

An Overview of Generative AI

Electrical Association 2026



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Introduction

Woody Taylor

- AI Generalist, formerly a business leader and management consultant
- I focus on Generative AI adoption and deployment across industries
- **Paramis.ai**

Today's Objectives



WHAT'S CHANGING

Most everything



HOW IT WORKS

AI guts + AI uses



HOW TO USE IT

Two simple demos



WHY IT MATTERS

Deployment + you

Things Are Changing



Users: 800 million people use ChatGPT every week – 10% of humanity.

Adoption: 55% of US adults now use generative AI. At the same point after launch, PCs were at 20%. The internet was at 30%.

Energy: Global data center electricity demand is projected to double by 2030 to 945 TWh. Your industry will build it.

Intelligence: In early 2023, the best AI model tested at an IQ of ~30. Today, leading models test at 140+.



After four months of regular ChatGPT use, self-reported data at one client shows that nearly all participants experienced measurable time savings. About half reported saving at least 5 hours a week. 20% reported 10 or more hours saved.

Local Impact In Your Industry



The value proposition of current AI technologies like ChatGPT is in their ability to augment workers. No tool is good enough to replace workers, but they are very good at magnifying worker productivity, quality, and impact on customers.

- **Estimating and takeoff:** One MN company used AI on a large project and reported a 70 percent reduction in takeoff time (counting thousands of devices from plans).
- **Dispatch and scheduling:** another local contractor using AI freed about 10 hours per week previously spent shuffling schedules.
- **Field documentation:** Another local company reports end-of-day reporting dropping from about an hour of typing to about 5 minutes by speaking a memo.

Part 1

How AI Works, Where AI Fits



How Generative AI Works



Brain

General Pre-Trained Transformer



Long-Term Memories

Embeddings



Education

Training



Short-Term Memories

Context Window



Heart

Alignment

Limitations of Generative AI



Brain

Hallucinations



Long-Term Memories

Training Cut-Offs



Education

Gaps in Local Knowledge



Short-Term Memories

Attention Span



Heart

OEM Bias

Where AI Fits In The Workflow



Bidding & Preconstruction	Build & Execution	Closeout & Turnover	Maintenance & Service
Takeoff support	Draft RFIs and submittals	Closeout checklist drafts	Service visit summaries
Scope checklists	Daily logs from rough/dictated notes	Punch list wording	Follow-up recommendations
Draft assumptions and exclusions	Change order descriptions	Turnover summary drafts	Customer-friendly explanations
Bid recap from estimator notes	Customer update emails	O&M documentation packaging	Intake/triage question scripts
Bid follow-up messaging	Meeting recaps → action items	Lessons learned capture	Standardized templates across techs

Part 2

Using AI And Some Simple Demonstrations



Interaction Tips

1. Talk to it like a **coworker**.
2. Treat the first output as a **draft**.
3. **Audit responses** with citations – just ask it.
4. Don't **argue** with it.
5. Use your **voice** for speed.

Let it build the “prompts” it uses by describing what you need.

1st Demo: Enhancing Field Safety



Context

Occupied office. Existing walls. New 120V branch circuit. Suspected asbestos above ceiling. **Need a JHA before we start.**

Step 1: Ask the model:

"I need to create a Job Hazard Analysis for an electrical task. What information would you need from me to write a thorough, site-specific JHA?"

Step 2: Answer the Questions

"We're pulling 12/2 romex through existing walls in a 1992 commercial office building, 2nd floor. Suspected asbestos in ceiling tiles - abatement not done yet. 120V circuits. 2-man crew. Building is occupied. Minneapolis jurisdiction. Create the draft JHA."

Step 3: Validate the output

- Read the output
- Audit and edit for style, formatting
- Ask, "what should I double-check onsite?"
- Export the final output

2nd Demo: Reducing Admin Work



Context

You just finished a 3-hour service call. You've got messy notes. You need a customer email AND an internal log. This usually takes 20 minutes.

Step 1: Ask the model:

"Create a prompt I can reuse that takes rough field notes and produces two outputs: a professional customer email summarizing work performed, and an internal job log with details for our records."

Step 2: Feed It Your Notes

"Service call at Johnson's office, got there 8:45. Breaker tripping on circuit 14. Found the issue - someone plugged a space heater into the same circuit as the copier. Showed them the load calc, moved heater to different circuit. Tested good. Also noticed panel has double-tapped breaker on slots 8 and 10, mentioned they should address. Left at 11:30. Bill 3 hrs."

Step 3: Validate the output

- Review both outputs, edit as needed
- Ask "what should I add for completeness?"
- **Save that prompt as a reusable template**

Part 3

Getting Started: Urgency And Safer Approaches



Future State Customer



Your customer is adopting AI right now. In 2–3 years:

- They record every call, site visit, and walkthrough – AI summarizes it instantly
- They paste your estimate into ChatGPT and ask "what's missing? what's ambiguous? where could I get surprised?"
- They compare your proposal to competitors side-by-side in seconds
- They know when your documentation is sloppy, because their AI flags it
- They expect responses in hours, not days, because that's what AI-enabled competitors deliver

You will still be competing on price. But you'll also be competing on clarity and honesty.

Shift from “what can AI do for me” to AI being a common expectation for work.

Begin With The Right Tools

Start with business-tier assistants:

- **Personal** and **Team** plans available
- Admin controls and user management
- Your data isn't used to train the models
- No integration needed (browser-based), works tomorrow
- \$20-30/user/month, no contract
- Covers most use cases before you need specialized tools



ChatGPT Business

www.openai.com



Claude for Teams

www.anthropic.com



Gemini Enterprise

www.cloud.google.com

Deployment: Start Simply



Start with real work

Pick 1–2 workflows you already do every week.**
Aim for less busywork, not “replace people.”

Assign an owner

One person drives the pilot.
Collect feedback and keep the workflow moving.

Define success

Time saved, fewer edits, faster turnaround, better consistency.
Keep it simple and measurable.

Pilot → learn → expand

Run a 2–3 week test, tune prompts & templates
Broaden to the next workflow.

Closure and Questions

It's important for every business to start adopting AI.

- **Every business will change:** prepare now, scale later
- Your customers and competitors will look different
- The inherent ROI of “augmentation” justifies the costs
- Start with light, subscription-based products designed for businesses...and **explore more safely**
- **Use the tools to design your learning and deployment efforts!**

Thank You

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