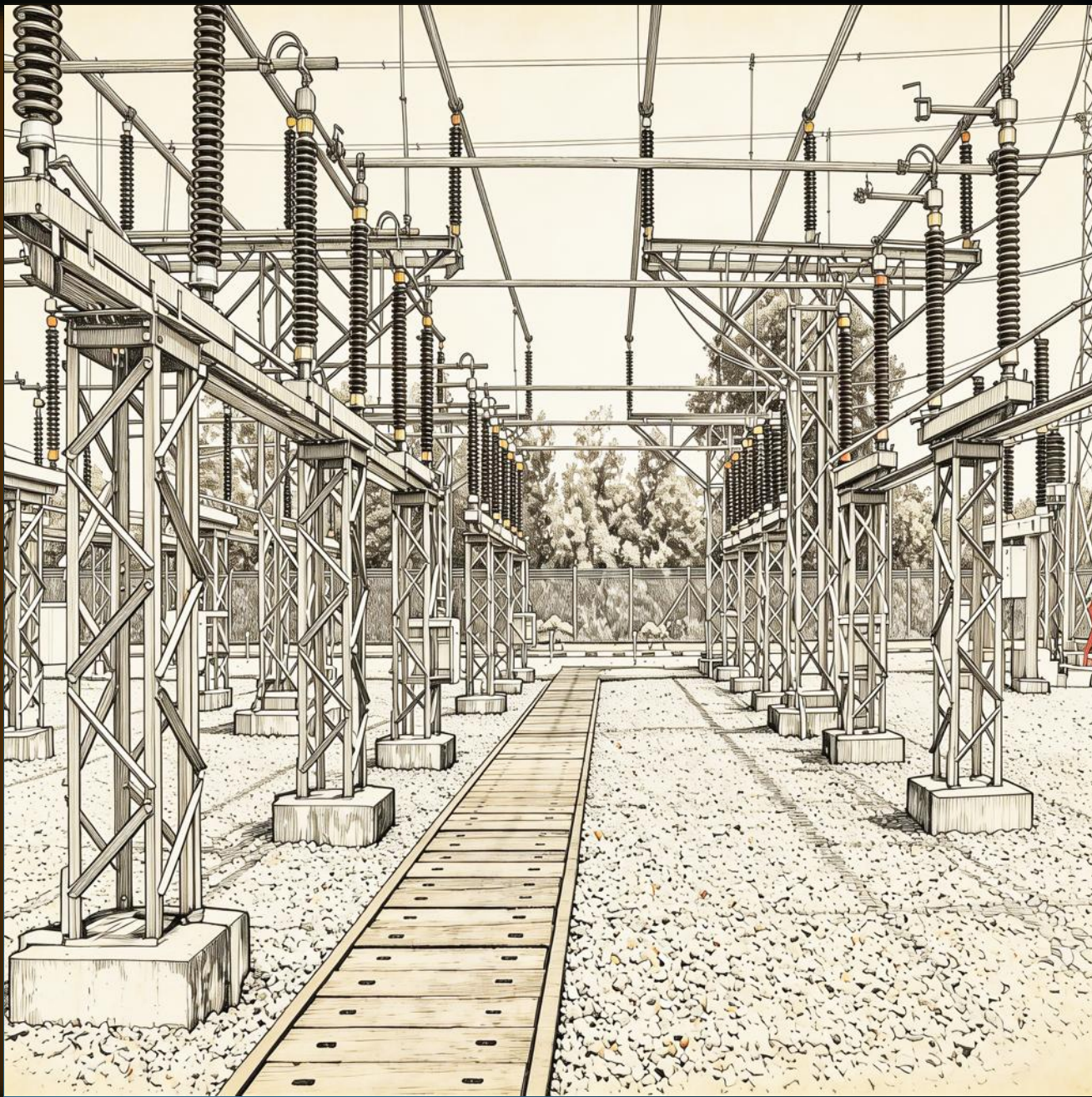


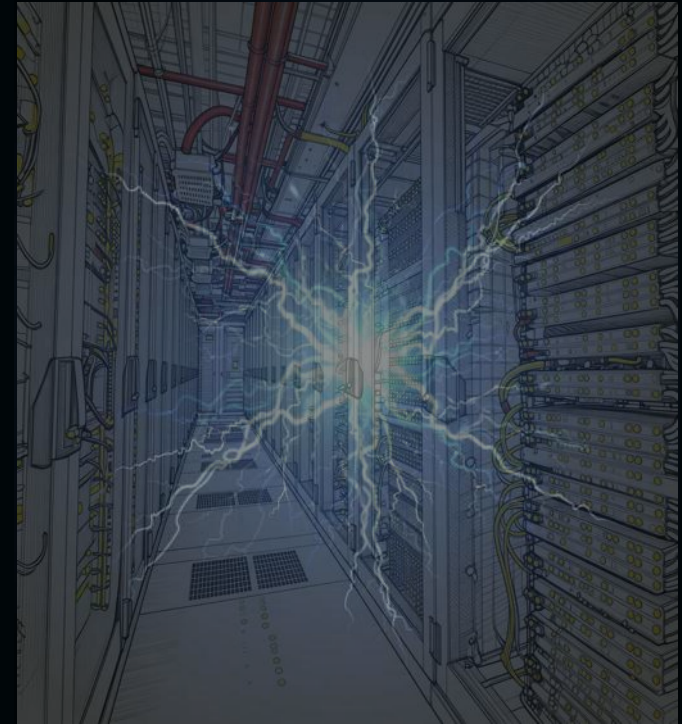
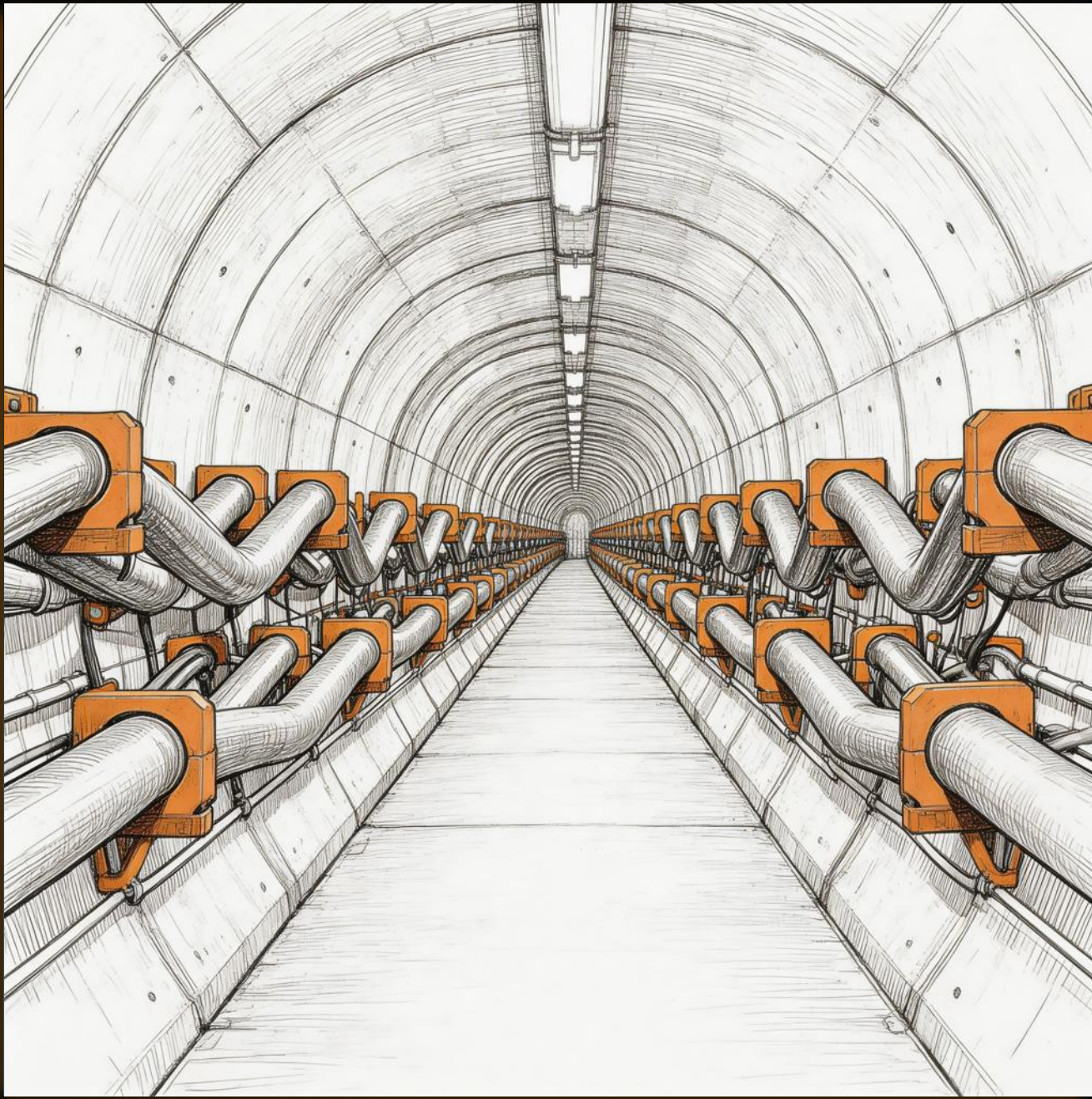


