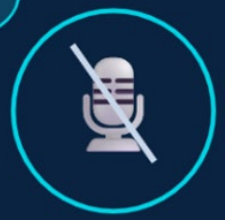
Housekeeping

A few norms to keep today’s discussion useful, interactive, and publicly shareable

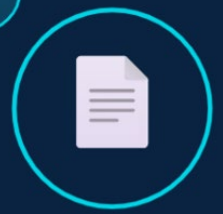
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Participate actively

Please mute upon entry. Use raise hand or chat for questions and discussion.

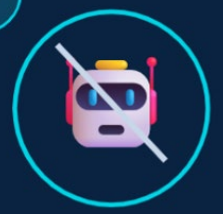
2



Keep it publicly shareable

Please share only material suitable for public release.

3



No automated notetakers

Please do not add automated notetakers to this meeting.

4



Recording notice

This session will be recorded. Participation acknowledges consent.

5



Goal for today

Practical discussion and shared learning. Product pitches should be avoided or kept at a minimum.

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Power-Sector AI in Practice:
Use Cases and Lessons Learned



FEATURED SPEAKERS

Vik Chaudhry
Buzz Solutions

Robert Sherick
RFPpower

Domain Intelligence & Use Cases Working Group

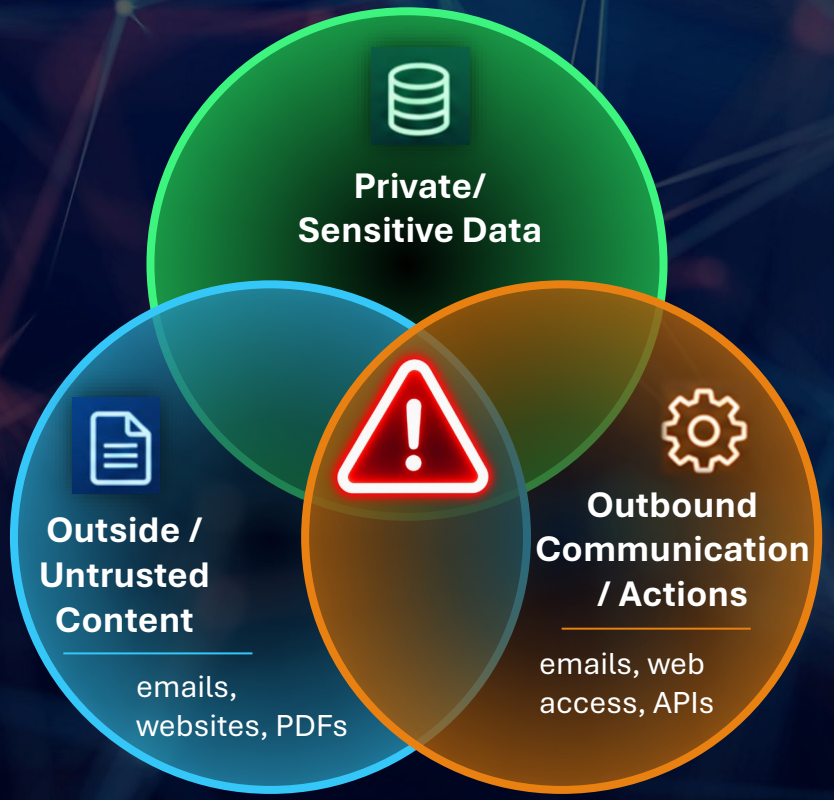
EPRI lead Apurba Sakti | Utility co-lead Qing Wei, NYPA

November 19, 2026

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Safety Share / Food for Thought

Know What Your AI System Can Reach



AI Risk Trifecta

Risk rises sharply when all three are present

For safer AI, understand what the system can read, what it can access, and where it can send information

Source: NIST CAISI; OWASP GenAI Security Project; Microsoft Security; The Economist (2025)

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OPEN POWER AI CONSORTIUM

Our Work Groups

Domain Intelligence & Use Cases



Enable domain-aware AI and identify, prioritize, and evaluate high-value power sector applications

Implementation



Share methods & best practices for AI deployment and scaling

350+
Global Members

Harnessing AI's transformative potential for a resilient, cost-effective energy future through collaboration

Open-source data and AI models for industry-wide value

NVIDIA. Google databricks

Microsoft ORACLE aws

Learn More:
www.openpowerai.org

250+
use cases identified for consortium prioritization and development

Join us in Shaping the Future of AI and Energy

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Domain Intelligence & Use Cases Working Group

Future Discussion Topics

Suggest a topic or volunteer to contribute

We are currently working on the agenda for 2027. Reach out if you want to share your relevant AI journey in a future monthly meeting.

