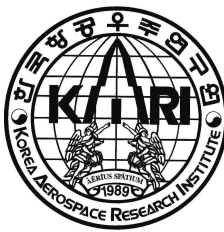


**REQUEST FOR PROPOSAL**  
**FOR**  
**THE PROCUREMENT OF CDE BATTERY FOR**  
**KOMPSAT-3A SATELLITE**

**RFP No. KARI-12-76**

May, 2012



**Korea Aerospace Research Institute**

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## Acronyms and Definitions

AIT	Assembly, Integration, and Test
CDR	Critical Design Review
CDRL	Contract Data Requirements List
CD-ROM	Compact Disc, read-only-memory
CFI	Customer Furnished Item
CWBS	Contract Work Breakdown Structure
EA	Each
EDC	Effective Date of Contract
EGSE	Electrical Ground Support Equipment
EPS	Electrical Power Subsystem
ESR	Equipment Suitability Review
EUT	Equipment Under Test
FM	Flight Model
GEO	Geosynchronous Earth Orbit
H	Height
ICD	Interface Control Document or Drawing
IEEE	Institute of Electrical & Electronics Engineers
KARI	Korea Aerospace Research Institute
KOMPSAT	Korea Multi-Purpose Satellite
LAN	Local Area Network
LEO	Low Earth Orbit
M&C	Monitor and Control
MRR	Manufacturing Readiness Review
PA	Product Assurance
PDR	Preliminary Design Review
PMO	Program Management Office
PMP	Program Management Plan
POC	Point of Contact
PSR	Pre-Shipment Review
QM	Qualification Model
RFP	Request for Proposal
ROK	Republic of Korea
CDE Battery	Cooler Drive Electronics Battery
S/C	Spacecraft
SDRL	Subcontract Data Requirements List
SITC	Satellite Integration & Test Center
SOW	Statement of Work
SRR	System Requirements Review
TBD	To Be Determined
TBR	To Be Revised/Reviewed
TRR	Test Readiness Review
USB	Universal Serial Bus
W	Width

# RFP for the Procurement of CDE Battery for KOMPSAT-3A Satellite

## PART I. INTRODUCTION

### 1. KARI CDE (Cooler Drive Electronics) Battery Program

- 1.1 KARI (Korea Aerospace Research Institute) is located at Dae-duk Research Complex in Daejeon, 140 km south of Seoul. KARI was established in 1989 with the funding of the Korea government, in accordance with the Aerospace Industry Promotion Act. Since KOMPSAT-1 (Korea Multi-Purpose Satellite-1), KOMPSAT-2, and the geostationary satellite COMS (Communication, Ocean, and Meteorology Satellite) were successfully launched in 1999, 2006, and 2010, respectively, KARI is developing KOMPSAT-3, KOMPSAT-5, and KOMPSAT-3A at present.
- 1.2 The CDE Battery is one of the EPS (Electrical Power Subsystem) units in KOMPSAT-3A and will be installed in KOMPSAT-3A bus. The CDE Battery acts as an energy buffer to stabilize the power system of KOMPSAT-3A.
- 1.3 The CDE Battery program is based on Turn-key such that the Contractor shall take all responsibilities of design, manufacturing, assembly, integration, testing activities, etc. for the CDE Battery program.
- 1.4 The CDE Battery program requests for the procurement of two (2) CDE Batteries, i.e., one (1) FM CDE Battery and one (1) QM CDE Battery.

### 2. Key Schedule of the CDE Battery Program

The CDE Battery Program for two (2) CDE Batteries procurement shall be progressed with the major milestones as follows:

- Effective Date of Contract (EDC): July 2012 (TBD)
- Equipment Suitability Review (ESR): July 2012 (TBD)
- Critical Design Review (CDR): October 2012 (TBD)
- Manufacturing Readiness Review (MRR): December 2012 (TBD)
- Test Readiness Review (TRR): March 2013 (TBD)
- Pre-Shipment Review (PSR) and Delivery: May 2013

For tentative payment schedule, refer to the Article 6.1 in Appendix A.

