ADDENDUM # 2  
RFP 291801  
EIS WEBAPP DEVELOPMENT

Please note the following answers to questions that were asked prior to the deadline for inquiries date of October 18, 2017 (3:00 PM., MST).

1. Is the University able to provide a comprehensive list of all systems (BMS, etc.) that they would like to integrate into the EMIS? An estimated # of points would be ideal so that we can more easily determine the level of effort.

Answer:

1) The integration of the all facilities related special systems. The following systems should be considered as examples and not a complete list:

- BMS systems  
  o Existing systems include Johnson, Alerton, Siemens
- Central plant control systems
- Energy Information systems
- Fire systems  
  o Simplex  
  o EST
- Lighting systems  
  o Crestron  
  o Lutron  
  o Watt stopper
- Irrigation systems  
  o Calsense

2) The number of points would be in the 50,000 point range initially
2. Does the University desire integration of utility bill data into the EMIS? E.g. consumption and cost data for electricity, natural gas, propane, water, sewer etc.
Answer: Yes not only for the EMIS add alt but also as a requirement for the base EIS application. Listed under the Billing and invoicing section.

3. How tightly coupled are Campus Metabolism and Energy Information System. (Only at the SQL data level or Web Services level)
Answer: CM and EIS are completely separate

4. If Campus Metabolism has to work even after the changes to EIS, the scope should include any support the Campus Metabolism system?
Answer: No

5. Do we have the scope of changing the underlying SQL database to any NoSQL based TimeSeries DB for better scalability and functionality?
Answer: No ASU would prefer to keep the standard SQL.

6. For richer UI experience, we should be using modern UI frameworks like AngularJS, ReactJS etc. Do we have the flexibility to propose alternate technologies that are not listed in the ASU's technology stack?
Answer: Yes, however they should be proposed as a Add / Alt

7. Is the data collection part of the proposal? What is architecture of the existing data collection?
Answer: NO The existing architecture is: Field devices ( metering ) SCADA hardware, KEPWARE, OPC and finally SQL.

8. Billing - do you need any online payment implementations
Answer: NO

9. ASU Control and Information System Consolidation (Add. Alt.) Could you provide us more details on the different appliances that you want to control and your current facility applications/BAS
Answer: Please see answer 1

10. Mobile Application Development (Add. Alt.) What parts of the web application should be available in the mobile application.
Answer: The mobile app should have all of the features that he web page has. With that said because of the limited screen size of some devices this may not be practical and will be evaluated during the design phases.
11. Can you please provide us guest login to https://eis.asu.edu/flex/index.html website?
   Answer:
   - URL: https://eis.asu.edu
   - USER: rfp
   - PASS: ASU2017

12. Who provided the University’s current Energy Information System (EIS)? Please provide details of the vendor and their pricing?
   Answer: The vendor was Ameresco.

13. Is the current Energy Information System (EIS) provider eligible to respond to this RFP?
   Answer: YES All vendors able to meet the proposer qualifications will be considered.

14. What are the utilities providers that ASU uses?
   Answer: All of the following are used in the billing process currently. APS, SRP, Kinect natural gas, Southwest gas, CHP reports, CP reports, NCP reports, various city utilities and various internal ASU reports.

15. What invoicing system(s) does ASU utilize that will be relevant to this project? Are they web-based?
   Answer: ASU is currently using an invoicing module within the existing EIS.

16. What systems does ASU use for commodities? Are they web-based?
   Answer: Need further information in regards to the question.

17. From what source(s) does ASU acquire weather data? How do they communicate data? Where is the data stored?
   Answer: We have 5 local weather stations. They are part of the sensor array that is EIS. We store the information in the EIS SQL database.

18. Can you please provide:
   - Total campus square feet
   - Annual Utilities Consumption broken down by type
   - Total number of meters/submeters that currently exist for use in this project
   - Total number of meters/submeters expected to be added over the next five years
   Answer: 28 million square feet. Utilities consumption broken down by type can be obtained on the EIS website using the above generic account. We have roughly 800 meter sets. Projected growth over the next 5 years would be an additional 500.
19. Can you please specify the that ASU currently has in place for control and information systems for HVAC, lighting, energy, GIS and other facility applications? Do all of these systems communicate via open protocols?
Answer: Please see answer number 1. A majority of the systems do use open protocols, however there are a few rare occasions where legacy equipment is still using proprietary protocols.

20. Is it ASU’s intent to fulfill all RFP requirements with a single vendor or would you consider contracting with multiple vendors based on responses? Additionally, are vendors encouraged to submit a partnered response to fulfill all requirements, or preferred to submit a single-vendor response detailing the requirements that can be fulfilled by the submitting vendor?
Answer: ASU intent is for a single vendor to fulfill the RFP.

21. Could ASU provide the total number of meters you would like to track in the EIS? (A meter is a point of service as itemized on a utility bill. This includes points of service for which no physical meter exists, such as sewer, trash, recycling, fuel oil tanks, etc. Meter records that are used in split, calculated, and virtual bill processes for Chargeback and Cost Allocation purposes are included in the total meter count.)
Answer: Please see answer 18 for meter count.

22. What is the desired process for acquiring and entering vendor utility bill data? If ASU would like the vendor to enter all utility bill data, please provide detailed information on formats of data (e.g. PDF, paper, XLS, CSV, etc.) and total number of distribution points for each format.
Answer: Automatic entering, importing or batch processing of the vendor utility data is preferred. The billing information comes to us in various standard formats and paper copies.

