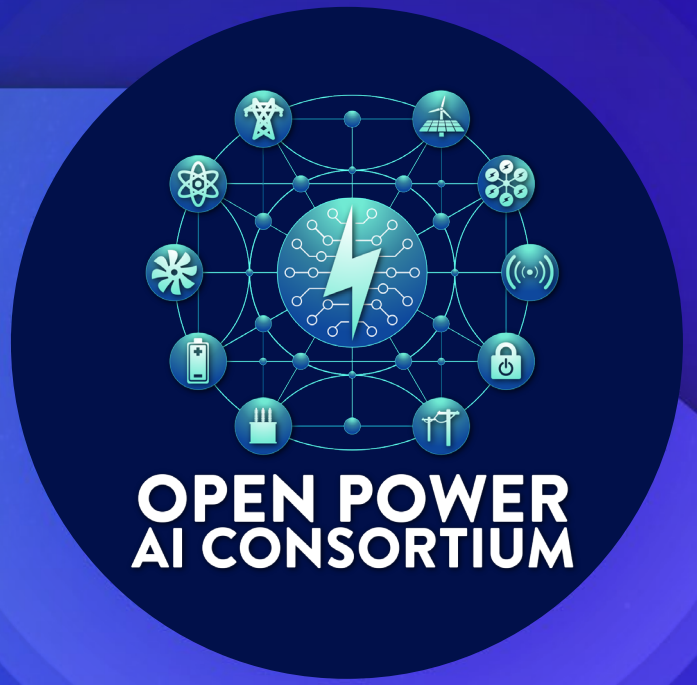
Deployment Working Group

July Working Group Meeting



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Principal Technical Leader
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Bilal Khursheed
Worldwide Power and Utilities Leader
Microsoft

July 15, 2026

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Agenda

- Deployment WG Updates
  - Safety Message
  - Bonus Meeting Announcement
  - Work Products Update
    - Bijan Hoseininejad, EPRI
- Deployment Presentation: Value Definition and Roadmapping
  - Bilal Khursheed, Worldwide Energy and Utilities Leader, Microsoft
- AI Skills – Project Feedback and Listening Session
  - Dr. Ishaq Mian, EPRI
- Wrap Up

CONCERT SAFETY

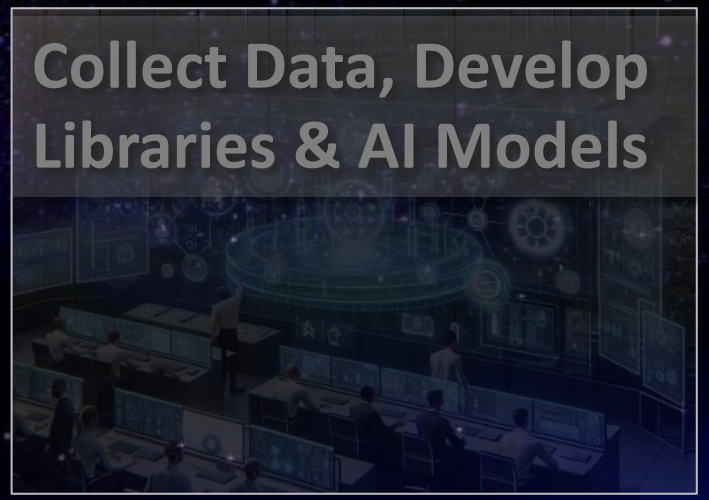
Plan ahead. Stay aware. Enjoy the show.

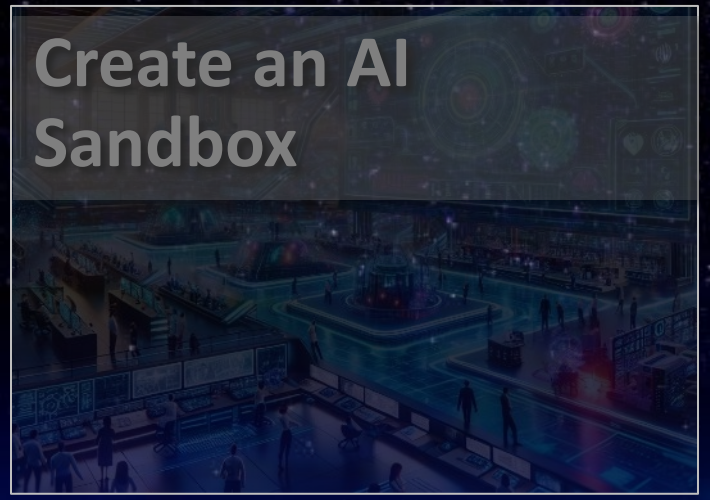
A few simple decisions can help everyone get home safely.

