



Where **Energy** Meets **Intelligence**

Joulux Demonstration Session



U.S. DEPARTMENT
of **ENERGY**

Today's Speakers



Aidan Wells

AI Hub Team DOE
OCIO



Mike Stuski

AI Hub Team DOE
OCIO



- 01** Introduction to GenAI & Joulix
- 02** Joulix Design & Data
- 03** Live Demonstration
- 03** Question & Answer

GenAI Fundamentals

Generative AI is artificial intelligence (AI) that can **create generate content** such as text, code, and analysis in response to a user's natural language prompt or request.

How does Gen AI Work?

01

- › GenAI models work by **identifying patterns & relationships** in huge amounts of training data
- › Training data is vast & large

What Powers Joulix?

02

Joulix is powered by Google Gemini & was last trained in Jan. 2025



Who can use Joulix?

03

Everyone! All DOE (Offices, Labs, Sites) federal staff and contractors can use it!



Joulix offers a **suite of GenAI tools** that can be used in the following practical ways to boost your everyday efficiency



**Draft & Summarize
Information Faster**



Plan & Prepare Projects



**Quickly Brainstorm
Ideas**



Automate Routine Tasks



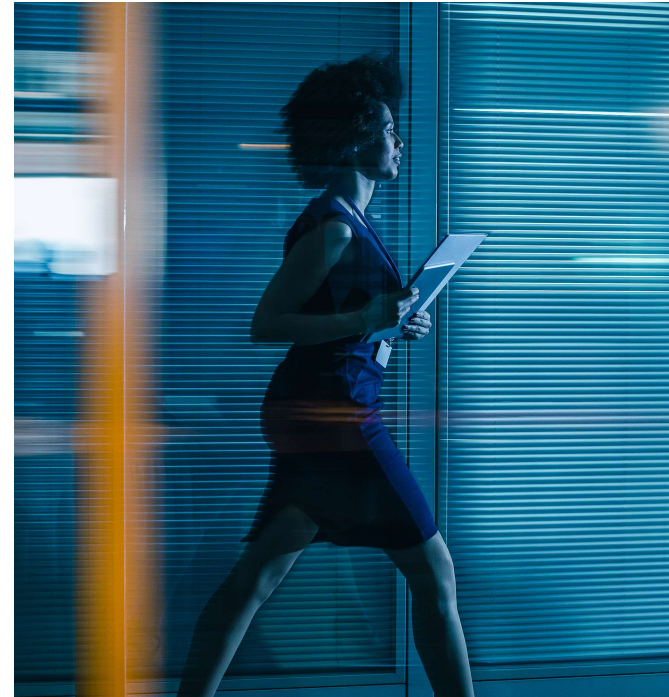
**Joulix was built by DOE's
OCIO AI Hub Team**

Our objective is to **accelerate mission-driven AI adoption** at the Department of Energy through:

- › Product Team (Joulix)
- › Custom AI tool development
- › AI training and enablement



Joulis Adoption at Department of Energy



9700+

Department of Energy Users



80+

Department of Energy Organizations with a Joulis Account

6400+

Average Hours Saved per Week Using Joulis

1700+

New Users This Past Month

Joulux is designed to empower you!

Joulux tools were thoughtfully designed with *security*, *efficiency*, and *power* in mind.

Data & Security

You can upload information up to the **controlled unclassified information** (CUI) level. Review Rules of Behavior for more info.

Your data and chat history within Joulux are **securely stored in a Department of Energy-controlled environment**.

How it Works

Joulux is powered by the **Google Gemini** family of models.

 Gemini

Joulux is **NOT** trained on your inputs or data! Our model is *pre-trained* and was last updated in Jan. 2025.

Rules of Behavior

When registering for Joulux, you will be asked to agree to our Rules of Behavior. In summary, you are agreeing to:

Organizational Policies



Adhering to **organizational policies** related to IT systems

Data Restrictions



Avoiding upload of **Classified** information, Export Control (**EXPT**) information, information containing International Traffic in Arms Regulations (**ITAR**), Naval Nuclear Propulsion Information (**NNPI**), or Unclassified Controlled Nuclear Information (**UCNI**).

Reviewing AI Generated Content



Reviewing generated content for accuracy and not using Joulux to make decisions without human oversight

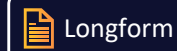
Joulux Considerations



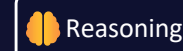
Ask anything...



Search



Longform



Reasoning



Boost



Files Uploaded

Hallucinations

At times, Gen AI may guesstimate an answer or pattern and present it as truth. **You should always review outputs of Joulux before using.**

Prompt Restrictions

Usage is monitored like any IT system. **Harmful or inappropriate prompting is restricted** and will not be processed by the tool

Joulix Training Series

The [Joulix Training Series](#) is designed to elevate expertise and train users how to get the most out of the available AI tools. **We will host these through December.**

September Series

The September series covered a range of topics, including both a fundamentals and masterclass session:

Fundamentals: Introduce Joulix to new users and provide a tutorial for getting started

Masterclass: Advanced Joulix uses, tutorials, & knowledge sharing.



User Guides

The AI Hub Team has designed user guides to help guide new users with using Joulix.

User Guides: Review and share these materials as needed!