### 3. Objective of RFP

## **RFP for the Procurement of CDE Battery for KOMPSAT-3A Satellite**

This Request for Proposal (RFP) explains the procedures to be taken by Bidders who are willing to provide the CDE Battery. Bidders are highly recommended to submit the Proposal in accordance with the guidelines and instructions as contained in the RFP.

### **4. Structure of the RFP**

This RFP consists of the following four parts and four appendices:

PART I	INTRODUCTION
PART II	GENERAL INSTRUCTIONS FOR PROPOSAL
PART III	SUGGESTED PROPOSAL
PART IV	WARRANTY AND MAINTENANCE
APPENDICES	
APPENDIX A	TERMS AND CONDITIONS
APPENDIX B	EQUIPMENT SPECIFICATION
APPENDIX C	STATEMENT OF WORK
APPENDIX D	ENVIRONMENT SPECIFICATION
APPENDIX E	PRODUCT ASSURANCE REQUIREMENT
APPENDIX F	BUS EMC REQUIREMENTS SPECIFICATION

Only the body of this RFP and appendix A are distributed when the bid for CDE Battery Program is announced. Appendices B, C, D, E, and F are only distributed to Bidder, who sent Letter of Intent for CDE Battery Program to KARI, after the Bidder signs the non-disclosure agreement (NDA).

## **PART II. GENERAL INSTRUCTIONS FOR PROPOSAL**

### **1. Qualification of Bidder**

- 1.1 Bidder shall have direct knowledge and first-hand experience in developing the Lithium-ion battery for the low orbit and earth observation satellite and business record to sell such a battery at least five (5) times as of the Bid Closing Date.
- 1.2 Bidder shall be in possession of the necessary licenses, in effect as of the Bid Closing Date, required for development and delivery of such battery as described in this RFP.
- 1.3 The qualifying statement for the above requirements and supporting materials shall be included in the Proposal. Additional qualifying evidence may be requested to substantiate Bidder's qualification during the evaluation period.
- 1.4 The qualification of the Bidder is solely the KARI Evaluation Committee's discretion so that any Bidder shall not raise any objection regarding the KARI Evaluation Committee's decision thereupon.

### **2. Submission of Proposal**

#### **2.1 Proposal Format**

- 2.1.1 Bidder shall submit the Proposal organized in the following chapters with any other required certificates and evidences under this RFP:
- Chapter 1 Executive Summary
  - Chapter 2 Technical Proposal
  - Chapter 3 Management Proposal
  - Chapter 4 Statement of Work Proposal
  - Chapter 5 Warranty and Maintenance Proposal
  - Chapter 6 Draft Contract Proposal
  - Chapter 7 Price Proposal (to be submitted in a separately sealed envelope, two (2) copies)

## **RFP for the Procurement of CDE Battery for KOMPSAT-3A Satellite**

The detailed instructions for each chapter can be found in Part III Suggested Proposal of this RFP. It is required that Bidders submit the Proposal in the same sequence as instructed in the Suggested Proposal.

2.1.2 The total number of pages of the Proposal shall not exceed 200 pages excluding references.

### **2.2 Number of Copies**

Excluding the Price Proposal, the Proposal shall be submitted in one (1) original hard copy marked as “Original Copy” on the cover and seven (7) hard copies. In addition to the hard copies, three (3) soft copies of electronic files (one (1) in MS Office format and two (2) in PDF format) of the Proposal shall be submitted in the form of CD-ROM. And one (1) original hardcopy marked as “Original Copy” on the cover and one (1) softcopy as a PDF format shall be submitted in separately sealed envelope. Bidders do not need to submit the electronic file of the Price Proposal. In case of any discrepancies between the hard copy and soft copy, the hard copy shall prevail.

### **2.3 Bid Closing Date**

The closing date and time for the Proposal is specified in the bid summary. If any part of the Proposal as required under this RFP is submitted after the stipulated closing time, the entire Proposal will not be accepted.

