

# Generative AI for the Energy Law Practitioner: A Summary

Generative Artificial Intelligence (GenAI) is revolutionizing energy law practice, offering unprecedented capabilities that eclipse previous legal technologies. Unlike traditional AI that merely analyzes existing data, GenAI creates original content, fundamentally reshaping how energy practitioners navigate complex regulatory frameworks and market structures.<sup>1</sup>

The article distinguishes GenAI from its predecessors by highlighting its content creation abilities, which present both opportunities and challenges. While GenAI can efficiently process vast volumes of legal documents, its creative tendencies occasionally result in "hallucinations" – convincingly presented false information. Studies show even commercial GenAI systems designed for lawyers hallucinate 17-33% of the time.<sup>2 3</sup>

Energy practitioners can leverage GenAI across multiple domains. For communications, it transforms bullet points into polished press releases and generates concise summaries of cases and orders. In transactional work, it drafts contracts, conducts due diligence, and facilitates contract lifecycle management. For litigation, GenAI analyzes deposition transcripts, identifies precedents, and even simulates moot court sessions. In regulatory compliance, it monitors changes across jurisdictions and helps identify potential issues before they become problems.<sup>4 5 6 7</sup>

Regulatory agencies are exploring GenAI applications. The Department of Energy released a report examining how AI can accelerate the clean energy transition while maintaining grid reliability. DOE has also launched a \$20 million initiative to develop AI-powered tools for expediting permitting processes. Meanwhile, FERC has requested funding to explore GenAI's potential for enhancing efficiencies across program offices.<sup>8 9 10</sup>

Despite its benefits, GenAI presents significant risks. Confidentiality concerns arise when sensitive information is input into AI models. Accuracy issues stem from hallucinations and unreliable outputs. Ethical considerations include maintaining competence in AI use, supervising AI tools, and implementing reasonable billing practices. Intellectual property risks involve potential copyright infringement and lack of protection for AI-generated content.<sup>11 12 13 14</sup>

Best practices for mitigating these risks include obtaining informed client consent before inputting confidential information, independently verifying AI-generated output, disclosing AI use when required, maintaining technological competence, establishing clear firm-wide policies, and charging clients only for actual time spent using AI.<sup>15 16 17 18 19 20</sup>

As AI integration in administrative decision-making increases, practitioners must address concerns about due process, transparency, reasoned decision-making, and potential bias. The growing capability of AI to generate deep-fakes also raises questions about evidence authenticity and admissibility in regulatory proceedings.<sup>21 22 23</sup>

In conclusion, energy practitioners should approach GenAI with a balanced perspective, recognizing its transformative potential while implementing safeguards to mitigate risks. By embracing AI as a tool that enhances rather than replaces legal expertise, practitioners can deliver more efficient, high-quality services while making energy law more accessible.

## Citations

[^1]: GENERATIVE AI FOR THE ENERGY LAW PRACTITIONER (cont.)

Synopsis: The emergence of Generative Artificial Intelligence (GenAI) is revolutionizing the practice of energy law, offering tools that streamline and slash the costs of regulatory compliance, contract analysis, and litigation preparation. Unlike traditional legal technologies that merely automate existing workflows, GenAI enables practitioners to synthesize vast regulatory data, draft complex documents, and enhance public participation in permitting processes. Regulatory agencies, including the Department of Energy (DOE) and the Federal Energy Regulatory Commission (FERC), are exploring AI-driven efficiencies in oversight, permitting, and stakeholder engagement. However, the integration of GenAI raises concerns about confidentiality, accuracy, ethical use, and regulatory compliance. Energy practitioners must balance the advantages of AI-driven efficiency with the risks of hallucinations, data security breaches, and lack of explainability in decision-making. Best practices include understanding the capabilities of AI tools, verifying AI-generated legal work, ensuring AI disclosure in regulatory filings, and maintaining professional judgment over AI-assisted outputs. As agencies begin to integrate AI into decision-making, lawyers must advocate for due process protections and transparency in AI-driven decisions. By developing AI competence and implementing ethical safeguards, energy law practitioners can harness the transformative power of GenAI while upholding legal integrity, regulatory fairness, and client trust in an evolving energy landscape. A summary of best practices, based on this article, is provided as Appendix I.

Source: 3-Elephant119-165 (1).pdf

[^2]: GENERATIVE AI FOR THE ENERGY LAW PRACTITIONER (cont.)

On the other hand, GenAI's creative juices and people-pleasing tendencies occasionally run amok, <sup>23</sup> resulting in hallucinations<sup>24</sup> - responses that contain false or misleading information convincingly presented as authority. <sup>25</sup> A 2024 Stanford Law School study found that even commercial GenAI systems specifically designed for lawyers hallucinate 17% to 33% of the time. <sup>26</sup> As one scholar observed:

Source: 3-Elephant119-165 (1).pdf

[^3]: GENERATIVE AI FOR THE ENERGY LAW PRACTITIONER (cont.)