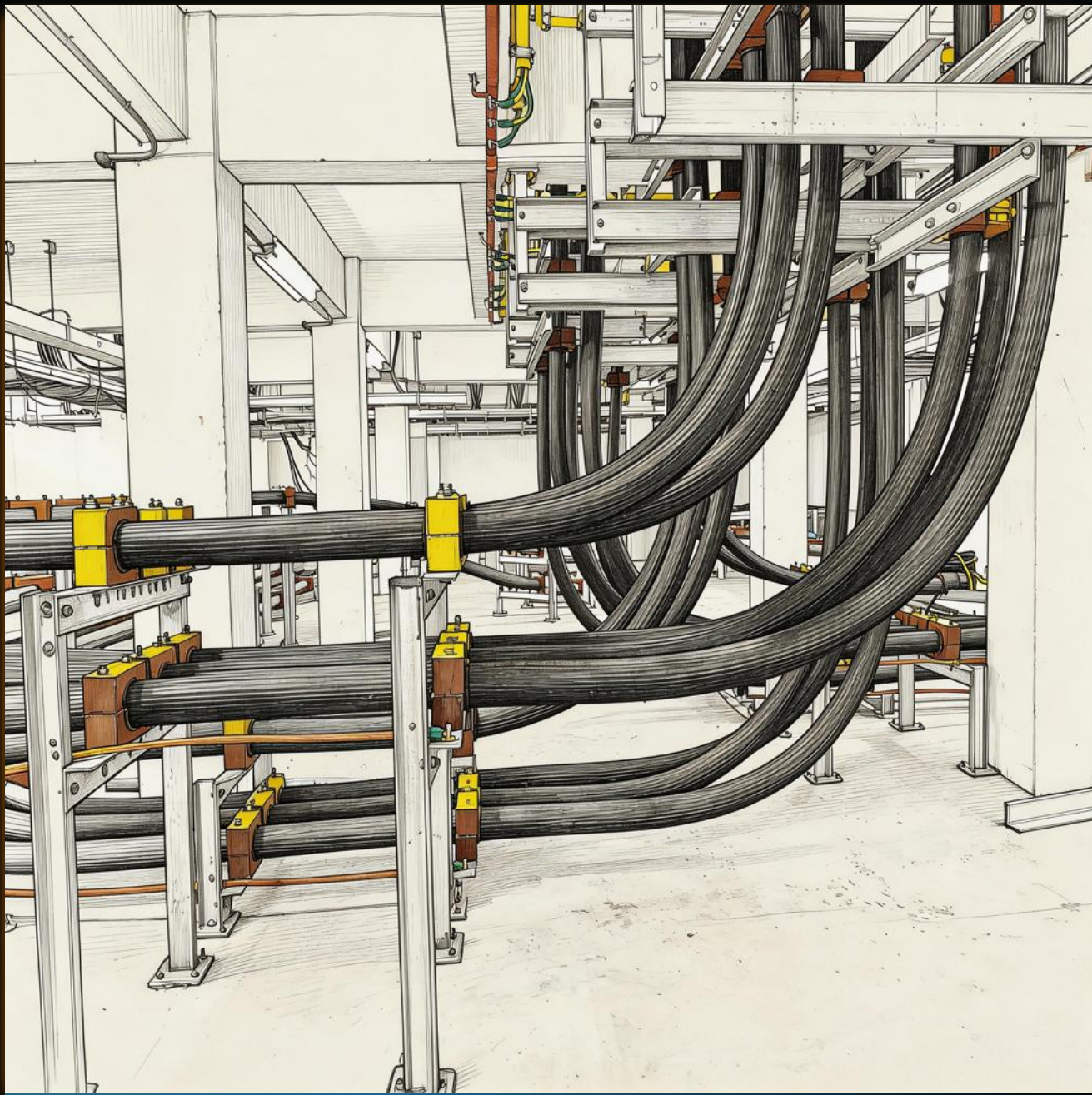


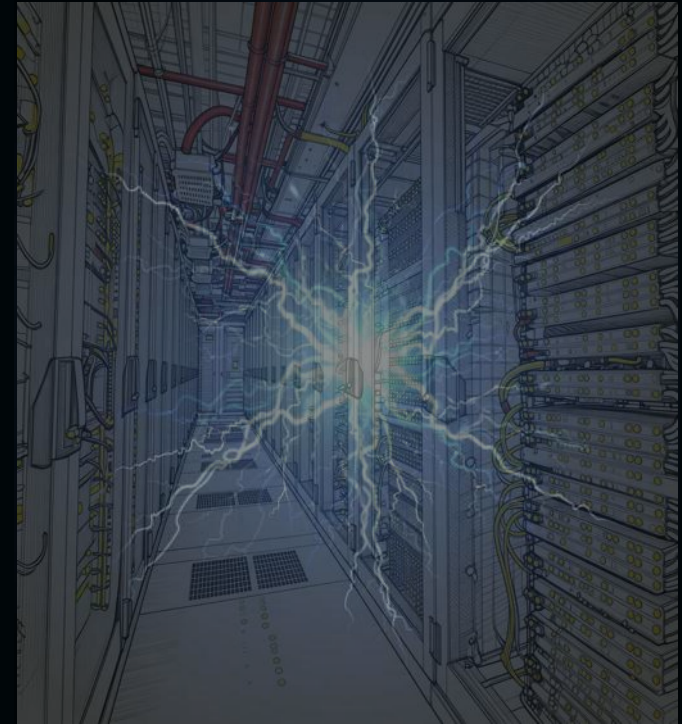




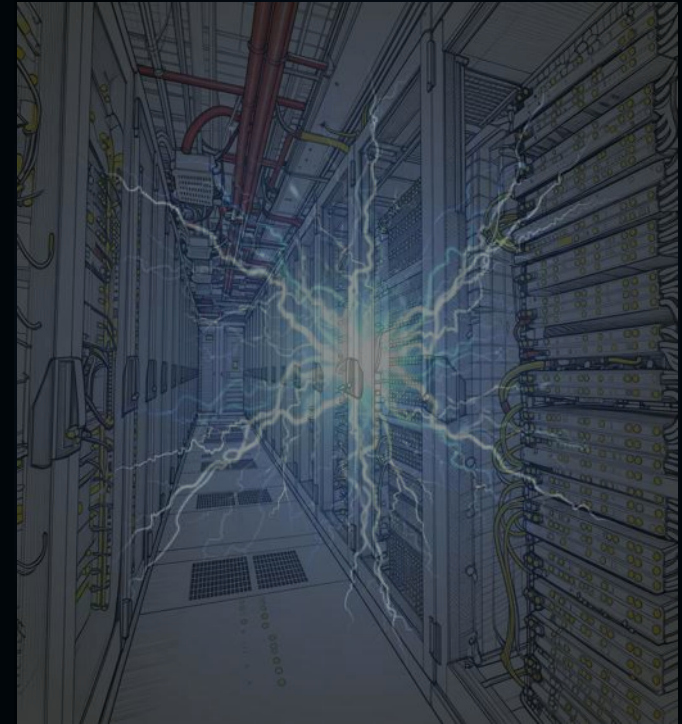
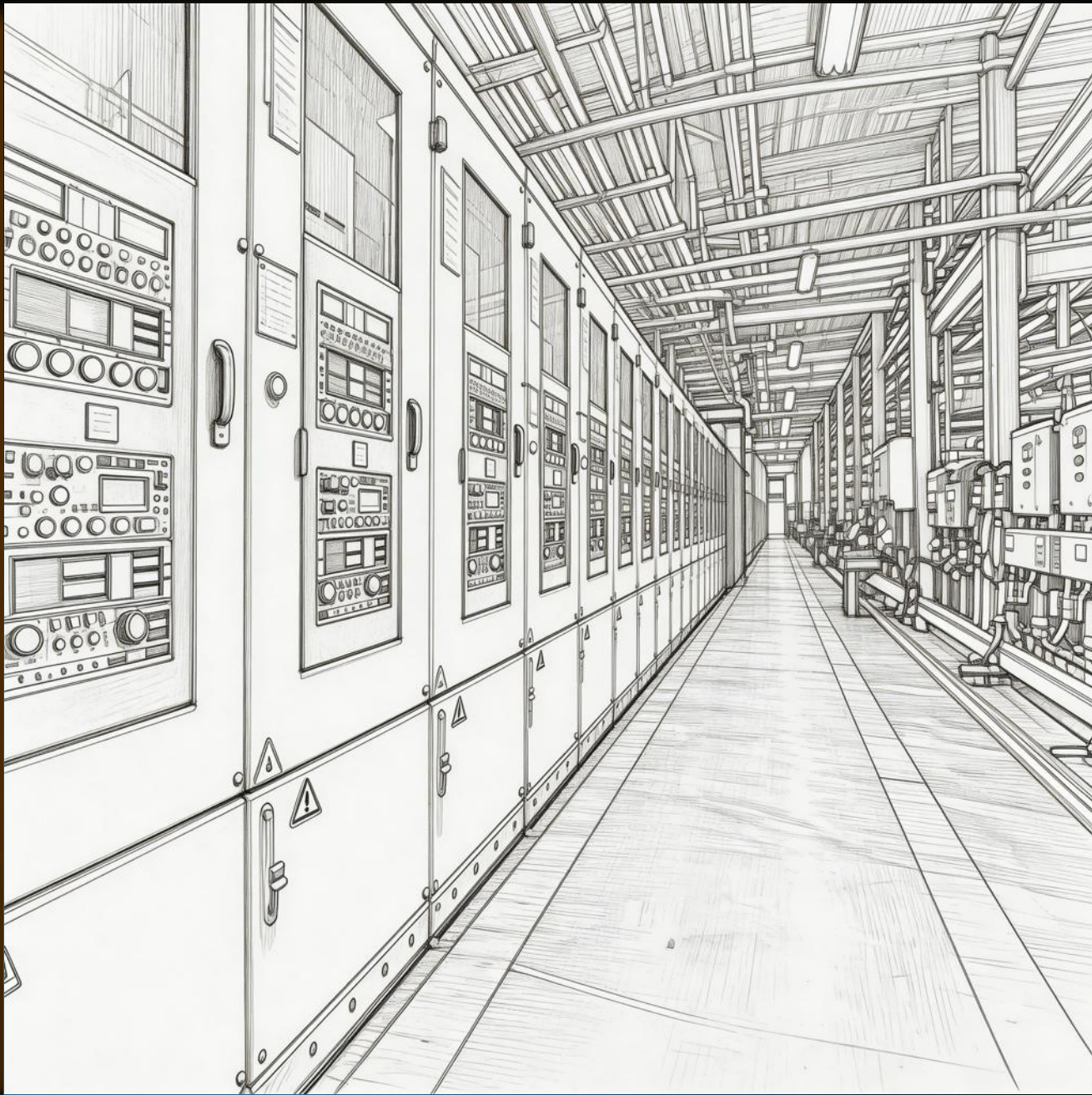


