Introduction
Johns Hopkins University (JHU) is seeking to obtain written proposals from qualified Suppliers to provide Energy Data Management and Dashboard Software with full implementation and associated services. The data specifications and requirements outlined are a guideline for the proposal, and each point shall be addressed in the response to highlight how the Supplier meets the criteria. Each Supplier shall submit a fully detailed proposal that adequately describes the advantages and benefits of their software based on each guideline.

Background
JHU is transitioning from a predominately manual utility invoice data management process of hand-keyed data into Excel, to a comprehensive automated software solution. The software shall have the capabilities to process utility data, via automated entry of utility invoices facilitated directly through the utility supplier or vendor where possible. The software shall have auditing, reporting and analysis capabilities for up to 750 unique utility metered accounts. In addition, the software shall have capabilities to view and report interval data at minimum intervals of 15 minutes. This interval data view shall be customizable and be able to be ported to public facing dashboards. The data for the dashboard shall be collected via APIs from external sources. The software shall gather electric metering data from the JHU Schneider Electric Power Monitoring Expert (PME) System and building automation data from the JHU Johnson Controls (JCI) Metasys system.

Proposal Timeline
Bidders will have until 5:00pm March 31, 2020 to complete and submit their proposal to sustainability@jhu.edu. Please notify us of your interest to submit a proposal with the lead contact information, via email by 5:00pm February 28, 2020, so we may ensure you’re included on all appropriate correspondence for the RFP. This can be submitted to sustainability@jhu.edu.

A 1-hour conference calls is scheduled for March 6, at 3:00 pm to answer any questions. Those who have notified us of interest to submit a proposal will be invited to join. Please submit all questions by 5:00pm February 28, 2020 to sustainability@jhu.edu to be discussed on the call. Minutes from the call will be typed and electronically delivered by JHU to all bidders who have notified us of interest. Additional questions remaining after the call may be submitted to sustainability@jhu.edu. Answers will be publicized to all bidders in writing, and an additional call may be scheduled at JHU’s discretion.

Proposals will only be accepted via e-mail to the following e-mail address sustainability@jhu.edu and will be confirmed as accepted. No proposals will be accepted after 5:00PM on the due date of March 31, 2020.

After the proposal due date, selected bidders may be invited, in person, to demonstrate their proposed software solution.
Evaluation

Proposals will be evaluated based on the attributes of the proposed software, costs, and demonstration. The evaluation will be scored on how the guidelines below are met by the software, total cost, implementation schedule, ongoing training availability, and usability of the software. Evaluators will range from a variety of users.

Guidelines:

Please describe how the software meets each of the following criteria. If any require customization and an increase in cost from “out of the box” offerings, note the additional incurred cost.

1. **Software Design/Structure**
   
   I. **Organizational Structure**
      
      i. Tree and clearly defined building location interface of facilities including a Campus Map
      
      ii. Unlimited number of user-defined groups
         
         1. For reporting
         
         2. For analysis
      
      iii. Flexibility in fields for defining departments, divisions, sites
         
         1. For reporting
         
         2. For analysis
      
      iv. Data exporter/importer for exporting entire data structure to Excel
         
         1. Export existing System data into Excel spreadsheet for adding, correcting and reorganizing that data
         
         2. Import data directly back into System for initial setup
         
         3. Utilize for periodic bulk updates

   II. **Data Integration**
      
      a. **Vendor Invoices**
      
         i. Vendor invoices can be any variety of commodity, including multiple commodities on a single invoice. These can be imported through automated processes through electronic form with access from utility providers (where available, or an automated data extraction process from paper bills or a pdf.
         
         1. Import vendor invoices provided in electronic form through access with Utility Providers (Where Available)
            
            a. Capable of separating dual commodities from an imported single invoice into separate meters/accounts
            
            b. Flexible billing and accounting period designations
            
            c. Configurable imported bill details:
               
               i. Consumption in all metered units
               
               ii. Multiple or single demand kW for electricity
               
               iii. Multiple all inclusive (even if $0) cost items
               
               iv. Total cost
               
               v. Billing period beginning and ending date
               
               vi. Number of days in billing period
2. Import vendor invoices through an automated data extraction process from paper invoices or a pdf
   a. Auto population of previous month’s end-date in new invoice as start-date for the next invoice
   b. Flexible billing and accounting period designations
   c. Separate multiple commodities from a single invoice into separate meters/accounts
   d. Configurable, and user defined invoice details:
      i. Consumption in all metered or defined units
      ii. Multiple or single demand kW for electricity
      iii. Multiple all inclusive (even if $0) costs
      iv. Total Cost
      v. Billing period beginning and ending date
      vi. Number of days in billing period
   e. Record trail and pdf included of any voided invoices

ii. Configurable for atypical accounts such as
   1. Solar
   2. On-site generation

iii. Auditing of invoices
   1. Detail error detection processes built into the software specific to rate and use changes
      a. Library of out-of-the-box standardized audit reports
      b. User-defined sensitivity settings for audit criteria
      c. User-defined audit groups

iv. Bring together data from multiple vendor invoices for the same account under one common account

v. Flexible interface with Accounts Payable (A/P) and General Ledger (G/L) systems
   1. Automated invoice entry processes will be completed within 72 hours of bills received if pdfs are received, or within 72 hours of bill availability if electronically accessed from vendors
   2. Ability to associate multiple internal budget account numbers with each utility account.

