



VPS001

**OEM and supply chain analysis for SA
localisation methodology for vanadium
flow batteries**

**BID CLOSING DATE: 1 DECEMBER 2021
AT 17h00 (GMT)**

TABLE OF CONTENTS

| | |
|---|-----------|
| SECTION 1: GENERAL CONDITIONS OF BID | 3 |
| 1. Proprietary Information | 4 |
| 2. Enquiries | 4 |
| 3. Bid Validity Period | 4 |
| 4. Instructions on submission of Bids | 4 |
| 5. Preparation of Bid Response | 5 |
| 6. Supplier Performance Management | 5 |
| 7. Bushveld Energy's and IDC BE JV's Rights | 5 |
| 8. Undertakings by the Bidder | 6 |
| 9. Response Format (Returnable Schedules) | 6 |
| 10. Evaluation Criteria and Weightings | 7 |
| SECTION 2: FUNCTIONAL REQUIREMENTS SPECIFICATION | 9 |
| 1. Background | 10 |
| 2. Vanadium Redox Flow Battery technology | 10 |
| 3. Context of the market | 11 |
| 4. Scope of work | 14 |
| 5. Project Timelines | 15 |
| 6. Deliverables | 15 |
| 7. Submission Criteria | 15 |
| 8. Technical Evaluation Criteria | 16 |
| SECTION 3: PRICE PROPOSAL | 20 |
| SECTION 4: ANNEXURES | 24 |

SECTION 1: GENERAL CONDITIONS OF BID

1. Proprietary Information

Industrial Development Corporation of SA Ltd (IDC) and Bushveld Energy Company (Pty) Ltd (BE) have signed a Co-operation Agreement to conduct a feasibility study for Vanadium Redox Flow Batteries. IDC and BE formed a Steering Committee for the study who is mandated and responsible for the issue and governance of this Request for Proposal (RFP). Bushveld Energy is managing the tender process on behalf of the IDC BE Steering Committee.

The IDC and BE Joint Venture (IDC BE JV) consider this RFP and all related information, either written or verbal, which is provided to the respondent, to be proprietary to IDC BE JV. The RFP shall be kept confidential by the respondent and its officers, employees, agents and representatives. The respondent shall not disclose, publish, or advertise this RFP or related information to any third party without the prior written consent of the IDC BE JV.

2. Enquiries

- 2.1** All communication and attempts to solicit information of any kind relative to this RFP should be channelled **in writing** to Bushveld Energy at:

| | |
|-------------------|--|
| Name: | Mikhail Nikomarov |
| Telephone Number: | +27 11 268 6555 |
| Fax Number: | +27 11 268 5170 |
| Email address: | Mikhail.nikomarov@bushveldminerals.com |

- 2.2** Enquiries in relation to this RFP will not be entertained after **17h00 (GMT) on 26 November 2021**.
- 2.3** Bushveld Energy will respond to all enquiries electronically within two (2) business days individually to each party.
- 2.4** The IDC/BE may respond to any enquiry in its absolute discretion and the bidder acknowledges that it will have no claim against the IDC, BE or the IDC BE JV on the basis that its bid was disadvantaged by lack of information, or inability to resolve ambiguities.

3. Bid Validity Period

Responses to this RFP received from bidders will be valid for a period of 120 days counted from the bid closing date.

4. Instructions on submission of Bids

- 4.1** Bids should be submitted electronically to **tenders@bushveldenergy.com**, no later than 17:00 (GMT) on Wednesday, 1 December 2021.
- 4.2** Bids must include the tender number, **VPS001**, in the start of their subject tile.
- 4.3** Bids must be in either Microsoft Office or PDF format and utilise the format of the Annexures, where relevant. Total submitted e-mail size must **not exceed 5MB**.

- 4.4 No bid response received by any other means will be considered. IDC, BE and IDC BE JV do not take any responsibility for any technical issues.
- 4.5 Amended bids may be sent in electronically, including "Amendment to bid," the tender number and the name of the bidder in the subject line before the closing time.

5. Preparation of Bid Response

- 5.1 All the documentation submitted in response to this RFP must be in English.
- 5.2 The bidder is responsible for all the costs that it shall incur related to the preparation and submission of the bid document.
- 5.3 Bids submitted by bidders which are, or are comprised of companies, must be signed by a person or persons duly authorised thereto by a resolution of the applicable Board of Directors, a copy of which Resolution, duly certified, must be submitted with the bid.
- 5.4 The bidder should check the numbers of the pages of its bid to satisfy itself that none are missing or duplicated. No liability will be accepted by Bushveld Energy, or the IDC BE JV regarding anything arising from the fact that pages of a bid are missing or duplicated.