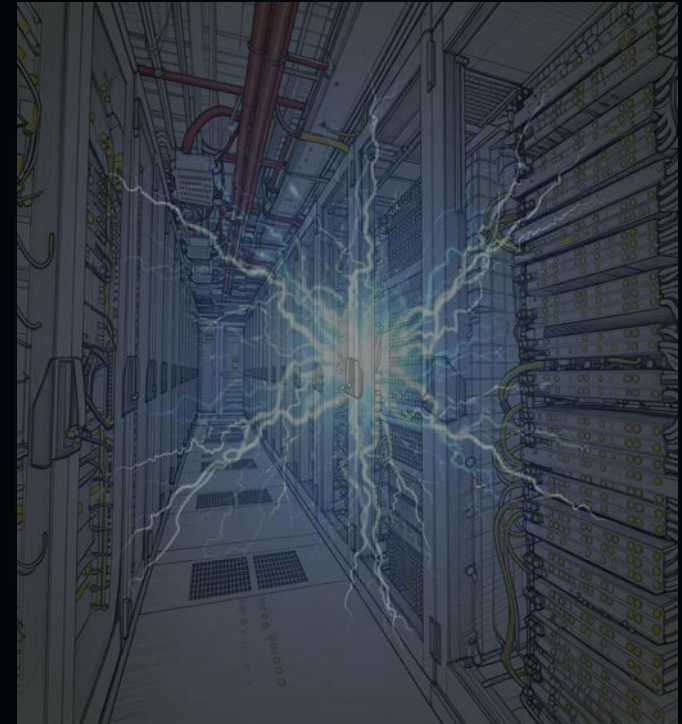
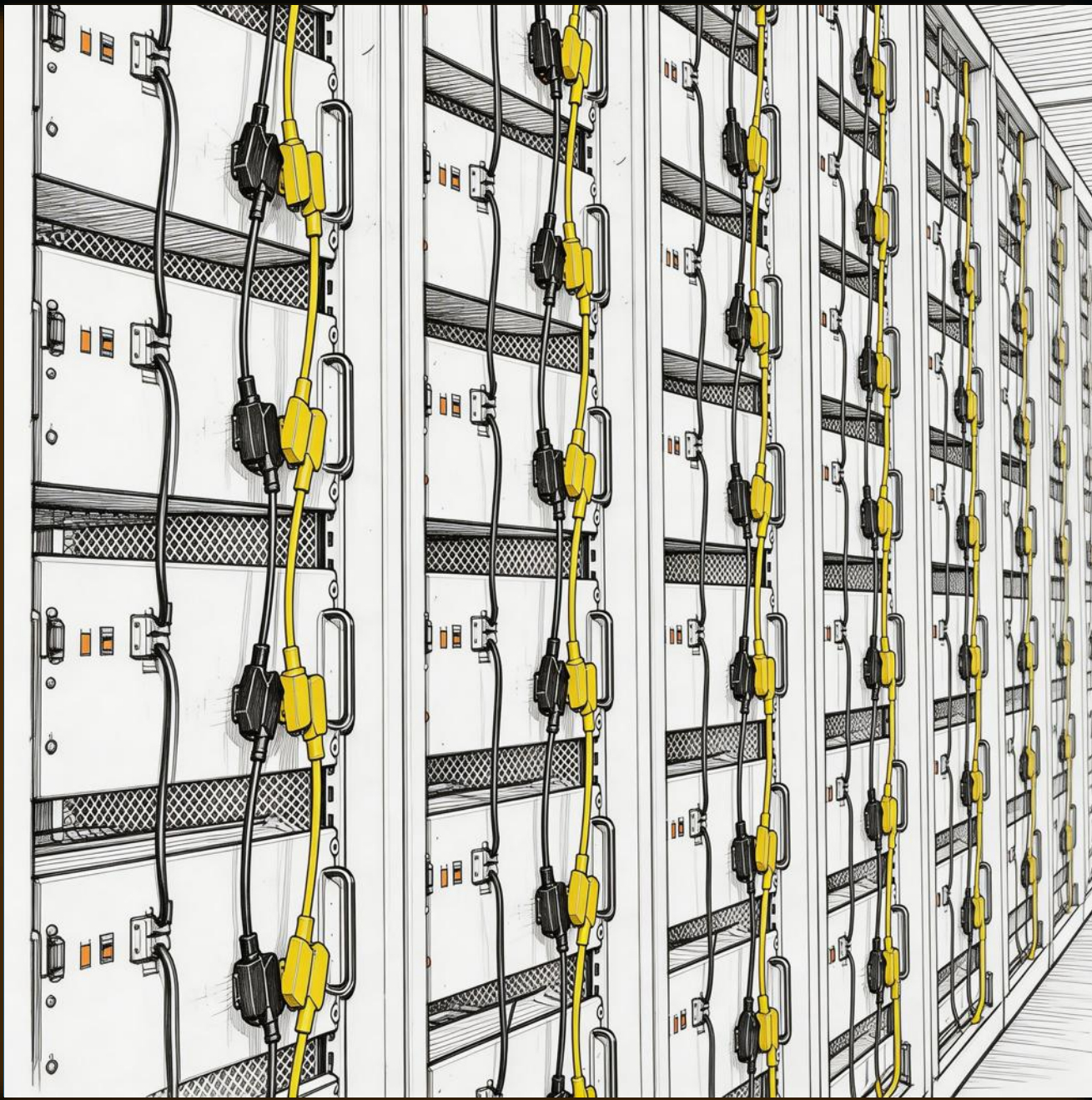


