

Evaluating Candidate Suitability Using Artificial Intelligence



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Evaluating Candidate Suitability for Consulting/Mentoring/Coaching in the Energy Sector Using Artificial Intelligence

In the rapidly evolving landscape of the energy sector, the need for proficient consultants, mentors, and coaches who can navigate complexities and drive innovation is more crucial than ever. This calls for a unique blend of expertise, experience, and skills in professionals who can effectively contribute to this industry. In this context, the objective of our deliverable is twofold: to establish a comprehensive evaluation framework that accurately assesses the suitability of candidates for roles in consulting, mentoring, and coaching within the energy sector. The idea is for the Artificial Intelligence tool to be able to follow this evaluation framework and be able to rapidly make decisions on the status of new applicants for the KLancer role.

The first part of this document focuses on creating a skillset index. This index, scored out of 100, aims to quantify the ideal skillset for a candidate in the energy consulting domain. The assessment criteria are meticulously designed to encompass a range of skills that are quintessential in this sector, such as technical knowledge, strategic thinking, adaptability, communication proficiency, and leadership capabilities. These skills are not only pivotal for understanding the nuances of the energy sector but also for the capacity of guiding and mentoring others. The skillset index offers a standardized and objective measure to gauge a candidate's potential and readiness for the K-Lancer role.

The second part of the evaluation framework delves into the relevance of a candidate's experience within the specific context of the energy sector. This assessment is crucial, as the sector's unique challenges and opportunities require not just theoretical knowledge, but also practical, hands-on experience in relevant domains. Here, we consider factors like the candidate's industry exposure, the nature and depth of their experience, and their familiarity with key trends and technologies shaping the energy landscape. The objective is to determine how well a candidate's background aligns with the specific demands and intricacies of the energy sector.

By integrating both skillset analysis and sector-specific experience assessment, we are providing a comprehensive framework that can be utilized by Talent4Energy to identify and engage the most suitable professionals for consulting, mentoring, and coaching roles in the energy sector. In the following sections, we will detail the methodology, criteria, and scoring mechanisms that underpin this innovative approach to candidate evaluation.

Skillset Compatibility Index

The categories (along with their relevant justifications) that will be used in order to define the skillset index are as follows:

- Industry Knowledge (20%): Having a deep understanding of the energy sector, including its key players, trends, technologies, and regulatory environment. This involves familiarity with both current state and future prospects of the industry.
- Analytical Skills (15%): The ability to effectively interpret and analyze data, identify patterns and insights, and solve complex problems. Crucial in making informed decisions based on quantitative and qualitative data.

- Strategic Thinking (15%): The capacity to formulate long-term objectives and plans, taking into consideration the broader industry trends and changes. It involves thinking ahead, anticipating future challenges, and preparing accordingly.
- Communication Skills (10%): The ability to convey ideas clearly and effectively, both in writing and verbally. This includes tailoring the message to different audiences and ensuring that it is understood as intended.
- Leadership and mentoring abilities (10%): Encompasses the skills required to lead and guide teams or individuals towards achieving their goals. It involves motivating, coaching, and providing direction and support.
- Project Management (10%): The ability to plan, execute, and oversee projects, ensuring they are completed on time, within budget, and to the required quality standards. It involves organizing resources, managing risks, and coordinating efforts.
- Interpersonal Skills (10%): The ability to effectively interact with others, build relationships, and work well in a team. This includes being empathetic, collaborative, and culturally aware in diverse environments.
- Personal Attributes (10%): Intrinsic qualities such as ethical understanding, resilience, adaptability, and stress management. These attributes are critical for maintaining professionalism and effectiveness in challenging situations.

In order to calculate the person's score against the index we will use the cumulative score formula:

$$Score_{KLancer} = \sum Score_{Category} * Weight$$

Sector Compatibility Index

The Sector Compatibility Index is made to evaluate how attuned the candidate is to the energy sector. This index is based around 3 different categories:

- Discipline Alignment (40%): Disciplines are foundational to a candidate's expertise in the energy sector. They represent the specialized knowledge and technical skills essential for understanding and addressing industry-specific challenges.
- Industry Relevance (40%): Direct experience in the energy sector is equally critical. This experience ensures that the candidate is familiar with industry practices, trends, and challenges. It indicates a practical understanding of how various disciplines are applied in real-world scenarios within the energy sector.
- Role Suitability (20%): While industry and discipline knowledge are important, the specific roles a candidate has held also matter, especially for consulting and mentoring. This category assesses whether the candidate has experience in roles that involve advisory, leadership, or educational aspects.