1. **Stay aware**
   Keep track of your surroundings and what is happening nearby.
2. **Choose a meetup point**
   Agree on a location before the show in case your group separates.
3. **Secure valuables**
   Carry only essentials and keep your phone, wallet, and keys out of sight.
4. **Locate help & exits**
   Note security staff, the venue layout, and more than one exit.
5. **Know venue rules**
   Review permitted items, bag policy, and security procedures before you go.
6. **Make an emergency plan**
   Follow venue instructions; move away from hazards and dense crowd pressure.
7. **Arrive early**
   Give yourself time to orient, enter safely, and assess the setting.
8. **Charge your phone**
   Keep it usable for coordination, transportation, and emergencies.
9. **Understand the event**
   Know the crowd, venue, and conditions you should expect.
10. **Protect your wellbeing**
    Hydrate, dress for conditions, eat beforehand, and wear earplugs.

Source: Beth Casteel, "10 Concert Safety Tips From An Avid Show-Goer," *The Odyssey Online* (Jan. 23, 2019).

Open Power AI Consortium – Key Objectives





Implementation and Lessons Learned

- Collaborate with leading AI developers to deploy AI models.
- Develop a feedback loop from deployments for refinement and optimization.
- Maximize impact via knowledge sharing among consortium members.

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Implementation Workstream Goals & Desired Outcomes

1. Connect commercially available AI solutions to end-users
2. Transfer, pilot, and implement new use-case solutions to industry
3. Foster a collaborative environment to improve the AI value proposition
4. Collect lessons learned through applications, demonstrations, and scaled implementation
5. Develop AI implementation guidance to help companies with successful implementation and value realization

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Three Main Thrusts to Accomplish Goals

Research Products

- Value: Learning from implementation opportunities

Outreach and Interactive Knowledge Transfer

- Value: Interactive collaboration and awareness
- Value: Presentation opportunities

AI Tool Implementation

- Value: Experience with AI tools and streamlined implementation
- Value: One-on-one and community use-case build out

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Upcoming Events

2026 Open Power AI Events

January

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February

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March

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April

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May

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31						

June

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28	29	30				

July

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August

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September

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October

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November

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December

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27	28	29	30	31		

- Deployment WG Meeting
- Use-Case WG Meeting
- Domain-specific Model WG Mtg.
- Member Representative Committee Mtg.

No Deployment WG Meetings: January & September

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Bonus Meeting – Domain Intelligence WG

- Join the members of the Domain Intelligence Working Group
  - TOMORROW, July 16, 2026 – 10:00am ET

Josh Murray
Assistant VP, AI, Innovation, and Emerging Technologies
Alliant Energy

Justin Thibault, PE
Product Manager, EPRI.ai
EPRI

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Implementation Working Product Updates

Data Strategy

- Data Management and Governance
- Collaboration & KPIs
- Collection & Storage
- Data Utilization and Correlation
- Benchmarking
- Data Access
- Data Model and Ontology
- Aggregation Strategies

Data Architecture

- Architecture Strategy
- Implementation
- Cloud Considerations
- Data Products
- Data Quality
- Interoperability
- Data Models and Ontology

Data Governance

- Data Management
- Program and Process Management
- Contracts and External Governance
- External Benchmarking
- AI Security
- Policy Compliance
- Data Ownership

Business Intelligence

- Data Warehousing / Centralization
- Dashboard / Analysis Development
- Value-focused Delivery
- Scaling / Sharing and Accessibility
- Cost Analysis
- Use Cases

Asynchronous Drafting Over 2-3 Months with WG Volunteers

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Defining the Value of AI and Roadmapping
Bilal Khursheed, Microsoft

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AI Skills – Feedback and Roundtable

Dr. Ishaq Mian, EPRI

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AI Skills Development Project - Supplemental

Building AI Capabilities In-House for Operations Technology

EPRI ICCS

The project complements OPAI's broader model and deployment efforts by helping utility practitioners build the **hands-on skills** needed to evaluate, adapt, deploy, and govern AI-enabled systems in operational contexts.

