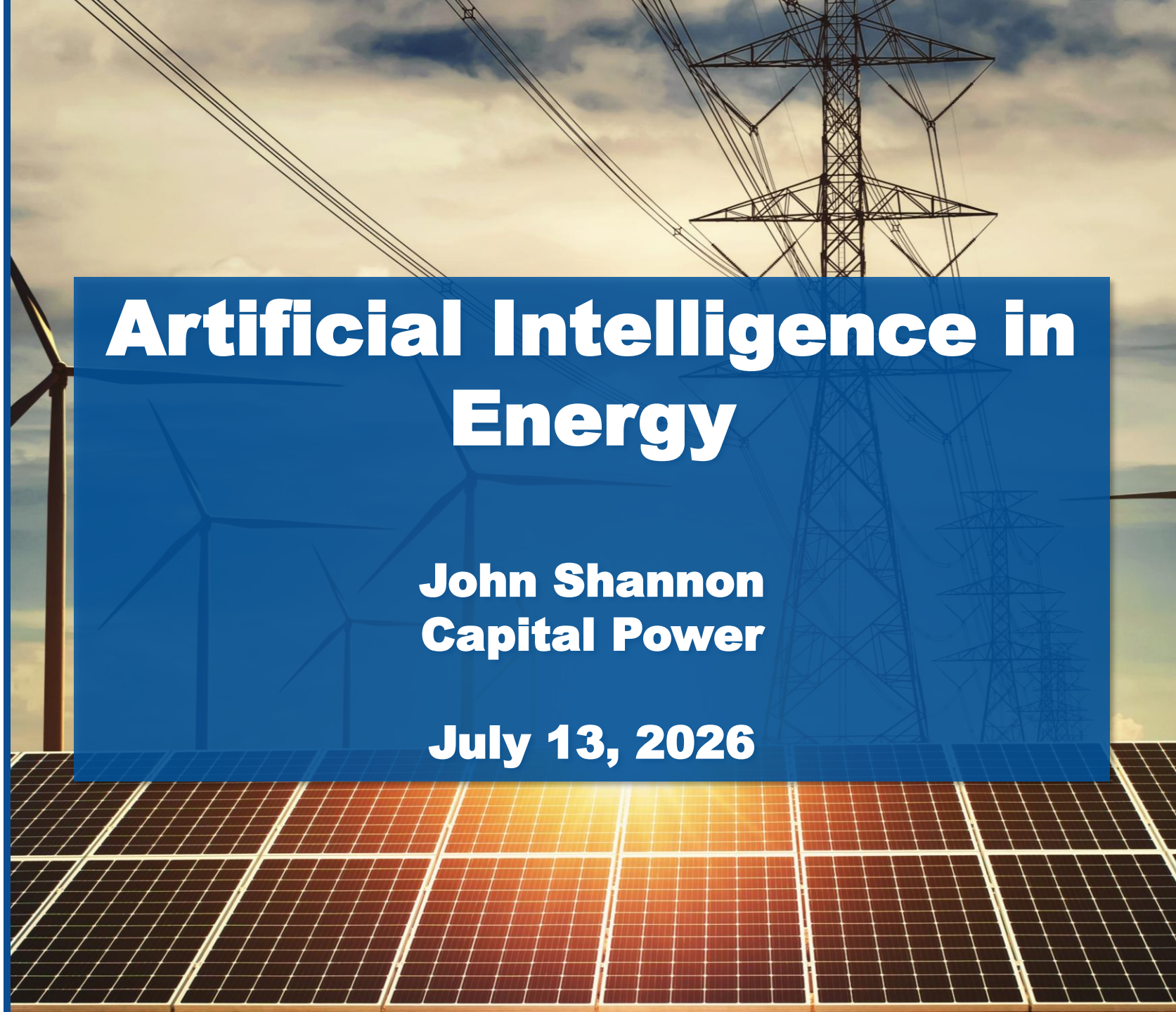
Capital Power

TEXAS RE



Artificial Intelligence in Energy

John Shannon
Capital Power

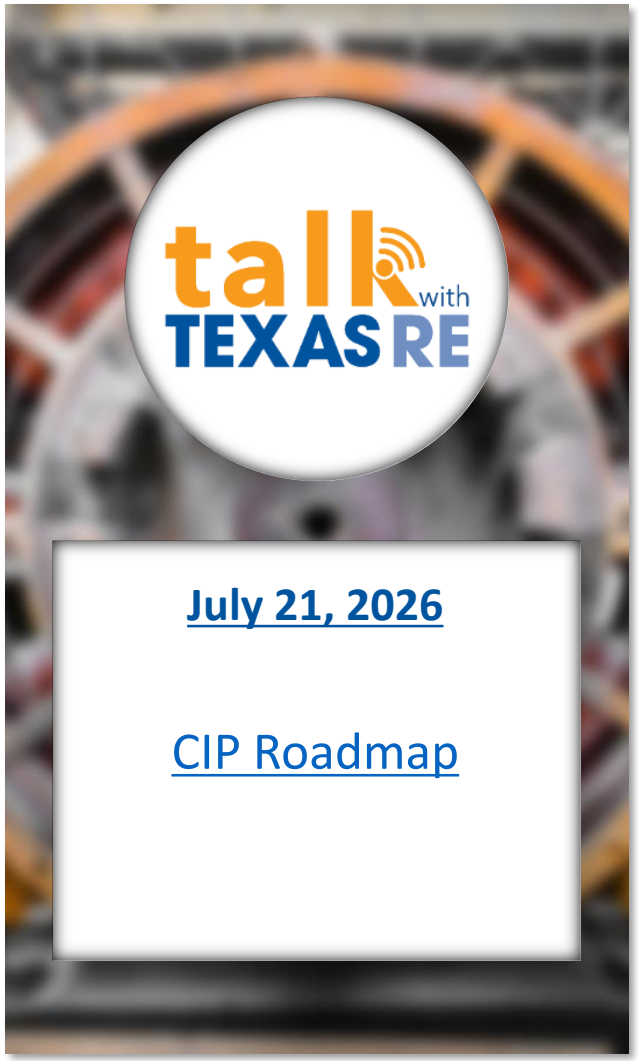
July 13, 2026

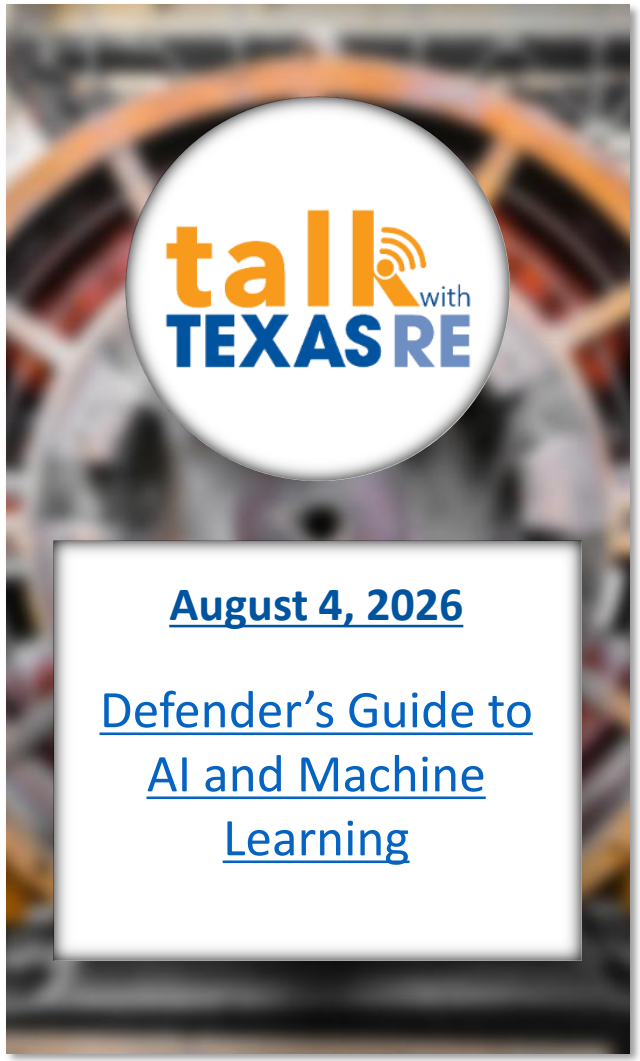
Antitrust Admonition

Because this event brings together market participants who may be viewed as actual or potential competitors, we must be mindful to conduct it in a manner that is consistent with the antitrust and competition laws. Participants should not disclose non-public, proprietary, or competitively sensitive information.

