

CAPITAL PROJECTS ADVISORY REVIEW BOARD

PROJECT REVIEW COMMITTEE

Northwest Carpenters Facility
First Floor Conference Room
25120 Pacific Highway South
Kent, Washington

Minutes

October 10, 2017

MEMBERS PRESENT

Janice Zahn, Panel Chair, Port of Seattle
Jim Dugan, Parametrix
David Ernevad, Seattle Central College

Jason Nakamura, 1 Alliance Geomatics LLC
Mark Ottele, Granite Construction
David Talcott, Exeltech Consulting

STAFF, GUESTS, PRESENTERS

Talia Baker, Department of Enterprise Services
Valerie Gow, Puget Sound Meeting Services
Mike Haynes, Seattle City Light
Josh Jackson, Seattle City Light
Faz Kasraie, Seattle City Light
Rebecca Keith, City of Seattle

Dan Kirschbaum, Seattle City Light
Aleanna Kondelis, City of Seattle
Mike Nordin, Seattle City Light
Robyn Parkinson, Thaxton Parkinson, PLLC
Wanda Schulze, Seattle City Light

WELCOME AND INTRODUCTIONS

Panel Chair Janet Zahn called the Projects Review Committee Panel to order at 9:16 a.m.

CITY OF SEATTLE – BOUNDARY DAM 3 GENERATOR REHABILITATION – DESIGN-BUILD

Panel Chair Zahn reviewed the timing and the presentation format to consider the Design-Build project application from the City of Seattle for Seattle City Light's Boundary Dam 3 Generator Rehabilitation project. Panel members Janice Zahn, Jim Dugan, David Ernevad, Jason Nakamura, Mark Ottele, and David Talcott provided self-introduction. A majority vote of the panel is required for approval of the application.

Project Presentation

Aleanna Kondelis, Contracts Manager, City of Seattle, introduced project team members Mike Haynes, Generation Officer, Seattle City Light (Owner); Wanda Schulze, Capital Program Manager, Seattle City Light; Josh Jackson, Project Manager, Seattle City Light; Mike Nordin, Construction Manager, Seattle City Light; Robynne Parkinson, DB Advisor, Thaxton Parkinson, PLLC; Rebecca Keith, Law Department, City of Seattle; Dan Kirschbaum, Mechanical Engineering Manager, Seattle City Light; and Faz Kasraie, Electrical Engineering Manager, Seattle City Light.

Mike Haynes said his goal is to ensure the panel understands that he has the authority to execute decisions associated with the project. He is responsible for \$125 million in operating and capital improvements for the utility and directly reports to CEO Larry Weis. Project team members within different capacities report directly to him.

Mr. Jackson provided an overview of the organization. Ms. Kondelis works with Jessica Guerrette, Senior Construction Contracts Specialist, City of Seattle, to oversee the procurement process for the project. He and Ms. Schulze comprise the project management team with support and advice from Ms. Parkinson on all matters of Design-Build. The technical team includes Mr. Kirschbaum, Mr. Kasraie, and Mr. Nordin and their respective employees. Karen Graham and her team at HDR Engineering provide oversight. Ms. Graham has extensive experience in generator overhauls and with Design-Build. She serves as the technical consultant.

Boundary Dam is located in the northeast corner of Washington State on the Pend Oreille River adjacent to the Canadian border. The first generator was placed into service in 1967 followed by six generating units, units 51-56. Units 55 and 56 were overhauled in 2012 and 2014. Unit 53 was emergency overhauled in 2013 after suffering an unanticipated failure. The units supply over 50% of the dam's generating capacity. The project includes overhaul of units 51, 52, and 54.

Mr. Jackson shared photographs of the facility. The powerhouse is located within solid rock. The facility includes a service area and shops for maintenance, warehousing, shipping, and receiving, as well as several public recreational areas.

Mr. Jackson displayed section view illustrations of the powerhouse and a generator. Water enters and hits turbines and exits the facility. Generated power is transmitted up the rock face to towers, transmitted to a switch yard, and distributed to the BPA system. Another picture depicted the powerhouse floor with generators 51, 52, 53, and 54 with maintenance personnel working on unit 53. Another picture depicted the removal of a generator shaft from unit 53 with older coil windings prior to replacement with new bar windings. Design-Build will help in blending the two different technologies of coils and bars as both have merits for generators. The intent is to receive input from design-builders on their expertise and availability of the latest technology to provide recommendations on what would best suit the needs of the project.

