

# Examining the fiscal environment for incentivising local assembly and manufacturing options for off-grid appliances

Terms of reference





# EFFICIENCY FOR ACCESS

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## 1. Background

The 'Examining the fiscal environment for incentivising local assembly and manufacturing options for off-grid appliances' research project is being commissioned by [GET.invest](#) and the [Low Energy Inclusive Appliances](#) (LEIA) programme with funding from the [IKEA Foundation](#) and [UK aid](#).

The LEIA programme aims to accelerate the availability, affordability, efficiency and performance of a range of low energy inclusive appliances for off- and weak-grid settings. LEIA is the flagship initiative of [Efficiency for Access](#), a global coalition working to promote high performing appliances that enable access to clean energy for the world's poorest people.

The Efficiency for Access Coalition is coordinated jointly by [CLASP](#), an international appliance energy efficiency and market development specialist not-for-profit organisation, and UK's [Energy Saving Trust](#), which specialises in energy efficiency product verification, data and insight, advice and research.

## 2. Research objectives

This research project will provide guidance to off-grid refrigerator companies on whether they can reduce importation and taxation costs through component(s) or appliance unit import strategy, or improve supply chain resilience during shocks like COVID-19, through local assembly or manufacturing. This topic is a key area of interest for off-grid refrigerator companies. Companies are seeking to better understand specific options including:

- a) local manufacturing
- b) importing knocked down refrigerator kits for final assembly in-country
- c) importing refrigerator components for assembly in-country

This research project will aim to shine a light on the impact of import taxes and duties on above approaches and supply chain resilience, filling a critical data gap that many companies face when making these decisions.

This research project will also examine a range of impacts across several scenarios at the level of local assembly and import strategies. Key impact areas will include cost savings for manufacturers, more affordable appliances, job creation, stronger local currencies (if found to be relevant), ease of appliance repair and enhanced availability of spare parts.

The outputs of this research will include guidance and recommendations on tax-economics and how supply chain resilience can be improved for companies considering in-country assembly and manufacturing. Access to data on the most economically efficient outcome from a tax savings point of view will enable companies to select in-country and overseas country suppliers more efficiently. It can also help companies diversify their options for component sourcing. This help enable the creation of more resilient supply chains. Conclusions will also reflect on how current taxes are either incentivising a pro-import or a pro-local assembly/manufacturing strategy and how governments could use tax rates

more effectively to achieve different and often competing objectives such as making quality products more affordable, making supply chains more resilient, maximising government revenues and promoting import substitution. It is recognised that there are many factors outside of taxation that need to be considered while assessing a region's potential for local assembly. For the purposes of this research, the focus is primarily on assessing the fiscal environment for supporting importing, assembling and local manufacturing options.

### 3. Scope of work

**Technological scope:** The technological scope includes analysing key types of refrigerator technologies including:

- refrigerators with and without batteries (solar direct drive)
- DC only
- AC-DC hybrids
- refrigerators/freezers
- solar power system components for both completely built-up (CBU) units and semi-knocked down (SKD) kits

The consultant(s) should seek to model the analysis for small, medium and large refrigerators, if possible, to ensure findings are relevant to as many off-grid refrigerator companies as possible<sup>1</sup>.

**Geographical scope:** This research requires the analysis to be carried out for at least one country in Africa and India. Covering India will help contrast the African and Asian fiscal environments. This will also help understand if there are learnings each region could borrow from the other to help improve the local assembly and manufacturing options.

### 4. Work components

The final deliverables will include the following work components:

1. **Examine the current assembler/manufacturing state of play, including:**
  - Existing local assembly/manufacturing capacity in the regions of interest.
  - The key import countries of relevance.
  - Ability to use existing in-country assembly lines for conventional refrigerators to be expanded for functionality and assemble off-grid refrigerators, and the willingness for existing incumbents to do so.
  - Outreach to incumbents to assess their awareness of off-grid market potential to establish if they have any interest in assembling on behalf of off-grid manufacturers, through Original Equipment Manufacturers (OEM) or other suitable arrangements, and any reasons for reluctance.

