



Request for Proposals (RFP):

Design, Supply and Installation of Solar and UPS Power at the Chest Diseases Laboratory, Airport Road, Lusaka and Other Laboratories in Zambia

RFP Issue Date: 06 March 2017

Letter of Intent Due Date: 18 March 2017

Application Due Date: 05 April 2017

Submissions due to Edward Mwansa (Edward.Mwansa@zmb.aphl.org)

via: **Zambian Ministry of Health**
Chest Diseases Laboratory (CDL)
National Institute for Scientific and Industrial Research (NISIR) premises
along Kenneth Kaunda International Airport Road
Box 34566, Lusaka, Zambia

The development of, and the projects anticipated in, this RFP are supported by Cooperative Agreement Number NU2GGH001097 between the U.S. Centers for Disease Control and Prevention (CDC) and the Association of Public Health Laboratories, Inc. The contents of this RFP are solely the responsibility of the authors and neither represent the official views of CDC nor reflect CDC's endorsement of a product or procedure.

APHL and Association of Public Health Laboratories are the registered trademarks of the Association of Public Health Laboratories, Inc. and may not be used without prior written authorization.

Table of Contents

Summary	2
Background.....	2
Anticipated RFP Schedule.....	3
Number and Nature of Awards.....	3
Chest Diseases Laboratory (CDL).....	3
Subsequent Projects	4
Bid Solicitation.....	4
Operational Considerations	4
Project Term and Budget	4
Initial Project at the CDL.....	4
Subsequent Projects	5
Response Submittal	5
Confirmation of Intent to Respond.....	5
Visit Site to Initial Project Location	5
Final RFP Response	5
Evaluation of Proposals.....	6
Initial Review.....	6
Evaluation Team.....	6
Conflicts of Interest.....	6
Evaluation Process	6
Supplemental Proposal Information.....	7
Post Evaluation Procedures.....	7
Conditions of Award Acceptance	7
Disclaimer and Other General Matters.....	7

Appendix A – Proposal Requirements/Instructions to Applicants.....	9
Design and Technical Specifications	9
Applicant Information and Administrative Requirements	11
Appendix B – Bid Data Sheet 1 (lab equipment listing)	12
Appendix C – Bid Data Sheet 2 (administration offices)	14
Appendix D – Schedule of Costs.....	15

List of Figures and Tables

Figure 1 - Basic diagram of system.....	9
Table 1 – List of laboratory equipment/electronics and power needs at CDL.....	12
Table 2 - Continuation of equipment listing and power needs at CDL.....	13
Table 3 – CDL administration office equipment and power needs.....	14
Table 4 - Schedule of Costs.....	15

Summary

The Association of Public Health Laboratories, Inc. (APHL or the Association), in collaboration with the Zambia Ministry of Health (MOH) and the United States Centers for Disease Control and Prevention (CDC), anticipates undertaking various solar power projects at laboratories across Zambia. The total number of installations will depend on the amount of funding allocated by CDC to these projects and the needs and capacity of MOH. APHL expects to have solar power equipment installed at multiple laboratories each year on a relatively aggressive time schedule and, as a result, is looking to identify up to five applicants – one winning applicant to work on the initial project and up to four additional applicants who will be able to bid on subsequent solar power projects – who have the capacity, experience and qualifications to design, procure and install the solar power equipment.

The first of the solar power projects will take place at the CDL in Lusaka and is described in [Appendix A](#) below. ***APHL encourages any party who feels they could successfully undertake and complete one or more solar power projects – whether for the project at the CDL or for one of the subsequent projects at another laboratory in country – to submit a proposal for consideration.***

Background

APHL is a nonprofit organization that works to safeguard the public's health by strengthening public health laboratories (PHLs) in the United States and globally. APHL is organized under the laws of the United States of America's District of Columbia with its headquarters office at 8515 Georgia Avenue, Suite 700, Silver Spring MD 20910. The Association's members include state and local laboratories, state environmental and agricultural laboratories and other government laboratories that conduct testing of public health significance. APHL is recognized as tax exempt in the United States under Section 501(c)(3) of the U.S. Internal Revenue Code and its work on behalf of PHLs spans more than 60 years.