### **2.4 Method of Proposal Submission**

The Proposal shall be hand-carried or sent via appropriate courier service to the following personnel or his designee:

Mr. Jae-Seok LEE  
Procurement Team  
Korea Aerospace Research Institute  
169-84 Gwahangno (Eoeun-Dong), Yuseong Gu  
Daejeon 305-806, Korea  
Tel) 82-42-860-2613  
Fax) 82-42-860-2666  
E-mail) jslee78@kari.re.kr

# RFP for the Procurement of CDE Battery for KOMPSAT-3A Satellite

## 2.5 Point of Contact

KARI's point of contact for contractual matter is the same as paragraph 2.4 and KARI's point of contact for technical matter is as follows;

Seong-Bin LIM, Ph. D.  
Head of KOMPSAT-3A SE & I Team  
Korea Aerospace Research Institute  
169-84 Gwahangno (Eoeun-Dong), Yuseong Gu  
Daejeon 305-806, Korea  
Tel: 82-42-860-2374  
Fax: 82-42-870-3759  
E-mail: sblim@kari.re.kr

Bidder shall specify its single point of contact in the Chapter 1 Executive Summary of the Proposal to communicate in conjunction with the RFP, Proposal, subsequent evaluation, and so forth. Bidder's information on the point of contact shall include the name, title/position, address, telephone no., facsimile no., and e-mail address.

## 2.6 Statement of Compliance

This RFP shall legally bind Contractor after the Contract is awarded unless the Bidder explicitly expresses the differences from the RFP in the Compliance matrix (Refer to Section 9 "Contract" in this chapter).

Bidder shall state any compliance or non-compliance in regard to the requirements and/or instructions of this RFP in the form presented in Chapter 1 of Part III in this RFP. Every paragraph and subparagraph shall be listed, and the compliance, non-compliance, or partial compliance to the requirements and/or instructions in the RFP shall be declared. The Statement of Compliance shall be included in Chapter 1 Executive Summary of the Proposal.

## 3. Validity of Proposal

Proposals shall be valid for one (1) year from the Bid Closing Date. It can be extended up to six (6) months with KARI's written request.

# **RFP for the Procurement of CDE Battery for KOMPSAT-3A Satellite**

## **4. Bid Bond**

### **4.1 Amount of Bid Bond and validity**

Bidder shall establish a bid bond in favor of KARI no later than the Bid Closing Date and submit the certificate to KARI along with its Proposal. The total amount of the bid bond shall be at least five (5) percent of the total bidding price. The bond shall remain valid until the Proposal validity period as specified in above Section 3. It shall be also extended up to six (6) months, if the Proposal validity is extended with KARI's written request as per above Section 3.

### **4.2 Bid Bond Establishment Method**

The Bid Bond in Section 4.1 shall be established in the form of an irrevocable letter of credit by the first class international bank and advised through the Woori Bank Daejeon Branch (address: 1495 Dunsan-dong, Seo-gu, Daejeon, Korea, Tel.: 82-42-488-9704, ext. 313/Fax: 82-0505-003-0759). The Bid Bond shall be available by KARI's draft at sight drawn on the Bank, accompanied by the statement of KARI stating that Bidder has refused to enter into a Contract with the terms and conditions in the Proposal as amended, if any, that Bidder has hindered the fair bidding by fraud or misrepresentation, or that Bidder has withdrawn its Proposal after the Bid Closing Date. The Bid Bond shall contain the substantial part of the terms and conditions of the Bid Bond, date of establishment, account, amount, payment terms, and date of expiry, etc.

### **4.3 Bid Bond Return**

The bid bonds except for those of the Successful Bidder and the Bidder in the next ranking in the evaluation will be released upon the instructions of KARI to the Unsuccessful Bidders, without interest, promptly after KARI's selection of the Successful Bidder. In the event that KARI decides not to enter into a Contract after the selection of the Successful Bidder, the bid bonds of the Successful Bidder and the Bidder in the next rank will be likewise released. When the Contract with Successful Bidder is executed, the bid bond of the Bidder in the next rank will be released.