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<sup>1</sup> Refer the Global LEAP Awards 2019 Buyer's Guide for Outstanding Off-grid Refrigerators for an understanding of the types of off-grid refrigerators relevant for the scope of this work. [https://storage.googleapis.com/e4a-website-assets/2019-Global-LEAP-Refrigerators-Buyers-Guide\\_final.pdf](https://storage.googleapis.com/e4a-website-assets/2019-Global-LEAP-Refrigerators-Buyers-Guide_final.pdf)

2. **Defining the local assembly/manufacturing vs import scenarios that should be considered:**  
In this study; some refrigerator companies may initially plan to engage in local assembly, but also import some associated components due to their unavailability or low quality in local countries. With time, these companies may want to pivot to a full local assembly or manufacture scenario. In some countries, an import strategy, either in part or in full, could be superior to local assembly scenarios for a variety of economic or other reasons.
3. **Estimations of the landed cost of the refrigerator** by analysing the various types of cost that get added to the Free On Board (FOB) price in both local assembly and import scenarios including various types of duties and taxes, insurance, freight, transport, any licence fees, and inspection costs.
4. **An importation guide for solar off-grid refrigerator manufacturers** that includes a step-by-step importation process, including the Harmonised Commodity Description and Coding Systems (HS Code) for solar energy technologies, components used in these refrigerators and stakeholder mapping across the importation chain. The objective of this exercise is to provide clarity on various costs for importers and related investors in Africa and India, and what qualifies as solar or refrigeration technology for off-grid use, which could be eligible for tax concessions. Improved clarity regarding tax codes could help facilitate trade when shipping products. For reference, the applicants are advised to refer to the '[Importation Guide for Solar PV Products and Technologies](#)' developed by the [Africa Clean Energy Programme](#).
5. **A local assembly/manufacturing guide** that includes an examination of the financial and fiscal incentives available for manufacturers and assemblers in the regions of interest. This is a key section in this research project and should be analysed with an emphasis on local assembly's impact on supply chain resilience, particularly when global supply chains are disrupted due to external factors such as COVID-19. Fiscal and other policy related incentives can be hard to navigate and given the vast size of the African continent it can be a daunting task to select the region for installing assembling or manufacturing facilities."

This work component should include an examination of any cost advantages in importing knocked down kits or components and foreign currency savings by avoiding importing completely pre-assembled units. Locally assembling imported knock-down kits or components could also have a cost advantage in terms of the relatively low-cost and sufficient labour availability in Africa when compared with regions of import such as Asia or Europe. Additionally, more products could fit in shipping containers as components or semi-knocked down (SKD) kit parts as compared to finished and boxed products resulting in a logistical cost advantage. This work component should include an examination of existing fiscal incentives or deterrents along with recommendations for the types of policies that will encourage domestic assembly or manufacturing.

6. **Economic and job creation impact analysis:** based on the import and local assembly/manufacturing scenarios above, this work component would seek to analyse the key economic and job creation impacts for the different levels of local assembly/manufacturing scenarios and full import scenario including but not limited to the following:
  - 6.1 An analysis of the level of savings in foreign currency (if found relevant) that could occur across various local assembly/manufacturing scenarios considered:
  - 6.2 Investigate fiscal policies and tax systems that promote the scenarios considered and determine the regulatory and legal changes needed to help improve product affordability.



## 5. Deliverables

The consultant(s) will be expected to prepare the following deliverables as part of the research.

1. Importation guide.
2. Local assembly guide.
3. A 10–12-page policy paper combining insights from both the importation and local assembly guides.
4. A socio-economic assessment for the range of local assembly/manufacturing and import scenarios considered.
5. A PowerPoint deck summarising key insights.
6. A blog post summarising key insights.

## 6. Timescales

The research is expected to launch in October 2021 and draft reports are expected within February 2022.

## 7. Available budget and submission requirements

### Submission materials

Interested parties are required to submit two separate proposals: A Technical Proposal and a Financial Proposal. The files should be named as per the following example: “[Contractor Name] [Technical/Financial] Proposal\_RFP [Name]”.