6. Supplier Performance Management

Supplier Performance Management is viewed by the IDC BE JV as a critical component in ensuring value for money acquisition and good supplier relations between the IDC/BE and all its suppliers.

The successful bidder shall upon receipt of written notification of an award, be required to conclude a Service Level Agreement (SLA) with the IDC BE JV, which will form an integral part of the supply agreement. The SLA will serve as a tool to measure, monitor and assess the supplier's performance and ensure effective delivery of service, quality and value-add to its business.

7. Bushveld Energy's and IDC BE JV's Rights

- 7.1 The IDC BE JV is entitled to amend any bid conditions, bid validity period, RFP specifications, or extend the bid closing date, before the bid closing date. All bidders, to whom the RFP documents have been issued and where the IDC BE JV have record of such bidders, may be advised in writing of such amendments in good time and any such changes will also be posted on Bushveld Energy's and Bushveld Minerals' websites and any other sites where the original tender notice was placed. All prospective bidders should therefore ensure that they visit the website where they originally learned of the tender regularly and before they submit their bid response to ensure that they are kept updated on any amendments in this regard.
- 7.2 The IDC BE JV reserves the right not to accept the lowest priced bid or any bid in part or in whole. It normally awards the contract to the bidder who proves to be fully capable of handling the contract and whose bid is functionally acceptable and/or financially advantageous to the IDC and BE.
- 7.3 The IDC BE JV reserves the right to award this bid as a whole or in part.
- 7.4 The IDC BE JV reserves the right to conduct site visits at bidder's corporate offices and / or at client sites if so required.

7.5 The IDC BE JV reserves the right to request all relevant information, agreements and other documents to verify information supplied in the bid response. The bidder hereby gives consent to the IDC and BE to conduct background checks, including FICA verification, on the bidding entity, proposed team members and any of its directors / trustees / shareholders / members.

8. Undertakings by the Bidder

- 8.1** By submitting a bid in response to the RFP, the bidder will be taken to offer to render all or any of the services described in the bid response submitted by it to the IDC BE JV on the terms and conditions and in accordance with the specifications stipulated in this RFP document.
- 8.2** The bidder shall prepare for a possible presentation should the IDC BE JV require such and the bidder shall be notified thereof in good time before the actual presentation date. Such presentation may include a practical demonstration of products or services as called for in this RFP.
- 8.3** The bidder agrees that the offer contained in its bid shall remain binding upon him/her and receptive for acceptance by the IDC BE JV during the bid validity period indicated in the RFP and calculated from the bid closing hour and date such offer and its acceptance shall be subject to the terms and conditions contained in this RFP document read with the bid.
- 8.4** The bidder furthermore confirms that he/she has satisfied himself/herself as to the correctness and validity of his/her bid response; that the price(s) and rate(s) quoted cover all the work/item(s) specified in the bid response documents; and that the price(s) and rate(s) cover all his/her obligations under a resulting contract for the services contemplated in this RFP; and that he/she accepts that any mistakes regarding price(s) and calculations will be at his/her risk.
- 8.5** The successful bidder accepts full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on him/her under the supply agreement and SLA to be concluded with the IDC BE JV, as the principal(s) liable for the due fulfilment of such contract.
- 8.6** The bidder accepts that all costs incurred in the preparation, presentation and demonstration of the solution offered by it shall be for the account of the bidder. All supporting documentation and manuals submitted with its bid will become the IDC BE JV property unless otherwise stated by the bidder/s at the time of submission.

9. Response Format (Returnable Schedules)

Bidders shall submit their bid responses in accordance with the response format specified below (each schedule must be clearly marked):

- 9.1 Cover Page:** (the cover page must clearly indicate the tender reference number, bid description, the bidder's name and bidder's full contact details (e-mail, telephone and physical address))
- 9.2 Part 1:**
- Executive Summary (explaining how you understand the requirements of this RFP and the summary of your proposed solution)
 - Annexure 1 of this RFP document (duly completed and signed)
- 9.3 Part 2:**

- Response to Section 2 of this document, in line with the format indicated in this RFP document.
- Annexure 2 of this RFP document, duly completed and signed

9.4 Part 3

- Copy of bidder’s company registration.
- Copy of an ID document for the Company Representative making the submission and listed as the primary contact for bid responses.

9.5 Part 4: Price Proposal (response to Section 3 of this RFP document)

9.6 Electronic format to be used in either Microsoft Office or PDF format. Total size of the e-mail document size must **not exceed 5MB**.