These weightings are based on the premise that the clients will prioritize experience in the disciplines and/or industries over the specific role, leading to this 2:2:1 ratio. The elements within these categories are as follows:

Disciplines

Accounting | Automation | Chemical | Civil | Computer Science | Contracts | Data Science | Drilling | Electric | Electronic | Environment | Environment Social Gov | Geology | Geophysics | Instrumentation | Legal | Logistics | Maritime | Mechanical | Petrophysics | Pipeline | Piping and Fitting | Production | Public Relations | Purchasing | QA/QC | Reservoir | Robotics | Rotative | Safety | Strategic Planning | Subsea | Talent Development | Vessels

Industries

Aerothermal | Biofuels | Biomass | CCUS | Coal | Geothermal | Hydropower | Hydrogen | LNG | Nuclear | Oil & Gas | Solar | Tidal & Waves | Organic & Urban Waste | Wind

Role Types

Advisor | Analyst | Consultant | Designer | Developer | Director | Engineer | Expert | Head of | Instructor | Interpreter | Installer | Manager | Maintainer | Mentor/Coach | Operator | Professor | Scientist | Specialist | Supervisor

Figure 1: Elements in Sector Compatibility Categories (Source: Talent4Energy)

Figure 1 shows some of the elements in the categories selected for the sector compatibility index. The idea is that the artificial intelligence tool will seek for these keywords in the candidates’ CVs in order to evaluate how much their CV indicates an alignment with the energy sector.

Similarly, the formula to calculate the Compatibility Index Score for the candidates:

$$Score_{KLancer} = \sum Score_{Category} * Weight$$

Compatibility Map

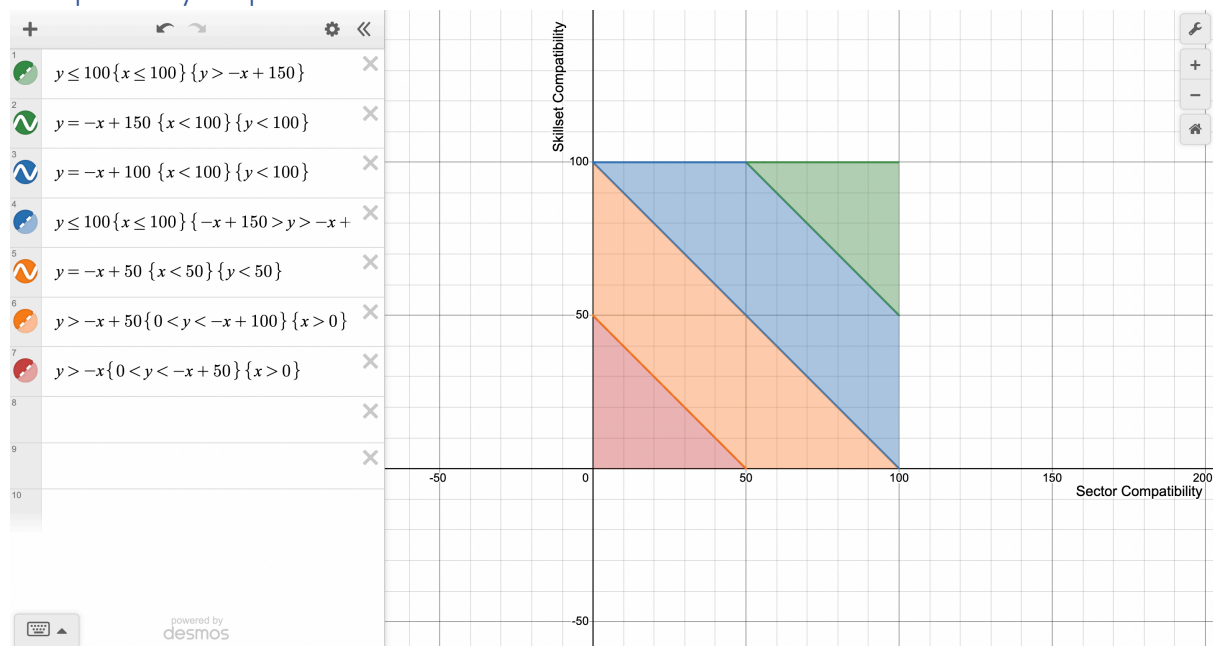


Figure 2: Compatibility Map (Source: Author’s own, using Desmos)

Figure 1 shows a compatibility map. The X-Axis, sector compatibility and the Y-Axis Skillset compatibility allow us to use our quantitative evaluation method of the candidates and have standardized the decision-making process. The coordinates at which the candidate is placed will be based on the individual scores of each of the indexes.

Decision-making Criteria:

Green: If the candidate's coordinates lie within the green section, immediate yes.

Blue: If the candidate's coordinates lie within the blue section, a manual inspection will be made. This includes a look at the candidate's LinkedIn.

Orange: If the candidate's coordinates lie within the orange section, a more in-depth inspection will be made. Not just analyzing the client's LinkedIn, but also carrying out a personal interview.