SIGN UP TO PRESENT
https://forms.office.com/r/AfcAdPDWgX

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Buzz Solutions

From Visuals to Action

Scaling AI-powered visual asset intelligence and workflow orchestration for utilities

Lessons from AEP Texas, Dominion Energy and Ameren

Vik Chaudhry

Co-Founder and CTO, Buzz Solutions

Visual AI built for electric utilities

Buzz Solutions. Founded in 2017 out of Stanford University. $37M raised in strategic funding.

16	1M+	300K+	200K+	50+
utility customers	images processed	defects detected	structures analyzed	pre-trained models

Customers include

Dominion Energy

American Electric Power

Southern Company

Ameren

New York State of Opportunity. NY Power Authority

PSEG

SRP

DLC Duquesne Light Co.

Buzz Solutions



Capture scaled.
Review didn’t.

4 to 6 images per pole from long-range UAVs

5x more imagery each year once a 5-year inspection cycle becomes annual

2 min to review a single image by hand

AEP Texas distribution program, 44,609 line miles

“

For most utility aerial programs, **image analysis is the Achilles heel.** Once utilities scale their aerial program they are swimming in data.



Patrick Rackley

Continuous Improvement Manager, AEP Texas

Buzz Solutions

A detection is not a decision



26%

of enterprises have fully operationalized AI

82%

of IT leaders call integration a hurdle to implementing AI

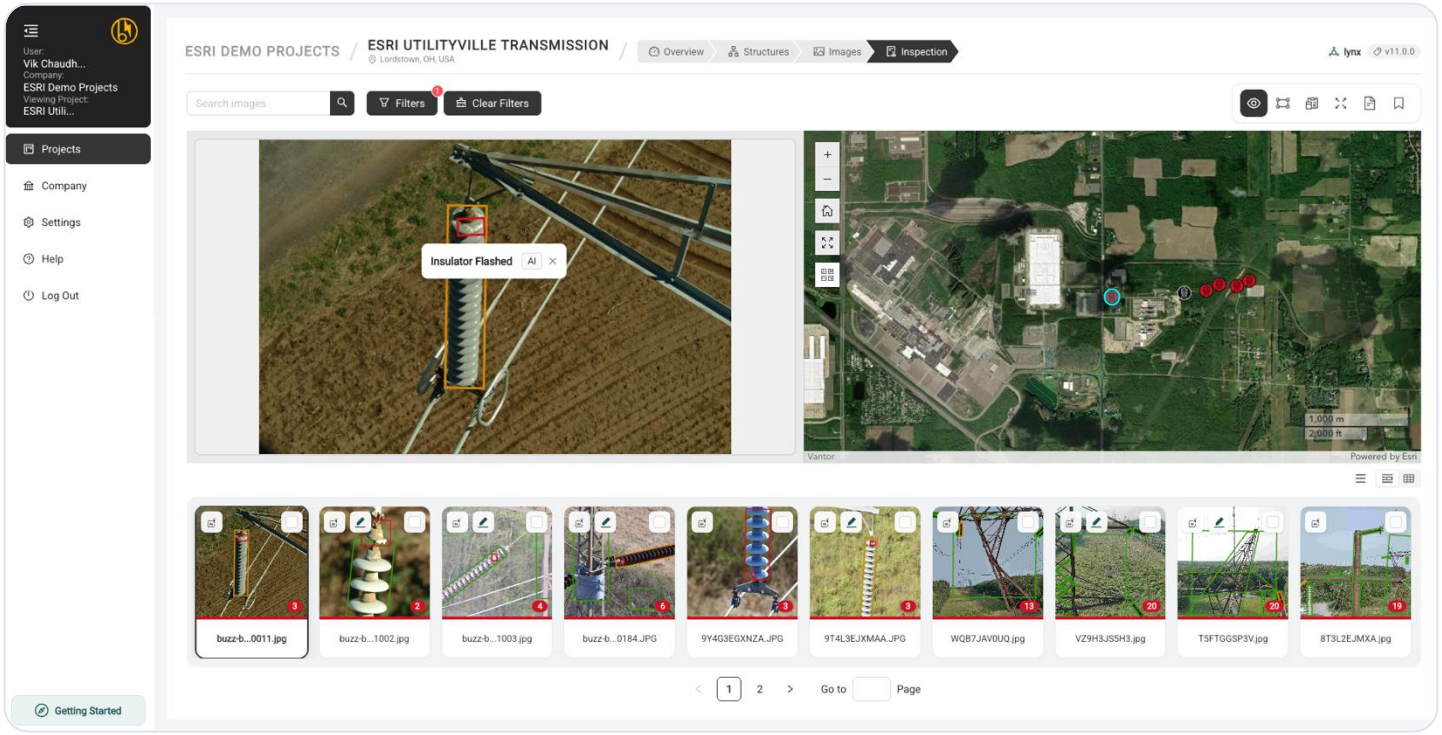
41%

say integration is why AI stays stuck in pilot

FPT and Forrester Consulting, 2026. MuleSoft Connectivity Benchmark Report, 2025.

Buzz Solutions

PowerAI: From inspection to work order



Capture

Drone, helicopter, fixed camera, thermal and satellite, incl. Skydio Cloud

Analyze

50+ pre-trained models, 0.5 seconds per image against 2 minutes by hand

Prioritize

Severity-ranked findings, matched to structures in GIS

Act

Findings pushed to GIS, EAM and work management

Integrates with

Skydio esri IBM maximo SAP

Buzz Solutions

PowerAI makes the systems of record smarter

GIS

Where the assets are

Before

Pole and structure records years out of date

With PowerAI

Every image matched to its structure. Locations and attributes corrected.

Dominion: outdated GIS records corrected by Automatch

EAM

What condition they are in

Before

An install date and little about condition

With PowerAI

Current condition, defect history and photo evidence on every asset.

AEP Texas: every asset on record, healthy or not

WMS

What gets done about it

Before

Work orders typed up from inspection notes

With PowerAI

Prioritized work orders raised from detections, evidence attached.

