City of Tacoma

Questions and Answers

Advanced Distribution Management System Trust Advisor
RFP Specification No. PT22-0127F

All interested parties had the opportunity to submit questions in writing by email to Seth Hartz, Senior Buyer by date questions were due. The answers to the questions received are provided below and posted to the City's website at www.TacomaPurchasing.org: Navigate to *Current Contracting Opportunities* / *Services Solicitations*, and then click *Questions and Answers* for this Specification. This information IS NOT considered an addendum. Respondents should consider this information when submitting their proposals.

Question 1: **I was curious to find out if there has been any timeline allocated for the release of the RFP for the actual system itself?**

Answer 1: Tacoma Power is tentatively targeting mid 2023 for releasing the OMS/ADMS software and integration RFP(s).

Question 2: **Additionally, within the RFP document it mentions "Development and delivery of a full Request For Proposals (RFP) to support the advanced OMS and ADMS project, including development and delivery of OMS and ADMS project-specific (functional and technical) specifications." I was curious to find out if there will be separate solicitations for OMS and ADMS or will they be acquired together in one solicitation?**

Answer 2: This decision would be made in consultation with this ADMS Trusted advisor.

Question 3: **I just saw the RPF come out today and was wondering if our company were to bid on this, will it preclude my company from doing the System Integration work?**

Answer 3: Yes.

Question 4: **Are vendors expected to submit contract exceptions with our bid response?**

Answer 4: Yes, please include your contract exceptions with your response per section 12.9 in the solicitation.

Question 5: **With regard to your page limit, are you counting cover page, cover letter and Table of Contents in your 20-page limit?**

Answer 5: The total number of pages in your response does not include the cover page, cover letter, or the table of contents.

Question 6: **What is the size of the current service territory?**

Answer 6:   Tacoma Power provides electric service to the city of Tacoma, Fircrest, University Place, Fife, parts of Steilacoom, Lakewood, Joint Base Lewis-McChord and unincorporated Pierce County as far south as Roy. That's about 181,630 customers. View a more detailed map of our service area.

- 180 square miles of service area
- 762 employees
- 2,386 miles of transmission and distribution lines (1,524 overhead; 862 underground)

Question 7:   How many electric customers are served by TPU?

Answer 7:
- 162,368 residential customers (55% inside city limits; 45% outside city limits)
- 19,262 commercial customers

Question 8:   What percentage of customers, if any, is covered with advanced metering capabilities?

Answer 8:   Tacoma Power is currently deploying advanced meters and 95,000 out of 293,000 have been deployed. We expect a near full deployment by the project start.

Question 9:   What is the size of the distribution network? (Number of substations, feeders, device type, and number breakdown)

Answer 9:   5 transmission substations and 351 miles of transmission lines

49 distribution substations and 2,031 miles of distribution lines

Type	Length (mi)
OH Dist	1,172
UG Dist	859

Question 10: What is the projected growth of the distribution network? (network expansions, new construction, any future acquisitions)

Answer 10:   We expect 4 new distribution substations over the next 10 years, feeder upgrades.

Question 11: **What is the size of the SCADA database? (RTU number, number of analog, discrete points). What are the protocols used? What is the projected growth of the SCADA infrastructure?**

Answer 11: This will be provided as part of the future software selection and integration provider RFP.

Question 12: **What are the main business drivers for implementing the new system? (e.g. OMS implementation, electronic switching, SCADA implementation, increase of field automation, DER management, field client solution for field crews, etc.)**

Answer 12: Tacoma Power is preparing for more aggressive moves to adapt to various impacts of climate change. We want a scalable outage management system that can support greater data levels from advanced meter information and able to scale to incorporate our transmission system outages through to distribution outages. On the ADMS side, we would like to improve our Volt Var control, operative a centralized FLISR, run real time distribution state estimation including our secondary network. We can see use cases for load management from vehicle to grid, behind the meter load management and other distributed energy resources like solar.

Question 13: **Are there any ADMS advanced applications (e.g. FLISR, IVVO, Load Shedding, etc.) planned to be implemented as part of the project? What are the business drivers here?**

Answer 13: FLISR is being driven by faster response times and improvements to reliability metrics. By implementing, (fault location, isolation, and system restoration distribution automation) FLISR on our 50 most impacted feeders we expect to realize a 10% improvement in SAIDI.

Volt Var Optimization will help support both conservation measures and improve end customer power quality.

Distribution Power Flow calculations and State Estimation will provide real time tools in the hands of our Distribution Dispatchers to move load quickly. This will also have an impact on SAIDI.

More targeted load distribution shedding.

Distribution Operator simulation training to ensure that our operators can run and operate the system effectively.