10. Evaluation Criteria and Weightings

Bids shall be evaluated in terms of the following process:

10.1 Phase 1: Submission of all required documents, as outlined above.

10.2 Phase 2: Technical Functionality Evaluation

Bid responses will be evaluated on four Functional criteria as follows:

| ELEMENT | WEIGHT |
|---|---------------|
| Bidder’s Proposed Methodology | 40% |
| Bidder’s Relevant Experience | 20% |
| Experience, Skills and Qualifications of the key personnel of the proposed team | 20% |
| Timing for the execution of the study | 20% |
| TOTAL | 100% |

Note: The minimum qualifying score for functionality is 70%. All bids that fail to achieve the minimum qualifying score on functionality shall not be considered for further evaluation on Price.

10.3 Phase 3: Price versus Technical proposal

All bids that achieve the minimum qualifying score for Technical Functionality will be evaluated further in terms of the Price and Technical Functionality, as follows:

| CRITERIA | WEIGHT |
|-------------------------|-------------------|
| Price | 60% |
| Technical Functionality | 40% |
| TOTAL | 100 points |

10.4 Tender results announcement and process

A decision on the tender will be made within three (3) weeks of the submission date. The successful Bidder(s) will be notified immediately via e-mail, telephone, or both.

SECTION 2: FUNCTIONAL REQUIREMENTS SPECIFICATION

SECTION 2: FUNCTIONAL REQUIREMENTS SPECIFICATION

1. Background

South Africa has the 2nd largest vanadium deposits in the world and value-adding to its mineral resources is a priority.

Bushveld Minerals (BM), a London Stock Exchange Alternative Investment Market (AIM) listed company, has the strategic intent to secure a significant global position in the vanadium market based on its vanadium resources near Brits and in the Bushveld complex near Mokopane.

BM further intends to stimulate the demand for vanadium through the development and deployment of commercial vanadium-based energy storage solutions through its subsidiary, Bushveld Energy Company (BE)

The Industrial Development Corporation of South Africa (IDC) has prioritised Energy Storage as one of the mechanisms to be pursued in decarbonising the SA economy and to assist SA in achieving its decarbonisation goals.

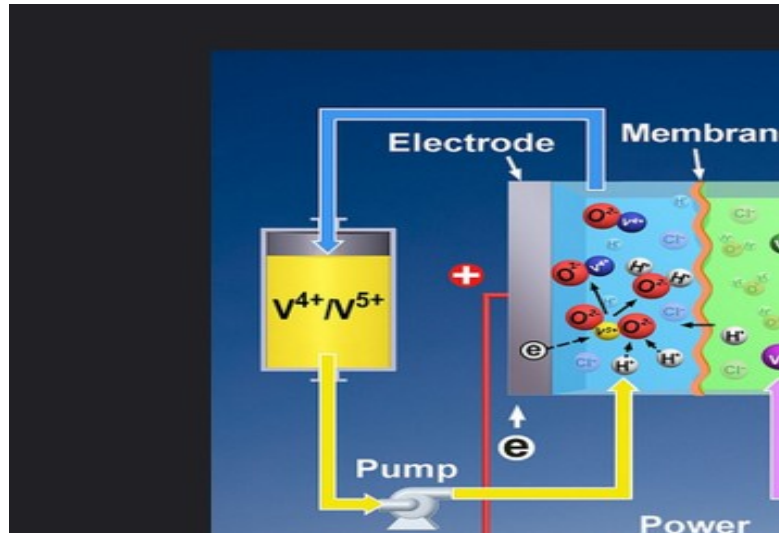
IDC and BE signed a Co-operation Agreement for the execution of a feasibility study to co-develop a Vanadium Redox Flow Batteries (VRFB) industry in South Africa. The project rationale and the co-development between BE and IDC will assist in achieving the following in the context of the VRFB:

- Fulfil the needs of identified South African and Africa use cases within the much wider Energy Storage market;
- Beneficiation of local vanadium resources;
- Establishment of a VRFB value chain and the localisation of VRFB manufacturing (local assembly, key component manufacturing and/or complete VRFB solutions) as one of the value chains within the wider energy storage industry;
- Validation and demonstration of the VRFB value proposition; and
- Achievement of developmental objectives such as job creation.

2. Vanadium Redox Flow Battery technology

A flow battery is charged and discharged by a reversible reduction-oxidation reaction between the two liquid vanadium electrolytes of the battery. In a VRFB the vanadium ions remain in an aqueous acidic solution throughout the entire process. During the battery charge, V^{3+} ions are converted to V^{2+} ions at the negative electrode while at the positive electrode V^{4+} ions are converted to V^{5+} ions to release the electrons. During the discharge, the reaction runs in the opposite direction.

Unlike conventional batteries, electrolytes are stored in separate storage tanks and not in the power cell of the battery. During operation these electrolytes are pumped through a stack of power cells, in which the above electrochemical reaction either stores energy, or recoups the stored energy. Scaling of a VRFB is achieved by scaling the tanks and related power equipment. The physical scale of a VRFB tends to be large due to the large volumes of electrolytes required when sized for utility-scale (megawatt-hour), long duration applications.