Dominion: prioritized detections issued in SAP

Buzz Solutions

One intelligence layer across every asset class



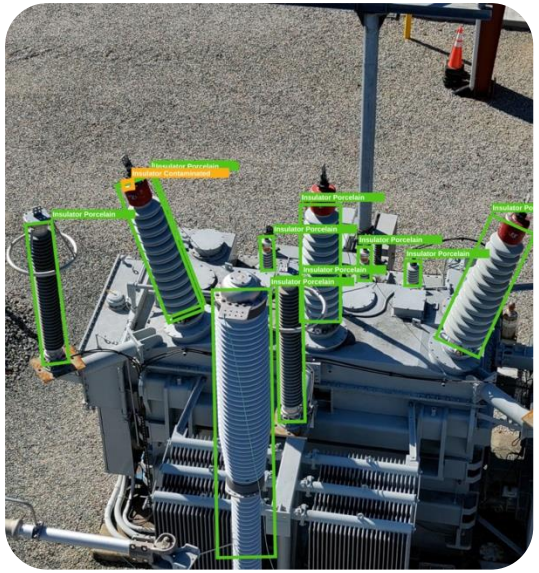
Transmission 6 use cases

Vegetation compliance, reliability, interconnection-ready assets



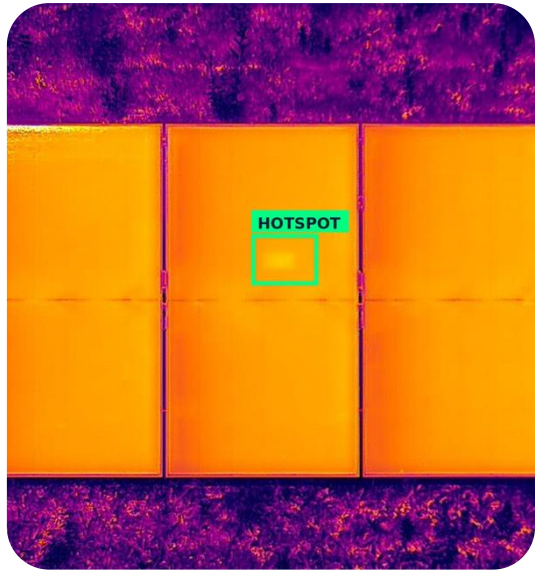
Distribution 8 use cases

SAIDI and SAIFI gains, wildfire mitigation, faster storm restoration



Substation 4 use cases

Security assessments, fleet life extension, capital deferral



Solar 2 use cases

Yield and availability, warranty claims, O&M cost per MW

Three utilities, three outcomes



AEP Texas

Wildfire prevention

Critical issues repaired within 24 hours, the goal across 44,609 miles of line.



Dominion Energy

Grid reliability

Better SAIDI, SAIFI and CMI while serving 450+ data centers.