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JOINT INTERNATIONAL GUIDANCE

Recent joint guidance published by CISA, NSA, FBI, and allied cybersecurity agencies identifies workforce education, AI governance, and human oversight as foundational considerations for the secure deployment of AI in Operational Technology (OT) environments.

CISA | NSA | FBI | Allied Cybersecurity Agencies

STRONGER TOGETHER. SAFER TOGETHER.

THE GUIDANCE IS BUILT AROUND FOUR CORE PRINCIPLES

1 UNDERSTAND AI

- Understand AI risks and potential impact to OT
- Understand the secure AI system development lifecycle
- Educate personnel on AI

KNOW AI. MANAGE RISK.

2 EVALUATE AI USE IN THE OT ENVIRONMENT

- Consider the OT business case for AI use
- Manage OT data security risks for AI systems
- Address immediate and long-term integration challenges

USE AI WHERE IT CREATES VALUE.

3 ESTABLISH AI GOVERNANCE

- Implement AI governance frameworks
- Test and assure AI models continuously
- Ensure regulatory and policy compliance

GOVERN AI. BUILD TRUST.

4 EMBED SAFETY AND SECURITY

- Maintain human oversight and accountability
- Ensure transparency and explainability
- Integrate AI into incident response and resilience plans

OPERATE AI SAFELY. STAY RESILIENT.

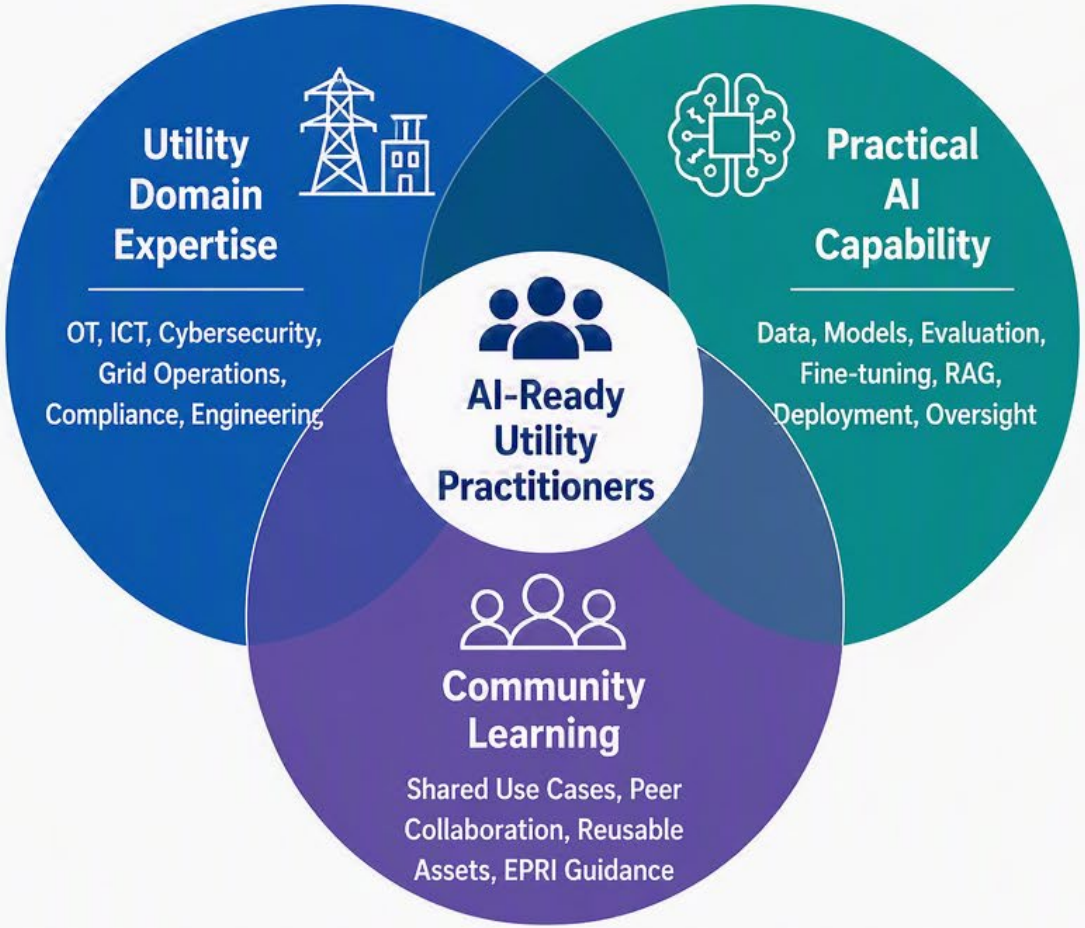
Collectively, these principles reinforce a critical reality:
successful adoption of AI is not solely a technology challenge—it is also a workforce capability challenge.