In collaboration with its members, APHL advances laboratory systems and practices and promotes policies that support healthy communities globally. The Association serves as a liaison between the PHLs and federal and international agencies and it ensures that the network of PHLs has current and consistent scientific information in order to be ready for outbreaks and other public health emergencies.

The APHL Global Health Program (GHP) currently implements laboratory improvement projects in several countries throughout Africa and in parts of Asia and Eastern Europe. APHL has supported the President's Emergency Plan for AIDS Relief (PEPFAR) program in Zambia through a Cooperative Agreement Number NU2GGH001097 (the Cooperative Agreement) with the CDC. This support has allowed APHL to provide technical assistance to strengthen laboratory services in the area of Quality Management Systems (QMS), Laboratory Information Systems (LIS), and energy infrastructure improvements.

Anticipated RFP Schedule

Applications are due to the individual(s) specified in the Final RFP Response section of this RFP by 5:00 pm Central Africa Time (CAT) on 05 April 2017. APHL anticipates the following schedule for the entire competitive bidding process:

06 March 2017	APHL issues RFP
17 March 2017	<i>Letter of Intent due to APHL by 5:00 pm CAT</i>
22 March 2017	Site visit to Chest Diseases Laboratory (CDL)
05 April 2017	<i>Complete RFP responses due to APHL by 5:00 pm CAT</i>
07 April 2017	APHL completes the Initial Review of proposals received and transmits all completed proposals on to the Evaluation Team by 5:00 pm CAT
28 April 2017	APHL completes the Evaluation Process and notifies any applicant that needs to participate in the Supplemental Information stage
05 May 2017	Updated proposals or supplemental information (if any) due to APHL, and APHL concludes any follow-up interviews completed, by 5:00 pm CAT
12 May 2017	APHL completes the Supplemental Information portion and contacts winning/selected applicants
15 May 2017	APHL publicly announces the names of the selected applicants on its procurement website, www.aphl.org/rfp
19 May 2017	Project schedule and budget for the CDL project finalized
01 June 2017	Anticipated start date of CDL project

If APHL makes any modification to this anticipated schedule it will post the change to APHL's procurement website, www.aphl.org/rfp.

Number and Nature of Awards

Chest Diseases Laboratory (CDL)

APHL will select one applicant (the one receiving the highest evaluation score from the Evaluation Team who is able to complete the project efficiently and economically) for the project at the CDL. The selected applicant will receive a contract from APHL that sets out the scope of work, project completion timeline, budget, payment and invoicing requirements and the legal terms and conditions associated with the project.

APHL will not issue any other award for this initial project.

Subsequent Projects

APHL may select up to four additional applicants based on the evaluation scores received from the [Evaluation Team](#) for future solar power projects at other laboratories in Zambia. Each of these additional applicants, together with the applicant selected for the initial project at the CDL, will be an “Eligible Supplier” able to submit bids or proposals to APHL in connection with any future solar power project under the Cooperative Agreement. An overview of APHL’s expected bid solicitation process on any future project is provided below.

Bid Solicitation

Once APHL has received sufficient information from CDC, MOH and others on a possible subsequent solar power project, APHL will deliver a written request for quotes or bids to all of the Eligible Suppliers. APHL will specify the due date for the bid/quote on any request and it will endeavour to provide sufficient project information so as to enable all of the Eligible Suppliers to prepare a quote or bid.

