



# Power Advisor: A Case Study

Resolute Forest Products – Thunder Bay  
Presented by: Ben MacKay, CET



# Agenda

- 1. Who is Digital Engineering?**
- 2. Customer Introduction**
- 3. Challenges**
- 4. Power Advisor Results**
- 5. Next steps**
- 6. Lessons Learned**



## Who is Digital Engineering?

- System Integration
- Automation
- Energy Management
- Product Development
- Maintenance





# The Customer



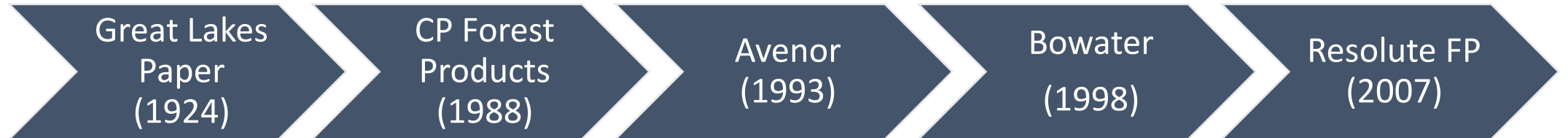
## Resolute Forest Products - Thunder Bay

- **Number of Employees:** 462
- **Products:** Market pulp, newsprint
- **Annual Production Capacity:** 554,000 metric tons
- **Cogeneration:** Installed capacity of 90 MW
- ~300 acres in size
- One of the largest pulp and paper facilities in the country