Mr. Jackson reviewed the overall procurement schedule. The Request for Qualifications (RFQ) is scheduled for release on Friday, October 13. The contract should be executed by March 2018 followed by the design phase to include a validation period for all documentation provided through the solicitation. Construction would begin with unit 51 in July 2019 followed by removal of each generator from service one at a time from July through April 2020. Unit 52 is scheduled in 2021 and Unit 54 is scheduled in 2020. Each generator outage period also includes a validation period, which speaks to the importance of Design-Build for the project. Generally, it is difficult to determine the condition of a generator until disassembled. Disassembly of a generator only occurs when a major outage is scheduled because of the difficult undertaking. Flexibility is required to address any issues that might be discovered during the disassembly validation process.

Ms. Schulze reviewed the project budget. Seattle City Light budgeted \$65.4 million for three generator rewinds. The Seattle City Council approved the budget. The project is included in the Six-Year Capital Plan. Half of the project budget is for the Design-Build contract of approximately \$30 million, which exceeds the statutory threshold for Design-Build. The remaining portion of the budget is for project management consultants and owner performed work. The turbine portion of a turbine generator unit also requires updates and overhauls completed by an experienced crew of machinists at the facility who specialize in that type of work.

Seattle City Light has assembled a very highly qualified team of subject matter experts, as well as a number of systems to help ensure management of schedule, budget, and risk throughout the life of the project. Compliance with Seattle City Light's project management framework includes a set of requirements, processes, and templates to ensure best management practices are applied throughout the agency's capital portfolio. All projects are chartered and assigned sponsors. This project, as a high priority project, has executive sponsorship through Mr. Haynes. Risk assessments will be completed throughout the life of the project with monthly status reports to stakeholders along with change management documents to ensure all changes are vetted and approved at the proper level.

Mr. Nordin is responsible for construction management. Seattle City Light has been in the public works construction management business for many years and has developed a Construction Management Manual of requirements, processes, and templates tried and tested over the years. Mr. Nordin's group is well trained in those processes and would utilize those assets for this project.

Ms. Schulze reported Seattle City Light has a financial governance policy. Business cases are required for all projects over \$1 million. The agency is accountable to Seattle City Council on how the budget is expended. The City Council receives quarterly reports on all expenditures on capital projects included in the generation portfolio, as well as explanations of any variances that exceed projected expenses by \$500,000 for any project. Ms. Schulze said she also provides a report on milestones. Accountability is established for all systems.

Ms. Parkinson advised that Design-Build is essential for this project to meet the City's goals and risk register for the project. Selection of the delivery method is based on the results of the risk register, in terms of identifying the risks for the project and the best method to manage those risks. For this project, the work is highly specialized. Currently, five integrated design-builders are capable of completing the project. The difference in price between them would likely be negligible compared to the huge price the City would pay if outage windows were not maintained. The risk register speaks to the highly specialized professionals necessary for completing the work, as well as meeting the outage windows.

The schedule also includes long-lead items that must be designed and manufactured uniformly. Once the generators are disassembled, there is a very quick turnaround for the final design and construction, which speaks to the importance of the design-builder's understanding of the overall design and completing both design and construction once the generator is disassembled. Each generator has a specific validation period. Another goal for the project is uniformity in operations and maintenance of all units. The scale of the units speaks to the importance of uniformity and capacity to operate and maintain concurrently. Additionally, some efficiencies could be created through ensuring each unit operates uniformly by having a design-builder with the capacity to incorporate design uniformity within the units to increase the efficiency of the project, as well as extend the rewind period another 10 years to secure a warranty of 40 years rather than 30 years. That would not be possible unless the same entity designs and constructs.

The procurement method also considers the best way to manage schedule risks. For entities that are uniformly experienced and qualified, it is important to review their respective management systems, capacity, and willingness to collaborate. The best way to determine the best fit is reviewing past performance. Previous performance is not a factor allowed in Design-Bid-Build, as price is the primary factor. Price for this particular project is not going to be the best discriminating factor because the difference in price would be negligible versus differences in management capacity. The best design-builder who is focused on meeting and exceeding the goals will be the selected design-builder. The team is tailoring the design-build procurement to enable achievement of that goal. A significant public benefit is achieved by meeting the outage windows.

Project team members have Design-Build experience. The project is the third project completed by the project team. Team members have the necessary experience completing this type of project.