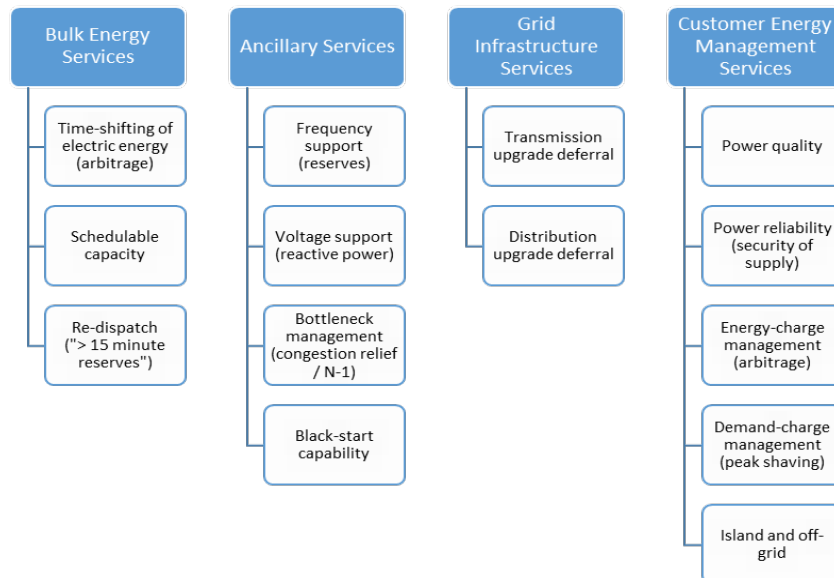


VRFB technology and applications provide the following inherent advantages:

- Modular and scalable from kilowatt to megawatt applications;
- Decoupling of power and energy requirements;
- Reduced contamination of electrolytes;
- Rapid deployment (can be containerised);
- Long life cycle of up to 20 years (up to 10 000 charge/discharge cycles);
- Electrolyte is stored in separate tanks and does not form part of power cell;
- Safety, as there is no “thermal run-away” threat; and
- Closed eco-system due to recyclability of the vanadium at the end of life.

3. Context of the market

The VRFB technology has been identified as one of the technology solutions that could fulfil the needs of some of the South African and African energy storage “use cases” as depicted below:



A previous market study conducted by the IDC-BE JV has indicated that VRFBs could fulfil the needs of some of the above use cases within the South African and African market.

For this reason, IDC and BE is currently implementing a vanadium-based electrolyte production plant with an initial capacity of 8 million litres per annum in East London. The plant is expected to reach commercial operation in March 2023.

Renewables will play an important role to decarbonise the global economies. As the percentage of renewables increase in the energy mix, more long duration energy storage (LDES) solutions will be required.

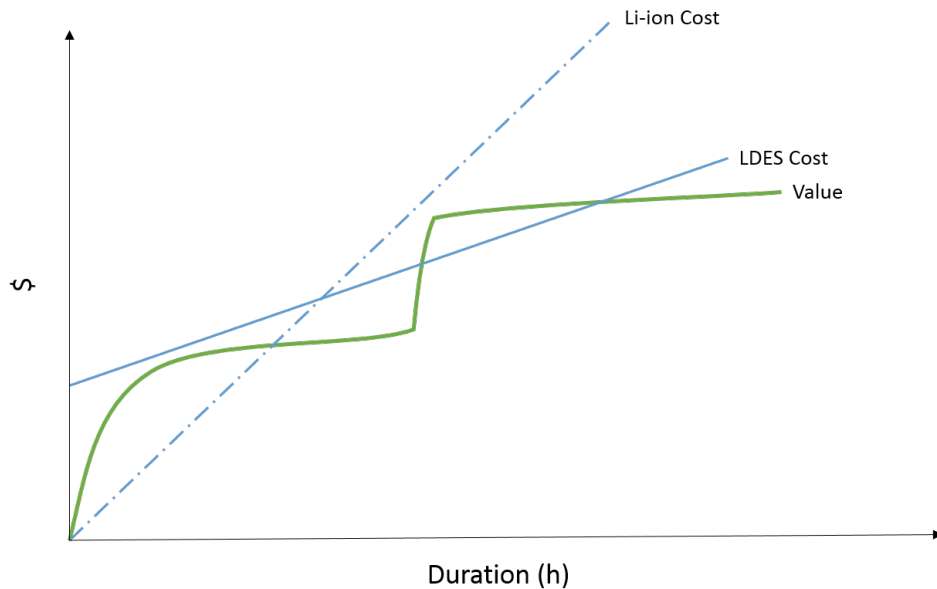
While shorter duration energy storage technologies like lithium ion (the most widely adopted battery energy storage technology globally) batteries can handle much of the intra-day variation, like shifting midday solar power generation into the evening hours, longer duration options are required for periods of low wind or sun that span many days. Furthermore, the increasing frequency of extreme weather events such as fires and strong storms are driving the need for the local, clean, affordable, and resilient backup power LDES systems can provide.

