



Request for Information (RFI)

RFI/600427 Waste to Energy Solutions

Overview:

The purpose of this Request for Information (RFI) is to provide the United Nations Development Programme (UNDP) with the latest knowledge of companies offering small and medium-scale Waste-to-Energy solutions which could be used to support UNDP's Country Programmes.

UNDP expects to follow this RFI with an international bidding exercise for Waste-to-Energy solutions and the information provided in the RFI will be used to determine the feasibility, scope, timeframe and approximate resource requirements for such processes.

Background:

UNDP wishes to explore potential applications of nascent cutting-edge technology solutions that couple safe waste management with sustainable energy production to address waste management constraints in countries facing man-made or environmental crisis.

Lack of proper waste management has significant health and environmental costs globally. These effects are exacerbated in developing countries where many communities are overpopulated and are exposed to unhealthy living conditions. Infectious diseases such as meningitis, measles, and cholera are accelerated as a result of inadequate sanitation.

Environmentally conscious methods of processing garbage significantly improve local environmental conditions and decrease toxic additions to soil, water, and air. Reduced environmental impact of settlements protects precious sources of ground water. Without options for safe garbage disposal and recycling, plastics and other waste end up in unprotected dump sites, rivers, and the ocean. Safe disposal of hazardous material can be difficult in many impoverished communities due to lack of education, transportation, adequate space, and infrastructure. Nowhere is it more difficult than in areas experiencing conflict, often home to transient populations and broken infrastructure.

Migration flows and a growing influx of refugees has caused population size to increase rapidly in areas affected by conflict. Unplanned growth strains local municipalities and their ability to deliver basic services to residents. Additional investment in health and sanitation services can help maintain residential and recreational spaces in good condition, and reduce tensions that are caused by resource constraints. Poor waste management can have a negative impact on social cohesion between host and refugee communities. Setting up new and innovative models of waste management reduces pressure on local municipal systems and acts as an intervention to maintain political stability in fragile situations.

Against this background, UNDP is interested in exploring the potential application of emergent technologies that address two challenges concurrently, namely: (a) waste management – for example in connection with temporary migratory flows and population movement the likes of which occur with increased frequency wherever there is war or crisis; and (b) lack of adequate sources of energy for household or community consumption.

Scope of information to be provided:

It is envisioned that the solutions proposed should meet the basic requirements outlined below:

- The products should constitute an innovative waste management solution, designed specifically for areas that experience high concentration of population;
- The proposed solutions should minimize the health and environmental hazards posed by waste (ie. household garbage, biomass, industrial, medical) by processing the waste while simultaneously generating renewable energy (electricity or heat), thus providing an alternative energy solution to at-risk segments of the population where overcrowding may exist (i.e. temporary migrant camps, small islands that currently dump or burn their trash, etc.);
- The solutions should be suitably small, self-contained, and robust while requiring minimal energy supply to initiate or operate (solutions will likely be deployed in off-grid environments);
- Solutions should be easy to transport, commission and operate and should require minimal maintenance (ideally allowing local maintenance by trained technicians);
- Solutions should be capable of managing several tons of waste per week;
- All solutions should meet or exceed recognized emission standards

Ideally, UNDP is interested in exploring solutions that merge both innovative waste management and energy production solutions, however companies that have particular expertise or innovative technology in either field are also encouraged to respond to this RFI.

Responses to this RFI should ideally not exceed 25 pages and should include basic company information, technical product/solution information, examples of relevant past experience and any other relevant information.

It should be noted that responses to this RFI, will not be treated as proposals and will not be used to short-list or prequalify bidders for any upcoming tender processes. Information provided may be used as input for subsequent tender processes (i.e. timelines, technical specifications, etc). Respondents should clearly mark any proprietary information submitted in response to this RFI.

Upon receipt of responses to this RFI, UNDP may request vendors to demonstrate their products or solutions. Demonstrations will be intended to provide information to UNDP and will not be subject to an evaluation.

UNDP will not be responsible for any costs incurred by the vendors related to the response to this RFI.

The deadline for submission of information is the 24th of March 2017, however, as this is not a formal tender exercise, UNDP reserves the right to accept information provided after this date.

Information and queries should be sent via email to UNDP's Procurement Services Unit at the following address - gpucrec@undp.org