### **4.4 Contractor's Bid Bond**

When the Contract with Successful Bidder is executed, the bid bond of the

## **RFP for the Procurement of CDE Battery for KOMPSAT-3A Satellite**

Successful Bidder may be released and Successful Bidder as Contractor shall provide the performance bond to KARI in accordance with the provision of Contract.

### **5. Questions and Modifications**

Any questions as to the intent and clarification of the RFP shall be directed to KARI's point of contact as specified in Section 2.4 and 2.5 of the Part II of this RFP by fax or letter no later than ten (10) days before the Bid Closing Date. However, for convenience and fast response, e-mail is also available in advance of fax or letter.

After the Bid Closing Date, Bidders shall neither amend, modify, or supplement the Proposal, nor submit any other documents to KARI, except KARI's written request.

KARI may ask each Bidder in writing for clarifications, amendments, revisions, or supplementation of the Proposal and any other documents submitted by Bidder at any time and for additional information or documents necessary for the evaluation of Proposal.

### **6. No Contractual Obligation**

This RFP shall not be interpreted as an offer for a contract or any type of guarantee by KARI. It is KARI's sole discretion whether or not to allow the contract award to any Bidder. KARI owes no responsibility or obligation to select the Contractor among Bidders.

This solicitation for the Proposal shall neither be construed to create an obligation on KARI to enter into a contractual instrument, nor shall it serve as a basis for any claim for reimbursement of costs for the effort to prepare, submit, amend, revise or supplement the Proposal, and other related documents expended by the Bidder regardless of whether or not the Bidder is successful in receiving an award as a result of the solicitation.

### **7. Acceptance/Rejection of Bids**

KARI reserves the right to accept or reject any bidding, and to amend the bidding

## **RFP for the Procurement of CDE Battery for KOMPSAT-3A Satellite**

process and reject this bidding at any time prior to the award of the Contract without any liability to the affected Bidder(s), and KARI is not under any obligation to inform the affected Bidder(s) of the background for its action.

### **8. Evaluation of Proposal**

The evaluation of the Proposals will be made by the KARI Evaluation Committee. The following evaluation process is for information only, and KARI reserves the right to modify the process without any prior notification to Bidders.

#### **8.1 Evaluation Process**

During the Bid evaluation, KARI may send Bidders a set of questions for clarification or request any supplement to the Proposals, and the evaluation will be made based on the Proposal, the answers to the questions, and the supplements received from Bidders.

Major areas of evaluation will be following three (3) areas as a minimum: general and management area, technical area, and price.

In general and management area, compliance to the RFP instructions, financial capability, management capability and experience, major general contractual terms and conditions, etc. will be evaluated.

In technical area, technical capability to comply with the technical requirements in the RFP, technical heritage and experience, interface with satellite system, technical documentation and delivery plan, test and validation plan, contractor's Product Assurance (PA) system and PA plan, etc. will be evaluated.

Price will be one of the major areas of evaluation, along with the other areas.

As a result of overall evaluation of the Proposal including price, KARI will select the Successful Bidder that is best qualified and compliant with the requirement of the RFP. At the time the Successful Bidder is selected, the ranking of the other Bidders will also be determined.

The selection of the Successful Bidder is solely the KARI evaluation committee's

## **RFP for the Procurement of CDE Battery for KOMPSAT-3A Satellite**

decision, and unsuccessful bidders shall not raise any objection regarding the evaluation committee's decision.

### **8.2 Evaluation Factors**

The on-time delivery, compliance to the RFP requirements, technical capability (including in-orbit heritage) of the Bidder, warranty, etc., are the critical elements in the process of Qualified Bidders selection. After the Qualified Bidders are selected, the rank of Successful Bidders is determined according to the KARI's discretion which takes account for both the technical evaluation result and the price.

### **8.3 Pricing Requirements**

Any price or rate proposed by Bidder shall be firm and fixed, not subject to change for a price escalation for the entire period of the contract. And the currency quoted in the Proposal shall be in U.S. dollars and shall be broken down as further detailed in Chapter 7 of Part III in this RFP.