Despite growing recognition of the key role that LDES plays in decarbonizing the grid, market challenges remain. The economics driving the current wave of lithium-ion battery deployments in many cases rely on two key value streams: grid ancillary services and energy arbitrage. Ancillary services are required to maintain the stability of the grid and the constant real time matching of electricity supply and demand. As these services generally require short, fast-burst responses, much of the value from ancillary services can be captured using very short duration systems.

Energy arbitrage is the time shifting of energy to make money from buying low and selling high. Due to the nature of such an arbitrage the first hour of storage, when the system charges at the lowest-priced hour of the day and discharges at the highest-price hour, will be the most valuable, followed by the second hour of duration, and so on. Because of this diminishing return on duration, systems with about 4 hours of duration or less are generally used for this arbitrage application. However, this is based on the assumption of one cycle a day. If multiple cycles are required, e.g., morning and afternoon, a longer duration battery has more value.

LDES technologies will likely require different value streams that are focused on the resiliency or capacity that they provide. The value of LDES technologies, for example, might be replacing aging physical assets such as transmission lines, diesel generators, or power plants, rather than simply displacing them for a few hours a day. Shorter duration technologies paired with renewable resources are already able to compete against peaking power plants which only run a few hours at a time; longer durations will be needed to displace more capital-intensive baseload and load-following plants (which run at some level of output for most hours). If this can be achieved at a price point where the capital needed to build and operate an LDES is less than for displacing infrastructure like a load-following power plant, then the opportunities for LDES will begin to flourish.

The below chart shows the market dynamics driving short vs. long duration energy storage. While current lithium-ion batteries can thrive at shorter durations, where the value that they generate exceeds their cost, cost increases more rapidly with duration than LDES technologies. Conversely, LDES, due to its more expensive power components, may struggle to be profitable at shorter durations, but its more gradual cost curve enables deployment in scenarios where there are jumps in value (illustrated by the step change in the value line) caused by the deferment or displacement assets needed for reliability. (The crossover point in the graph is at approximately 4 hours duration).



Due to the lifting of licensing exemption to 100MW in SA, additional growth for LDES is expected within the Small Scale Embedded Generation market as companies will aim to optimise arbitrage opportunities to reduce costs and achieve self-sustainability. LDES in conjunction with solar PV and wind solutions will become cost competitive with natural gas and other fossil fuel solutions and provide for a substantial opportunity to decarbonise energy solutions and contribute to the climate change challenge. This is already evident in all new REIPPP projects which include storage solutions to achieve the supply profiles required and LDES could be key to achieve this. See table below:

| | | | |
|----------------------------|--|----------|-----------|
| Eskom Bess | 3 tenders for 7 sites | 197,5 MW | 827 MWh |
| Risk mitigation | 5 announced projects - non gas (ratio of 82,5% storage versus contract capacity) | 640 MW | 2 475 MWh |
| REIPPPP bid window round 5 | 1000MW PV (ratio of 82,5% storage versus contract capacity) | 825 MW | 3 190 MWh |
| | 1600MW Wind (ratio of 82,5%, could be less) | 1 320 MW | 5 104 MWh |
| IRP 2019 | Provision for 513 MW in year 2022 | 513 MW | 2 052 MWh |
| Amendment of Schedule 2 | Assuming an estimate that 5 000 MW, 10% will involve some storage capacity, 50% thereof within the next 2,5 years, 4 hour capacity | 250 MW | 1 000 MWh |
| REIPPPP bid window round 6 | Similar to above | | |

Given the drivers mentioned above, IDC and BE are now ready to investigate the feasibility of establishing a VRFB assembly / manufacturing plant locally. However, industry information is required to guide the basis of this feasibility investigation including:

- Structure of the VRFB manufacturing industry including supply chain structure;
- Competitor VRFB OEMs and their profiles;
- Competitive advantages / disadvantages and critical success factors of a local manufacturing facility;
- Most suitable business model for a local manufacturer, etc.

The proposed study is to generate the required industry information to assist IDC and BE to make a decision on an approach for a business and partnership model to be

adopted in developing the feasibility of a local business construct as part of the next step.

4. Scope of work

IDC and BE have identified the following VRFB OEMs (but not limited to) to be included in the industry analysis:

- i. Enerox (Cellcube)
- ii. Invinity Energy Systems
- iii. Rongke Power
- iv. Shanghai Electric
- v. VRB Energy

The bidder can propose additional or replacement OEM(s) to the list provided but must substantiate the reasoning to do so.

