



Technical Assistance Request: 1Climate *Bringing AI to Solar Development*

The objective of 1Climate's platform is simple yet full of potential: to sift through the vastness of solar regulatory data in order to curate a comprehensive development plan tailored for clean energy developers. Navigating the intricate domain of clean energy permitting and incentive management requires an acute understanding of technology, policy, and the energy ecosystem. At 1Climate, our mission to simplify this process for clean energy developers is rooted in harnessing the power of collaboration. Our team was founded on a principle of collaboration, as we sought to join our solar and AI background to develop novel tools to accelerate our clean energy transition.

For 1Climate to revolutionize the clean energy permitting and interconnection process, it is imperative for us to possess an in-depth understanding of the energy policy landscape. This encompasses acquiring insights into the permitting processes across various government tiers and the various interconnection processes and challenges unique to each utility. The labyrinth of regulatory frameworks, coupled with the nuances of incentive program eligibility and guidelines, make this a problem ripe for AI to solve. These elements form the cornerstone of our platform, demanding expertise that can guide us through the potential pitfalls and challenges. We look to work with members of the American-Made Network, such as the NREL Solar APP+ team, who have experience at the nexus of solar technology and regulation.

Additionally, while our technical co-founder Kyle brings a wealth of experience in building AI tools, our aspirations for the platform demand further expertise. Specifically, our focus is on enhancing and training AI models honed for the niche area of regulatory parsing. The energy sector boasts its unique language, terminologies, and processes, all of which our AI needs to interpret and distill in plain English for simple development. Parsing the data is only the first half of the challenge; building a comprehensive and up-to-date index of the latest regulations is another challenge altogether. The core of our platform necessitates a dynamic data model to capture all of this data. This data ranges from federal to regional levels, enveloping incentives, permitting, and other aspects. The model isn't just about accumulation; it's also about presenting this multilayered information in an intuitive and user-friendly way. It also incorporates making the data readily searchable and applicable to developers' pain points. As such, developing a structure that effortlessly layers information becomes pivotal, ensuring our end users can easily navigate and make sense of the landscape. Quality search capabilities are the lifeblood of our platform. We seek guidance in harnessing modern search technologies with an interest in leveraging AI-based search. Their prowess in structuring unstructured data and their ability for expansive data retrieval make them an ideal tool for the job. Beyond this, our focus extends to more traditional lexical and semantic embedding techniques to ensure completeness of search coverage.

The American-Made Network presents an unparalleled opportunity for 1Climate. The challenges delineated are not just obstacles but avenues for pioneering collaboration. With an aligned vision, we aspire to partner with experts, drive innovation, and shape the future of clean energy. As we navigate this path, we remain committed to the overarching goal: accelerating solar deployment to bring about a more sustainable tomorrow.



1Climate Platform AI Focused Features

Use of LLM and Semantic Search technologies to enable origination and generate project plans for solar developers:

The Explorer view interface shows a search bar for property addresses, a map of a city grid, and a development plan sidebar. The plan includes five steps: 1 - Initial Assessment and Site Analysis, 2 - Feasibility Study, 3 - Secure Financing, 4 - Design and Engine, and 5 - Obtain Permits and Approvals. A chat window is open over the plan, and a 'Create a Project with this Plan' button is visible at the bottom.

Use machine learning to convert these plans into an optimal project development roadmap:

The Project Info interface displays a Gantt chart for a project timeline from September 2023 to November 2023. The chart is organized by weeks (W1-W4) and includes tasks such as 'Requirement Permit', 'Environmental Permit', 'Structural Permit', 'Design and Engineering', and 'Obtain Permits and Approvals'.

Use of generative AI to generate permitting applications and documents from relevant data:

The Edit Permit interface contains a form for submitting a permit application. It includes sections for 'Type of charging station and number of stations' (with dropdowns for EV count and NHT approval), 'Electrical load calculation' (with input fields for circuit rating, EVCS voltage, and EVCS amperage), and a 'Project info' sidebar with fields for location, address, and contact details. A list of questions with radio button answers is also present.