vi. Detail how the software audits and highlights rate changes from vendors

b. Building Automation Information
   i. The software shall be able to pull totalization data and relevant energy data from JHU’s JCI Metasys System. This data will include:
      1. Chilled Water Meter Totalization
      2. Steam Meter Totalization
      3. Domestic Water Totalization
      4. Equipment Electric Usage

c. Power Metering Information
   i. Import the following data from Schneider’s PME System:
      1. Electrical Consumption Data for each Meter
III. Reports
   i. Multiple, standardized reports, graphs and dashboards
      1. Analysis
      2. Set-up building and facility data
      3. Billing
      4. Budget
      5. Time based analysis
      6. Invoicing
   ii. Report settings can be saved as favorites by each user
   iii. Fully configurable options for filtering report data
   iv. Reports can be exported in multiple file formats
   v. Reporting export formats with options designed specifically for Excel including .XLSX and .CSV

IV. Dashboards
   i. User-specific dashboard views highlighting trend data for consumption and costs
      1. Building or campus specific
   ii. Public views of data in dashboards
      1. Building information
      2. Billing periods and days
      3. Consumption
      4. Costs
      5. Interval Data
      6. Download options for data from dashboards

V. Greenhouse Gas Emissions
   i. Automated reports on greenhouse gas emissions
      1. Ability to select or upload the emissions factors

VI. Other Features
   i. Interval data for display, audits and analysis
      1. 15-minute data
      2. 1-hour data
      3. Any time series such as day, week(s) month(s), year
      4. Ability to aggregate multiple interval series
      5. Ability to be updated to access new meters during meter change-outs and additions
   ii. Any number of user log-ins, configurable for differing levels of access
      1. Administrative
      2. Data entry
      3. Read Only
   iii. Daily weather data in degree days for statistical analysis
      1. Temperature format in heating degree days and cooling degree days
2. Imported from a website through Excel, CSV or text format or manually entered
   iv. Normalization of data by calendar or weather
   v. Customizable baseline year
   vi. Issue tracker
      1. Any user can develop an issue and then track status
   vii. Benchmarking charts of peer groups for use per square foot
   viii. Multiple, simultaneous users

2. **Example Scenario**

   Please explain, and include screenshots where able, how the software will import and show data from the Bill Example in Appendix 1.

3. **Software Structure**

   Please describe the software package’s structure, both operating systems it works on and server structure. Explain hosting options and costs for server data both cloud based and JHU hosting options. Note all update procedures for both cloud based and JHU hosting options. Note any third party modules or components. Describe all security measures taken to ensure data privacy and encryption standards. Describe data structure and export options both during at and end of contract.

4. **Software Integration**

   Please describe the APIs and/or web services that exist to support integration with other systems, both input and output. JHU uses the following software which are expected to be connected to the Energy Data Management Software:

   - Archibus - for space management, and hosts the building level data (building identifier, tenants, square footage data, etc.)
   - Maximo - for work orders
   - ArcGIS - for campus mapping and some public data sharing
   - Schneider Power Monitoring Expert – for electric metering
   - Johnson Controls Metasys – for building HVAC controls and metering

5. **Historical Data**

   The software will be required to upload historical data from Excel spreadsheet files. Historic data will be kept beginning with the JHU Fiscal Year 2004 where available. Please describe this process.

6. **Implementation**

   The software will be certified to meet all requirements previously stated in this RFP including the transfer of all JHU historic data to the new software database prior to turnover/acceptance of the software by JHU. Please describe this process, with clearly defined milestones.

7. **Critical Path**
Please provide a detailed date schedule from the notice of award date to turnover/acceptance of the software by JHU. Please include key tasks with expected resource needs from JHU including JHU staff estimated hours.

8. **Training**

Please describe the software training that will be provided for 10-15 users. On-site training will be provided for at least 2 full 8-hour days.

9. **Customization Options**

Please describe availability to customize dashboards, reports, and other functionality beyond the out-of-the-box functions. Describe expected associated costs, or hourly rates for such changes.

10. **On-going Support**

Please provide options for annual (and/or other specified) technical support, including a detailed description with associated costs. If there is more than one option, please add this information in a table. Also for this support, please provide a blanket contract for review and describe availability and costs of follow-up training, either on-site, or at a central location with users from other JHU entities. For all associated costs, please provide the percentage increases applied to these services for each of the past four years.

11. **References**

Please provide contact information (name, title, phone number, and email address) for at least three references of comparable work. Also include a list of other Universities that are using the proposed software.

12. **Key Staff Biographies**

Provide a brief description of your firm, including the name(s) of project leads, both technical and support staff. Provide resumes for those key staff members most likely to be assigned to this project.

13. **Total Cost**

Please provide a total one-time cost for purchase and implementation of the software, along with annual fees, and a breakdown for software costs, labor, travel, and other applicable costs. Also, please provide the costs and process for implementing upgrades.
**Appendix 1**

**Bill Example**

### Electric Details

<table>
<thead>
<tr>
<th>Year</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>kWh</td>
<td>11580</td>
<td>13580</td>
</tr>
</tbody>
</table>

**Other Charges and Credits**

**Total:** $2,019.58

**IMPORTANT INFORMATION ABOUT YOUR BILL**

- The EmPower MD charge funds programs that can help you reduce your energy consumption and save you money. For more information, including how to participate, go to BGE’S Smart Energy.com.

- $573.86 credit balance to be applied to future billings.