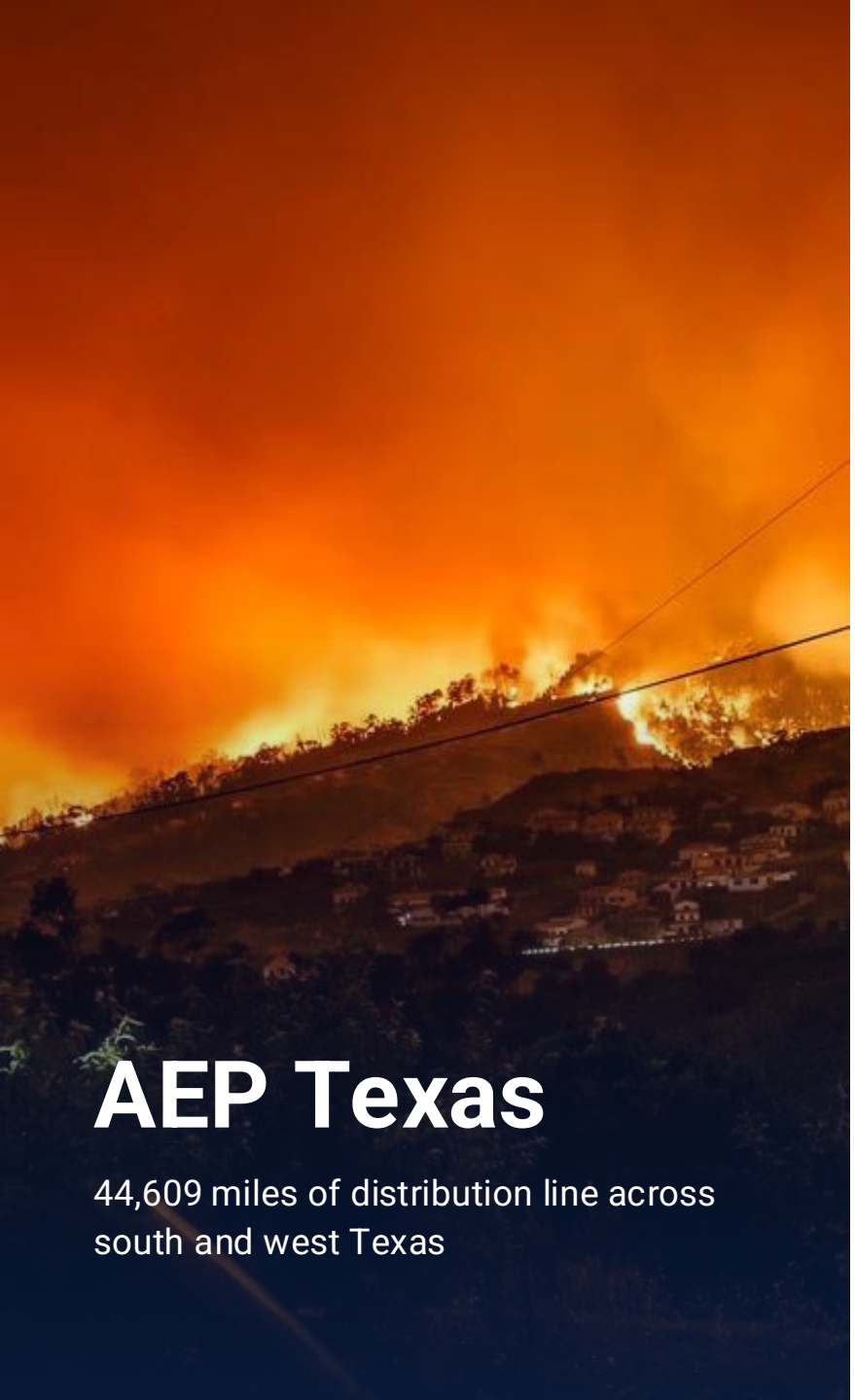


Ameren

More solar output

More energy from existing panels as the fleet grows to 2,500 MW.

Buzz Solutions



AEP Texas

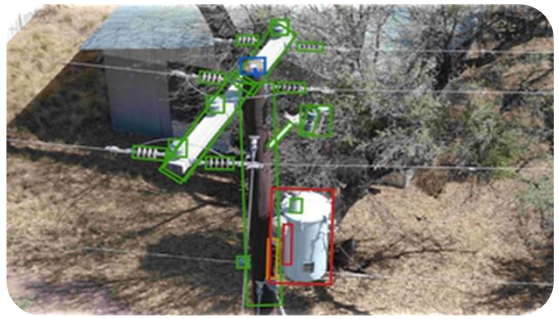
44,609 miles of distribution line across south and west Texas

Wildfire prevention and mitigation for a more resilient grid

Time to review 88,000 images of ~20,000 poles

Manual, 2 min per image — **~17 mont hs**

PowerAI, 0.5 s per image — **12 hours**



Ignition risks flagged: vegetation, conductor damage, arresters, hot splices

24 hours
AEP's target from critical issue to repair

0.5 s
per image, against 2 minutes by hand

5 to 1 year
inspection cycle, the target for 2027

Satellite + UAV → **PowerAI** → **Esri GIS** → **Gridzly Bear**

poles and feeders mapped, then flown

risks detected and ranked

findings on the exact pole

AEP asset management

A more reliable grid at Dominion, tracked in SAIDI, SAIFI and CMI

150K images analyzed in 12 hours

All 47,000 transmission towers, prioritized and exported to SAP EAM as work orders

1+ year
of work if reviewed by hand

85%+
detection accuracy on insulators, paint, bird guards, tower structures

38
more towers flagged for repairs in 2025 missed through manual inspections

Aerial imagery → **PowerAI** → **Esri GIS** → **SAP EAM**

drone and helicopter capture

detected, ranked, located

findings on the structure

work orders created for action



Found by PowerAI, missed in manual inspection

Towers needing repair, damaged insulators, other equipment damage

Buzz Solutions

Dominion: From prioritized detections to SAP work



Prioritized detections sent to SAP

- Damaged insulators
- Crossarms
- Transformers
- Vegetation encroachment
- Thermal anomalies
- Pole damage

Validated on thermal

37,406 images → **2,911** poles → **100%** of the anomalies inspectors found by hand

Validated on RGB

41,095 images → **120** damaged crossarms flagged for a closer look or replacement

