

A night-time photograph of the Orlando skyline, featuring several illuminated skyscrapers and a large fountain in the foreground reflecting the city lights. The sky is a deep blue, and the water in the foreground is calm, creating clear reflections of the buildings and lights.

connect

ORLANDO JUNE 1-3, 2026

Energy Sustainability at Scale

SeeQ®

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RBI Program 2026 Goal:

\$350M+

Projected 2026 Opex Savings: ~\$160M/yr*

Enterprise savings target by end of 2026 — energy is a key lever

*Per 2026Q1 Earnings report on 4/30/26



The Problem: No Visibility, No Accountability

- High cost per barrel, no centralized energy platform
- Spreadsheet-based EII calculations — monthly, manual, plant-wide only
- No real-time metrics for operators to act on
- No consistent methodology across 6 sites
- Incentives undefined — no one owns "energy"

RISING ENERGY COSTS



The Vision: Enterprise Energy Stewardship Platform

- Real-time KPIs visible from plant floor to boardroom
- Consistent methodology across all 6 refineries
- Actionable targets at the equipment level
- Automated rollups:
heater → unit → area → site → enterprise

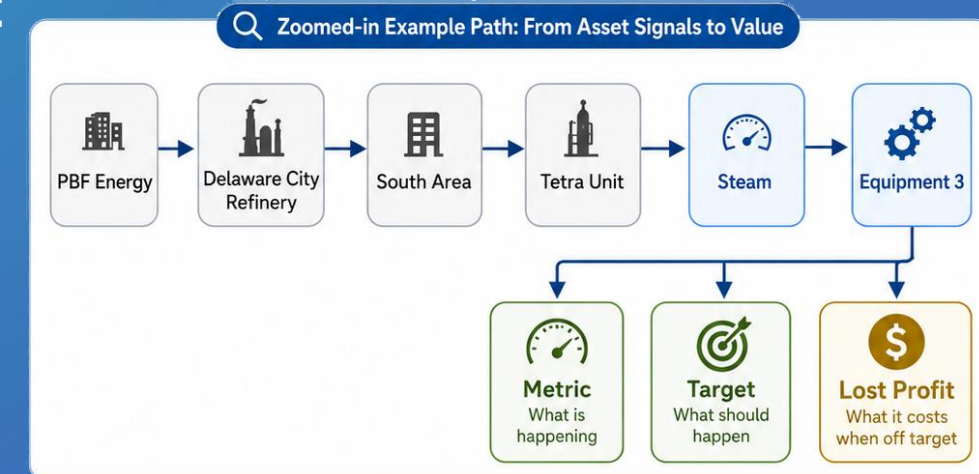
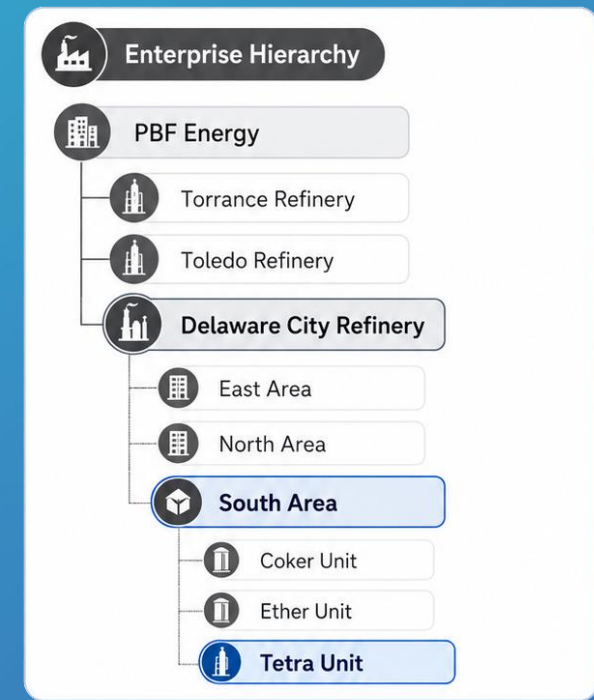


The Build: Seeq + Power BI

Scaling enabled through Asset Trees + AI-Assisted Deployment

The Seeq Asset Tree: Structured by Design

- 7-level hierarchy: Enterprise → Site → Area → Unit → Category → Equipment → KPI
- 7 KPI categories: Fuel, Steam, Power, Excess O2, Water, Margin, 3rd Party Spend
- KPIs Included: Metric, Target, Net Benefit, Lost Opportunity and Gained Benefit
- Asset Trees enforce consistency —same structure for every site, organization, roll up calculations, easy navigation



The same structure can be replicated across sites, areas, units, and equipment to standardize energy visibility at scale.