APHL GHP staff and/or consultants under contract with APHL will evaluate the quotes or bids received and will select one Eligible Supplier to work on a particular project. The Association will pick the winning bid/quote for that specific project based on factors such as (1) the proposed budget or expected cost, (2) the suitability of the proposed equipment, (3) the feasibility of the proposed procurement and installation schedule, (4) an applicant’s perceived capacity given other solar panel projects then underway or (5) an applicant’s prior performance on Cooperative Agreement projects. APHL will issue just one contract for each project and that will be awarded to the Eligible Supplier with the winning bid.

Operational Considerations

Eligible Suppliers will have the option – but will not be required – to bid on all future projects funded through the Cooperative Agreement. An Eligible Supplier need only bid on those future projects for which they have capacity or in which they have an interest.

APHL cannot guarantee that an Eligible Supplier will be awarded any contract for work on subsequent solar power projects. The Association expects to enter into a memorandum of understanding or a letter agreement establishing the overall framework for quote/bid solicitation on subsequent projects.

Project Term and Budget

Initial Project at the CDL

APHL anticipates that the contract for the initial project at the CDL will have a term that starts on the later of the date the selected applicant signs the contract and returns it to APHL or 01 June 2017. APHL further anticipates that this project could cost in excess of \$100,000. The contract’s term will end on the earlier of the date the selected applicant completes its work on the project or 31 March 2018, the end of the funding/budget year under the Cooperative Agreement.

Subsequent Projects

APHL anticipates that there may be as many as ten subsequent projects that may occur at any point between 01 June 2017 and the end of the Cooperative Agreement's multi-year term on 31 March 2019 (unless extended by CDC). APHL will issue a new contract for each future project and the duration of the project, the size of the project's budget and the term of the contract will vary depending laboratory needs, the size or scale of the project design and implementation phases, logistical considerations and the like.

Response Submittal

Confirmation of Intent to Respond

APHL requests that prospective applicants submit a brief email statement indicating an intent to submit a proposal by **no later than 5:00 PM (CAT) on 17 March 2017**. Although the statement of intent is not binding and does not enter into the review of the RFP, the information that it contains allows APHL's evaluation team to estimate the potential review workload and plan the contract development and review process. Potential applicants must include the name of the organization or individual that will submit the proposal in their email.

Visit Site to Initial Project Location

APHL will hold a site visit at the CDL for all prospective applicants. **This site visit is a mandatory prerequisite for submission of a proposal in response to this RFP.** APHL will begin the site visit at 10:00 AM (CAT) on 22 March 2017.

APHL asks that each prospective applicant identify in the anticipated number of individuals who will participate in this site visit on the applicant's behalf their [Confirmation of Intent to Respond](#). APHL will not reimburse a prospective applicant for the expenses associated with this site visit and an applicant must self-sponsor these costs.

Final RFP Response

APHL must receive a complete proposal by no later than **5:00 PM (CAT) on 05 April 2017**. Applicants may send proposals by the following methods:

Via email to edward.mwansa@zmb.aphl.org; or

Via certified, registered or express mail provided the postal service or trackable mail delivery services provided by DHL, FedEx, UPS and the like addressed to:

c/o Edward Mwansa, APHL Energy Consultant
Chest Diseases Laboratory (CDL)
National Institute for Scientific and Industrial Research (NISIR) premises
along Kenneth Kaunda International Airport Road
Box 34566, Lusaka, Zambia

APHL will send an email acknowledging the receipt of your application. If you do not receive an acknowledgement within 48 hours, please email the points of contact above to confirm receipt.

Regardless of the delivery method, APHL must receive all responses at CDL by 5:00 PM Central African Time. It is applicant's responsibility to ensure that the proposal is received at CDL for APHL by this deadline.

APHL may terminate or modify the RFP process at any time during the response period. All changes to the RFP will be posted to the APHL's procurement website, www.aphl.org/rfp.

Evaluation of Proposals

Initial Review

APHL staff members or consultants under contract with APHL will conduct an initial review of all proposals for completeness. APHL will not consider any incomplete application on the proposal due date specified in the [Anticipated RFP Schedule](#) section above and the proposal will not receive a formal evaluation. In addition, APHL will have the right to exclude any application from applicants who did not participate in the [Site Visit to the Initial Project Location](#).