8+ months

of manual image analysis saved

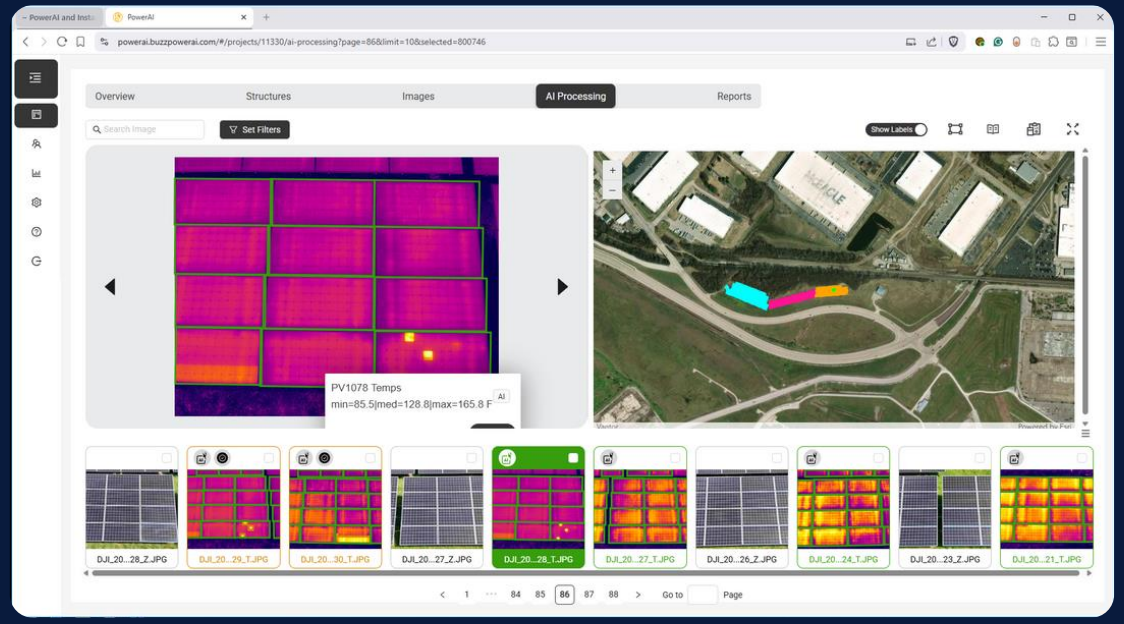
6+ months

saved by sending prioritized detections straight into SAP work management

Buzz Solutions

Ameren: More energy from the solar it already owns

510 MW today, 2,500 MW by 2030. Every underperforming panel is lost generation.



Panel temperatures from radiometric thermal, located on the Esri basemap

75%+

shorter inspections, so weak panels are back at full output sooner

$300-600

recovered per panel caught inside warranty

20-40%

lower outage-related O&M, including truck rolls

$175-285K

labor saved per 500 MW analyzed

Drone RGB + thermal → **PowerAI** → **Esri ArcGIS** → **Field crews**

every panel on every flight

hotspots, string outages, cracks, soiling

defect mapped to the exact panel

repair made, output restored

Buzz Solutions

What it takes to launch and scale

Data readiness

Standardize capture first. Angles, overlap and radiometric thermal decide what any model can see.

AEP Texas
satellite-mapped poles and feeders, 4 to 6 images per pole

AI validation

Test on your own imagery, against your own inspectors, with your defect definitions.

Dominion
37,406 images, every manual find matched

Human in the loop

AI takes the first pass on every image. People confirm what matters, and corrections retrain it.

AEP Texas
review built into the program design

Integration

Put findings where work gets scheduled: on the structure in GIS, then in the EAM work order.

Dominion
Esri GIS and SAP EAM

Operational KPIs

Pick the operating metric before the pilot starts and report against it.

AEP Texas
CMI avoided

Buzz Solutions

Measure the grid, not just the model

How AEP Texas scores it

CMI avoided = (average historical customers × average historical duration) − actual CMI

Detection accuracy 85%+
Agreement with manual review

Model

0.5 s per image, 2 min by hand
150K images in 12 hours

Speed

Critical repairs: 24 h target
Inspection cycle: 5 years to 1
Inspection duration down 75%+

Operations

CMI avoided, SAIDI, SAIFI
O&M down 20 to 40%
$300-600 back per panel

Grid outcomes

Buzz Solutions

What comes next: drone docks and 10x the data



10x **more inspection data from the same assets**

At 2 minutes per image, nobody reads 10x the imagery by hand.
AI becomes the inspection system.