Attendees should exercise independent judgment and avoid even the appearance of discussions of agreements or concerted actions that may be viewed as restraining competition. Any questions on Texas RE's Antitrust Compliance Corporate Policy may be directed to Texas RE's General Counsel.

Upcoming Events at Texas RE





Upcoming Events at Texas RE

August 19, 2026

Winter Weatherization Workshop

September 16, 2026

Q3 MRC and Board Meetings

November 4, 2026

Fall Standards, Security, & Reliability Workshop

Upcoming ERO Enterprise Events

Date	Event
July 13, 2026	Technical Talk with RF
July 23, 2026	Future of Path Ratings in the Western Interconnection
July 29, 2026	SERC IBR Seminar #3

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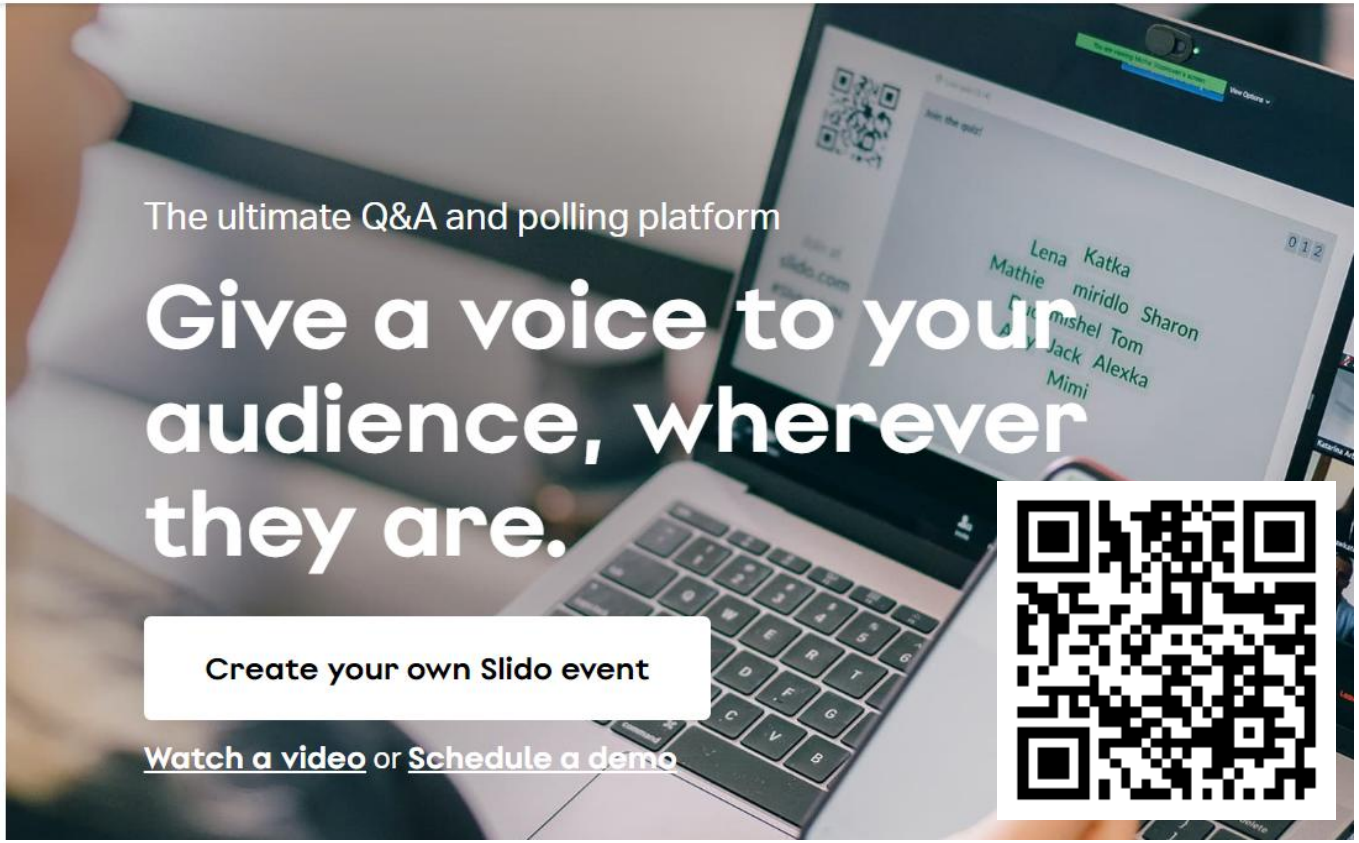
#TXRE

Joining as a participant?