The required industry study on VRFB OEMs and supply chain analysis for a SA localisation methodology should as a minimum provide/address the following:

- A. Conduct an analysis/assessment of the VRFB OEM(s) to provide company information that covers the following parameters:
 - a. Company size
 - b. Company footprint (countries)
 - c. Company structure
 - d. Company services (in-house vs outsourced)
 - e. Shareholder structure
 - f. Projects rolled out
 - g. Existing manufacturing capacity
 - h. Manufacturing strategy¹ (e.g. own facility, contract manufacturing, hybrid)
 - i. Expansion plans (including capacity and geography)
 - j. Any other important information.
- B. Map the supply chains being utilised by the various OEMs. The purpose is to understand
 - i. the supply chain methodologies being utilised by most OEMs, especially relating to the balance of plant components, as these components are not considered “IP sensitive”. To what degree is the supply chain centralised or regionalised, etc for what components and what is the reasoning behind it. This is also to be considered for the “IP sensitive” components e.g. stack production.
 - ii. The principal components and processes required by each OEM in the manufacture of a VRFB system
- C. Consider South Africa’s competitive position related to localisation in the major balance of plant components as well as the “IP sensitive” components identified in B.ii. as well as localisation critical success factors.
- D. Engage with the selected VRFB OEMs to gauge their willingness to participate in the establishment of a South African assembly/production project. Establish what the requirements from the OEM would be to participate in the development of a project and their perceived role and contribution (e.g. licensing, ownership, contract manufacturing, market size, market use cases, etc.)
- E. Develop a framework to evaluate potential manufacturing relationships in relation to the envisaged market size and growth stages. This should be conducted with IDC and BE through engagement in the form of a small workshop.
- F. Through the analysis of the industry information generated, develop and evaluate different business constructs for a South African based VRFB manufacturing facility.

(1) ¹ This can exclude electrolyte.

Aspects that should be considered includes level of beneficiation e.g. assembly vs manufacturing, business model e.g. partnership with single OEM vs multi-OEM model, etc. For the various business constructs, provide a structured evaluation using methods like Porter's Five Forces, PEST analysis, SWOT analysis or similar.

- G. Capture the findings of the investigation in a structured report, including a recommendation on the preferred VRFB OEM or OEMs, the associated value proposition and business construct to be pursued for development through a techno-economic evaluation (not part of this study). This should highlight what critical market dynamics and enablers should be leveraged to increase the likelihood of success of local VRFB manufacturing.

The study recommendation should cover and answer the following:

- Can South Africa-based VRFB manufacturing be viable? If so, under what conditions and / or for which components (or entire systems) besides vanadium electrolyte? What would be the competitive rationale to supply VRFBs from SA?
- Which VRFB OEMs should be targeted for partnering for a local production facility? If multiple OEMs should be targeted, is there a structure under which local production would be justifiable for multiple VRFB OEMs? What is the preferred business model and structure for a SA facility and why?
- What are the requirements of OEMs to consider SA as a manufacturing base? Are there practical policy levers available to help meet these requirements?

5. Project Timelines

The study must be completed within 8-10 weeks from contract award. A short list of bidders could be requested to conduct presentations on scope of work, methodology and outcomes prior to award of the contract to the successful bidders.

6. Deliverables

The successful bidder will be required to provide three types of deliverables during the study:

- Detailed study report (2 hard copies and electronic file in MS Word, PowerPoint and / or Excel);
- Bi-weekly progress feedback to the project Steering Committee via conference call or Teams and a minimum of 3 official verbal feedback sessions at project kick-off, mid-project and final; and
- For Final, a formal study outcomes presentation session (at study hand-over in Illovo, Johannesburg) or virtually via Teams.

7. Submission Criteria

The responses for the study will be evaluated based on elements pertaining to the cost and study ability and therefore the following information must be included with the response:

- Fee structure quoted in ZAR (exclusive of VAT) and indicates VAT as a separate line item. Include a payment schedule linked to major deliverables;
- Company profile. If the tender is submitted by a consortium or the company will make use of subcontractor(s), profiles for each member of the consortium and/or subcontractor(s) must be provided;

- Study approach supported by examples of similar studies undertaken with such an approach;
- Proposed timelines and key milestones of the study;
- Detailed requirements or expected commitments by IDC and/or Bushveld to the process and study;
- Estimated time to be spent on and personnel resources to be used for the study;
- Brief CVs of key personnel to be utilised in this exercise;
- At least three contactable references;

In addition to the above, it is requested to also clearly specify the following:

- The study schedule including a work breakdown structure containing a list of tasks needed for the study and time estimates associated with the individual tasks to achieve the study objectives;
- The methodological approach that will be followed;
- The dates on which expected major deliverables will be completed (from date of order);
- A schedule of deliverables and proposed meeting dates for feedback (to be held in Illovo, Johannesburg or virtually via Teams); and
- Brief company profile indicating details of similar work undertaken.