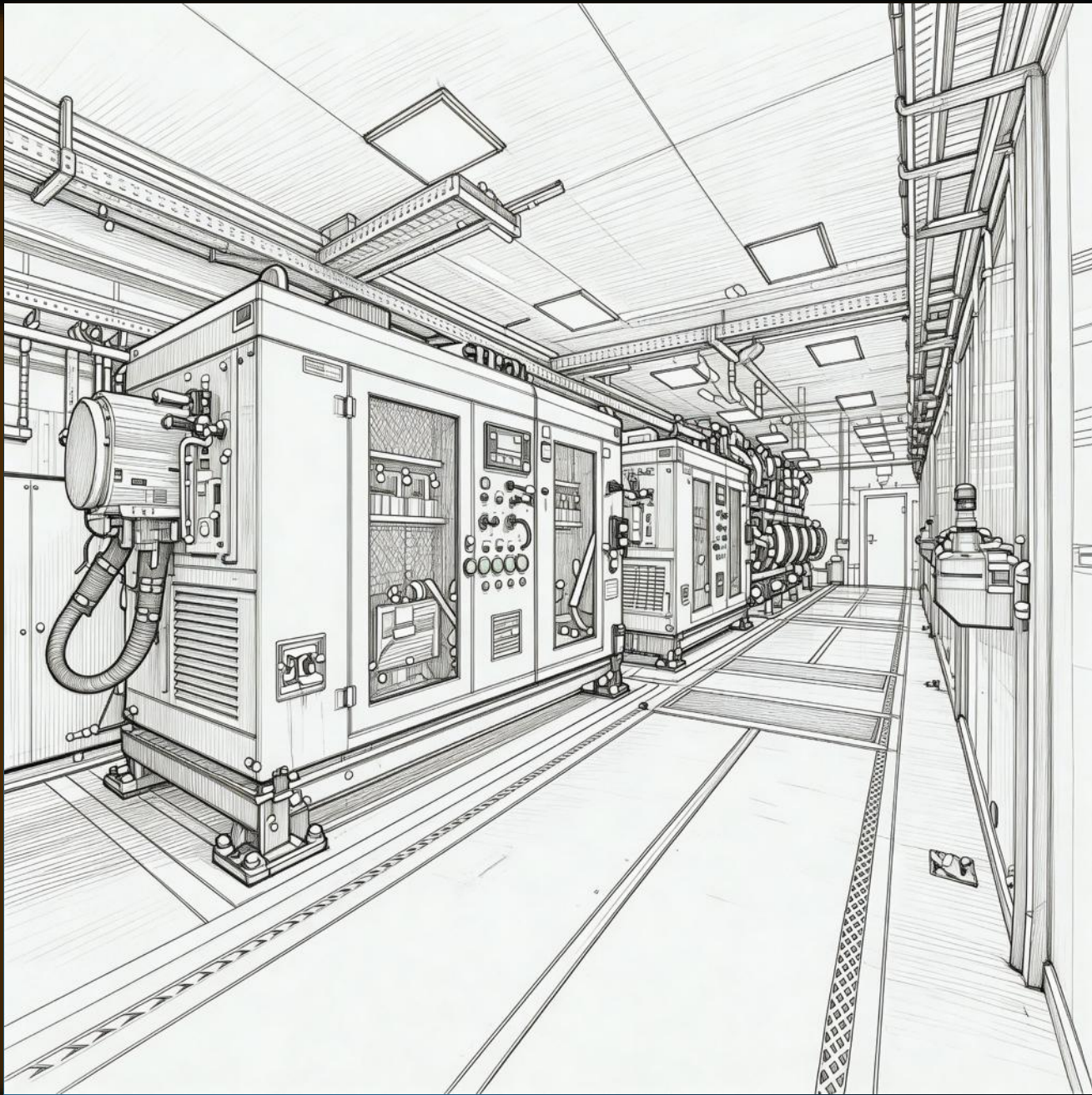




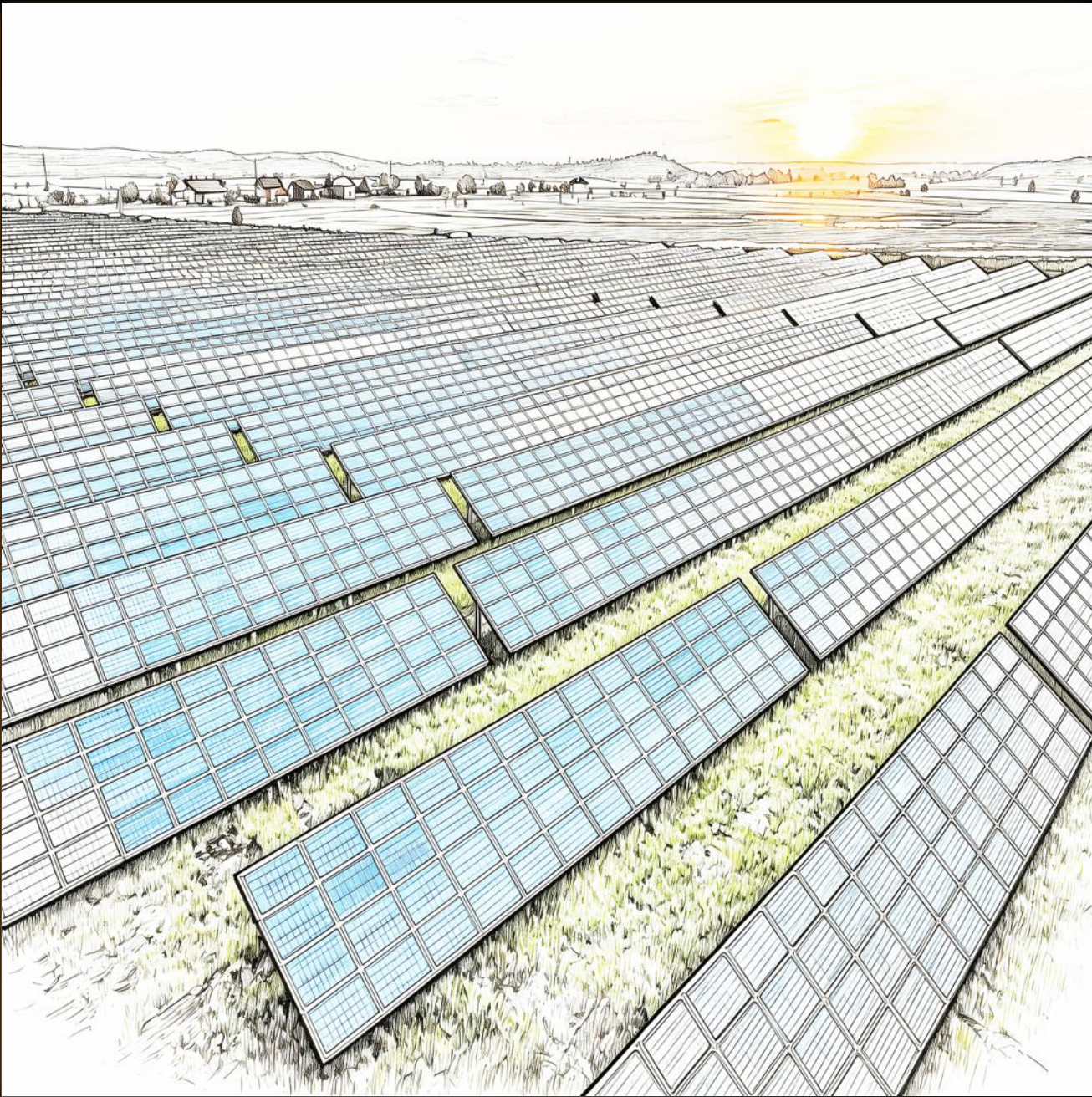






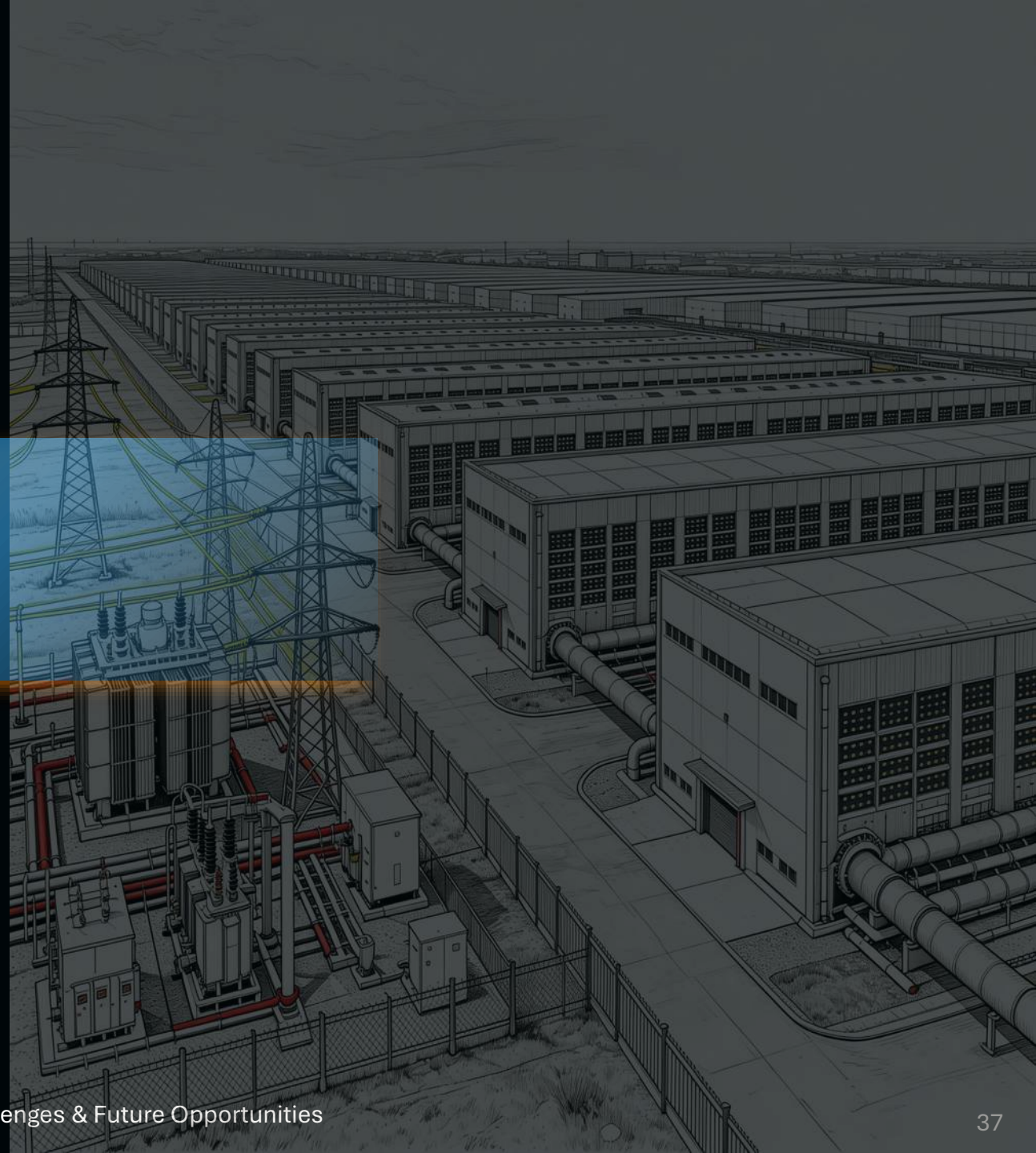


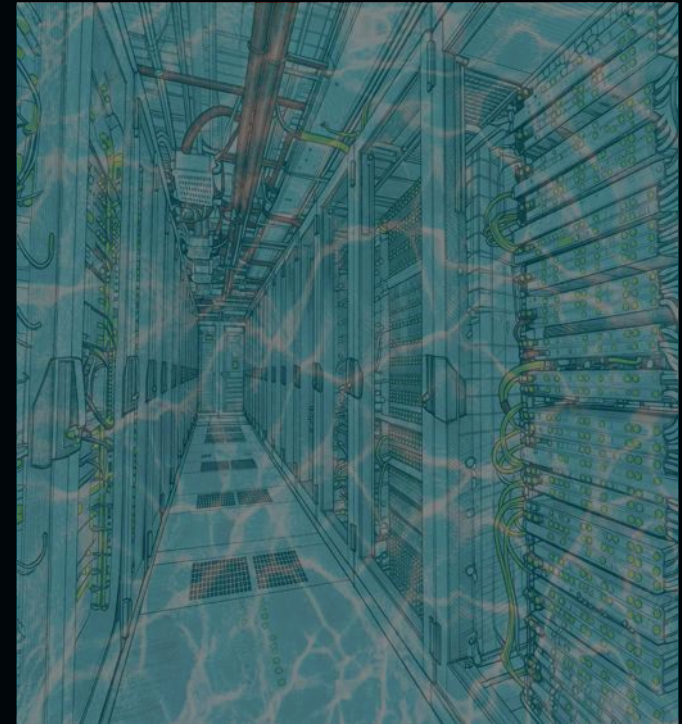
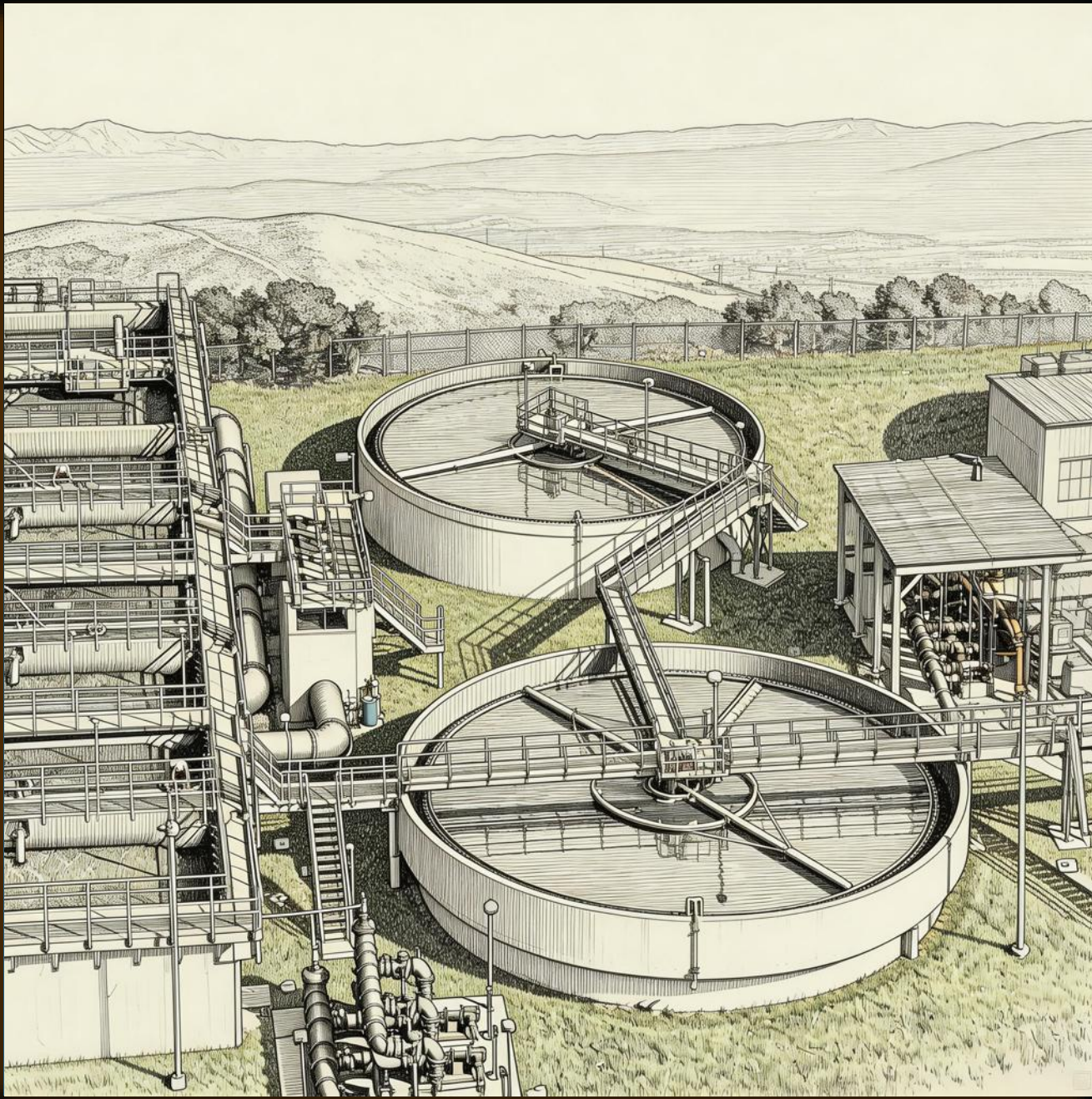