Distribution Energy Management systems to support both small distribution generation and load management schemes (like behind the

meter water heater management, electric vehicle charging and vehicle to grid support)

Question 14: **What is the high-level project timeline? Phased approach vs big bang cutover?**

Answer 14: We would need to have a full replacement for our existing OMS system before cutting over to a new system. At that point, we want a more agile delivery of the advanced distribution management features so that we can deliver value. We expect about 18 months to cut over to a modern OMS and then continue to roll out ADMS functionality over the next 24 months.

Question 15: **How many control room operators? Describe their organization and responsibilities (e.g. operators are working in 12-hour shifts, 4 of them in a shift, each of them is responsible for specific part of the distribution network).**

Answer 15: During the day shift we have a Distribution Coordinator and one Distribution Operator. During our swing and graveyard shifts we have on Distribution Operators. We add staff during events.

Question 16: **Are there any other business groups that figure as stakeholders within the new system? (e.g. distribution engineering group, SCADA group, distribution planning, etc.)**

Answer 16: Yes, stakeholders will include our Construction and Maintenance Line and Wire crews, System Planning, Line Engineering, System Protection and Controls, Substation Engineering, EMS Engineering, System Integration and Support and Cybersecurity and Config Mgmt, SAP team.
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Question 17: **Are there any specific performance requirements for the system? (e.g. high heat days, storm scenarios)**

Answer 17: This will be determined during requirements gathering for the systems.

Question 18: **Will the Utility provide dedicated business resources to be members of the project team?**

Answer 18: Yes, who and how many has not been determined.

Question 19: **What is the line of separation between Transmission and Distribution operations? Are there any NERC CIP requirements and considerations?**

Answer 19: This will be determined during requirements gathering for the systems. Transmission/Generation Operators work side by side with Distribution Operators and back each other up.

Question 20: What are the business continuity requirements?

Answer 20:   This will be determined during requirements gathering for the systems.

Question 21: How many control centers/data centers are currently in operation?

Answer 21:   We have one primary energy control center and another hot backup control center.

Question 22: Is there a separate system dedicated to transmission network management (EMS)? If yes, which system is used?

Answer 22:   There is an existing EMS system. We have not determined if the same SCADA or an independent SCADA system will be used for distribution.

Question 23: Which system is used as MV substation data repository?

Answer 23:   We currently use the OSI Chronus historian.

Question 24: s the GIS system used to maintain electric distribution assets? If yes, which GIS system are you using?

Answer 24:   We are in flight to replace our GE Smallworld GIS with ESRI ArcGIS Utility Network. Tacoma Power has had a good electrical model GE SW and looks to make additional improvements as it moves to ESRI ArcGIS Utility Network.

Question 25: Do you have a distribution SCADA system today? Does that system contain substation SCADA points and field (feeder) SCADA points?

Answer 25:   No independent distribution SCADA, many distribution points are mapped in our transmission SCADA.

Question 26: Does TPU use any other systems in day-to-day distribution operations? (e.g. OMS, asset management, distribution planning, customer relationship system, etc.)

Answer 26:   Currently Tacoma Power Distribution Dispatchers use OSI EMS for substation automation and some reclosers. They also use CGI PragmaLine OMS 6.5. Tacoma Power System Planning uses Synergi 6.2. We are currently cutting over our GE Smallworld GIS to the current version of ESRI ArcGIS Utility Network.

Question 27: Please provide a list of all (currently recognized) systems used in day-to-day electric distribution operations that are candidates to integrate with new ADMS system (e.g. AMI Head End)? Note: Please include any graphical representation if available.

Answer 27:   The full details of systems to be integrated with will be provided as part of the future software selection and integration provider RFP.
- SAP – Work Management
- Sensus - Advanced Meter Infrastructure (Possible integration with the Energy IP Meter Data Management system from Siemens)
- SAP - Customer Information System
- ESRI Graphical Information System
- Atos Genesis Integrated Voice Response System
- GPS Insight Vehicle Location Services
- Distribution Automation Devices
- OSI EMS for Transmission/Generation

Question 28: What are the high-level business requirements for integration points between systems? E.g. for OMS implementation, is there a requirement to integrate new system with any IVR or call center applications (for outage call reporting)?

Answer 28:   The full details of systems to be integrated with will be provided as part of the future software selection and integration provider RFP.
- SAP – Work Management
- Sensus - Advanced Meter Infrastructure (Possible integration with the Energy IP Meter Data Management system from Siemens)
- SAP - Customer Information System
- ESRI Graphical Information System
- Atos Genesis Integrated Voice Response System
- GPS Insight Vehicle Location Services
- Distribution Automation Devices
- OSI EMS for Transmission/Generation

Question 29: Are current systems on in-house/on-premises infrastructure?

Answer 29:   Yes

Question 30: What are the high availability requirements? Is there a requirement for geographical displacement of active and back up site of the system?