8. Technical Evaluation Criteria

8.1 Technical Requirements

The bidder must indicate its compliance / non-compliance to the requirements and should substantiate its response in the space provided below. If more space is required to justify compliance, please ensure that the substantiation is clearly cross-referenced to the relevant requirement.

| 8.1.1 EXPERIENCE IN STUDIES FOR ENERGY STORAGE TECHNOLOGIES, INDUSTRY ANALYSIS AND VANADIUM REDOX FLOW BATTERIES | Comply | Partially Comply | Not Comply |
|---|--------|------------------|------------|
| <p>The bidder must demonstrate experience and knowledge in conducting market studies for energy storage technologies and more specifically vanadium redox flow batteries.</p> <p>The bidder must also provide at least two (3) relevant and contactable references of relevant market studies for energy storage technologies and more specifically vanadium redox flow batteries studies over the past five (5) years. Please refer to Annexure 2 of this document for the format in which the required information must be provided.</p> | | | |

Substantiate / Comments

| 8.1.2 PROPOSED METHODOLOGY | Comply | Partially Comply | Not Comply |
|--|--------|------------------|------------|
| <p>The bidder must demonstrate thorough understanding of the objective, scope of work and deliverables of the study and its proposed methodology to achieve that.</p> <p>The bidders must provide a detailed proposal of the methodology/approach to be used to carry out the scope of work outlined in Section 2, part 4 above and clearly demonstrate how the scope of work and deliverables will be achieved.</p> <p>The bidder to clearly indicate any value-added services to achieve/enhance study results.</p> | | | |

Substantiate / Comments

| 8.1.3 EXPERIENCE AND SKILLS | Comply | Partially Comply | Not Comply |
|--|--------|------------------|------------|
| <p>The bidder's key personnel of the proposed project team must demonstrate the required qualifications, skills and experience to deliver on the complete scope of work.</p> <ul style="list-style-type: none"> • Have in-depth knowledge of the energy storage and vanadium redox flow batteries sectors and industry analysis studies with more than 5 to 10 years' of experience • The team must have verifiable experience in carry out similar scopes of work and where the project team and/or its leaders have played key roles in projects of similar scale and focus • Demonstrate industry research and strategy skills and an ability to interpret such research. Furthermore, demonstrate an ability to present and communicate research findings and proposed related strategies.; • Demonstrate experience in industry analysis and business structuring and the different challenges and risks associated with them. In addition, a proven ability to structure, present and communicate findings is essential. <p>The bidder must submit, as part of its proposal, the following:</p> <ul style="list-style-type: none"> • The structure and composition of the proposed team, clearly outlining the main disciplines/specialities of the key personnel, their roles and responsibilities for this study and how they match with the requirements outlined above. Please refer to Annexure 2 of the document for the format in which the required information must be provided. • CV's of the key personnel, which must clearly highlight qualification, years and areas of experience/competence relevant to the scope of work, objectives of the project as outlined above. | | | |
| <p>Substantiate / Comments</p> | | | |

| 8.1.4 PROPOSED STUDY DURATION | Comply | Partially Comply | Not Comply |
|---|--------|------------------|------------|
| <p>The bidder must clearly indicate, in the format of a project schedule how the required time of 8-10 weeks delivery will be achieved.</p> <p>The bidders must provide an activity and milestone schedule to carry out the scope of work outlined in Section 2, part 4.</p> | | | |
| <p>Substantiate / Comments</p> | | | |

SECTION 3: PRICE PROPOSAL

SECTION 3: Cost Proposal

1 Please indicate your total bid price here: R..... (VAT Excl.)

2 **NOTE: All prices must be VAT exclusive and must be quoted in South African Rand (ZAR).**

3 Are the rates quoted firm for the full period of the contract?

| | |
|-----|----|
| YES | NO |
|-----|----|

Important: If not firm for the full period, provide details of the basis on which price adjustments shall be applied e.g. CPI etc.

