

Agentic AI can transform the Power, Utilities, & Renewables sector, moving from reactive and fragmented operations to a connected, intelligent, and resilient energy enterprise

The sector is navigating a once-in-a-generation reset: electricity demand is increasing as AI data centers expand, and US\$1.4 trillion in capital investment is required across the US by 2030¹. Yet most still operate on systems and operating models never designed for this scale of complexity - creating challenges such as:

THE PROBLEM



Aging infrastructure, extreme weather, and wildfire risk often outpace manual operating models, limiting **grid reliability** and **operational resilience**

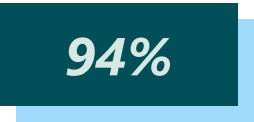


AI, electrification, and Distributed Energy Resources (DERs) can overwhelm fragmented systems, constraining **real-time grid intelligence** and **response capability**

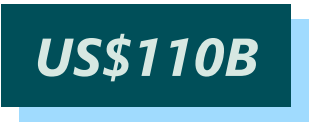


Affordability pressure, regulatory complexity, and eroding customer trust constrain **grid investment capacity** and **customer retention**

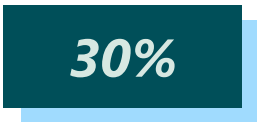
WHY AGENTIC AI AND WHY NOW?



Sector CIOs increasing AI investment²



Potential annual savings in power operations³



Reduction in distribution losses with AI³

- ▶ Agentic AI can enable **proactive asset risk and grid resilience monitoring**, connecting field intelligence with Vertex AI to predict failures, and improve **grid reliability**
- ▶ Supports **real-time grid intelligence and demand-dispatch optimization**, leveraging BigQuery to forecast load growth, manage DERs, and balance the grid dynamically
- ▶ Orchestrates **AI-driven field and vegetation management execution** across inspection, risk scoring, and crew routing, converting manual workflows into **risk-prioritized, automated operations**
- ▶ Helps accelerate **regulatory compliance and rate case delivery** by automating documentation, and sustainability reporting with Gemini, reducing **cycle times** and **compliance risk**
- ▶ Enables **smarter customer communication and billing intelligence** during outages and peak demand, protecting **customer trust**, reducing churn, and safeguarding **revenue**

DELOITTE'S ENGAGEMENT MODEL

Deloitte's structured, end-to-end engagement model helps organizations move seamlessly from vision to value

AI discovery lab

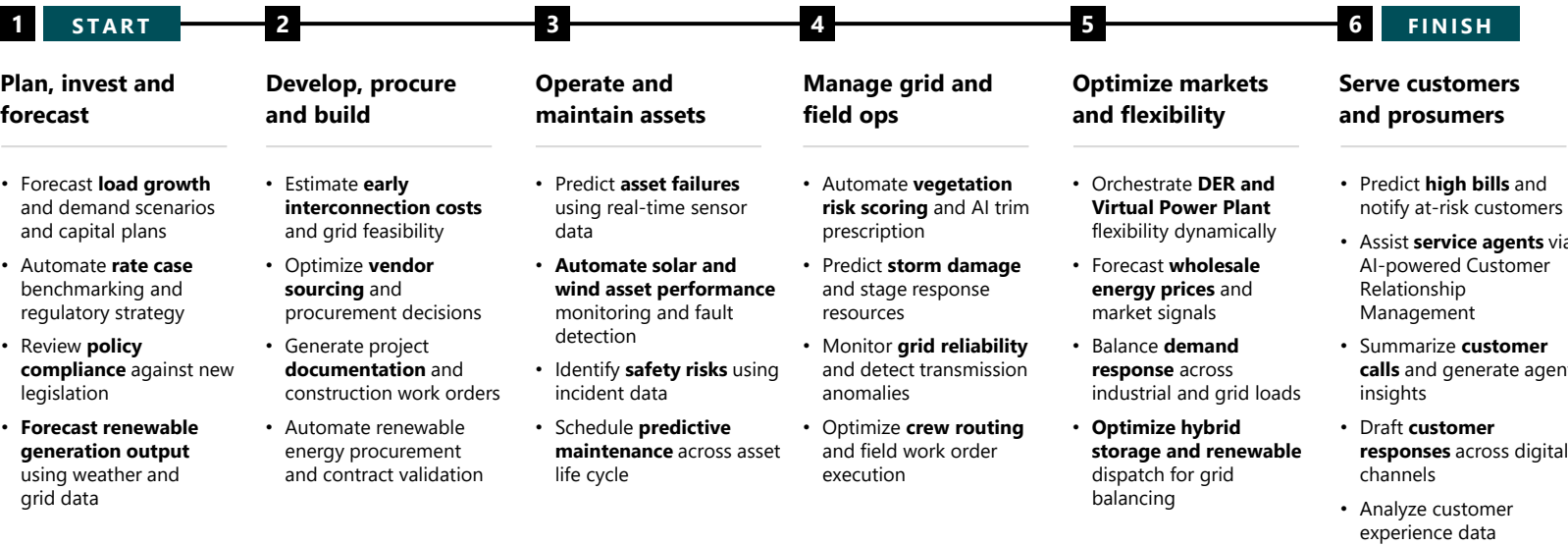
Discovery and design workshops

Minimum viable product deployment

Enterprise AI readiness

Scale with the Agentic innovation studio

KEY BUSINESS PROCESSES REIMAGINED WITH AGENTIC AI



DELOITTE'S SOLUTION: VegAI

VegAI is Deloitte's purpose-built Agentic AI solution for utility vegetation management, automating risk detection, trim prescriptions, and crew routing across thousands of miles of transmission and distribution infrastructure.

Utilities may be under pressure to reduce wildfire risk, improve grid resilience, and optimize vegetation operations at scale. Agentic AI can eliminate **manual workflows**, identifying, scoring, and prioritizing **vegetation risk across the network**:



Vegetation clearance reporting reduced from 90 to 14 days⁴ and automated 35% of transmission trim work orders in 1st Year⁴

LET'S TRANSFORM TOGETHER

Deloitte is ready to help you move from strategy to scale, with demonstration sessions, discovery labs, rapid prototyping, and solution deployment. Deloitte can also help you with general enterprise AI readiness through the services of the Agentic Innovation Studio, a modular “agent factory” that helps organizations industrialize and continuously evolve AI-driven processes.

LEARN MORE



Discover how Deloitte can help you with your AI-led transformation journey

Scan or click to engage our team and accelerate your path to enterprise-wide value

LET'S TALK

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