PRC PROJECT PRESENTATION QUESTIONS

– APRIL 27, 2017 –

Okanogan County PUD #1 – Enloe Dam Hydroelectric Project – DB

1. Please update the Anticipated Project Design & Construction Schedule in Section 4.

   Anticipated Project Design and Construction Schedule

   The proposed D-B procurement, project design and construction schedule is summarized on the following table and shown as a Gantt Chart on Attachment A.

Activity	Scheduled Dates
D-B Project management consultant	Completed
PRC Approval	Approved 12/01/2016, subsequently revoked due to appeal. New hearing scheduled April 27, 2017
Issue D-B RFQ	Completed
D-B SOQ due	Completed
Short List Firms/Issue D-B RFP	Completed
Proposals due	Completed
Award D-B Contract	05/15/2017
Permitting	05/30/2017 thru 05/30/2019
Engineering and Design	05/16/2017 thru 10/26/2020
Equipment Procurement	12/19/2017 thru 08/19/2020
Construction and commissioning	05/30/2019 thru 10/26/2020

   Note: This preliminary schedule information excludes possible delays due to institutional, permitting, legal or other causes beyond control of the District.

2. Please update the Project Schedule in Attachment A.

   Please see updated Attachment A, attached hereto.

3. This project and procurement method seems larger and different than the typical projects for the Okanagan PUD. For the Okanagan PUD staff responsible for this project, please describe their experience or education in Design-Build projects.

   As is typical for small public agencies who are requesting project approval under RCW 39.10.280 the PUD staff does not have experience with Design-Build projects. The PUD meets the requirements of RCW 39.10.280(c) because it has

hired a qualified team of consultants with extensive design-build experience. Christensen Associates, and specifically John Christensen, have extensive experience managing similar hydro power projects on a design-build basis. One of the PUD's consultants is Robynne Parkinson who is a frequent speaker and educator on design-build delivery and is the vice-chair of the DBIA National Education Committee. Ms. Parkinson is currently one of the primary instructors for the DBIA Certification Workshop courses and has been developing and instructing the DBIA courses since 2004. As part of the preparation process for developing the procurement and the contract, Ms. Parkinson has spent significant time educating the PUD on design-build project delivery.

4. Please include the amount of effort, as a percentage of their work time, for the OPUD and consultants that are part of this proposal.

   This information was previously provided to the PRC and is attached hereto for the PRC's reference.

5. In section 7.10 it says that OPUD is still evaluating the type of contract to use for the project. Has this effort been completed? If the contract is not drafted, will it be prepared prior to the submission of the proposal? It would seem the contract is a necessary consideration for the firms to be able to propose.

   The PUD's application for PRC approval is the same application as was submitted for the December 1, 2016 PRC meeting. The PUD received unanimous approval of the PRC panel who reviewed the application in December, and the PUD proceeded in good faith under that approval, issuing the RFQ shortly thereafter. Nine Proposers submitted Statements of Qualifications, and the PUD shortlisted four design-build teams as Finalists. The form of contract was provided to the Finalists with the Request for Proposals, and all four Finalists have submitted Proposals based on this contract. In addition to submission of a base Proposal, the procurement allowed Finalists to submit an alternate proposal for Design-Build Operate Maintain of the facility, and if the Finalists chose to submit an alternate proposal, they submitted a proposed contract with the Proposal.

   In the middle of the RFP phase, the PRC's December decision was appealed to CPARB on the basis of an allegation that the PRC didn't provide sufficient notice of the hearing. The PUD had just completed conducting its proprietary meetings when CPARB and the PRC decided to revoke the project approval, and as part of that agreement with the appellants, the PRC agreed to a new hearing based on the previous application, which is why the application appears out-dated. Once re-approved by the PRC, the PUD will evaluate the submissions from the Finalists and choose the Best Value according to the structure set forth in the RFP.

6. Project budget appears to be per 2016 dollars. Has the project budget been re-evaluated based upon updated costs and necessary escalation to the 2019 (or possibly revised) construction time?