TECHNOLOGY CHALLENGE + WORKFORCE CAPABILITY CHALLENGE = SUCCESSFUL AI ADOPTION

The Vision

A Community of Utility Practitioners with Hybrid Domain + AI Skills

Building the internal translation layer between utility operations, vendor AI, cyberscurity, and governance



What This Community Enables

Evaluate and Guide
Confidently assess AI-enabled products and solutions

Govern and Oversee
Apply governance, security, and oversight in operational environments

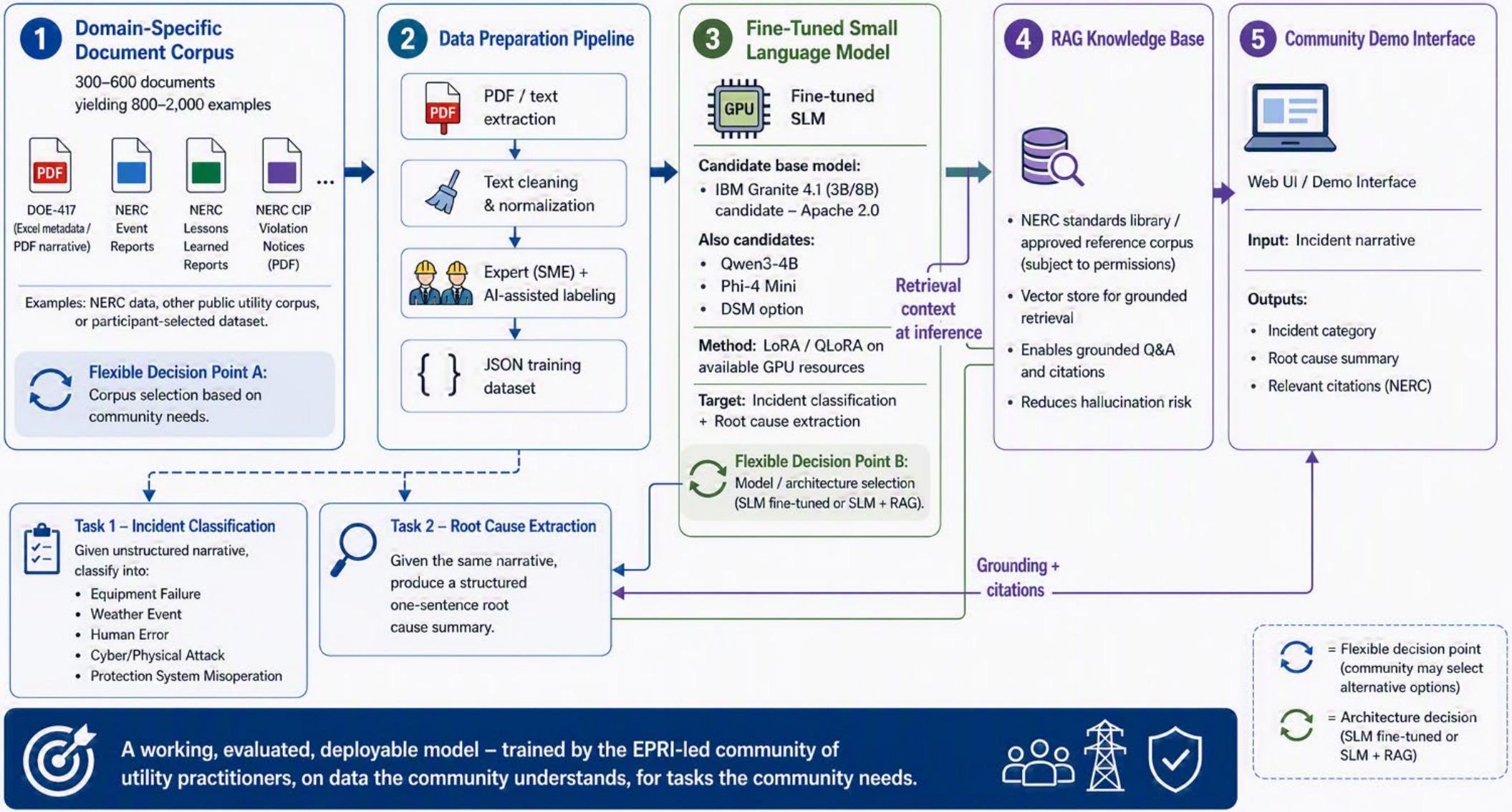
Develop and Deploy
Build and adapt AI solutions that meet utility requirements