Enter event code

Join an existing event



Lessons from AI and Innovation @ Capital Power

Texas RE

July 2026

Presented by John A. Shannon

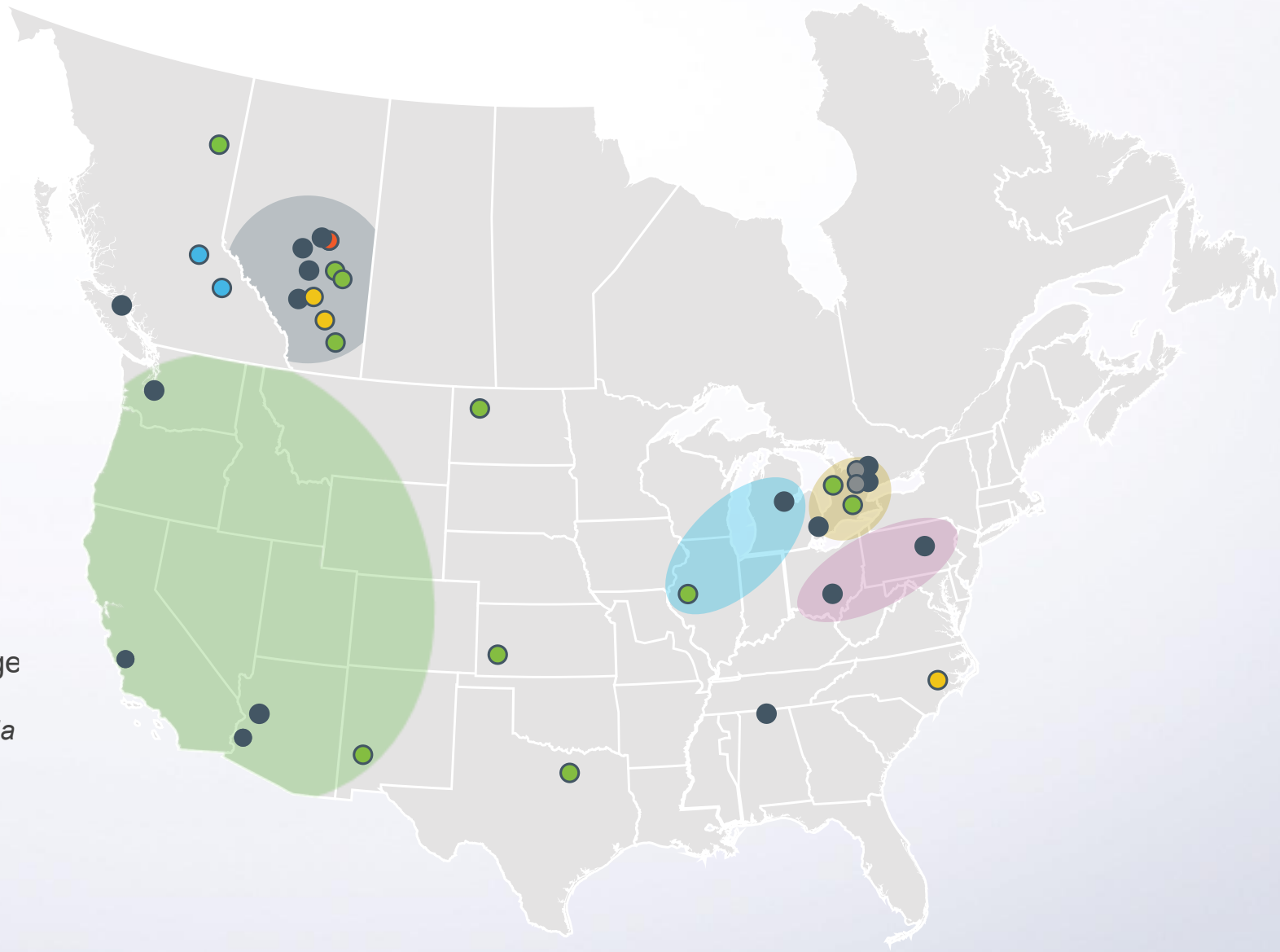
Capital Power

Observations

Why 95% Fail and 5% Scale….