Mr. Jackson addressed the panel's pre-presentation questions. The first question focused on the overlap of the working units. Units 55 and 56 have had ongoing work under the contract. Completion is anticipated by the end of the year to avoid any overlap. The work is being completed by a separate team.

Regarding the question about overlap of generator work on the project, the design work will occur for all three generators concurrently with outage timed differently for each generator. Only one generator is removed at a time creating an even workload throughout the project. During the outage of one generator, components for the next generator are being manufactured. The process is well-coordinated by the design-builder. Single person response for the project is Mike Haynes. In terms of the question about why none of the positions on the organizational chart were dedicated 100% is largely because the organizational chart is only reflective of the management team and does not include staff reporting to the technical managers who are dedicated 100% to the project. In some cases, multiple staff members are dedicated 100%. Mr. Jackson said his time is not 100% because he is working on another project at the dam that aligns with the rewinds and would coordinate the work of both projects. He is dedicated to Boundary Dam throughout the life of the project.

Lessons learned include dedication of construction management staff to projects to ensure personnel are on site daily. Procurement criteria seek a sufficient contractor who does not require support from staff (machinists and workers). Another emphasis is design-builder project management execution. As previously stated, all design-builders could be qualified to complete the project; however, those examples are qualities that would differentiate contractors. The design validation has been added for each unit outage because each unit wears differently. The team is working to minimize any personnel changes throughout the life of the project to ensure project consistency.

Ms. Kondelis reported the City's workforce agreement speaks to an exemption for remote location projects, which is why the project is not covered by a Community Workforce Agreement (CWA); however, an inclusion and equity approach plan is part of the procurement phase.

Panel Questions

Panel Chair Zahn invited questions from panel members.

James Dugan thanked the team for the level of detail, clarity of project details, and for identifying which elements overlap and the work flow of the project.

Mark Ottele said he is employed by a civil contractor and is appreciative of the complexity and timing. The presentation spoke to project management and construction management controls. He asked how the team has incorporated alternative procurement processes within the manuals. Mr. Nordin replied that the Construction Management Manual is designed more for Design-Bid-Build; however, when work began on the current Design-Build contract, many of the forms and processes in the manual were adjusted for the Design-Build method. The Construction Management Manual is flexible for any type of contracting because it speaks to processes, tracking, and communications that are applicable to all construction delivery types. The manual to build the job is the contractor. Existing processes are modified slightly to fit the Design-Build model.

Ms. Parkinson added that she has worked with many certified public owners who have robust systems for Design-Build. Like many, as Design-Build evolves, those processes also evolve.

David Talcott asked about the fiscal benefits of using Design-Build. Ms. Parkinson replied that for this particular project, the five potential contractors capable of the work would likely not have significant price differences. One of the largest issues is meeting outage targets. If the contractor is unable to meet the outage, Seattle City Light loses far more in income and revenue generation than it would in any difference between contractor bids. The procurement would be focused on the risks inherent in the project, one of which is meeting schedule outages, as well as reducing costs in operations and maintenance by creating uniform operations and maintenance. Additionally, the potential benefit of having an additional 10 years of longevity for a 40-year warranty would not be possible under the Design-Bid-Build scenario. Delaying an overhaul by another 10 years is a significant fiscal benefit. Those benefits together would offset any differences in bid price.

Mr. Haynes said in terms of the size magnitude of the generators, should the project extend late into a winter operating season, the revenue loss could be between \$1 million to \$2 million a month, which speaks to the importance of the end date that is scheduled through regulatory authorities.

Jason Nakamura cited the lack of a CWA and asked whether there would be a Project Labor Agreement (PLA) to avoid any labor issues. Ms. Robinson advised that the project would not include a PLA. Mr. Nakamura asked whether the extra 10-year warranty would be part of the requirements for the design-builder. Mr. Haynes clarified that the extra 10 years pertains to operating life. The warranty is only five years, as the industry doesn't provide warranties beyond five years. Ms. Parkinson's reference pertained to a 10-year bonus operating life, which is how finances are computed and rated. He stressed the importance of distinguishing between a warranty and the operating life of the generator. Vendors are aware of the difference. Design-builders who complete the design would take more ownership and provide an extra 10 years of operating performance.

Dave Ernevad asked for clarification of self-performance on the project, as it appears to be a tremendous scope. He asked whether that work has been rolled into the overall schedule and if the team is confident about how self-performance interfaces with Design-Build. Mr. Haynes said the project is not the team's first experience. He and Mr. Kirschbaum have completed 12 identical projects since he has been with Seattle City Light.