   The project budget appears to be per 2016 dollars because the application was originally submitted in 2016. Of course, the PUD anticipates that the project will be priced according to current market conditions. Indeed, anticipation of future escalation is one of the primary purposes of utilizing progressive design-build.

7. Funding is noted as financed with short term credit from commercial banks, has this credit line been secured?

   Yes, The District has a $10 million line of credit with KeyBank that will be used while it goes to the bond market. Currently, the District has an "A" rating from Standard & Poor and an "A1" rating from Moodys. Issuing bonds should take between 90 and 180 days.

8. As part of the public benefit, it is noted that the District plans to implement a contract that requires robust reporting and cost controls. Can you please dive into this a little deeper with specifics on requirements in which you intend to have?

   The contract is typical for Progressive Design-Build projects and has been successfully managed in many design-build projects throughout Washington. It is based on the DBIA 530 Design-Build Agreement for a Cost Plus with a Guaranteed Maximum Price form. The reporting and cost control measures include the following:

   a. Validation Period subject to a Not to Exceed amount that requires the design-builder to work collaboratively with the Owner to finalize the project scope, verify the budget and develop the Guaranteed Maximum Price on an open book basis.
   b. After the GMP is established, the parties agree to a Fixed Fee and lump sum General Conditions Costs that cannot be modified unless the GMP varies (either up or down) more than fifteen percent of the original GMP.
   c. Weekly meetings with written update regarding the project status, including
      i. Updates to the project schedule
      ii. Status of any changes or potential changes to the Basis of Design Documents
      iii. Progress of the design
      iv. Any issues that may have a material effect on the project
   d. Trend log that is updated weekly
   e. Design Log that is updated weekly
   f. Cost Plus, with a Guaranteed Maximum Price Contract
      i. Open book cost development and accounting
      ii. Substantiation of costs with Payment Applications
      iii. Lien Release requirements with Payment Applications

iv. Updated cost models and formal schedule submittals with Payment Applications

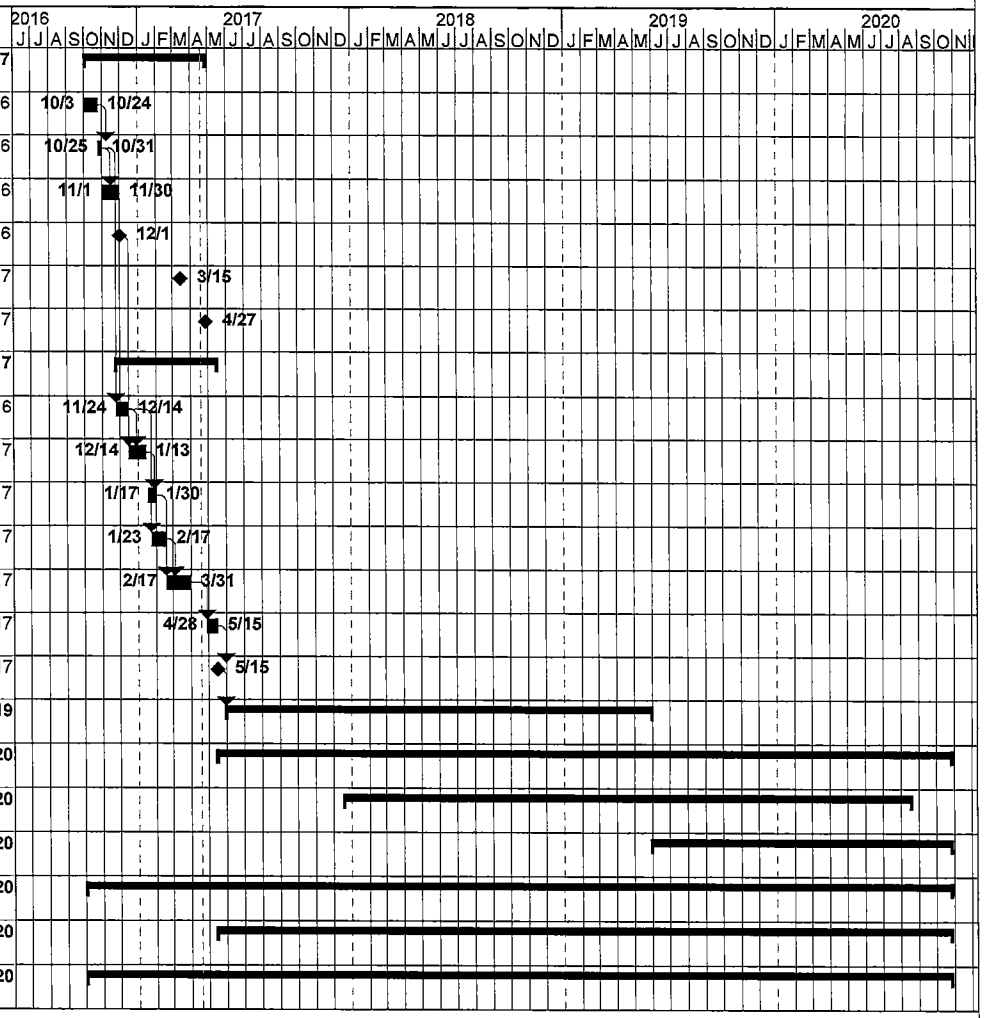
g. Formal design submissions at typical milestones (Schematic, Design Development, Construction Documents)