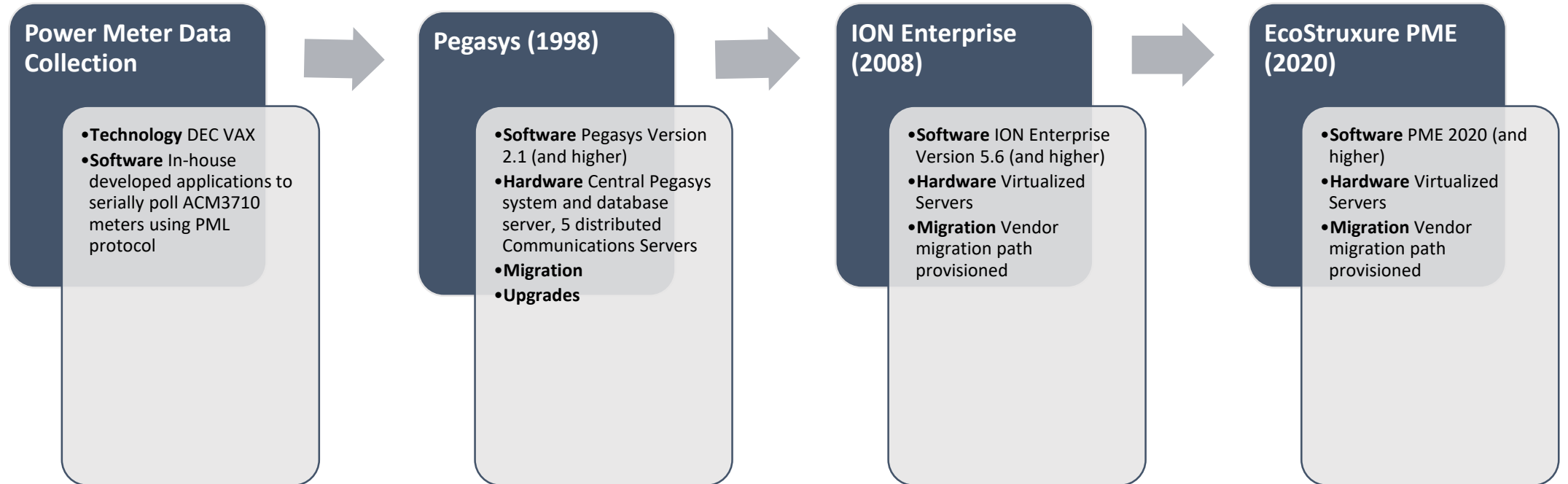


# History of the Resolute Thunder Bay Site



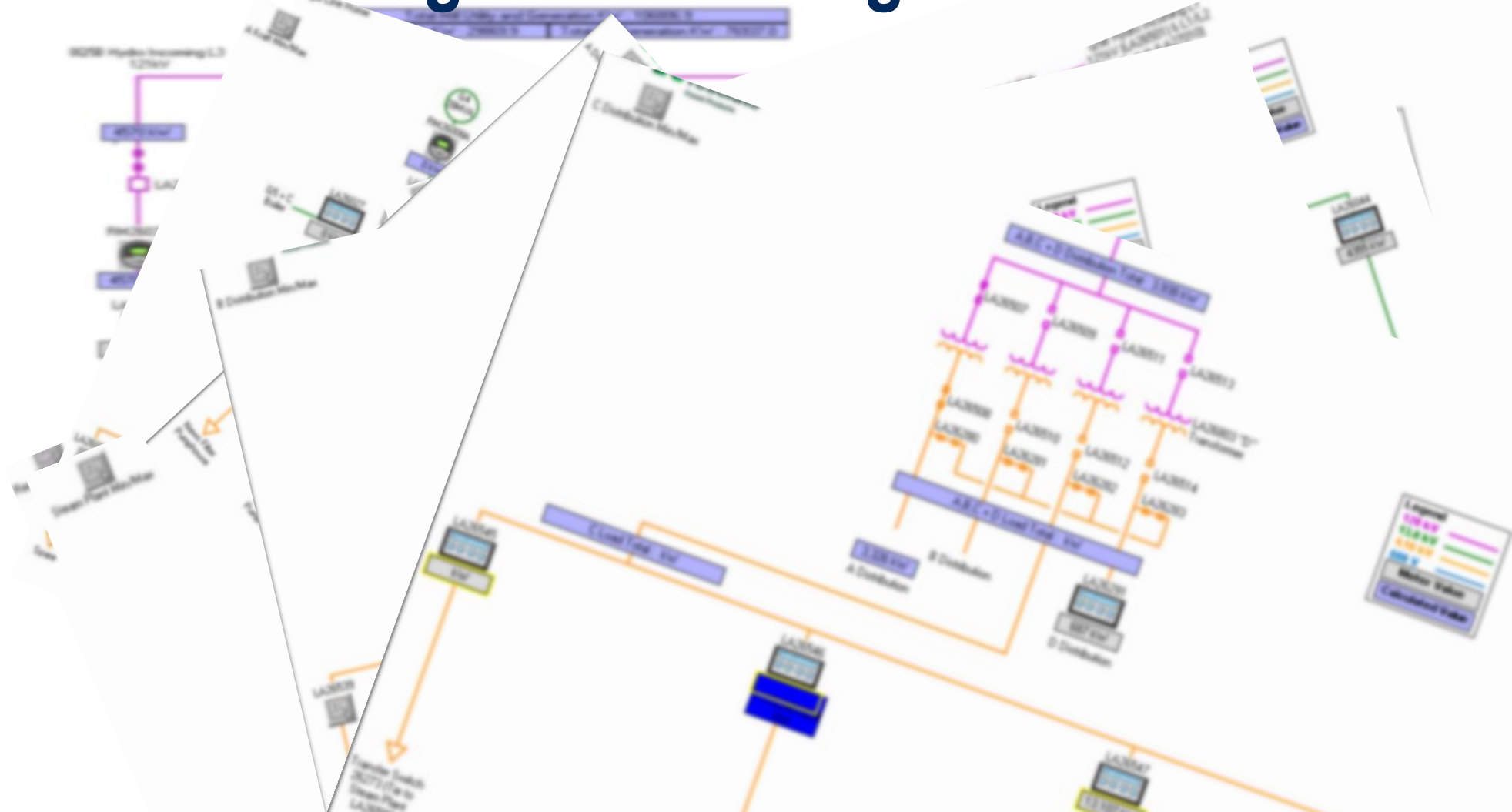


# History of Power Monitoring at Resolute Thunder Bay





# Understanding The Challenges





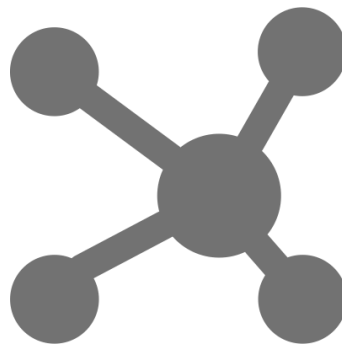
## **Additional Challenges**

**1**

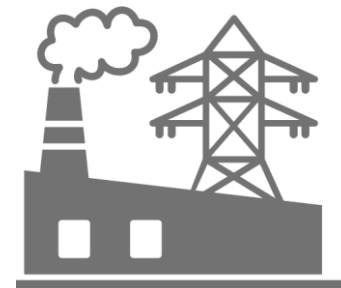
**2**

**3**

**COMPETING  
PRIORITIES**



**AGING METERING  
INFRASTRUCTURE**



**INDUSTRY-WIDE  
CHALLENGES**