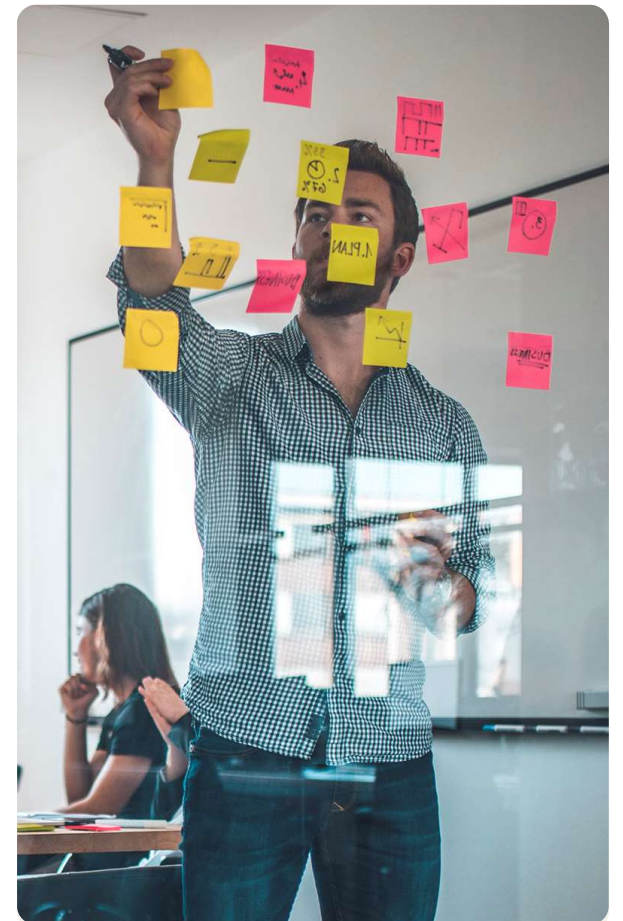


We want your feedback!

We want to hear from you as trainers!

Please [let us know](#) what additional training tools we could use to improve.

Submit Feedback





Live Demonstration



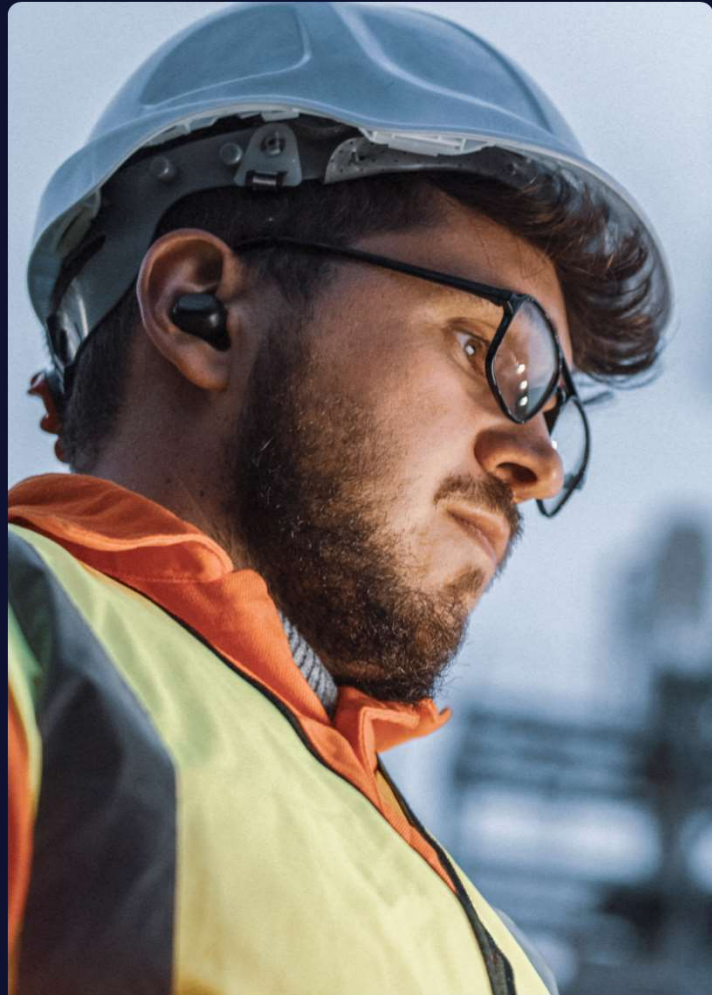
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Question & Answer




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Thank You!

Please reach out to aihub@hq.doe.gov with any inquiries!

 See you next time!



Appendix



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Introduction to Prompting

Prompting Fundamentals

Use full sentences

Avoid acronyms and jargon

Be clear and specific



Improving Prompting with Detail

Scenario: You are planning a birthday dinner for your friend.

GOOD	BETTER	BEST
Give me restaurant recommendations for a special occasion.	You are an expert restaurant guide. Give me restaurant recommendations for a special occasion with five options. They should be American or Asian, have an emphasis on healthy eating, and be in Rockville or Bethesda, MD	You are an expert restaurant guide. Give me restaurant recommendations for a friend's birthday with five options. They should be American or Asian, have an emphasis on healthy eating, and be in Rockville or Bethesda, MD. An example is Founding Farmers or True Food Kitchen.

Prompting Framework – REACH

REACH is a helpful framework and reference to ground your prompting with Joulix.