h. Requirements for the Design-Builder to submit designs that are consistent with agreed commercial terms

i. Notice of claim and dispute resolution procedures.

Okanogan County Public Utility District D-B Project Application - Attachment A - Project Schedule

ID	Task Name	Duration	Start	Finish
1	**1 Design/Build Project Approval**	**146 days**	**Mon 10/3/16**	**Thu 4/27/17**
2	1.1 Develop Project Application	16 days	Mon 10/3/16	Mon 10/24/16
3	1.2 Internal review and submittal	5 days	Tue 10/25/16	Mon 10/31/16
4	1.3 PRC Review	22 days	Tue 11/1/16	Wed 11/30/16
5	1.4 First PRC Meeting/Approval	0 days	Thu 12/1/16	Thu 12/1/16
6	1.5 Withdrawal of PRC Approval	0 days	Wed 3/15/17	Wed 3/15/17
7	1.6 Second PRC Review Meeting/Approval	0 days	Thu 4/27/17	Thu 4/27/17
8	**2 Design/Build Procurement**	**121 days**	**Thu 11/24/16**	**Mon 5/15/17**
9	2.1 Develop RFQ	15 days	Thu 11/24/16	Wed 12/14/16
10	2.2 Solicit Qualifications	30 edays	Wed 12/14/16	Fri 1/13/17
11	2.3 Evaluate and Shortlist firms	10 days	Tue 1/17/17	Mon 1/30/17
12	2.4 Develop RFP	20 days	Mon 1/23/17	Fri 2/17/17
13	2.5 Solicit Proposals	42 edays	Fri 2/17/17	Fri 3/31/17
14	2.6 Evaluation and selection	12 days	Fri 4/28/17	Mon 5/15/17
15	2.7 Award D/B Contract	0 days	Mon 5/15/17	Mon 5/15/17
16	**3 Permitting**	**505 days**	**Tue 5/30/17**	**Thu 5/30/19**
23	**4 Engineering Design & Support**	**848 days**	**Tue 5/16/17**	**Mon 10/26/20**
40	**5 Procure Equipment**	**650 days**	**Tue 12/19/17**	**Wed 8/19/20**
50	**6 Construction**	**333 days**	**Thu 5/30/19**	**Mon 10/26/20**
84	**7 Regulatory Compliance**	**1007 days**	**Mon 10/3/16**	**Mon 10/26/20**
89	**8 Quality Assurance & Construction Management**	**849 days**	**Mon 5/15/17**	**Mon 10/26/20**
93	**9 Administrative & Legal Support**	**1007 days**	**Mon 10/3/16**	**Mon 10/26/20**



Project: Enloe Preliminary Design/Build Schedule

Task ▬▬▬ Milestone ◆ Summary Task ▬▬▬

PRC PROJECT PRESENTATION QUESTIONS

– DECEMBER 1, 2016 –

Okanogan County Public Utility District #1 – Enloe Hydroelectric Project – Design Build