1. Adoption Trends (cont.)
2. Varun Magesh et al., Hallucination Free? Assessing the Reliability of Leading GenAI Legal Research Tools, J. EMPIRICAL LEGAL STUD., Mar. 14, 2025, at 1, [https://dho.stanford.edu/wp-content/uploads/Legal\\_RAG\\_Hallucinations.pdf](https://dho.stanford.edu/wp-content/uploads/Legal_RAG_Hallucinations.pdf).

Source: 3-Elephant119-165 (1).pdf

[^4]: GENERATIVE AI FOR THE ENERGY LAW PRACTITIONER (cont.)

### A. Communications (cont.)

Communications represent a significant portion of energy practitioners' work, whether with clients, other attorneys, or the general public - and GenAI tools are particularly well-suited for these tasks. For instance, GenAI can efficiently transform brief bullet points about a recent law firm victory into a polished press release or client alert. The technology can also generate concise summaries of appellate cases and FERC orders, which can serve as abstracts or executive summaries for more detailed analyses by humans. GenAI can also aid in presentation. The technology can concisely list the pros and cons of a fifty-page bill for an investor-owned utility or ratepayers side-by-side in a table or even generate images of energy infrastructure.

Source: 3-Elephant119-165 (1).pdf

[^5]: ENERGY LAW JOURNAL (cont.)

### B. Transactional Work (cont.)

A significant part of energy law practice involves negotiating, drafting, interpreting, and managing a variety of contracts ranging from standard forms to complex bespoke agreements. Already, GenAI can be used as a starting point for drafting contracts, <sup>84</sup> or for analyzing past case law and precedent to provide clauses and language that have been judicially tested. <sup>85</sup> AI can also make sure that contract terms and definitions are consistent across all divisions of a

company. In fact, in a recent Thompson Reuters survey, 88% of corporate legal respondents listed contract drafting as being among their preferred GenAI use cases. 86

*Source: 3-Elephant119-165 (1).pdf*

[^6]: GENERATIVE AI FOR THE ENERGY LAW PRACTITIONER (cont.)

#### C. Litigation (cont.)

In the context of rate cases and regulatory proceedings, GenAI tools can rapidly analyze historical decisions, identify relevant precedents, and help attorneys develop more effective arguments. The technology has shown particular promise in analyzing deposition transcripts and hearing records, identifying key testimonial points and inconsistencies that might otherwise be overlooked in voluminous proceedings.

*Source: 3-Elephant119-165 (1).pdf*

[^7]: ENERGY LAW JOURNAL (cont.)

#### D. Rates, Regulatory and Compliance (cont.)

The compliance applications of GenAI have become increasingly important as energy and utility companies face an expanding array of regulatory requirements. 97 GenAI can be employed to continuously monitor regulatory changes across multiple jurisdictions and ensure that companies remain current with evolving requirements such as renewable portfolio standards, emissions regulations, and grid reliability standards. Eugene Lee, senior FERC economist, and Wesley Leeroy, an AI developer, recently demonstrated how AI-powered algorithms might be used to diagnose market dynamics and curb market power abuse.<sup>98</sup>

*Source: 3-Elephant119-165 (1).pdf*

[^8]: GENERATIVE AI FOR THE ENERGY LAW PRACTITIONER (cont.)

#### V. GENAI ADOPTION BY REGULATORY AGENCIES (cont.)

Federal executive agencies like DOE are increasingly exploring opportunities to implement GenAI in response to Executive Order 14,110, 106 issued by President Biden in October 2023, which encouraged agencies to take an open view towards GenAI rather than impose broad restrictions on its use. 107 Although President Trump rescinded Executive Order 14,110 along with dozens of other executive orders on his first day in office, 108 the DOE Report discussed below implementing the order has been completed and is unlikely to be affected. 109 Understanding how agencies approach AI adoption provides crucial insight into the future of regula-

*Source: 3-Elephant119-165 (1).pdf*

[^9]: ENERGY LAW JOURNAL (cont.)

#### E. Permitting (cont.)

The role of GenAI in permitting and planning processes is evolving rapidly. In August 2024, the Department of Energy announced a \$20 million initiative to build and test AI-powered tools meant to speed up often years-long permitting processes. 101 One core project, Policy AI, will focus on developing AI-powered software to augment federal reviews under the National Environmental Policy

*Source: 3-Elephant119-165 (1).pdf*

[^10]: GENERATIVE AI FOR THE ENERGY LAW PRACTITIONER (cont.)