AI-Assisted Deployment: From Months to Days

- Enabled Power BI build out
 - Custom visuals designed and built by AI
 - All DAX code
 - Semantic model design
 - Replication for all sites with site specific locality information
- AI wrote Python for Seeq DataLab execution
- Extracted KPI information from Worksheets
- Extracted KPI logic from legacy Excel workbooks using AI coding tools
- Built tooling: automated backup, formula audit, safe updates



The screenshot displays the Power BI Desktop interface. The background pane shows a Python script for generating a tree structure of KPIs. The foreground pane shows a table of KPI data with columns for ID, Name, Status, Location, and Price.

```
# Site 2 Recovery (6336) - Utilities Unit
# https://pbfenergy.seeq.site/workbook/0F0AE72E
# On/Off KPI

tree.insert(name='Site 2 Recovery', parent='Tor',
            calc_location = 'Water >> Site 2 Recovery')

tree.insert(name='Metric',
            parent=calc_location,
            formula="(1.toSignal()).splice((0.t
            formula_parameters={'$oo': '0F12D25

tree.insert(name='Target',
            parent=calc_location,
            formula='1.toSignal()')

tree.insert(name='Price - kgal Water',
            parent=calc_location,
            formula='$price',
            formula_parameters={'$price': '0F12

#price is TOR kgal Water

tree.insert(name='Price - kgal Wastewater',
            parent=calc_location,
            formula='$price',
            formula_parameters={'$price': '0F12

#price is TOR kgal Wastewater

tree.insert(name='NPO',
            parent=calc_location,
            formula="$np01 = 265.setUnits('gal/
            formula_parameters={'$p': 'Price -
            '$p2': 'Price -

tree.insert(name='LPO',
            parent=calc_location,
            formula='($np0 * -1).max(0)',
```

				price
786	Cooling Tower Blowdown Control Automation	On/Off	Light Oils Area >> Utilities Unit >> Water	Fixed \$452/yr
805	Optimize Fin Fan Use in SWS	On/Off	Offsites Area >> SWS Unit >> Steam	Steam density × 250 gpm × price
876	Coker Water Syst Opt	On/Off	Heavy Oils Area >> South Coker Unit >> Water	400 gpm × (water + processing cost)
890	HDC Splitter Press. & Temp. during TAR	On/Off + on-proces s gate	Hydroproces sing Area >> HDC Unit >> Fuel	14 Mbtu/hr × NG price

Changes from original:

- 791: Natural Gas → Fuel
- 778: Light Oils Area >> SRU Unit → Offsites Area >> SRU Unit
- 805: Light Oils Area >> SWS Unit → Offsites Area >> SWS Unit
- 890: Natural Gas → Fuel

Claude Opus 4.6 • 3x

> 9 files changed +1011 -55 Keep Undo 📄

Describe what to build

+ 🔍 Claude Opus 4.6 • High 🔊 🗑️ ⬆️

Local Autopilot (Preview)

Ln 19, Col 19 Spaces: 4 Spaces: 4 LF 📄 Cell 20 of 35

Final Product:

337+

Equipment-level KPIs live across 6 refineries

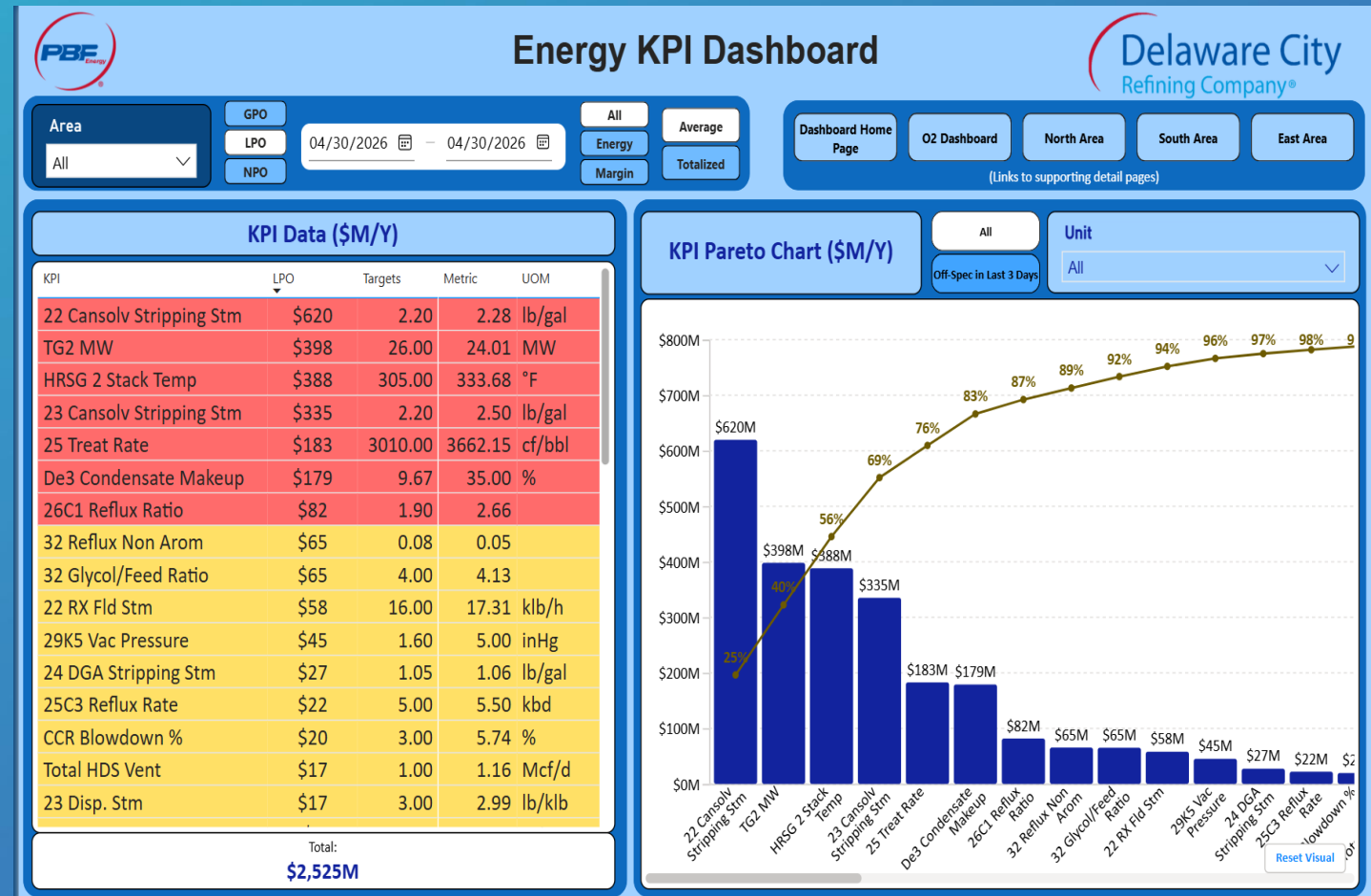
114 process units

4,581 Leaf signals

From Data to Decisions: The Operator View

- Power BI enabled by Odata
- Pareto chart: \$ opportunity by KPI
- Color-coded: red = high priority
- Filter by area, unit, time horizon
- Total loss over duration
- Off spec recently
- Drill down for KPI time series info

Operators see what matters most



What Changed

- Enterprise-wide energy visibility — for the first time
- Operations own their targets — area-level accountability
- Prioritized by \$ impact — work the biggest opportunities first
- Deployed across 6 sites with consistent methodology
- From monthly spreadsheet reviews to daily actionable KPIs

“Driving Enterprise Energy Excellence”



Enterprise-wide energy visibility”.



Operations own their targets”.



Prioritized by \$ impact”.



Deployed across 6 sites with consistent methodology”.



From monthly spreadsheet reviews to daily actionable KPIs”.

Your Playbook: 5 Steps to Start

1. Corporate Buy-In and Centralized Technical Leadership
2. Define your goals and methodology
3. Structure it as an Asset Tree (hierarchy yields consistency and organization at scale)
4. Use AI tools to accelerate extraction, replication and build out (translate institutional knowledge into production KPIs)
5. Push the output into the daily routine at the lowest levels of the company – where action **ACTUALLY** takes place



Thank you

- Daniel Aichinger – PBF Energy
- Kyle Clark - Seeq
- Questions?

**Visibility drives accountability.
Accountability drives performance.**

