

## **Title: Energy Analyst Consultancy**

[Columbia World Projects](#) (CWP) mobilizes researchers and scholars to work with governments, organizations, businesses and communities to tackle global challenges. CWP seeks a consultant (individual or firm) to contribute to an exciting new project on household energy use in Ghana. The [Combating Household Pollution with Clean Energy Project](#) aims to support the transition of households away from polluting forms of household energy (primarily biomass) toward cleaner, modern energy sources. The consultant or firm will be working with the Combating Household Pollution with Clean Energy team which is led by Dr. Darby Jack at Columbia University, Dr. Kelsey Jack at University of California, Santa Barbara and Dr. KP Asante at the Kintampo Health Research Centre in Ghana.

### **Consultant Description**

The consultant or firm will assess the technical and economic potential of low-emissions cooking fuels and energy carriers in the Ghanaian context. We are focusing on four clean fuels: (1) liquified petroleum gas (LPG), (2) electricity (both on- and off-grid), (3) ethanol, and (4) processed biomass (biomass pellets). The consultant will engage in detailed literature review (including non-academic literature such as trade journals, company statements etc.), extensive interviews with stakeholders (typically over the phone or web conferencing), in addition to field visits (conditional on travel restrictions due to COVID-19) to characterize the following dimensions of each fuel:

1. Current supply chain and prices
2. Current policy environment
3. Expansion scenarios
4. Examples of scaled deployment to meet household energy needs in other countries
5. Scope for business model innovations (especially those that address liquidity constraints for end users, such as pay-as-you-go metering for LPG and electricity)

In addition, the consultant will conduct a comparative synthesis answering the following questions: How might different fuel types be best combined or targeted? What are opportunities and tradeoffs across different fuel types? How do they compare? What is the regional variation within Ghana?

Where data for Ghana is lacking, information from other relevant settings may serve as a substitute. Travel to other countries in the region to gather information may be approved by Project Manager on a case-by-case basis.

The consultant or firm will provide the information and in-depth analyses in a comprehensive report addressing the points outlined above, with supporting materials including e.g., interview transcripts, video/audio materials, etc.

We estimate that it would take three person months to do a comprehensive overview of each of the four fuels. Hence, we anticipate the scope of work outlined above to take one year to study

all the four fuels. We are open to submission from experts who wish to focus on a single fuel for a three-month consultancy. We would, however, encourage single-fuel consultants to team up with other experts in order to submit a comprehensive proposal covering all four fuels.

### **Qualifications**

The ideal candidate or firm will have a strong grounding in energy sector management and in energy systems engineering. Minimum qualifications include

- Masters degree or higher in business administration, engineering, public policy, or related discipline. PhD preferred (though experience counts for a lot). In the case of a consulting team, we will assess the qualifications of the team lead.
- At least 5 years of experience working on energy systems from a regulatory, engineering, or business perspective. Experience in LMIC settings is strongly preferred.
- Ability to travel to Ghana, including time spent in rural areas (COVID-19 permitting).
- Strong industry and government network in Ghana

While this is an internationally open position, teams that include residents of Ghana will be given priority.

Applications are being accepted on a rolling basis. We will work with the selected consultant or firm to define a feasible timeline. Ideally all activities will be finalized 30 June 2021.

### **Location**

Negotiable

### **Requirements**

Please send the following documents to [dj2183@cumc.columbia.edu](mailto:dj2183@cumc.columbia.edu) with the subject line "Energy Analyst Qualifications"

- Curriculum Vitae - Your most recently updated C.V.; if applicant is a firm, please send CV of team lead and any other relevant qualifications.
- Cover Letter

NON-DISCRIMINATION. Columbia is an Equal Opportunity Employer.

CONSULTANT OR FIRM hereby represents that it is an Equal Opportunity Employer. The provisions of 41 C.F.R. § 60-1.4(a), 41 C.F.R. § 60-250.5(a), 41 C.F.R. § 60-741.5(a), and 29 C.F.R. Part 470 are, if applicable, hereby incorporated by reference