Answer 30:   The full detailed requirements will be provided as part of the future software selection and integration provider RFP, and there will be some level of high availability requirements and offsite redundancy. In addition, the system will need to be operated from our primary control center (ECC) on TPU campus and our backup control center (BUCC).

Question 31: Are there any already recognized use cases for existence of additional systems in new ADMS system landscape in addition to the Production

system (e.g. test, QA, Dev, etc.)? Is there a requirement for dedicated training systems?

Answer 31:   The full detailed requirements will be provided as part of the future software selection and integration provider RFP, and there will be requirements for dev, test and production environments. We will also have training system requirements.

Question 32: What is the plan for infrastructure procurement? Does the Utility already have a dedicated data center to be used to house additional servers for new system?

Answer 32:   To be determined.

Question 33: Is there an opinion on the Utility side to explore the use of Cloud Infrastructure (IAAS model)?

Answer 33:   It would be considered.

Question 34: In section 12.2 of your RFP document: are you requesting a firm-fixed price, or are you considering a Time and Materials billing model, with budgetary estimates presented per deliverable?

Answer 34:   The contract model preference will be based on a Master Performance Agreement with multiple task authorization to retain agility.

Question 35: In section 3 of your RFP document: will you clarify if vendor selection is part of the required deliverables (item #4 of section 3)?

Answer 35:   The trusted advisor would provide input but would not be a voting member of the vendor selection team.

Question 36: For the Visioning Workshop, what "internal" organizations will be involved in needs assessment between the City of Tacoma, TPU, UTS, and/or other stakeholders?

Answer 36:   Yes, stakeholders will include our Construction and Maintenance Line and Wire crews, System Planning, Line Engineering, System Protection and Controls, Substation Engineering, EMS Engineering, System Integration and Support and Cybersecurity and Config Mgmt, SAP team.

Question 37: Can TPU provide more details on which OMS is currently installed (vendor and version) and which OMS / ADMS technology providers the city has spoken with to date — is TPU interested in engaging multiple vendors for best-in-class systems or a single vendor for both OMS and ADMS?

Answer 37:   CGI PramaLine 6.5. We intend to publish an RFP for competitive bidding.

Question 38: **What systems or concurrent initiatives/upgrades will need to integrate with the new OMS and ADMS?**

Answer 38: The full details of systems to be integrated with will be provided as part of the future software selection and integration provider RFP.
- SAP – Work Management
- Sensus - Advanced Meter Infrastructure (Possible integration with the Energy IP Meter Data Management system from Siemens)
- SAP - Customer Information System
- ESRI Graphical Information System
- Atos Genesis Integrated Voice Response System
- GPS Insight Vehicle Location Services
- Distribution Automation Devices
- OSI EMS for Transmission/Generation

Question 39: **Can the city provide any historical frameworks for rate sheets and/or any preference for rate by resource types?**

Answer 39: No, Fees and charges are part of the evaluation criteria.

Question 40: **Would the city accept a bid that is NTE (not to exceed) such that the supporting advisor shares equal risk in the delivery of scope?**

Answer 40: Yes, the contract model preference will be based on a Master Performance Agreement with multiple task authorization to retain agility.

Question 41: **Will the TPU team consider working with an experienced and dedicated team of utility professionals with over 45 years combined utility experience in lieu of 3 years as a single operational entity?**

Answer 41: Yes, qualifications and experience will be considered as part of the evaluation criteria.

Question 42: **Does the project include purchase of the ADMS and any field equipment and associated communications facilities?**

Answer 42: This trusted advisor role is separate from the ADMS project and the Distribution Automation Project. We are moving forward with the purchasing and deployment of field equipment to support the project.

Question 43: **In section 3. Summary of Scope and Deliverables, what specific scope and deliverables is the City of Tacoma expecting for "Active consulting engagement and support in maximizing positive business, technical and project-related outcomes within and throughout the ADMS project." Is the City of Tacoma expecting this task to include:**

a) **Assisting the City of Tacoma with vendor ADMS bid/proposal evaluation and contract negotiations (statement of work)?**
b) **Implementation support, such as testing, training, review of design documents?**
c) **Any other activities or deliverables?**

Answer 43:
    a) Yes
    b) No support for implementation, testing or training. Yes to the review of design documents and best practices around design implementation.
    c) Yes, to bring industry knowledge to the project team.
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Question 44: Does the City of Tacoma currently have a DMS/ADMS and OMS system that needs to be upgraded, or is this project for a new ADMS/OMS

Answer 44:   Yes, we need an updated or new OMS and new AMDS system.

Question 45: Does the City of Tacoma currently have a distribution network model in a GIS (Geographical Information System)?

Answer 45:   Yes, we have an existing GE Smallworld GIS electric distribution network model that is being migrated to ESRI ArcGIS Utility Network. The existing model is used in our OMS and Synergi today.