100
docked drones added to Dominion's fleet in 2026

8 to 12 h
saved per event when a docked drone checks the substation before crews roll

$37M
NYPA drone program through 2028, cleared for remote flights statewide

100K
images a month already coming from NYPA's drone program

Docks already in service at

Dominion Energy® · AMERICAN ELECTRIC POWER® · NEW YORK STATE OF OPPORTUNITY. NY Power Authority

Buzz Solutions

Skydio and DroneXL, Oct 2026. Dominion Energy. NYPA. FAA Part 108, the routine BVLOS rule, has been in final White House review since July 2026.

The value of AI is not in finding the problem.

It is in connecting intelligence to action.

Buzz Solutions



Thank you

Vik Chaudhry
Co-Founder and CTO, Buzz Solutions

vikhyat@buzzsolutions.com
www.buzzsolutions.com

Buzz Solutions

RFP*power*

Transforming how energy is procured

November 2026

PowerPrint® baseline process, configured to your procurement

Created through industry experience and augmented using AI processing national RFP solicitations. PowerPrint® defines the process and the data schema for energy procurement and configured on a workflow platform.

1.0 Need Identification	2.0 RFP Management	3.0 RFP Evaluation	4.0 Power Purchase Agreement	5.0 Commercial Operation
1.1 Identify resource need	2.1 Design & issue RFP	3.1 Perform initial eval	4.1 Approve selection	5.1 Track COD progress
1.2 Establish procurement plan	2.2 Intake proposals	3.2 Develop shortlist	4.2 Execute PPA	5.2 Monitor performance
		3.3 Select resources		

Market Intelligence

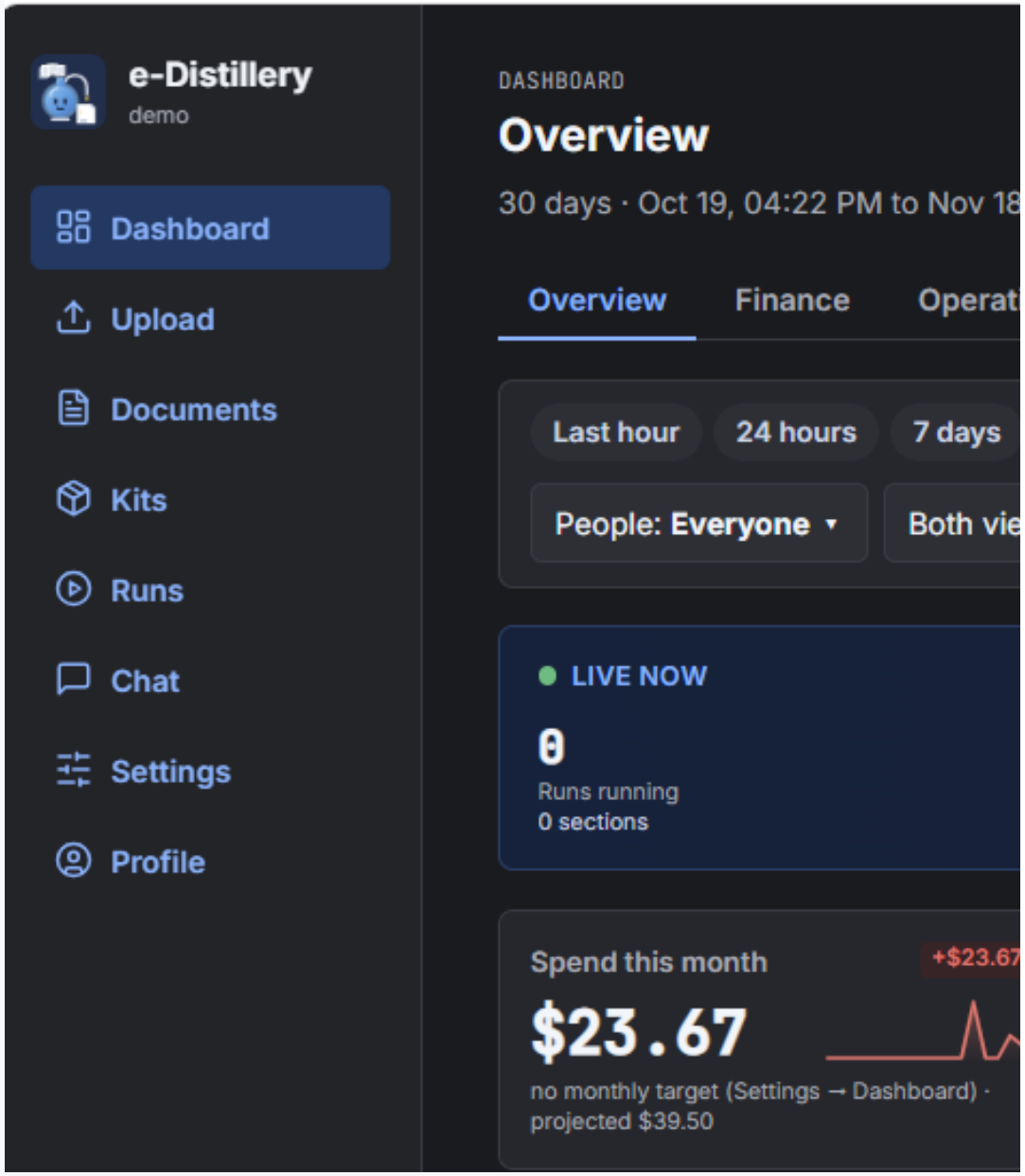
E-Distillery: public documents in, market intelligence out