Evaluation Team

An evaluation team will be assembled to evaluate competitive proposals and then assess their relative qualities based on the [Evaluation Criteria](#) outlined below, as well as any other factors noted in this RFP. This evaluation team will consist of six members: three subject matter experts (SMEs) from CDC's Zambia office with experience in laboratory or power systems and a panel of three APHL members selected from the PHLs. Once potential reviewers have been identified, APHL's Director, Global Health will have final approval over the team's composition.

Conflicts of Interest

APHL will ask potential reviewers to disclose any real or perceived conflict of interest prior to the start of the evaluation process or to affirm that they have no conflict of interest that would preclude an unbiased and objective review of the proposals received. APHL will not select a reviewer with a perceived conflict of interest. In the event that a reviewer identifies a conflict of interest after the evaluation team has been assembled, APHL will exclude that reviewer from further participation in the review process and will eliminate the reviewer's completed reviews from the evaluation process. Reviewers will complete a Conflict of Interest Form administered before the evaluation process.

Evaluation Process

The evaluation team will evaluate the proposals based on the criteria outlined in [Appendix A](#). The evaluation team will evaluate the relative costs, feasibility and efficiency of the project design and technical specifications set out in an applicant's proposal and will also look at an applicant's qualifications and prior experience, its financial stability and its capacity and staff expertise relative to other applicants.

The applicant whose proposal receives the highest overall score will work on the initial project at the [Chest Diseases Laboratory](#). APHL will select up to the four additional applicants whose proposals received the next highest scores to serve as [Eligible Suppliers](#) with the ability to bid on future solar power projects funded by the Cooperative Agreement.

The entire review will be conducted via a combination of email communication between CDC SMEs and the APHL evaluation team, teleconferences and/or webinar evaluation sessions. APHL's Energy Consultant, Global Health will coordinate the review process and the evaluation sessions.

Supplemental Proposal Information

The evaluation team may request follow up interviews with applicants and/or supplemental information on an applicant's proposal. Once the evaluation team has the additional material from the interviews and supplemental information, the team will evaluate whether this material alters the relative ranking of any individual applicant. If the consensus of the evaluation team is that the new material merits adjusting the applicant rankings, the team will do so. In this event, APHL will use the revised ranking to identify the Eligible Suppliers.

Post Evaluation Procedures

APHL staff will notify each of the Eligible Suppliers by no later than the date noted in the Anticipated RFP Schedule above and will post the names of the successful applicants to its procurement website, www.aphl.org/rfp within one business day after it completes the notifications.

Unsuccessful applicants will receive notification of these results by e-mail or by regular postal service mail within 30 days of the date the names of the Eligible Suppliers are posted.

All applicants will be entitled to utilize APHL's Appeals Process to formulate a protest regarding alleged irregularities or improprieties during the procurement process. Specific details of the policy are listed on the procurement website.

Conditions of Award Acceptance

The eligible applicants must be able to contract directly with APHL or have an existing relationship with a third party organization that can contract directly with APHL on behalf of the applicant.

Prior to making the official award, a group of individuals from CDC and APHL will be entitled to elect to tour the applicant's facilities to assess compliance with requirements and/or have a teleconference with applicant. APHL may conduct post award monitoring site visits to include an assessment of continued compliance.

Disclaimer and Other General Matters

This RFP is neither an agreement nor an offer to enter into an agreement with any applicant. Only an applicant selected to serve as one of the Eligible Suppliers will have the ability to contract with APHL, but only if that applicant submits the winning bid on one or more of the future solar power projects.

APHL must ensure that the Eligible Suppliers are neither suspended nor debarred from receiving federal funds and that the Eligible Suppliers meet any other funding eligibility requirement imposed by the Cooperative Agreement. APHL's determination of whether an Eligible Supplier is eligible to receive Cooperative Agreement funding will be definitive and may not be appealed. In the event that APHL determines that one or more Eligible Suppliers are ineligible to receive Cooperative Agreement funding, APHL will nullify the contract or will cease negotiation of contract terms.