1. **Will funding status be in place at the time of selection of the DB firm?**

   Yes, the District has a $10 million line of credit with KeyBank that will be used while it goes to the bond market. Currently, the District has an "A" rating from Standards & Poor and an "A1" rating from Moodys. Issuing bonds should take between 90 to 180 days.

   a. **Should there be delays in receipt of funding, how would that affect the DB selection and contract?**

   As explained above, sufficient funding is in place to move forward with the DB selection and contract.

   b. **How will funds availability be communicated to prospective proposers?** ***(page 2 of 10)***

   As explained above, sufficient funding is in place to move forward with the DB selection and contract.

2. **Please provide examples for the five benefits listed** ***(page 3 of 10)*** **and how you believe they would not be readily achievable in Design Bid Build.**

   i. Hydropower project development is a highly specialized field which requires early contractor involvement to address constructability issues, develop practical construction plans and to address environmental plans and protection measures.

   Examples of benefit of early contractor involvement are:
   - Environmental plans, permits and protection measures are based on better construction information.
   - Constructability is addressed earlier and in greater depth in the design process.
   - Resource-based contractor cost estimates have higher accuracy than typical engineer's estimates.

   Achieving early contractor involvement in conventional design-bid build is very difficult due to the bidding process which requires that engineering design and specifications be complete before invitation to bid. Some preliminary information can be solicited from equipment vendors and contractors prior to bidding but this cannot provide the above benefits.

   ii. Integration of design, procurement and construction of power facilities is beneficial since the final design of the powerhouse cannot be completed until the hydraulic configuration of the turbine and generator of the most favorable generating equipment bid are determined.

   Examples of benefits of integration of design, procurement and construction of powerhouse facilities are:
   - Carrying forward of previous team experience and lessons learned.
   - Better collaboration between engineer, equipment supplier and contractor.
   - Reduction in drawings, specifications and documentation needed for communicating design to contractor.

Achieving such integrated design benefits in the design-bid-build process is very difficult. It is very unlikely that the design engineer, equipment supplier and construction contractor selected by three different procurement processes have previously worked together as a team, so there will be no previous team experience to build from. Collaboration between the engineer, equipment supplier and contractor is limited since much of the design work gets carried out before the equipment supplier and contractor are selected in separate procurement processes. Efficiencies due to the reduction in the number of engineering drawings and size of technical specifications needed to communicate design information within the Design-Build team also cannot be achieved in Design-Bid-Build since much of that information is needed up-front for bidding of multiple packages. Administration of the design-bid-build approach also requires considerable additional management, administration, communication and documentation effort by the multiple parties involved.

iii. D-B offers greater innovation and efficiencies through value engineering executed by the engineer, equipment supplier and contractor working as a team.

Examples of benefits of value engineering carried out by the D-B team are:

- Improvement in project performance.
- Environmental problem solving.
- Reduction of project cost.
- Avoidance or reduction of risk.

In the design-bid-build process value engineering is still feasible but would need to be carried out pre-bid and final engineering design by the Engineer alone. Such an approach lacks the creative input and practical experience of the generating equipment supplier and the contractor. There is also less certainty whether value engineering benefits will be realized by the equipment supplier and contractor subsequently selected according to normal public works bidding procedures.

iv. D-B has risk management benefits for the owner in allocating project design, project coordination and project performance risk to the D/B constructor.

Examples of risks allocated to the D-B instead of the District are:

- Performance risk
- Design risk
- Integration risk
- Cost risk.

In the Design-Bid-Build approach the District is the project integrator that is ultimately responsible for the overall permitting, design, coordination, construction management and performance of the project. Experience has shown that risks to the Owner of costly disputes, claims and litigation between multiple parties are higher in the design-bid-build process.

v. The District has limited resources and experience to assume the role of project integrator for conventional design/bid/build project development.

Examples of benefits of D-B to the District's operations and resources are:

- Less impact to ongoing District operations.
- Reduced District staffing requirements for project management, complex equipment procurement, coordination and technical oversight.
- DFBOM alternative can reduce potential impact on District's financing and bonding capacity and address the need for additional operation and maintenance resources.