A retrieval-augmented generation (RAG) pipeline focused on a supplied energy planning & procurement document corpus with curated prompts and reports hosted on a flexible platform that enables model choice, tracks cost and validates report quality.

Collect & Prepare	Market Region & Topic	Prompt & Report Structure	Evaluation & Quality	Report
Gather IRPs, RFPs, ISO/RTO reports, regulatory filings, interconnection queues and news	Index each with metadata and define market topics	Structured prompts and reports applied to regions and topics	Reports evaluated through defined success goals and modified accordingly	Synthesize findings into a sourced market-intelligence report
INPUT **Raw corpus**	**Regions/Topics**	**Prompt Guidance**	**Quality Assurance**	OUTPUT **Market report**

Distillation: Efficient processing of documents targeted by region and market insight category to identify market trends

Market Intelligence



robert.sherick@rfppower.com

Competitive Procurement Landscape

Review of 2026 Integrated Resource Plans filed by SDG&E, Clean Power Alliance and Clean Energy Alliance

Prepared for San Diego Community Power | November 2026

1. Executive summary

San Diego Community Power (SDCP) and its three peers are planning for the same resources, the same June 1 deadlines and the same constrained local grid. This review covers the 2026 Integrated Resource Plans filed in Rulemaking 25-06-019 by three peers:

- **SDG&E:** an Individual IRP whose filing date was extended to August 10, 2026.
- **Clean Power Alliance (CPA):** a plan approved by its Energy Planning & Resources Committee on July 22, 2026.
- **Clean Energy Alliance (CEA):** a plan submitted to the Commission for certification.

SDCP filed its own plan in the same proceeding on August 10, 2026. The review quantifies what each peer intends to procure through 2035 and shows where those plans compete with SDCP for projects, transmission and import capability, counterparties and procurement windows. IRPs are plans rather than binding procurement schedules; CPA states that its plan "is not a procurement commitment or a binding contracting schedule".

Key findings

- **SDG&E is the largest peer buyer.** Its Preferred Conforming Portfolio adds 1,893 MW by 2035 and 3,962 MW by 2045, mainly solar and eight-hour storage, with in-state and out-of-state wind later in the horizon and 42 MW of geothermal. The portfolio is constrained by its GHG benchmark rather than by any reliability need, which suggests its incremental demand is driven by clean energy, not capacity.
- **Peer mixes overlap SDCP's.** CPA's portfolio is anchored by wind and solar, supported by 4-hour and 8-hour storage, geothermal and biomass. CEA plans future contracts for new solar, storage, geothermal, hybrid and wind generation, and fills remaining open positions with generic contracts with existing renewables. The overlap with SDCP is concentrated in solar, multi-hour storage, geothermal and wind.