Each applicant will bear its own costs associated with or relating to the preparation and submission of its application and as otherwise noted throughout this RFP. These costs and expenses will remain with the applicant, and APHL will not be liable for these or for any other costs or other expenses incurred by the applicant in preparation or submission of its application, regardless of the conduct or outcome of the response period or the selection process.

Appendix A – Proposal Requirements/Instructions to Applicants

The CDL serves as the initial solar power project and is the only project where power system requirements are currently available.

Design and Technical Specifications

Each applicant must include the following technical information in their proposal.

1. All applicants must include the complete design, supply and installation of a solar and an uninterruptible power supply (UPS) power system based on the expected power consumption described in [Appendix B](#) and [Appendix C](#) of this RFP.
2. The UPS system must be designed for a minimum of two hours' worth battery autonomy.
3. The solar system will be designed to operate as a hybrid system with solar as P1 (Priority 1) and the existing utility as P2 (Priority 2). The basic concept of the system required is shown in Figure 1 below.

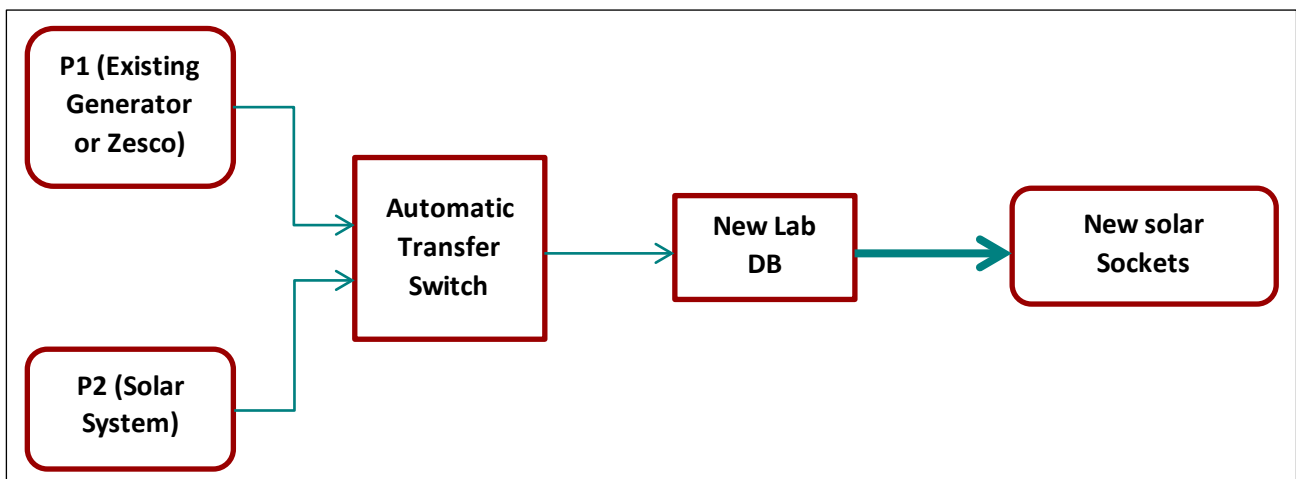


Figure 1 - Basic diagram of system

4. The photovoltaic (PV) panels will be mounted on selected roofs identified in consultation with APHL and MOH.
5. As part of an applicant's proposal, the applicant must submit the a Bill of Quantities that contains the following information on the technical specifications of the proposal:
 - a. The make, model number, manufacturer/provider/distributor name and/or other identifying information for each electrical and mechanical item used in the proposal.
 - b. The required number of each electrical and mechanical item needed to complete the installation.
 - c. The price per unit of each listed electrical and mechanical item.
 - d. The total price for the cost of these goods.