Any kinds of taxes and duties arising in connection with Bidder's work under this RFP and under the eventual Contract shall be Bidder's responsibility, except for the customs duties levied in Korea.

The price shall be inclusive of any cost or charge incurred due to delivery of any equipment, hardware or documentation to KARI based on the DAT Incheon Airport rule as stipulated in the INTERCOMS 2010.

### **8.4 Successful Bidder and Negotiation**

Among the Qualified Bidders, the Successful Bidder will be selected by the KARI Evaluation Committee through the Proposal evaluation process.

When the Successful Bidder is notified, the ranking of the other Bidders will also be notified. Contract negotiation will be started with the Successful Bidder, and in the event mutually agreeable terms and conditions are not reached with the Successful Bidder in reasonable time, KARI may proceed to the Contract negotiations with the next ranked Bidder without undertaking a new bidding process.

In case KARI initiates the Contract negotiation with the next ranked Bidder, the

## **RFP for the Procurement of CDE Battery for KOMPSAT-3A Satellite**

next ranked Bidder will occupy the position as the Successful Bidder and assume any obligations imposed upon the Successful Bidder under this RFP. The same process may go on to other next ranked Bidders.

### **8.5 Evaluation and Contract Schedule**

The following is a tentative milestone for the evaluation and Contract, which may be changed at KARI's sole discretion.

- Selection of Successful Bidders: Bid Closing Date + 2 weeks
- Time limit for Contract negotiation with the Successful Bidder: Selection of Successful Bidders + 15 calendar days
- Time limit for Contract negotiation with the next ranked Bidder: KARI will notify the negotiation schedule dependent on the progress of Contract negotiation with Successful Bidder.

### **9. Contract**

The Contract will be effective subject to the Korean Government's approval thereof.

### **10. Language and Measurement Units**

The Proposal and any documents submitted to KARI under the RFP and communication shall be in English and measurements and quantities shall be in International System of Units.

### **11. Certificates and Government Approvals**

Bidder shall receive the government approvals (e.g. export licenses) and certificates from the relevant governments, necessary for all of the works relating to the delivery of CDE Battery. Bidder's ability and plan to get such approval and certificates shall be submitted to KARI, together with any appropriate assurance letters from the relevant governments, in the Chapter 1 Executive Summary of the Proposal.

# **RFP for the Procurement of CDE Battery for KOMPSAT-3A Satellite**

## **12. Confidentiality**

All elements of the RFP shall be kept confidential and the data/information contained in this document shall not be disclosed, distributed or reproduced, in whole or in part, to any third parties without a written approval of KARI.

## **13. Withdrawal of Proposal**

Bidder may withdraw its Proposal at any time before the Bid Closing Date. Withdrawal shall be made in written format and shall be received by KARI before the Bid Closing Date (Refer to Section 4.2 “Bid Bond Establishment Method” in this chapter).

## **14. Property of Proposal**

All documents, data or information in any type of media submitted in response to the RFP shall become the property of KARI and will be retained or disposed by KARI.

## **15. Expenses**

Expenses incurred by Bidders in connection with the preparation, submission, any subsequent clarification and negotiation activities shall be for their own account and shall not be requested to KARI.

## **16. Governing Law**

This RFP and the Contract shall be construed in accordance with and governed by the laws of the Republic of Korea.

## **17. Arbitration**

Any disputes, in relation to and under the RFP and Contract, shall be resolved through arbitration in Seoul, Korea, under the Rules of the Korean Commercial

## **RFP for the Procurement of CDE Battery for KOMPSAT-3A Satellite**

Arbitration Board.

### **18. Registration of Intent and Receipt of RFP Packages**

Bidders are requested to send the Letter of Intent to submit the Proposal by e-mail to KARI within one (1) week from the announcement of the bid for CDE Battery Program. The e-mail address is indicated in Section 2.4. When the bid for CDE Battery Program is announced, only the body of this RFP and appendix A are distributed. Appendices B, C, D, E, and F are only distributed to Bidder, who sent the Letter of Intent for CDE Battery Program to KARI, after the Bidder signs the non-disclosure agreement (NDA).