Red: If the candidate's coordinates lie within the red section, a temporal no will be advised.

These decisions do not have to necessarily be final and they can be changed if a candidate provides the necessary evidence in order to demonstrate capabilities & the correct sector compatibility.

Implementing Into Full KYC

This evaluation method will be implemented into the final KYC. This way, as soon as the K-Lancer candidate registers into Talent4Energy, they will provide 2 documents: One for identity verification, and their CV.

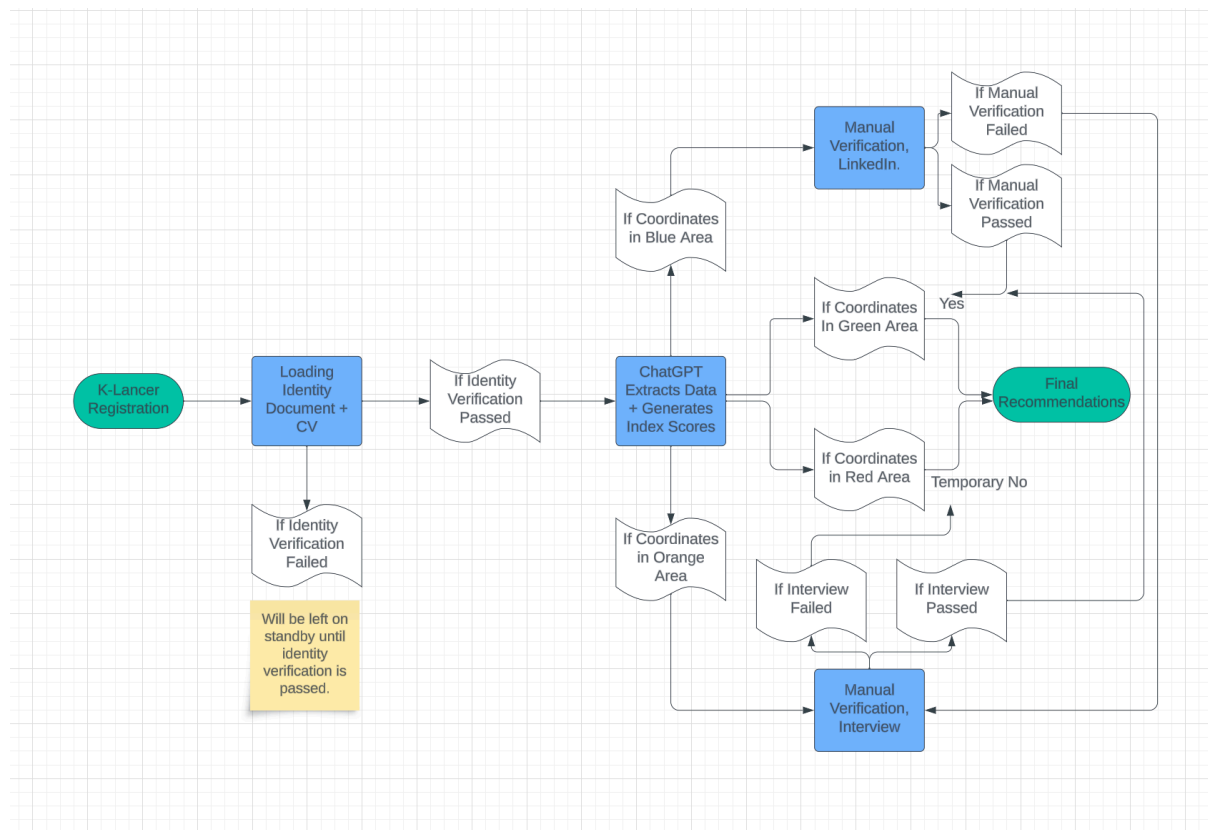


Figure 3: Workflow KYC & Candidate Evaluation (Source: Author's Own)

Figure 3 shows the KYC & Candidate evaluation workflow. It prioritizes identity verification. Once it is completed it advances to the candidate evaluation method through the use of artificial intelligence and the indices which will be derived from the CVs.

Final Recommendations

The final decision will be made based on recommendations from our algorithm. These recommendations will have the following four premises:

- A. Is the candidate a person? (Through Captchas)
- B. Is the candidate the person they claim to be? (Through identity verification)
- C. Can the candidate sell? (Based on their location, through identity verification, CV or other documentation)
- D. Do they have opportunity in this market? (Based around the Skillset & Sector compatibilities indexes)

The first 3 premises are **MUST HAVES** and if the candidate is not valid for all three, then they will not be able to sell their services on Talent4Energy. As for the fourth premise, it is slightly more subjective, and the candidate will have multiple opportunities to demonstrate whether if this market is suitable for them. However, in order to sell their products, they must have a verified check on their profile, which implies being validated for all four premises previously mentioned.