7. Schematic electrical drawings of the proposed solar power system.
8. Information on the proposed housing for storage of the power system's batteries, including information regarding the temperature control mechanisms that will be used to achieve the desired storage conditions.
9. A summary section that states the AC voltage output of the proposed solar power system (and indicates whether single phase or three phase).
 - a. The number of batteries needed to complete the proposed installation, the capacity of the battery system with power autonomy designed for a 24 hour (one day) autonomy period.
 - i. ***APHL will work with each applicant to arrange for at least two individuals from APHL and/or MOH to witness the discharge tests of the proposed batteries at the manufacturer's premises. Applicants will be responsible for the costs associated with these discharge tests and, if successful, the tests will result in approval of, or sign off on, the FAT (Factory Acceptance Tests) certificate.***
10. The warranty period for the solar system and the items covered under warranty, together with information on any optional or extended warranties that may be available.
11. The warranty periods for both the proposed batteries and PV panels and the items covered under these warranties, together with information on any optional or extended warranties that may be available.
12. The warranty period for the UPS and the items covered under warranty, together with information on any optional or extended warranties that may be available.
13. The maintenance schedule for the installation and the training that the applicant will offer (or will arrange to be offered) to end users.
14. Any other information regarding the technical specifications that the applicant considers important for evaluation purposes, such as the DC voltage of the solar system, the capacity of the charge controller, the capacity of the inverter, the number and rating of the PV panels or any other accessories that will support the installations (e.g., fuses, MCBs, tamper/theft-proof frame for the PV panels, cabling, etc.).
15. A delivery schedule, together with backup supporting documentation, for the needed equipment and material. For the initial project, the delivery schedule must be no longer than 12 weeks from the project start date. APHL will deem any proposal offering delivery beyond the 12-week period as nonresponsive and may disqualify such proposal from further consideration.

Applicant Information and Administrative Requirements

Each applicant must also submit the following non-technical information that will be used by the [Evaluation Team](#) to assess the relative capacity and qualifications of the applicant:

1. A company profile that provides (i) the physical and postal address for the applicant's principal office in Zambia and, for international firms, its headquarters office and (ii) the name, title, business and/or mobile phone numbers and an email address for one or more contact persons.
2. A description of the company that includes (i) a discussion of key staff member's qualifications and experience, (ii) proof of the applicant's capacity to implement projects of comparable complexity and (iii) any evidence of past experience in project of similar size.
3. The names of at least three companies or organizations for whom the applicant has recently designed and/or installed solar and/or UPS power. If the Evaluation Team requests contact information for the applicant's references, the applicant will provide APHL with the requested contact information within two business days of the request.
4. Evidence of (i) sufficient cash or other easily liquidated financial reserves equal to at least, or (ii) access to a credit facility offered either by a reputable financial institution or equipment manufacturer of not less than, 30% of the overall proposal sum.
5. A copy of the applicant's (i) three most recent monthly bank statements for local firms or (ii) the most recent audited financial statements for international firms as required under law in the applicants home country/jurisdiction.
6. A copy of a valid tax clearance certificate (for local firms only).
7. Copies of the applicant's certificate of company registration or incorporation and any certificate of amendment to that registration/incorporation, together with evidence that the company is in good standing.
8. A bid security or bond from a reputable and established bank or insurance company in Zambia equal to at least two percent (2%) of the overall cost of the applicant's proposal.
9. A summary of the applicant's experience in after sales customer service and post installation maintenance together with any terms and conditions generally applied by the applicant to these services.
10. Copy of signed certificates or other written evidence of the applicant's participation in the mandatory [Site Visit](#) discussed above.
11. A budget for the project reflecting the site specific requirements noted in [Appendix D](#).