Learn and Grow Together
Share lessons, solve real challenges, and continuously build capability

Hybrid domain + AI skills become the internal translation layer between vendor AI, utility operations, cybersecurity, and governance.

Community-based AI Skills Development Project

A Fine-Tuned Small Language Model on a Domain-Specific Corpus



AI Skills Development Program – Master Schedule

26 Sessions • Sep 2026 – Sep 2027

From first principles of machine learning to a working, evaluated, on-premises small language model (SLM) with a RAG knowledge base over NERC grid-incident data.

PHASE 1

FOUNDATIONS & SETUP

- Environment & tooling setup
- ML/LLM fundamentals
- Prompting baselines
- SLM landscape

Sessions 1–7

Sep – Dec 2026

PHASE 2

DATA & LABELING

- Corpus sourcing & governance
- Data prep & extraction
- Expert & AI-assisted labeling
- Data quality & dataset publication

Sessions 8–12

Jan – Mar 2027

PHASE 3

FINE-TUNING & EVALUATION

- Model selection & LoRA/QLoRA
- Fine-tuning
- Evaluation & benchmarking
- Model optimization

Sessions 13–17

Apr – Jun 2027

PHASE 4

RAG & INTEGRATION

- Knowledge base & vector store
- RAG pipeline & grounding
- Citations & hallucination reduction
- End-to-end integration

Sessions 18–22

Jul – Aug 2027

PHASE 5

DEPLOYMENT & DEMO

- On-prem deployment
- Performance validation
- Demo interface & use cases
- Community showcase & roadmap forward

Sessions 23–26

Sep 2027

SCHEDULE

Biweekly Tuesday sessions (90 minutes)

Optional 60-minute backup session the following Tuesday

COMMITMENT

~4–5 hours per week per participant

~200–250 total hours over the program

NO SESSIONS

Thanksgiving week

Christmas break (Dec 20 – Jan 5)