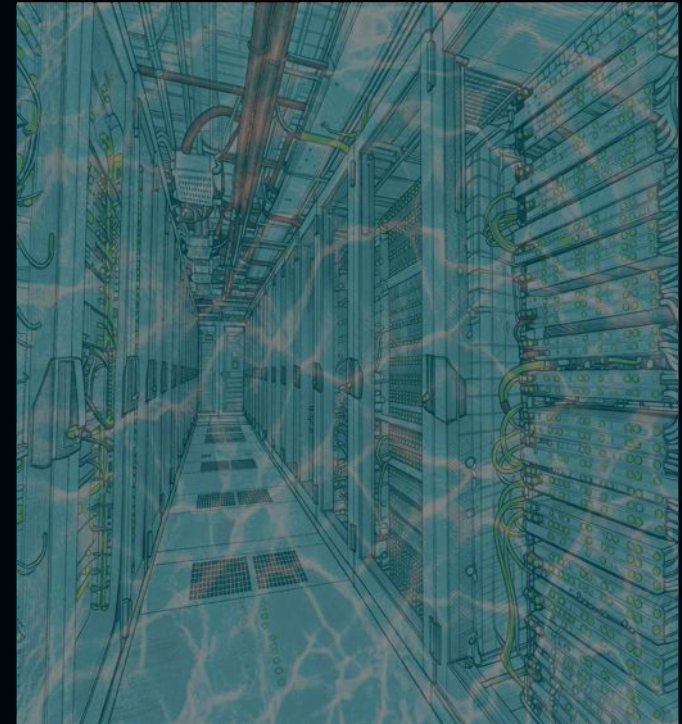
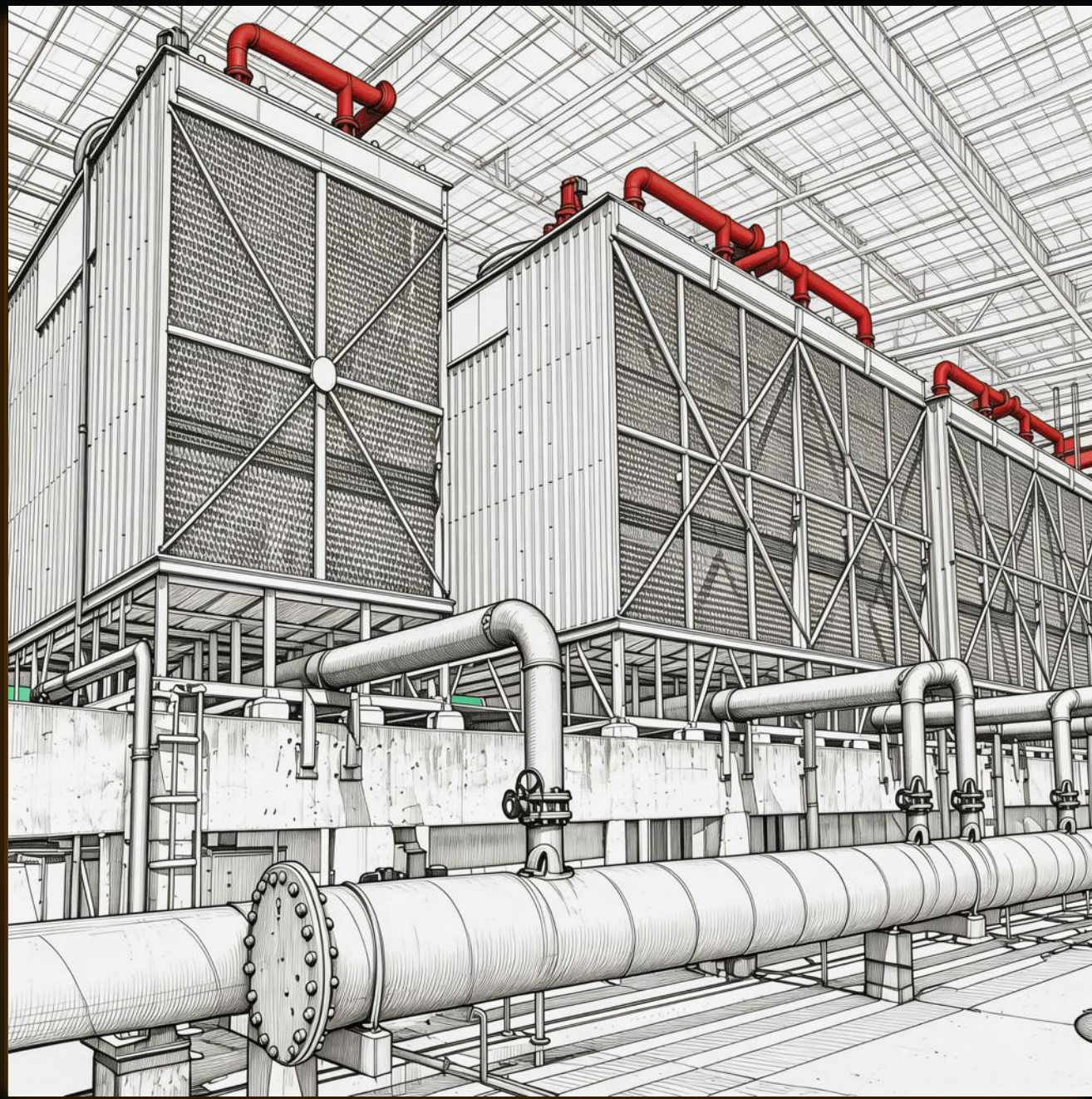