Appendix B – Bid Data Sheet 1 (lab equipment listing)

Table 1 – List of laboratory equipment/electronics and power needs at CDL

Site Name	Equipment	QTY	Rating in Watts	Total Watts	Operating Hrs	Total Whrs
Main Laboratory	REVCO fridge (kept between 2-8°C)	1	1308	1308	10	13080
	Thermal Scientific freezer (kept at -80°C)	1	1846	1846	10	18462
	Radwag weigh balance	1	3	3	2	6
	Biosafety cabinet	3	161	483	10	4825
	Microscopes	2	69	138	3	415
	LED microscopes	2	30	60	3	180
	Lighting	31	36	1116	10	11160
Molecular Biology Room	Dell computer desktop	1	360	360	6	2160
	HP laser jet printer	1	503	503	2	1006
	Lighting	4	36	144	6	864
	UPS	1	4615	4615	10	46154
	Labconco PCR cabinets	2	308	615	3	1846
	Asus Laptop	1	12	12	5	60
	Carrier air-conditioned amplification room	1	30	30	10	300
	Samsung air-conditioner clean room	1	2650	2650	10	26500
	Freezer (kept at -20°C)	1	151	151	10	1508
	Twin incubator	1	425	425	5	2125
Expected power consumption				14,460		130,651
Add 30% for future load additions				18,798		169,846

Please note: The selected applicant will need to provide and wire the solar dedicated sockets according to the load distribution **outline above**. The selected applicant will also ensure that the **sockets are red and clearly labelled ‘solar’**.

Table 2 - Continuation of equipment listing and power needs at CDL

Site Name	Equipment	QTY	Rating in Watts	Total Watts	Operating Hrs	Total Whrs
Containerized Laboratory	Air supply	1	3077	3077	10	30769
	Air exhaust	2	3077	6154	10	61538
	Desktop	1	923	923	5	4615
	Printer	2	503	1006	3	3018
	Barcode scanner	1	0.4	0.4	3.0	1.2
	Lighting	30	36	1080	10	10800
	Distiller	1	890	890	5	4450
	Autoclave	1	923	923	5	4615
	Centrifuge	1	1250	1250	5	6250
	Incubator	1	1338	1338	10	13385
	Biosafety cabinet 1	1	2462	2462	10	24615
	Vortex	2	154	308	3	923
	Biosafety cabinet 2	1	2462	2462	10	24615
	UPS	1	4615	4615	10	46154
	Fridges	2	154	308	10	3077
	Air-conditioned	3	723	2169	10	21692
	Micro centrifuge	1	308	308	3	923
	Dry bath system	1	246	246	3	738
Expected Total Power Consumption				29,519		262,180
Add 30% for future additional loads				38,374		340,834

Please note: The selected applicant will need to provide and wire the solar dedicated sockets according to the load distribution outline above. The selected applicant will also ensure that the sockets are red and clearly labelled 'solar'.

Appendix C – Bid Data Sheet 2 (administration offices)

Table 3 – CDL administration office equipment and power needs

Equipment	QTY	VA Rating	Total VA
Desktop Computer	5	1320	6599
Laptops	5	17	86
Scanner	2	550	1100
Printers	3	880	2640
LCD Projector	1	594	594
Lighting	54	51	2780
Internet router	1	440	440
Photocopier	2	880	1760
Expected Total Power Consumption			15,999
Add 30% for future load additions			20,799

Note: The selected applicant will need to provide and wire the UPS dedicated sockets according to the load distribution above. The selected applicant will also ensure that the sockets are red and clearly labelled 'UPS'.

Appendix D – Schedule of Costs

Regardless of whether the applicant is submitting its proposal in order to bid on the CDL project or is only submitting a proposal so that it may bid on future solar power projects, the applicant must provide a budget for the CDL project. *The* applicant must include the budget/schedule of costs shown in [Table 4](#) below as part of its proposal.

Table 4 - Schedule of Costs

Site Name	Cost (in USD)
LABORATORIES	
CONTAINERIZED LABORATORY	
ADMINISTRATION OFFICES	