# RFP for the Procurement of CDE Battery for KOMPSAT-3A Satellite

## PART III. Suggested Proposal

The Proposal shall follow the order and format described in this part. The Proposal shall also include the suggested contents.

### Chapter 1: Executive Summary

Bidder shall present an outline of the key features of the Proposal including the following;

- Summary of the Proposal
- Qualification of the Bidder
- Qualification of the Subcontractors
- Single Point of Contact
- Licenses (including export licenses) and Certifications
- Compliance matrix to this RFP, etc.

Bidder shall respond on every article in this RFP by using the compliance matrix. The compliance matrix shall be in accordance with the format given below.

Table 3.1 Format of Compliance matrix

Title of the Document			
Part/Chapter/Article/Page	Description/Requirement	Compliance (C/PC/NC)	Remarks
		C	
		PC	
		NC	

Note] "C" means compliance, "PC" means partial compliance and "NC" means Non-compliance

### Chapter 2: Technical Proposal

Bidder shall provide full description of their technical approaches, including exact thermal and mechanical mounting scheme with satellite structure, test and

## **RFP for the Procurement of CDE Battery for KOMPSAT-3A Satellite**

validation plan, etc., to satisfy the CDE Battery technical requirements as stated in Appendix B of this RFP and to successfully perform the CDE Battery Program requested in Appendix C of this RFP. Bidder shall identify any additional services or capabilities that may be beneficial to select the proposed CDE Battery.

### **Chapter 3: Management Proposal**

The management approach to achieve the successful CDE Battery Program shall be described in this Chapter. At least the followings shall be included in this Chapter:

(a) Introduction

Bidder shall describe a company structure, management philosophy, success/failure history, reputation in the global market, etc.

(b) Program Management Experience and Approach

Bidder shall describe Bidder's experience as a space proven battery provider including experience of engineering personnel assigned to this program. And Bidder shall also describe Bidder's management approach and indicate how the responsibility for the various elements will be assigned both to organizations within the Contractor and major suppliers and subcontractors.

(c) Program Organization

Program organization charts depicting the chain of responsibilities shall be included. The names and resumes of key management, scientific, and engineering personnel assigned to this program are to be included with the percentage of time assignment to the program. In case the Contractor is not the manufacturer of the CDE Battery, the relationship, roles and responsibility of each involved organization shall be described.

(d) Program Schedule

This section shall contain the detailed program schedules. Major schedules shall also be shown. In any cases, the date of CDE Battery delivery to KARI shall be done by May 2013. Overall schedule margins shall be clearly noted.

## RFP for the Procurement of CDE Battery for KOMPSAT-3A Satellite

Describe in detail proposed methods to measure and control schedule of the program. Emphasize the method of early warning and correction of schedule slippage and cost overrun. Discuss the experience which the Bidder has accumulated using these methods and submit related experience information.

Identify the technical and management review meetings planned, the frequency of these meetings, and note the level of company management in attendance at each meeting. Briefly describe how cost control methods will not jeopardize performance, reliability, and schedule requirements.

(e) Back-up Plan

Bidder shall propose a back-up plan in case of schedule delay.

(f) Risk mitigation approach and risk management plan:

Bidder shall describe the risk mitigation approach which is being implemented by the Bidder. Bidder shall identify key technical or programmatic risks and provide the risk mitigation plan for those risks.

(g) Subcontracts Management

Describe the tasks or items to be subcontracted or purchased and proposed suppliers. Also, show how the subcontractors will be managed (technical, cost, and schedule). List all subcontractors and suppliers for unit, assembly and higher level equipment, with a brief business history of these organizations. KARI shall have a right to reject under-qualified subcontractors.

(h) Technical Management and Product Assurance Plan

Describe the technical management approach and product assurance plan to be implemented by Bidder to ensure non-defective workmanship and successful manufacturing, assembly, integration, and testing of CDE Battery.