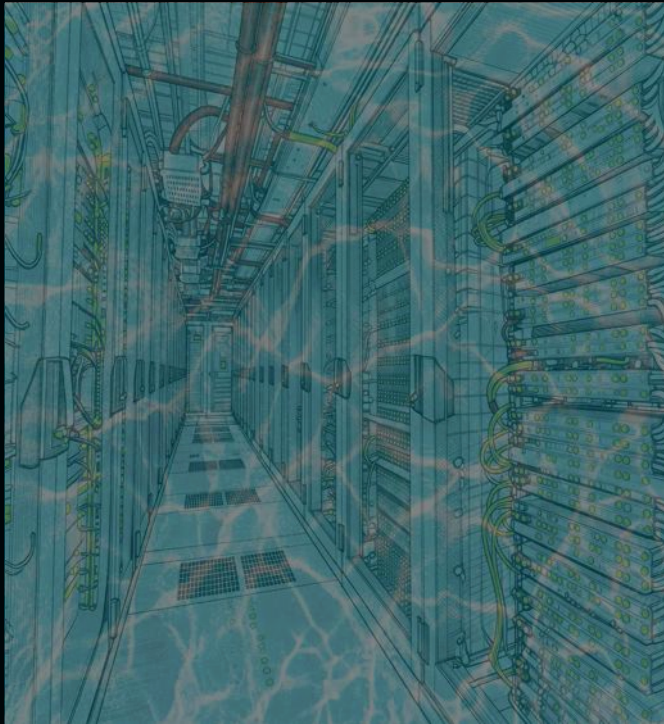
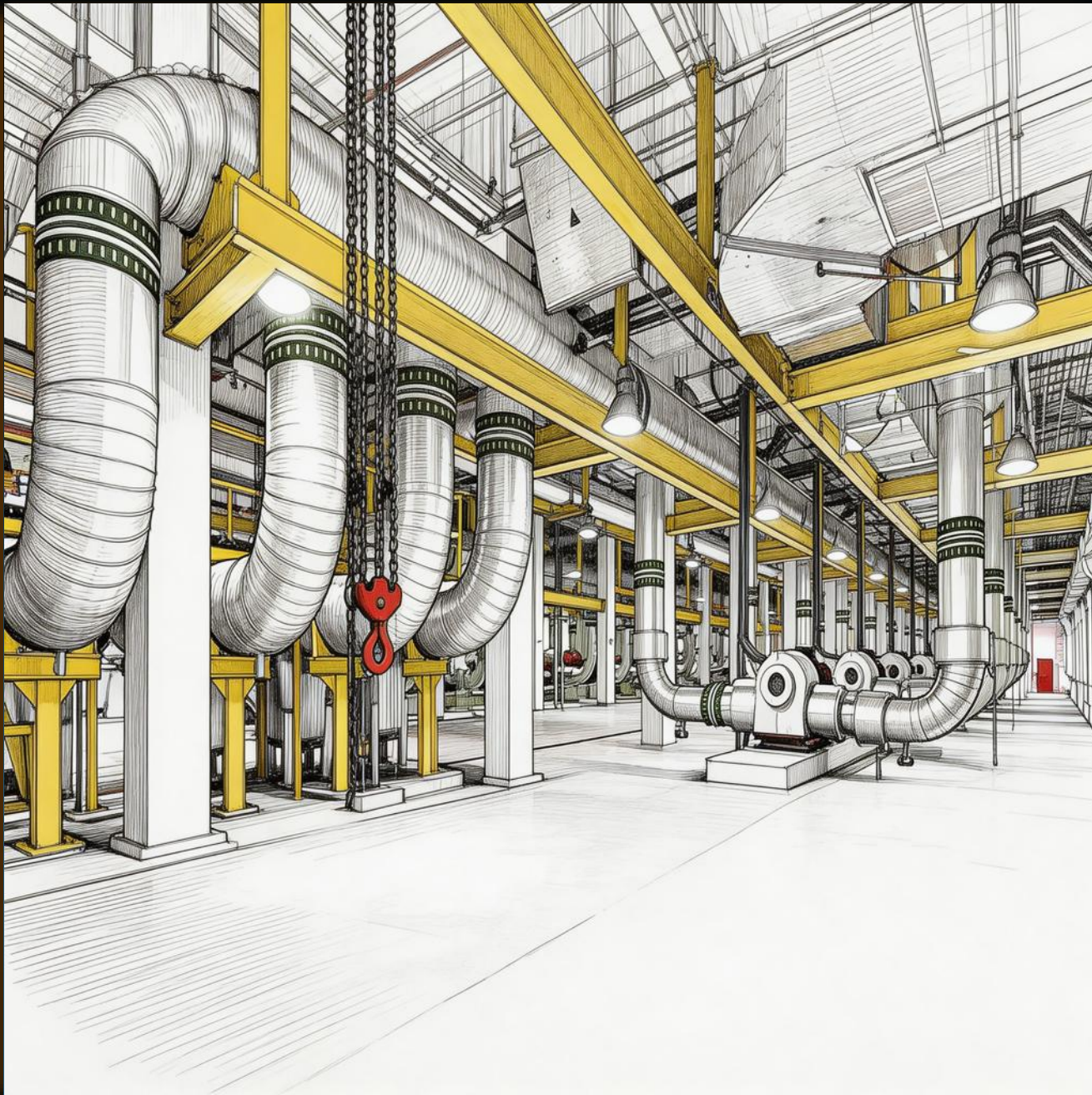
2c Background

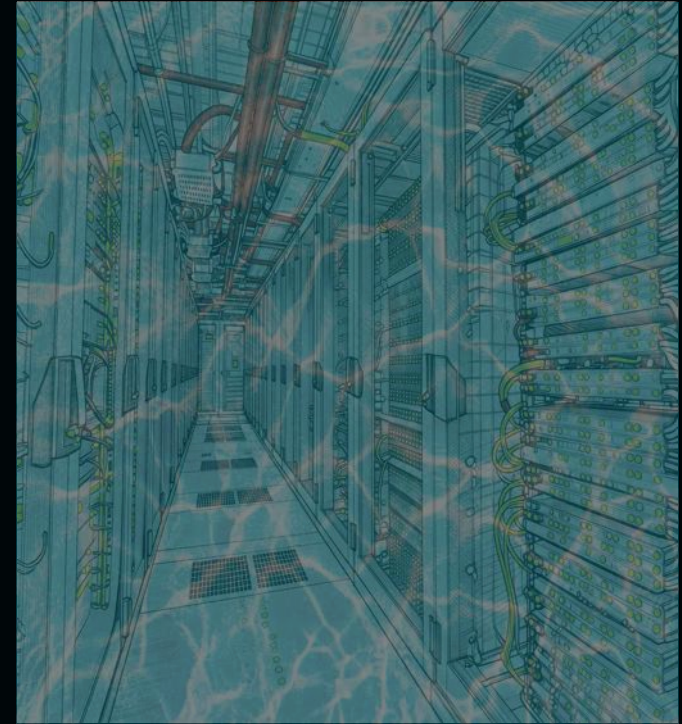
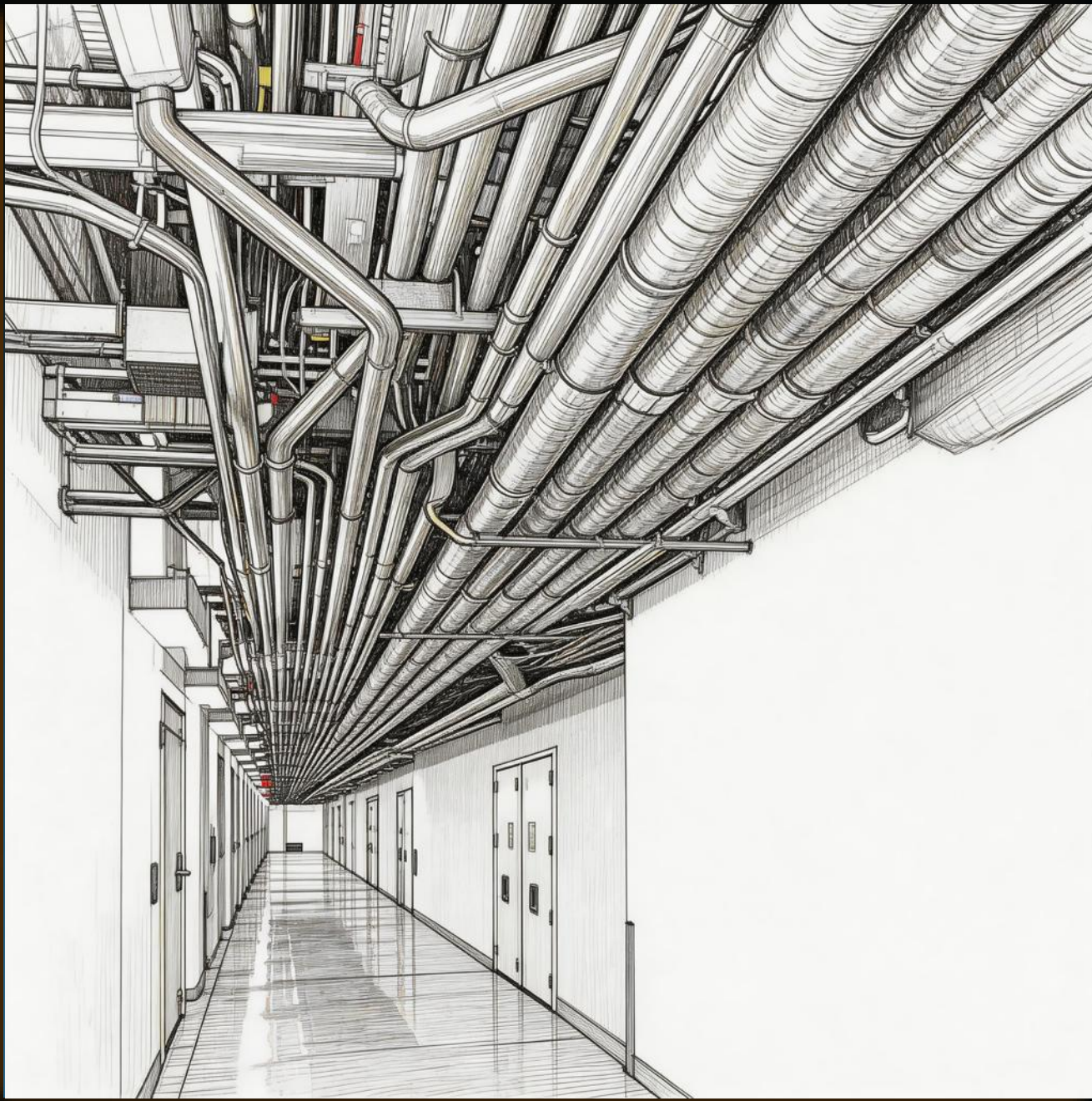
Liquid Cooling...