4 All additional costs associated the bidder's offer must be clearly specified and included in the Total Bid Price.

5

| | | |
|---|-----|----|
| Is the proposed bid price linked to the exchange rate? | Yes | No |
| | | |
| <i>If yes, the bidder must indicate CLEARLY which portion of the bid price is linked to the exchange rate:</i> | | |
| | | |

6

| | | |
|--|--------|------------|
| Payments will be linked to specific deliverables after such deliverables have been approved by the IDC BE JV. Payments will be made within 30 days from date of invoice. | Comply | Not Comply |
| | | |

7 COSTING MODEL AND PAYMENT TIMELINE

| Activity/ Deliverable / Milestone | Resource(s) | Rate/Hour per resource | Completion time | Cost (VAT Excl.) |
|------------------------------------|-------------|------------------------|-----------------|------------------|
| | | | | |
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| | | | | |
| Disbursements | | | | |
| Total Bid Price (VAT Excl.) | | | | |

8 SUMMARY OF THE PROPOSAL

| DESCRIPTION | BIDDER'S PROPOSAL |
|--|--------------------------|
| Number of resources (personnel) | |
| Other (non-human) resources | |
| Project duration (in hours) | |
| Project duration (in months) | |
| Earliest Commencement Date | |

9 BREAKDOWN OF PROJECT COSTS OF THE PROPOSAL

| DESCRIPTION | COST |
|---|-------------|
| Personnel time | |
| Non-personnel costs (reports, equipment) | |
| Logistics (travel, support, etc) | |

Price Declaration Form

Dear Sir,

Having read through and examined the Request For Proposal (RFP) Document, **RFP #VPS001**, the General Conditions, and all other Annexures to the RFP Document, we offer to provide the **OEM and supply chain analysis for SA localisation methodology for vanadium flow batteries** study to the IDC BE JV at the following total amount:

R..... (Excluding VAT)

In words

R..... (Excluding VAT)

We confirm that this price covers all activities associated with the scope of work, as called for in the RFP document. We confirm that the IDC BE JV will incur no additional costs whatsoever, other than in respect of VAT, over and above this amount in connection with the provision of this scope of work.

We undertake to hold this offer open for acceptance for a period of 120 days from the date of submission of offers. We further undertake that upon final acceptance of our offer, we will commence with the provision of the required scope of work when required to do so by the IDC BE JV.

We understand that you are not bound to accept the lowest or any offer, and that we must bear all costs which we have incurred in connection with preparing and submitting this bid.

We hereby undertake for the period during which this bid remains open for acceptance, not to divulge to any persons, other than the persons to whom the bid is submitted, any information relating to the submission of this bid or the details therein except where such is necessary for the submission of this bid.

SIGNED

DATE

(Print name of signatory)

Designation

FOR AND ON BEHALF OF:

COMPANY NAME

Tel No

Fax No

Cell No

E-mail

Physical address

SECTION 4: ANNEXURES

Annexure 1 – Acceptance of Bid Conditions and Bidder's Details

Request for Proposal No: _____

Name of Bidder: _____

Authorised
representative: _____

The bidder hereby accepts full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on him/her under this RFP.

[Note to the Bidder: The Bidder must complete all relevant information set out below.]

BIDDING STRUCTURE

| Indicate the type of Bidding Structure by marking with an 'X': | |
|--|--|
| Individual Bidder | |
| Joint Venture/ Consortium | |
| Prime Contractor with Sub Contractors | |
| Other | |

REQUIRED INFORMATION

| If Individual Bidder: | |
|-------------------------|--|
| Name of Company | |
| Registration Number | |
| Vat registration Number | |
| Contact Person | |
| Telephone Number | |
| Cellphone Number | |
| Fax Number | |
| Email address | |
| Postal Address | |
| Physical Address | |

| If Joint Venture or Consortium, indicate the following for each partner: | |
|---|--|
| Partner 1 | |
| Name of Company | |
| Registration Number | |
| Vat registration Number | |
| Contact Person | |
| Telephone Number | |
| Cellphone Number | |
| Fax Number | |
| Email address | |
| Postal Address | |
| Physical Address | |
| Scope of work and the value as a % of the total value of the contract | |
| Partner 2 | |
| Name of Company | |
| Registration Number | |
| Vat registration Number | |
| Contact Person | |
| Telephone Number | |
| Cellphone Number | |
| Fax Number | |
| Email address | |
| Postal Address | |
| Physical Address | |
| Scope of work and the value as a % of the total value of the contract | |

| If bidder is a Prime Contractor using Sub-contractors, indicate the following: | |
|---|--|
| Prime Contractor | |
| Name of Company | |
| Registration Number | |
| Vat registration Number | |
| Contact Person | |
| Telephone Number | |
| Cellphone Number | |
| Fax Number | |
| Email address | |
| Postal Address | |
| Physical Address | |
| Sub contractors | |
| Name of Company | |
| Company Registration Number | |
| Vat registration Number | |
| Contact Person | |
| Telephone Number | |
| Cellphone Number | |
| Fax Number | |
| Email address | |
| Postal Address | |
| Physical Address | |
| Subcontracted work as a % of the total value of the contract | |

Table (b) Details of the key personnel of the bidders' proposed team:

| Name | Position | Role / Duties in this Project | Relevant Project Experience | |
|------|----------|-------------------------------|---|--------------|
| | | | Project description, Client, Project period | Project Cost |
| | | | | |
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