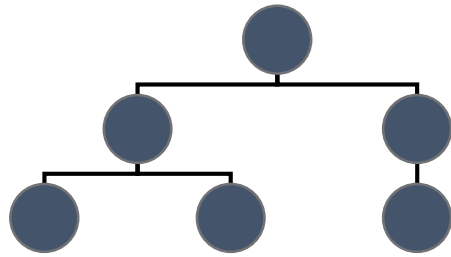


# ...So What Can We Do?





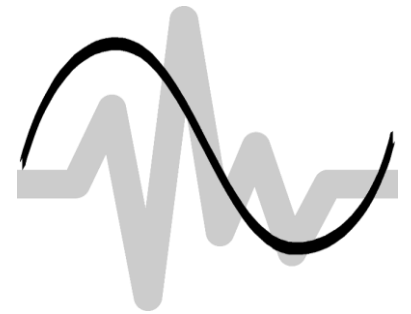
# Power Advisor Results



**HIERARCHY**



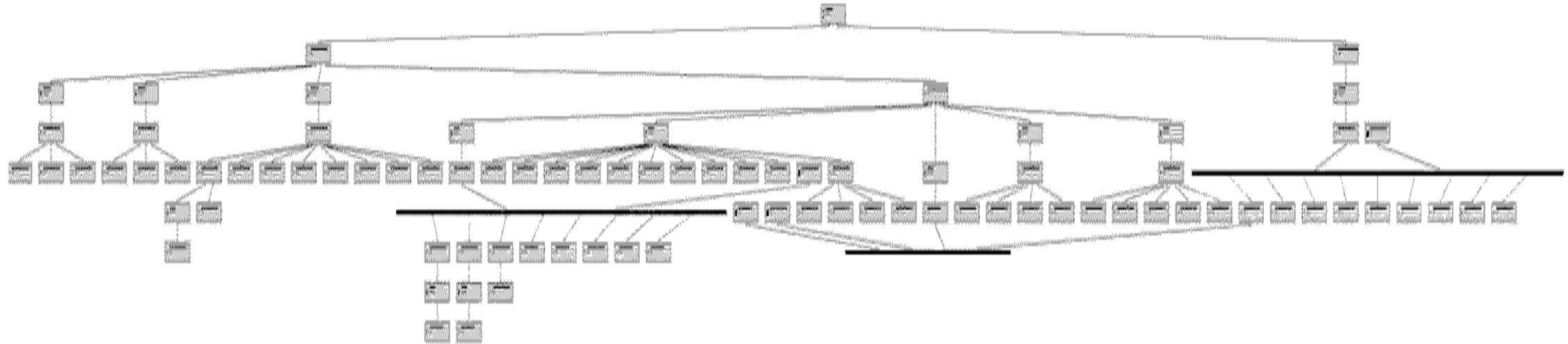
**DATA QUALITY**



**ELECTRICAL  
HEALTH**



# Developing a Hierarchy





## A Deeper Look at Data Quality

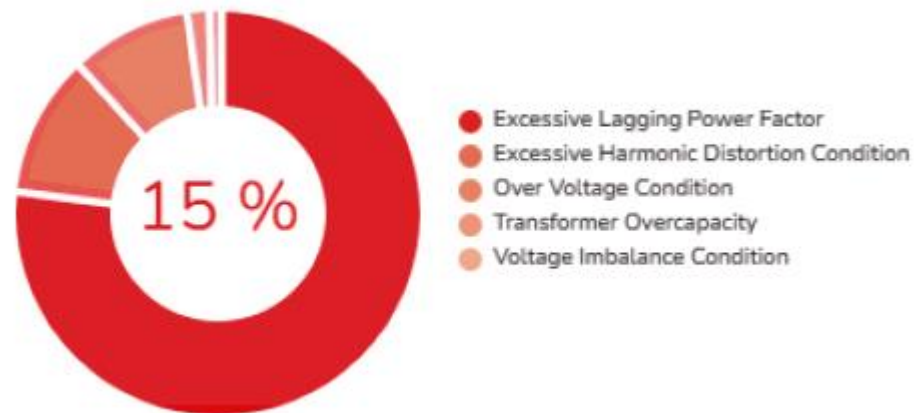
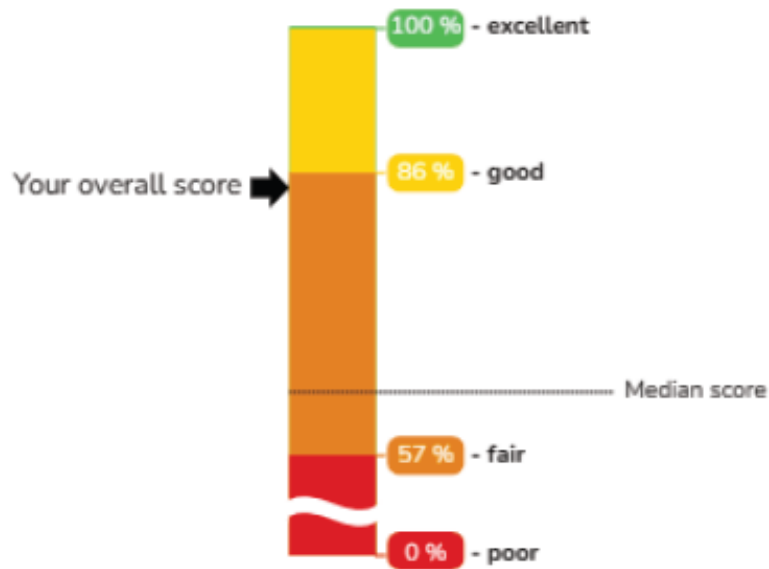
**91 %** Your overall score: **91 % - good**  
Median score of all other systems: **82 % - fair**