or otherwise excluded weeks

WHO

Utility & network engineers

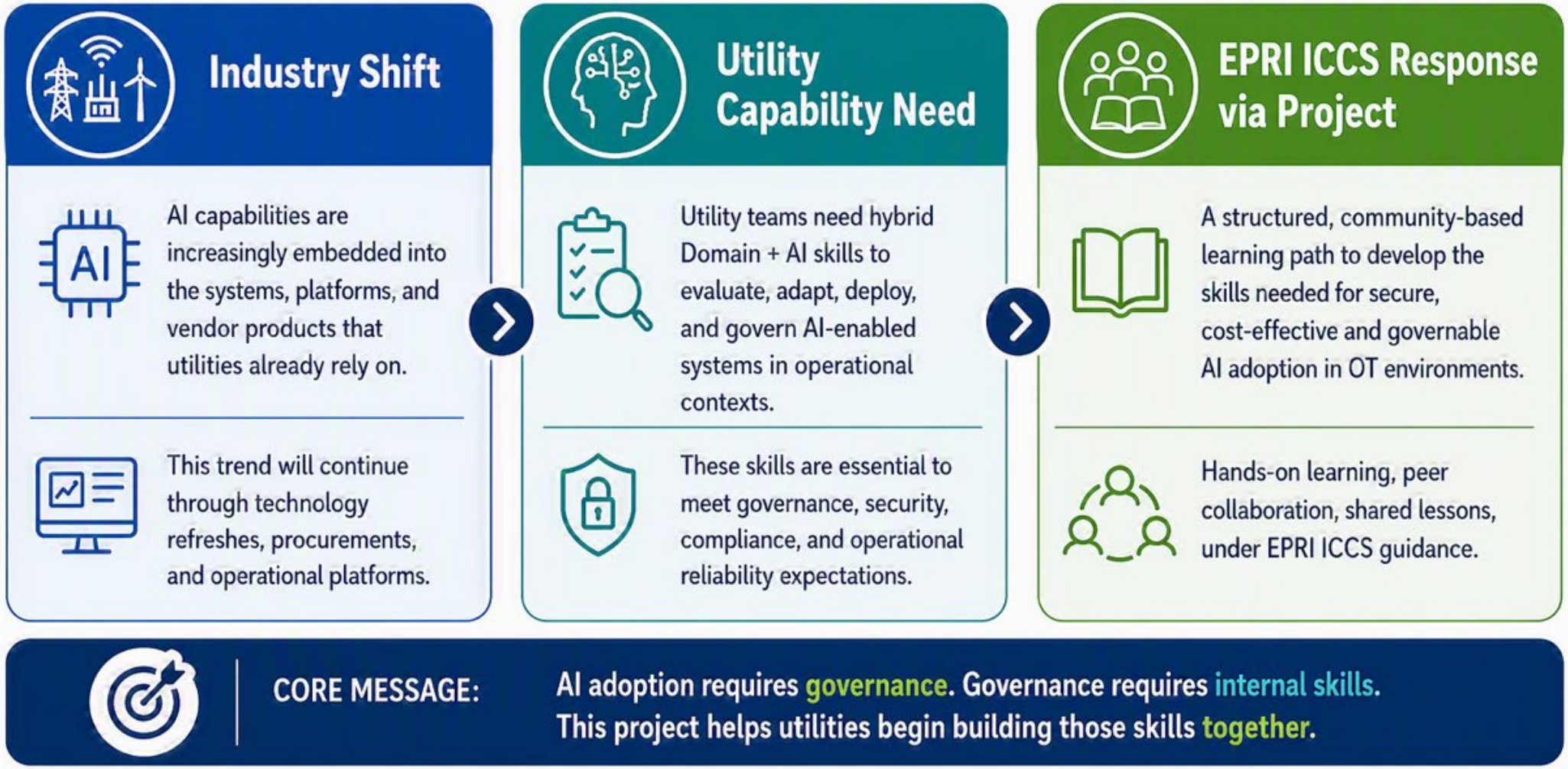
ICT, Cybersecurity, OT, Operations, Architecture, Commance professionals

SUCCESS GATES

- **F1 ≥ 0.80** Incident Classification
- **ROUGE-L ≥ 0.45** Root Cause Extraction
- **≤ 2 sec / document** Inference speed (INT4 GGUF)
- **Pass** On-premises Deployability
- **IAA ≥ 0.75** Data Quality (before acceptance)

EPRI

WHY THIS PROJECT & WHY NOW



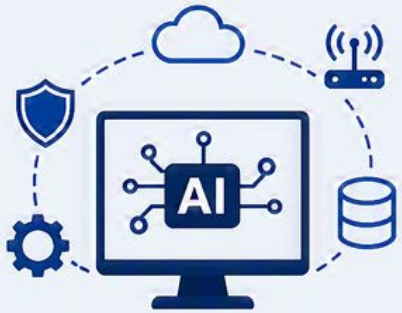
EPRI ICCS

AI Skills Development

Building AI Capabilities In-House for OT

A community-based project that helps utility practitioners evaluate, govern, and develop AI-enabled solutions—securely and responsibly.

1 AI IS ENTERING UTILITY SYSTEMS



AI capabilities are increasingly embedded in the systems, platforms, and vendor products utilities depend on.

2 SECURE ADOPTION REQUIRES GOVERNANCE

International guidance emphasizes understanding, evaluation, governance, and built-in safety and security for AI in operational technology environments.

3 GOVERNANCE REQUIRES INTERNAL SKILLS

Teams need practical AI literacy to evaluate, understand risks, maintain oversight, and make responsible deployment decisions.

4 THIS PROJECT BUILDS THOSE SKILLS

A hands-on, community-based learning path to evaluate, govern, adapt, and develop AI-enabled solutions for utility operations.

Stronger skills. Better governance. Smarter adoption. A more secure and resilient grid.

OUR GOAL: Build a community of utility practitioners who combine domain expertise with practical AI understanding—enough to evaluate, guide, govern, and ultimately develop AI-enabled solutions that fit utility operating realities.

AI Skills Development

Building AI Capabilities In-House for OT

How to Engage

Have questions, want to learn more, or interested in participating? Reach out to any of our technical advisors.

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(704) 905-2787

Annie Haas
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(704) 608-6314

We look forward to collaborating with you to build the skills and solutions that power our industry.

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