The technical proposal should be no more than 15 pages and should include the following elements:

- A detailed approach and methodology for implementation and management of the project. Include a description of the role of each team member. The approach should include a brief rationale for the selection of the country of analysis in Africa. For example, if the country has a relatively high volume of refrigerator imports and the number of off-grid refrigeration manufacturers in the country, or the country’s access to other key countries. Such a country should be a member of a key African trading block.
- A summary of qualifications for key personnel who will be engaged in the assignment. Technical knowledge in refrigeration technologies and/or taxation policies as well as the relevant academic research qualifications e.g., PhD/MRes (Master of Research) in relevant fields is an advantage.
- A summary of local assembly/manufacturing and import issues related experience especially in the context of electrical goods industries or energy access for off-and weak grid communities.
- Ability to consult with relevant renewable energy associations and tax authorities for establishing validating and usefulness of the research outputs.

The Financial Proposal must include the following elements:

- Detailed budget estimate (in Euros) outlining fees and expected expenses for the duration of the project. A detailed budget should include all direct and indirect cost estimates for executing the project, detail specifically:
  - A breakdown (in days) of the level of effort associated with the activities and a day rate.

The Energy Saving Trust team will evaluate proposals received from respondents. The selection of the candidate will be based upon the following criteria:

1. Robustness of methodology.
2. Ability to liaise with the in-country renewable energy associations and tax departments for research output validation.
3. Ability to deliver the complete assignment in the slated time-period i.e., draft reports within February 2022.
4. Relevant qualifications, including working knowledge of the off-grid energy sector, and broad technical knowledge in refrigeration technologies and fiscal issues, local assembly and manufacturing business models.
5. Experience in managing and working with diverse stakeholder groups to achieve consensus.
6. Total cost and value for money.
7. A due diligence process performed by Energy Saving Trust on both financial and safeguarding.

All questions may be addressed to Richa Goyal at [Richa.Goyal@est.org.uk](mailto:Richa.Goyal@est.org.uk). The last date for submission of questions related to this RFP is August 24, 2021. We request all inquiries be made by e-mail and not by phone.

### **Submission deadline**

The deadline for application is **5 pm BST, Friday 3 September 2021**. Proposals must be emailed to Richa Goyal at [Richa.Goyal@est.org.uk](mailto:Richa.Goyal@est.org.uk).

### **Available budget**

The maximum budget available for this project: over \$67,000 is made available for funding.

### **Other details related to submission**

Individual consultants, consulting firms or consortiums are encouraged to apply.

## 8. Sustainability

To promote environmental best practice, Energy Saving Trust will place emphasis on the environmental credentials of its contractors. Each respondent is therefore required as part of their proposal to provide details of their environmental certification relating to ISO140001 and ISO50001 (if appropriate), environmental policy or any other relevant information regarding their approach to sustainability. Responses should outline the organization's commitment to minimise negative environmental impacts and reducing energy consumption when delivering this contract.

## 9. Terms and conditions of invoicing

Contractors will be expected to sign Energy Saving Trust's standard terms and conditions (available on request). Payment schedule will be agreed at the stage of contract signing.

## 10. Conflict of interest

In order to ensure that research is of maximum benefit to the wider community, it must be impartial and seen to be impartial. Bidders must be free of any conflicts of interest regarding which direction the market for off-grid appliances might take. This means that bidders must not have commercial interests in the market taking any particular direction. The types of situations that could lead to conflicts of interest include if the bidder is:

- A manufacturer or supplier of off-grid appliance equipment or components;
- A current or recent past contractor to a single manufacturer or to a small number of manufacturers of a particular type of appliance;
- An economic operator with a commercial interest in the market moving in a particular direction.

Bidders must declare if any such conflict exists or if it could be perceived to exist based on their status and work history and, if so, how this would be managed to guarantee impartiality.

## 11. Freedom of Information Act

Pursuant to the Freedom of Information Act 2000 the Energy Saving Trust may be required to disclose certain information to third parties and/or the public. Respondents must notify the Energy Saving Trust in writing when submitting their proposals which parts of the proposal are considered to be commercially sensitive. Please note that it is not possible to classify the whole document as non-disclosable. Failure to notify the Energy Saving Trust indicates that no commercially sensitive information has been submitted.