(i) Program Resources

Bidder shall discuss the Bidder's personnel, facility, test equipment, design and analysis tools, and software resources. Bidder shall also discuss loading due to other program during CDE Battery Program period including both new and probable new programs. Bidder shall

## **RFP for the Procurement of CDE Battery for KOMPSAT-3A Satellite**

present resumes of key persons to be assigned to CDE Battery Program.

(j) **Financial Capability and Evidence**

Bidder shall present published financial statements for last three (3) years which shows the profit, loss, total assets, and debt, etc.

### **Chapter 4: Statement of Work Proposal**

The Statement of Work for the CDE Battery Program is specified in Appendix C in this RFP. Bidder shall describe the compliance on the Statement of Work in article by article. Bidder can propose other work scope beneficial for the CDE Battery Program.

A CDE Battery Program schedule including milestones and deliverables shall be presented assuming the June 2012 as EDC.

### **Chapter 5: Warranty and Maintenance Proposal**

Bidder shall propose the warranty and maintenance which are specified in Part IV Warranty and Maintenance and Appendix A Terms and Conditions in this RFP. Bidder can describe all suggested options.

### **Chapter 6: Draft Contract Proposal**

Bidders shall describe terms and conditions in this chapter observing the Terms and Conditions of KARI (Appendix A) as if the Bidder awarded the Contract. This Draft Contract Proposal is required for the purpose of speeding up the Contract process. However, the Terms and Conditions in this RFP shall prevail and the Draft Contract Proposal is a reference only and any terms and conditions of the Draft Contract Proposal which are against KARI's Terms and Conditions shall not be regarded as the Contract.

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## Chapter 7: Price Proposal

Bidder shall propose the price based on the requirements in this RFP. The price or rate proposed by Bidder shall be firm and fixed, not subject to change for a price escalation for the entire period of the Contract.

Any currency quoted in the Proposal shall be expressed in U.S. dollar only.

Miscellaneous costs such as insurance, shipping costs, taxes, charges and duties, etc., shall be included in the Proposal; Bidder shall be required to provide additional cost and financial data to support its detailed price proposal, as and when requested by KARI during the validity period of its proposal.

Bidder shall provide a breakdown price table which includes all items as specified in the Table 3.2 Breakdown Price Table (example), as a minimum.

Table 3.2 Breakdown Price Table (example)

Item	Price (US Dollar)	Unit	Subtotal (US Dollar)
FM CDE Battery	1,000	1	1,000
QM CDE Battery	1,000	1	1,000
Item 1	1,000	1	1,000
Item 2	1,000	1	1,000
...	...	...	...
		Total	*****

## **PART IV. WARRANTY AND MAINTENANCE**

### **Chapter 1: Warranty**

The CDE Battery shall be warranted for duration of two (2) years from the date of KARI's written approval on definitive acceptance on the site against any operational faults (refer to Articles 7.2 and 20 in Appendix A).

The warranty to be provided by Contractor shall cover the replacement of faulty parts, the supply of labor required for repair, test, assembly etc., and any incidental and necessary costs for such services and work.

The Contractor shall submit the written plan for repair within three (3) days after the reception of the notification of fault. The Contractor shall completely finish the repair within two (2) weeks after the reception of the notification of fault (Refer to the Article 20 in Appendix A Terms and Conditions in this RFP).

To meet these requirements, the Contractor shall propose a detailed plan for the prompt repair in the Proposal. The detailed information (location, number of crews, resume, phone and FAX numbers, etc.) of the task force team (in Korea and foreign countries) shall be included in the Proposal.

### **Chapter 2: Maintenance**

#### **2.1 General Rules**

All parts requiring reconditioning or maintenance for CDE Battery must be easily accessible. A CDE Battery maintenance note, i.e., CDE Battery maintenance guide providing detailed instructions, etc. shall be included in the documentation by using the friendly explanation with reference to schematic diagrams, drawings or photographs.

#### **2.2 Maintenance Services**

The Contractor has the responsibilities to immediately answer the operational

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and maintenance questions which KARI brings in by FAX or telephone calls until the system is dismantled by KARI.