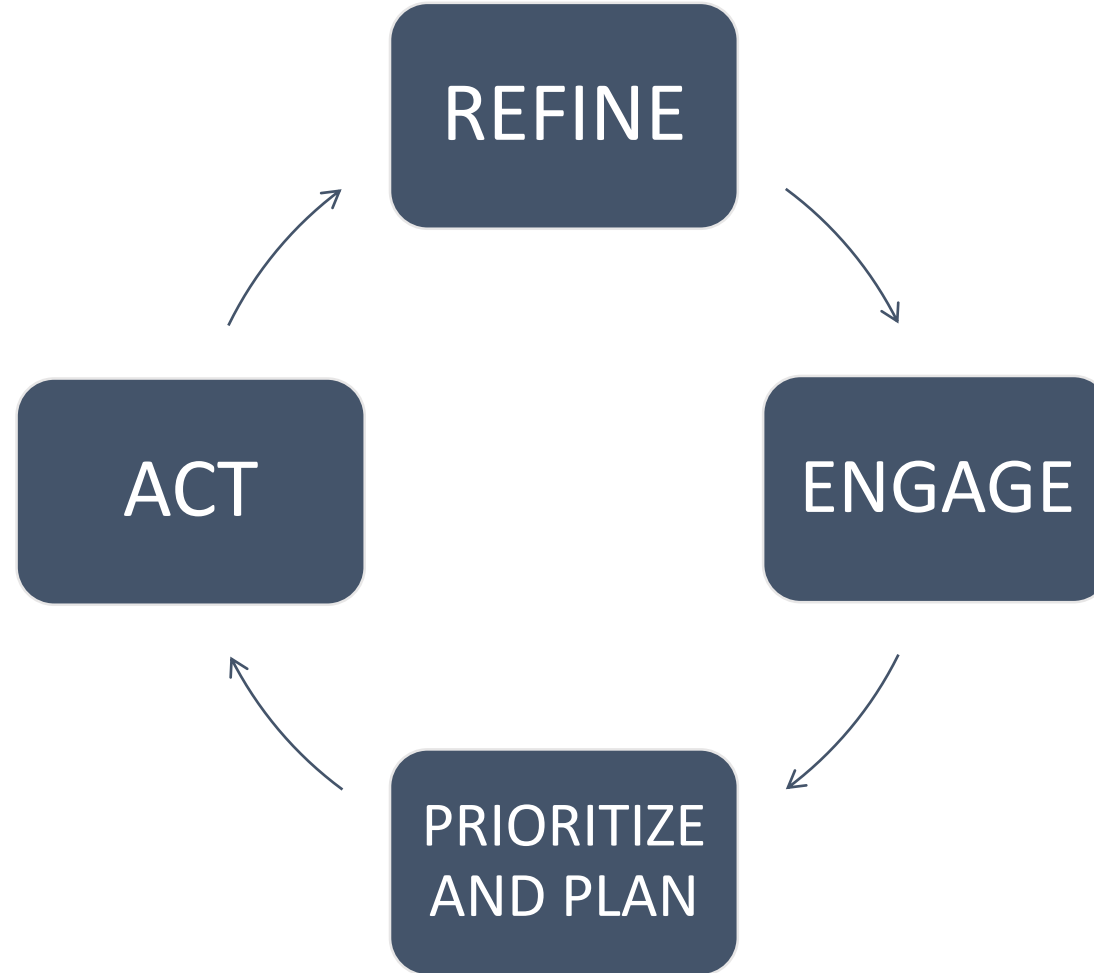
## A Deeper Look at Electrical Health

**85 %** Your overall score: **85 % - fair**  
Median score of all other systems: **66 % - fair**





## What Do We Do With The Results?





## Takeaway Lessons

- Data Quality is vital – clean up the source
- Use revenue metering where possible, but mind the downsides
- Filter and focus results to prioritize action
- Know and understand challenges affecting what can and can't be addressed
- Ensure ongoing and effective internal and external communication
- Polished presentation of results
- Success requires commitment and support from senior management
- Power Advisor is not “one-and-done”



**digital  
engineering**

# Questions?

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