- ~95% of AI initiatives fail (industry estimate) Only ~5% realize AI value at scale (BCG) – mirrored by MIT
- Top barriers:56% data quality 47% integration complexity 29% data accessibility Governance & security gaps
- Scale ≠ more pilots
- Scale = repeatable economic value across the enterprise

Capital Power in a Nutshell



Core Markets

- U.S. WECC[1]
- Alberta
- MISO
- Ontario
- PJM

In Operation

- Gas
- Wind
- Solar
- Waste Heat
- Landfill Gas
- Battery Storage

[1]Excludes Alberta and British Columbia

35
Facilities

~12
Gigawatts

The Situational Context

$2.1 B acquisition in PJM

Growth through M&A, uprates, expansions

Workforce Changes

Leadership change, culture change

Increased Complexity

Regulatory shifts and market complexity

Tech & Power Convergence

Powered by AI
Powering AI

Our Ambition

As we scale our generation capacity, we need to scale our workforce, our assets, our ways of working thoughtfully and effectively

Powering Change by Changing Power™

The Method – Small “t” Ideas – Big “E” Foundation

Gather

What and Why?

- ✓ Wisdom of Crowds
- ✓ Facilitated Workshop – willing participants – AI Lens
- ✓ Facilitated problem-first sessions
- ✓ Evaluation framework:
  - ✓ ROI
  - ✓ Operational value
  - ✓ Risk mitigation
  - ✓ Reputational risk
  - ✓ Enterprise alignment
  - ✓ Feasibility/Maintainability
  - ✓ Risk exposure/mitigation
- ✓ Ranked, sequenced, disciplined selection

Guiding Principles

Consolidation into Programs

How do we get the most value for our effort?

Scalable Architectures

How does progress contribute to a greater whole?.. and can we support it?

Enterprise Thinking

Reverse engineer enterprise outcomes – Support the Enterprise Brain

Execute

Enterprise Delivery

- ✓ Data & Analytics Foundational Work
- ✓ Semantic Intelligence – the GenAI LLM use cases
- ✓ Asset Optimization – Fleet wide solutions
- ✓ Market Intelligence – Scalable solutions to serve use

Innovation > IntelliWatt, Our Workforce Scalability Platform

Why IntelliWatt?

Knowledge Work Scalability

Shift from manual search to structured decision support

Macro Responsiveness

Faster identification of external signals impacting Capital Power

Reusable AI Architecture

Compositional architecture and source discovery are leveraged across multiple enterprise use cases.

Multiple Governance Mechanisms

Human-in-the-loop and structured validation safeguards

What about CoPilot?...

The "Last Mile" matters, truthiness doesn't cut it

Acquisition Integration Advantage

Spotlight: A New Asset

69,000 pdfs, 2000 hours saved, 98-99% accuracy, SME in the loop

- ✓ Automate metadata extraction for **all assets**
- ✓ Immediately structure acquired knowledge assets
- ✓ Demonstrate cultural and operational maturity
  - ✓ (the intern and the file naming)
- ✓ Reduced integration friction
- ✓ Signals enterprise maturity to our new workforce and improves time to knowledge

Tribal Knowledge Brought to Light

Adventures in OT

"Metadata and tagging is typically knowledge that lies with a few SMEs"

- ✓ Root cause analysis was the seed but it became so much more
- ✓ "Room to fail" is good but redefining success is even better
- ✓ GenAI plus short- and long-term anomaly detection

Innovation -> Market Intelligence

Why?

Modernize Core Trading Models

Let the code see the light – allow for access to cloud compute (scalability) and iteration

Reduce Production Risk

A mature development environment is a disciplined one – ML Ops

Enable Expansion

Deep engagement supporting our build up

Model Re-platforming

Spotlight: Pricing

1/16th runtime, 30k lines of code, hub pricing model template

- ✓Fully rebuilt under modern architectural standards
- ✓Standardized DevOps/MLOps lifecycle implemented for the enterprise
- ✓Version control, validation, and structured deployment patterns
- ✓Reduced enterprise risk
- ✓Model traceability, back testing, cand change control
- ✓Consistent Enterprise Representation

Innovation > Asset Optimization

Why?

Optimize Fleet Capacity

Move from static planning to adaptive FlexGen capacity modeling

Improve Asset Economics

Quantify cycling cost and marginal cost of dispatch

Enable Integrated Fleet Intelligence

Foundation for thermal fleet optimization

Adaptive Capacity Modelling

Matching Generation with Demand – When and How Much?