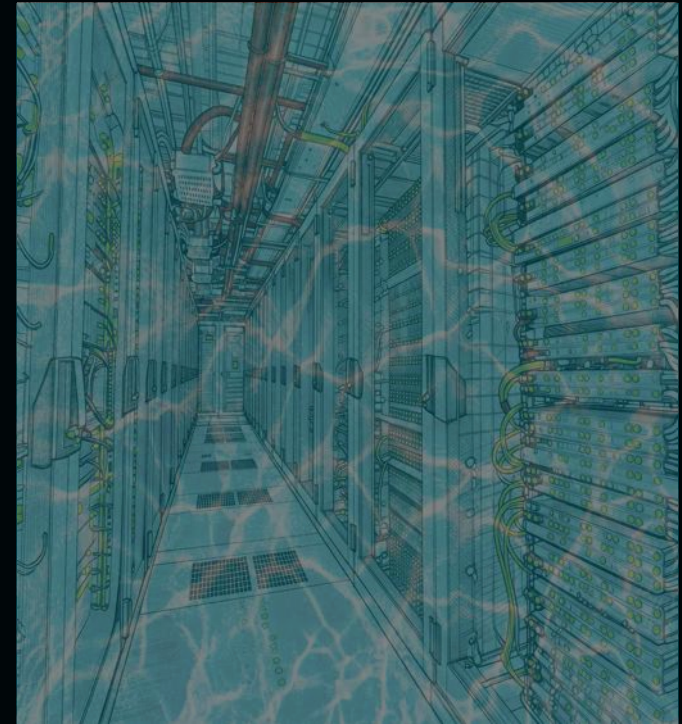
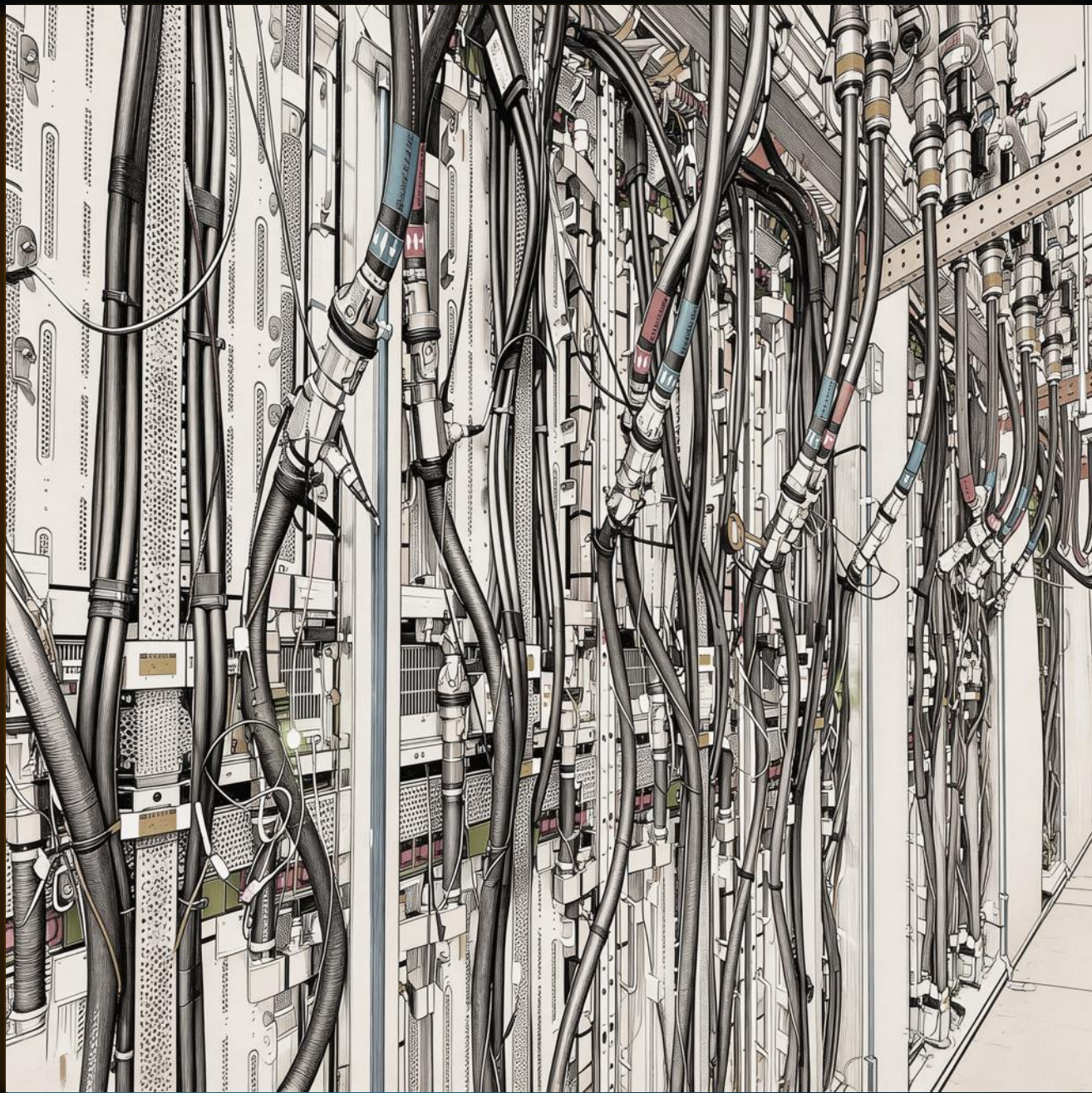














3 The Opportunities

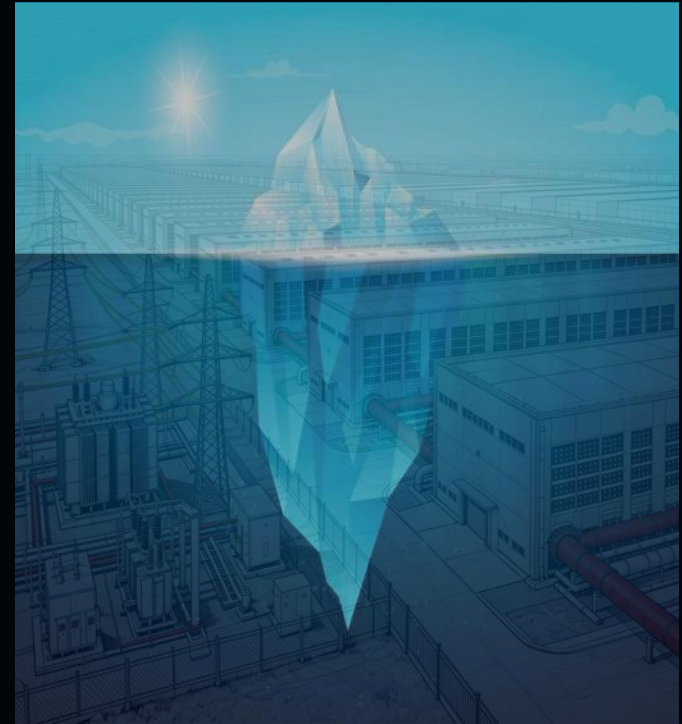
Condition Monitoring (CM) & Early Fault Detection (EFD)