#### B. Federal Energy Regulatory Commission (FERC) (cont.)

In contrast to DOE, FERC has yet fully explored how GenAI might facilitate permitting or other agency functions or developed guidance on AI use for FERC staff or the companies it regulates. Still, many of the use cases identified by DOE

- such as summarization and analysis, permit or interconnection application completeness review — are equally relevant to FERC's mission. In its FY 2025 Budget Request, FERC sought funding to "conduct a series of proof of concepts to harness the generative potential of Artificial Intelligence (AI) in operations," explaining that the utilization of AI promises to enhance efficiencies across various FERC program offices, ultimately leading to substantial benefits in the execution of the Commission's mission. „125 In addition, proposed bill S.4664, introduced in 2024, would have required FERC to initiate a rulemaking to "require

Source: 3-Elephant119-165 (1).pdf

[^11]: GENERATIVE AI FOR THE ENERGY LAW PRACTITIONER (cont.)

opt out<sup>129</sup> or might materialize in a response to another user's query. 130 In a highly publicized case in early 2023, a Samsung employee leaked proprietary trade data to ChatGPT, where it was publicly accessible. 131 For energy practitioners, confidentiality holds heightened significance because so many proceedings and transactions involve highly privileged information ranging from commercially sensitive or proprietary business documents to critical energy infrastructure information (CEII) which if disclosed could jeopardize a company's competitive advantage or impair the safety and security of the grid. 132

Source: 3-Elephant119-165 (1).pdf

[^12]: GENERATIVE AI FOR THE ENERGY LAW PRACTITIONER (cont.)

B. Accuracy and Quality Control Risks (cont.)

AI hallucinations - defined as an AI-generated response that contains false or misleading information presented as fact<sup>145</sup> — have been described as a feature, not a bug of GenAI. 146 Even commercial GenAI tools developed for lawyers produce fake results as much as one third of the time. 147 This creates risks for lawyers

Source: 3-Elephant119-165 (1).pdf

[^13]: GENERATIVE AI FOR THE ENERGY LAW PRACTITIONER (cont.)

1. Maintaining Competence in AI Use (ABA Model Rule 1.1) (cont.)

ABA Model Rule 1.1[8] imposes a duty on lawyers to "keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology. .,173 To date, forty states have adopted some version of a duty of technology competence. 174 More recently, the ABA and state bars have proposed guidance on what competence looks like for attorneys using GenAI. 175

Source: 3-Elephant119-165 (1).pdf

[^14]: GENERATIVE AI FOR THE ENERGY LAW PRACTITIONER (cont.)

E. Intellectual Property Risks (cont.)

#### a. Copyright Issues in Training Data and Outputs

Source: 3-Elephant119-165 (1).pdf

[^15]: GENERATIVE AI FOR THE ENERGY LAW PRACTITIONER (cont.)

Under the ABA Formal Opinion 512, lawyers must take robust precautions to maintain client confidentiality when using GenAI technologies. Before inputting any client information into a GenAI tool, Formal Opinion 512 provides that lawyers must obtain informed consent from clients after providing a clear explanation of the specific risks and benefits. 134 This requires detailing how the client's information could be used, who might access it, and the potential implications of the tool's self-learning capabilities. Generic boilerplate consent language in engagement letters will not suffice - the disclosure must be specific to the actual risks and usage scenarios involved. 135

Source: 3-Elephant119-165 (1).pdf

[^16]: ENERGY LAW JOURNAL (cont.)

Although hallucinations may be the product of new technology, the failure to detect hallucinations results from the age-old problem of careless lawyering. Just as competent lawyers would not rely on Westlaw headnotes to cite a case without first reading or shepardizing it, the same principle applies for case summaries or citations generated by ChatGPT. Not surprisingly then, ABA Formal Opinion 512 warns that lawyers must independently verify all AI-generated output before relying on it in their legal work. 149 Verification is particularly critical for any legal authority, factual claims, or analysis that will be used in court filings or client advice. While AI can be used as a starting point or foundation for legal work, lawyers may not abdicate their professional judgment and ethical responsibilities by relying solely on AI output. They remain fully responsible for the accuracy and reliability of their work product, regardless of whether AI tools were used in its creation. 150

Source: 3-*Elefant119-165 (1).pdf*

[^17]: GENERATIVE AI FOR THE ENERGY LAW PRACTITIONER (cont.)

1. Disclosure to Decision-Makers (cont.)
2. Client Disclosures

According to ABA Formal Opinion 512, lawyers must disclose AI use in several key scenarios: when directly asked by clients about work methods, when

Source: 3-*Elefant119-165 (1).pdf*

[^18]: ENERGY LAW JOURNAL (cont.)