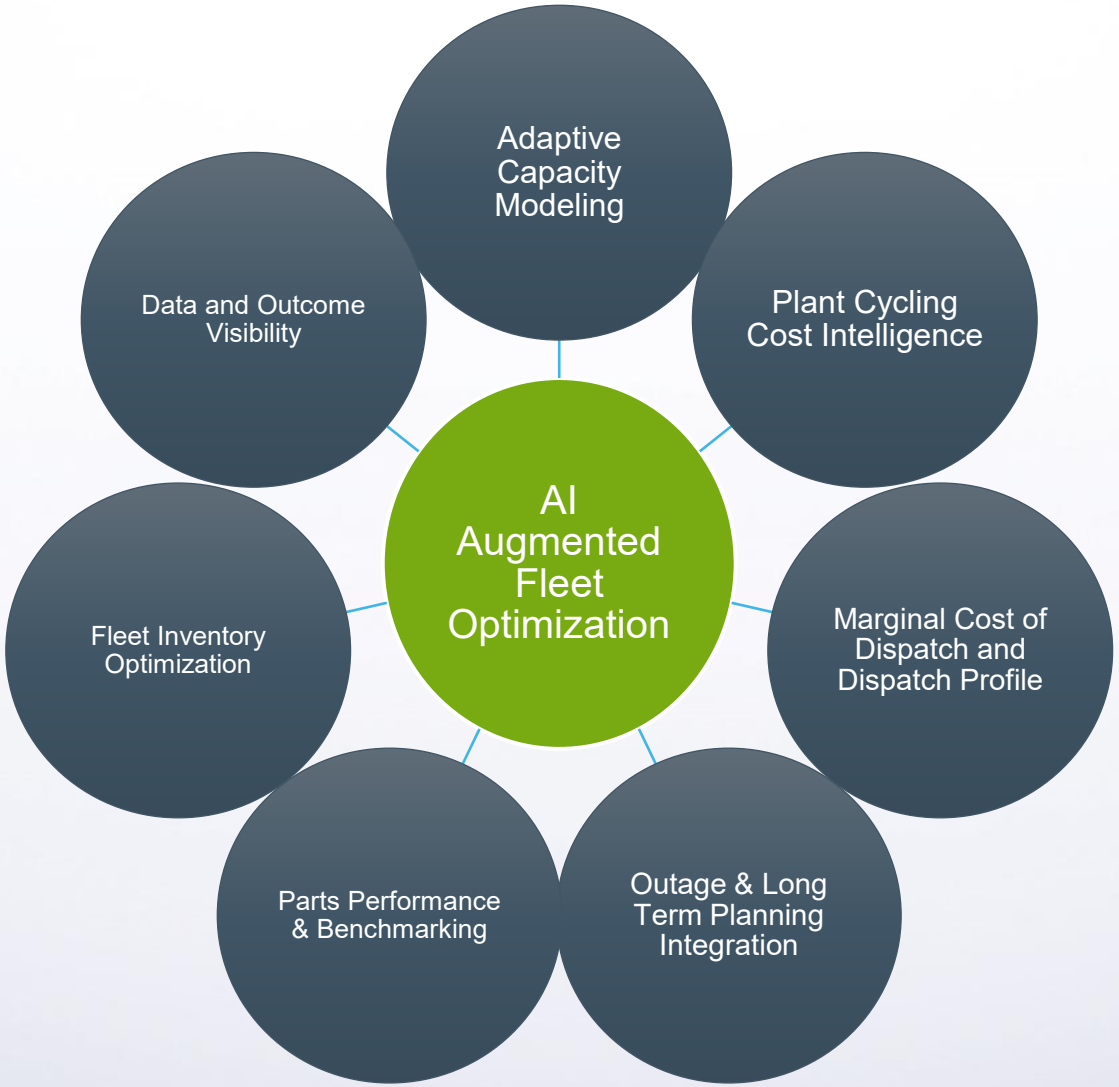
Spotlight: The Pilot Asset

20MW improved precision in hourly capacity modeling (accuracy = economic value)

- ✓Another compositional architecture
- ✓Supports day-ahead and real-time offer strategy
- ✓Strengthen datasets integrity (Reliability, Availability, Maintenance)
- ✓Improved constraint visibility and planning precision
- ✓Positive downstream impact on overall data quality

Integrated Fleet Optimization - Aspiration

Maximize Economic Value Across the Thermal Fleet – and potentially beyond



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