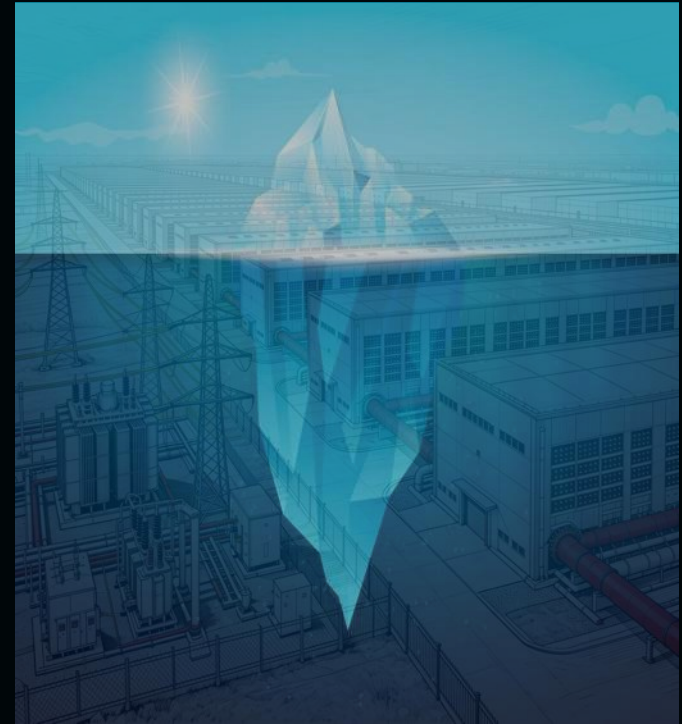


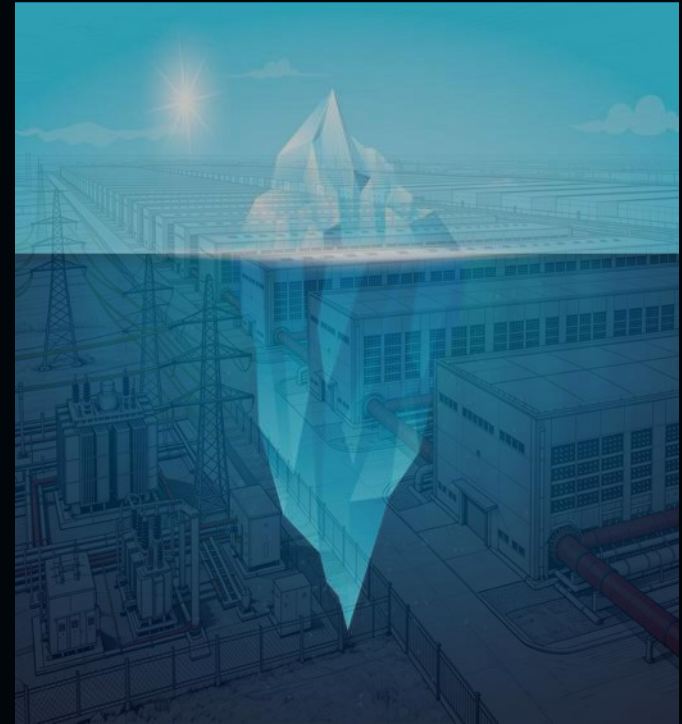


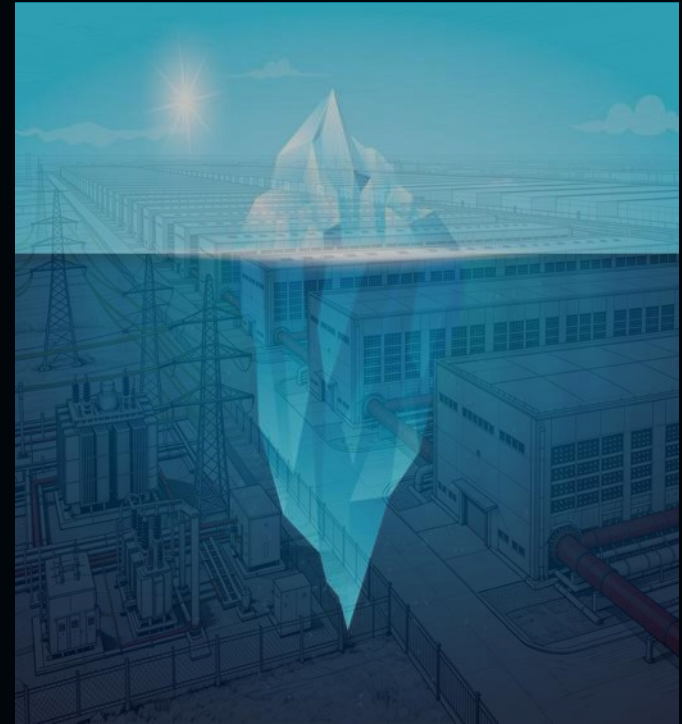
4 The Paradox & Challenges

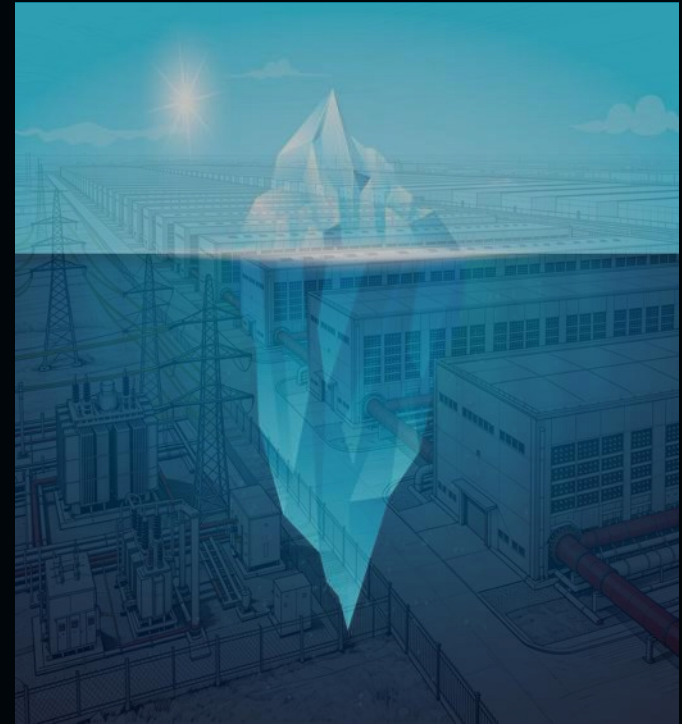
Energy Efficiency, Efficacy, and Resiliency...







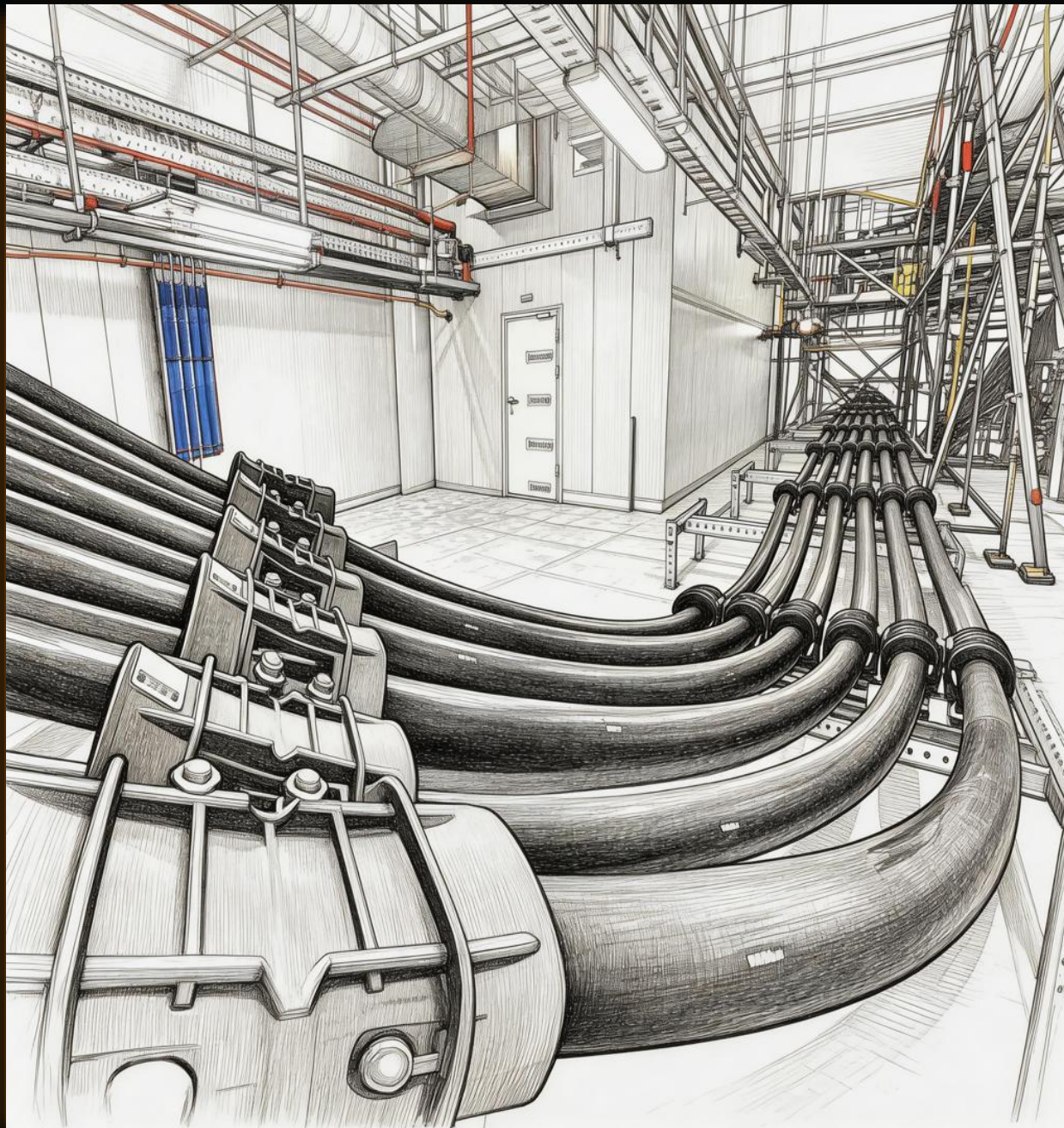






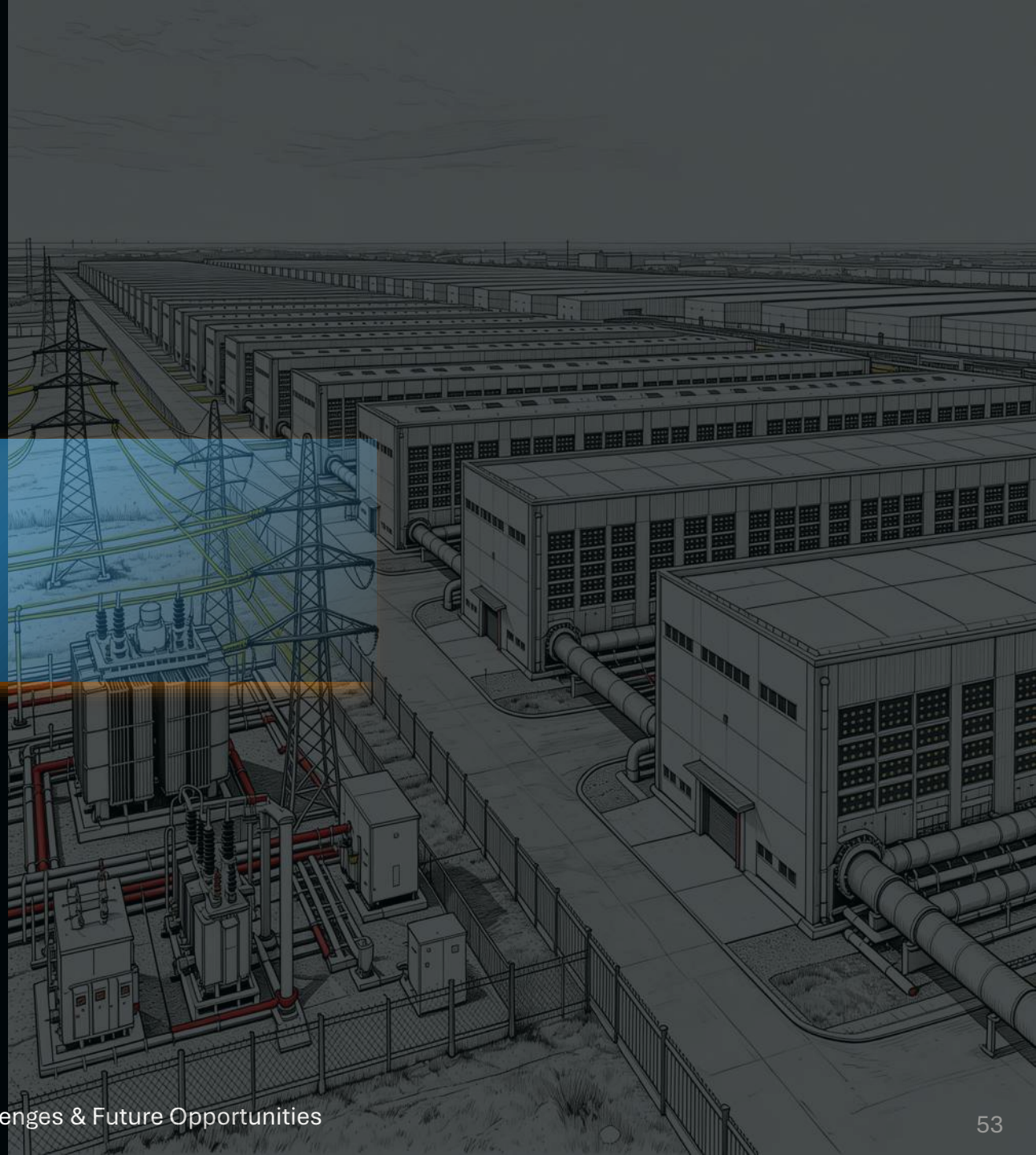
5 Concluding Remarks

A Fresh Look at our Infrastructure...



Questions?

AI-related for ComputationWorld 2026?



Thank you!

Have a great conference and enjoy Lisbon!