Technological competence includes not just the ability to use AI tools, but also the judgment to evaluate and select appropriate tools for professional use. Before using a GenAI tool, practitioners should acquire a reasonable understanding of that specific tool's benefits and risks. As a baseline measure of competence in tool selection, the practitioners should thoroughly read and understand the Terms of Use, privacy policy, and related contractual terms of any GenAI tool they plan to use. 178

Source: 3-*Elefant119-165 (1).pdf*

[^19]: GENERATIVE AI FOR THE ENERGY LAW PRACTITIONER (cont.)

ABA FO 512 recommends additional best practices for responsible supervision. These include providing subordinate lawyers and nonlawyers with appropriate training in both the ethical and practical aspects of using GenAI tools relevant to their work, 184 such as the tools' capabilities and limitations, ethical considerations, and strategies for ensuring data security, privacy, and confidentiality. 185 Firms should also establish and implement firm-wide policies governing acceptable AI use.

Source: 3-*Elefant119-165 (1).pdf*

[^20]: ENERGY LAW JOURNAL (cont.)

3. Reasonable Billing Practices (cont.)

According to the Walter Klowers' 2024 Future Ready Lawyer Survey Report, 67% of corporate legal departments and 55% of law firms expect AI-driven efficiencies to have an impact on the prevalence of the billable hour. 195 After all, when AI can reduce by half the time for tasks like summarizing a deposition transcript or writing a brief, then logically, the revenues based on those hours will decline too. In these circumstances, practitioners might be tempted to bill based on what the task traditionally cost when performed by humans rather than what it actually costs with GenAI.

Source: 3-*Elefant119-165 (1).pdf*

[^21]: [Citation not found]

[^22]: ENERGY LAW JOURNAL (cont.)

1. Due Process and Transparency (cont.)

Automation generates unforeseen problems for the adjudication of important individual rights. Some systems adjudicate in secret, while others lack recordkeeping audit trails, making review of the law and facts supporting a system's decisions impossible. Inadequate notice will discourage some people from seeking hearings and severely reduce the value of hearings that are held. Even if an individual seeks and receives a hearing, a hearing officer's belief that computer decisions are error-resistant increases the likelihood of inaccurate outcomes. Although expert testimony about a computer system's reasoning could combat a hearing officer's presumption that a computer decision is correct, a *Mathews V. Eldridge* cost-benefit analysis would likely deny such additional process due to its extreme cost. As a result, hearings may not provide individuals with opportunities to meaningfully challenge automated decisions. Changes 221 must be made if procedural due process is to be effective in the twenty-first century.

Source: 3-*Elefant119-165 (1).pdf*

[^23]: G. Authenticity and Admissibility in FERC Evidentiary Hearings (cont.)

1. Authenticity (cont.)

Advances in artificial intelligence now enable deep-fakes - hyper-realistic fake images, videos, or audio - that can be very difficult to distinguish from authentic evidence. What's more, the technology for anyone to create convincing deep-fakes from just a snippet of a voice-mail message or a few seconds of a YouTube video is affordable and requires minimal technical skills. In one widely-reported news story, a Maryland high school principal was placed on administrative leave after someone circulated a fabricated AI-generated audio clip that appeared to capture him making racist comments. Unfortunately, preventive technology has not kept pace; a 2024 NIST Report concluded that while current deep-fake detection technologies provide some level of defense, no single method is fully effective against sophisticated AI-generated media.

*Source: 3-Elephant119-165 (1).pdf*

[<sup>24</sup>]: ENERGY LAW JOURNAL (cont.)

## VII. CONCLUSION

The adoption of GenAI in energy law practice marks a paradigm shift, offering unprecedented opportunities for efficiency and innovation. From automating complex legal research and contract analysis to streamlining regulatory compliance and permitting processes, GenAI has the potential to revolutionize the way energy practitioners engage with clients, agencies, and the public. At the same time, energy practitioners must approach GenAI with a balanced perspective, recognizing its capabilities while implementing best practices and safeguards described in this article to mitigate risks and protect clients.

*Source: 3-Elephant119-165 (1).pdf*

[<sup>25</sup>]: ENERGY LAW JOURNAL (cont.)

## VII. CONCLUSION (cont.)

Looking ahead, energy practitioners must embrace AI not as a replacement for legal expertise but as a tool that enhances their ability to deliver strategic, efficient, and high-quality legal services. Firms that successfully integrate AI while maintaining professional oversight will be well-positioned to offer competitive and effective legal representation in an increasingly AI-driven energy sector. Most of all, widespread adoption of GenAI may help uncover innovative solutions to legal and regulatory challenges in the energy sector and make energy law more accessible.

*Source: 3-Elephant119-165 (1).pdf*