Mr. Kirschbaum added that the crews have the capability and the history with the units. The crew completes the disassembly. The unit is totally disassembled with components above the turbine shaft the responsibility of the design-builder. Crews perform all work on components located below the turbine shaft. Typical components include replacement of seal rings, wicket gates, bushings, and other parts within the turbine end. Crews have completed similar work on units 55 and 56. While work was ongoing on the generator, crews replaced a turbine runner, basin plates, and wicket gates. The schedules are integrated closely because at some point, the design-builder must move to enable crews to access a crane to remove components. The schedule includes a beginning and end period of a three-day window where the design-builder must be out of the generator bore to enable crews to complete work. Scheduling is agreed to before work on the project begins.

Ms. Parkinson said the work environment favors Design-Build because it enables the selection of a design-builder who is experienced in those work environments and who collaborates with the owner. Collaboration will be one of the key components of the selection process, which is not available in Design-Bid-Build.

Panel Chair Zahn noted the application speaks to modified progressive. She asked for clarification with respect to the selection of the design-builder and the type of price factors to avoid the design-builder providing an overall price as the agency has a targeted budget. Ms. Parkinson replied that some elements can be priced initially and some elements are not possible to price early. There are certain elements that the owner would expect the design-builder to understand if they are experienced. The owner would evaluate the input; however, there will also be unknowns when the generators are disassembled, which speaks to the importance of modified progressive Design-Build, as there are many components possible to price upfront. The owner would also want to reuse as many components as possible. Progressive Design-Build provides that price efficiency. The owner will work with the contract elements to determine exactly what can be priced and which elements require more visibility and some transparency.

Panel Chair Zahn asked whether the method is similar to a Progressive GMP development scenario because some price factors would be included. Because there are risks and unknowns at the onset, it appears that only some components would be priced. Ms. Parkinson replied that the design-builder would provide a price for the project but there would be some uncertainty with each unit during the validation process providing more transparency in the contract than in a typical lump sum bid. The industry focuses on lump sum and it is necessary to work within that environment. However, the contract would not necessarily be a GMP, but rather would afford more visibility and transparency of the pricing elements than in a traditional contract. Working within the arena requires consideration of what the industry supports, which is why the project is not fully Progressive Design-Build. The owner is seeking more transparency than normally involved in a Design-Build contract, which is why she is working with the team, as she will assist the team by infusing some of the progressive elements into a traditional Design-Build.

Panel Chair Zahn acknowledged that the project is more of a traditional Design-Build with some progressive elements embedded because of the risks. Additionally, it explains why the honorarium for the unsuccessful contractor is \$200,000.

Public Comments

There were no public comments.

Panel Deliberation and Recommendations

Panel Chair Zahn invited the panel's deliberation and a recommendation.

Mr. Dugan said the project is perfect for Design-Build. The explanation surrounding the Progressive Design-Build elements point to the description of Progressive Design-Build as, "*all or part of it can be based on qualifications.*" He does not believe there is anything more important than the selection of a highly specialized team based on those qualifications and especially based on lessons learned. For him, whether the fiscal benefit was clearly understood or not, he could guarantee that it is not a traditional Design-Build project. The highly specialized nature of the work is clear and satisfies the criteria. The team has successfully completed other projects, which speaks to experience. His questions about the dedication of resources were clearly addressed. He was also unclear about the project complexity with respect to timing and overlap, which was also addressed during the presentation. It appears the project has a defined workload and good sequencing. He supports the application because the project satisfies all criteria without question.

Mr. Talcott pointed out that some areas would provide fiscal benefits to the owner, such as through the lead time for ordering of materials. The team has a tremendous technical understanding of the requirements and there is much expertise in the impressive team.

Mr. Ernevad echoed similar comments, as the team is robust and would cover every possible angle with employees who have direct experience doing the same kind of work.

Mr. Ottele said the application was very well completed and thorough. The technical and complexity of the project is large. He has a sense of confidence in the technical expertise of the team.

Mr. Nakamura echoed similar comments as the application was very well developed.

Panel Chair Zahn agreed with the comments.

By acclamation, the Panel voted unanimously to approve City of Seattle's Design-Build application for the Boundary Dam 3 Generator Rehabilitation project.

Panel Chair Zahn advised the applicant that a written notification of the approval would be forwarded within 10 days.

ADJOURNMENT

With there being no further business, Chair Zahn adjourned the meeting at 9:56 a.m.