23. What is the desired process for acquiring and entering vendor smart meter data and/or ASU owned submeter data (interval data)? If ASU would like the vendor to enter all meter data, please provide the number of sources of meter data. Also, please provide a list of vendors and the total number of vendor smart meters.
Answer: ASU meter data is collected and stored in the EIS SQL database. The Vendor billing information comes from numerous sources. The process of collecting and importing the data involves: APS, SRP, Kinect nature gas, CHP reports, CP reports, and various city utilities. (different campuses)
24. Does ASU intend to interface the EIS with other systems? If so, please provide details on the systems requiring an interface (e.g. A/P, BAS, etc.).
Answer: Please see the add alt section of the RFP. Please see question 1.

25. How many campuses, buildings per campus, equipment per building, utilities per building, points per building?
Answer: ASU currently has roughly 800 meters, with 4500 points across 4 campuses. Please refer to the existing EIS as an example.

26. How many solar / wind renewable systems are there? Are inverter connections available via the BMS or would additional hardware be required to monitor them?
Answer: ASU is currently monitoring the solar arrays and the data is fed back to the SQL database. All solar information is available there. Please refer to the ASU Solar information web site for additional information. https://cfo.asu.edu/solar

27. What is the current SQL Server data model? Is the model extendable by us?
Answer: The SQL model that supports the current EIS will be modified by ASU to incorporate best practices and the needs of the new EIS application.

28. Are all energy meters available via the BMS or are some independent connections / pulse feeds?
Answer: EIS has its own sensor array and rarely gathers data from the various BAS platforms. The RFP does not cover data collect past the SQL interconnection.

29. What BMS systems are in place? Are they currently feeding the database, or is the only database feed coming from our application?
Answer: Please see questions 1. Please see question 28.

30. Is there a dedicated building controls ethernet network?
Answer: YES

31. What measures are in place to encourage energy savings? Competitions? Campus/building/personal goals?
Answer: ASU has many sustainability mandates and goals. Please refer the ASU climate neutrality webpage for more information. https://sustainability.asu.edu/resources/climate-neutrality-at-asu/

32. Where is the current system and database hosted?
Answer: Local to the ASU network and facilities server farm.
33. Are all data points available via OPC and if not, what other protocols/connections are being used or available?  
Answer: Primarily via OPC however Modbus and BACnet should also be options.

34. Are all the data points available via IP or are some twisted pair (Modbus / pulse)?  
Answer: IP

35. Are you using EPA Portfolio Manager? Would it be helpful for this system to post to PM or read metrics from PM?  
Answer: We are not currently. Yes but not required.

36. Can you expand on the What-if scenarios under Billing?  
Answer: The what if scenarios might best be explained as rate calculators. For example ASU may want to explore what a rate hike might look like and the impact that it would have on the distributed billing. The ability to recalculate past present or future bills based on rate or tariff changes.

37. Are there any specific design considerations that address the look and feel of the system?  
Answer: Yes ASU has enterprise branding guidelines.  
https://brandguide.asu.edu/ Also see https://cfo.asu.edu/writing-style-guide

38. Would bidder have access to this site throughout development (and maybe even prior to development to assist with RFP efforts)?  
Answer: Yes please see question 11

39. What are the minimum supported browsers within the ASU organization? (e.g., IE 9, Firefox, Chrome, Safari) This will assist in understanding our testing and quality strategy  
Answer: ASU typically would require compatibility back to the IE 9 generation of browsers IE Chrome Safari etc. With that said since IE 9 does not support some HTML 5 features. This requirement would depend on the HTML feature set or sets that the awarded solution relied upon.

40. Will ASU supply access to this information prior to deadline of this RFP?  
Bidder was specifically unable to get access to  
https://brandguide.asu.edu/web-standards  
Answer: Please go to https://brandguide.asu.edu and register as a vendor for an access to the website.
41. Will your single sign on (SSO) solution work with a cloud based solution (either in AWS or similar)? (ref: Page 14: The awarded solution can be either cloud based or an on premise solution.)
Answer: ASU would prefer locally hosted however if a cloud based application is evaluated and awarded it would be subject to the security requirements of the University Technical office and Information Security office. These requirements are can be dynamic based upon the type of solution presented. Any solution, local or cloud based, would require ASU’s best practices be followed.

42. a.)Does this requirement mean to specify that the sponsor of this EIS project requires that any server side technology should be written purely in Java? YES
b.) If so, what versions of Java are supported? Latest stable preferred. 8 or newer
c.) If not, what about any of the following instead of Java: C# .NET, Node.js, and/or Ruby on Rails?
d.) To fulfill the HTML 5 requirement, are there any preferred frameworks, such as the following: Ember.js, Angular.js, etc...? No as long as the RFP requirements are met.
(REF: Page 14: The new version of the web application shall incorporate all of the functionality and features of the existing EIS software and backend but with a modern look, additional feature set, HTTPS security, and a current HTML 5/Java based architecture.,
Page 13, point a, specifies that we should "Be compliant with the technical framework of ASU's University Technology Office and the sponsoring college, school, department, or unit)  

43. Does the current SSO solution already provide the ability to change passwords without knowing the previous password? Would integrating with the existing SSO solution also provide the following: (REF: (On page 14) Must have the Ability to enable/disable user accounts (On page 14) Must have the Ability to force password changes) Answer: Please see answer 41

45. Does ASU have a preferred data source for retrieving forecast data? (e.g., The Weather Company, Weather Underground, etc...)  
Answer: No

46. VPAT is normally something that is done throughout the lifecycle of development of an application, yet it appears to be required with the RFP response. Is the VPAT documentation due at the time of the RFP? If so, what is expected from the VPAT without a finished application?  
Answer: Please fill out whatever is applicable and submit it along with the proposal.

If you have any questions regarding this notice, please contact me at 480-965-9514 or akilabha@asu.edu.

Thank you,

Akila Reddy Rangaswami.
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