The District is primarily an electric power transmission and distribution entity which has constructed transmission/distribution infrastructure but has not previously constructed power

generation facilities. If the District were to assume the role of project integrator in the conventional Design-Bid-Build process of generation facilities then it would need to add qualified technical, management and administration staff. It would be very difficult to find qualified staff willing to relocate to Okanogan to work as District employees on the project knowing that there are no further power generation projects in the pipeline.

As noted above, the design-build delivery method is the most effective means of achieving the District's goals in this project, and many of the benefits noted simply could not be achieved using design-bid-build. The question as posed is not consistent with RCW 39.10.280, as there is no requirement in the statute for a public agency to compare the benefits to the design-bid-build delivery method and show that design-build is superior to design-bid-build.

3. **Regarding Public Benefit *(page 4 of 10)*:**
   a. **#3 - Please explain which cost risks are significant and what types of reporting and cost controls need to be robust, and how that will be accomplished.**

In a progressive design-build project, the owner selects the design-builder prior to the establishment of a final price. Therefore, there is a cost risk on the owner that the parties will not be able to reach agreement on a final maximum cost for the project. Significant cost risks on the Enloe Project are:

- Environmental permitting/ compliance cost risk.
- Scope change.
- Subsurface conditions
- Project delay risk

Reporting and cost controls will be developed collaboratively with the D-B contractor and documented in a Project Implementation Plan. The types of reports provided by design-builders vary with the software the design-builder uses to manage their estimating and other accounting functions. Typical project controls are as follows:

- Development and implementation of a project risk management plan.
- Development of job cost accounting system and financial controls.
- Development of a responsibility matrix showing allocation of responsibility in the project team.
- Document control system
- Cost estimation and development of target budget to be updated as the project becomes fully defined.
- Implementation of GMP or Fixed Price to contain overall cost.
- Regular cost status and forecast reports showing planned value, earned value and actual cost.
- Updated cash flow projections for project finance.
- Baseline schedule with regular updates of actual and forecast progress.
- Scope/cost/schedule change management procedures.
- Regular progress review meetings focusing on issues, exceptions, decisions, and look ahead work plan/coordination.

The District will be evaluating the cost reporting systems of the Proposers as part of the RFQ process and will be evaluating the Finalists' specific plan for development of the Guaranteed Maximum Price as part of the Finalists' proposals.

In addition, the contract will have several mechanisms to assist the owner in managing that risk. First, the design-builder will always be subject to a not to exceed amount. Second, the contract will require open book cost reporting during the development of the Guaranteed Maximum Price. The contract will also have the option of continuing open book reporting after agreement on the GMP or agreeing on a lump sum amount.

b. #4 - Please explain your reference to *"other design build hydro projects"* and how they relate to this project.

In a qualifications focused procurement, public agencies often evaluate the proposer's success in their past performance on similar projects. The newly approved Design-Build Institute of America form Request for Qualifications uses the term "Project of Similar Scope and Complexity" as a definitional tool to describe the type of projects for which the owner would like to see past performance. As noted in the DBIA RFQ/RFP Guide, "The purpose of this definition is to provide a short hand mechanism to describe those projects that the owner feels are the best representation of either the type of project or the best type of experience to be successful in the project." Therefore, previous performance on other design-build hydro projects will inform the District on how the Proposers will perform on the Enloe Dam project.

Examples of some other recent successful hydro projects that used Design Build project delivery approaches are as follows:

- Allison Creek Project – AK 2016, D-B construction of new 6.5-MW hydro plant.
- Arrowrock Project, ID, 2010 – D-B retrofit of 18-MW small hydro project at an existing dam.
- Kokish Hydro Project, BC, 2015 – D-B of a 45-MW hydro project developed in partnership with the Nagmis First Nation.
- Lower Baker Hydro Project, WA 2013 – D-B retrofit of additional 30-MW powerhouse at an existing dam.
- Ridgeway Dam, CO 2014 – D-B retrofit of 8-MW hydro power plant at an existing dam.
- South Canal Drop 1 and Drop 3 projects CO, 2013 – D-B retrofit of two 4-MW hydro projects on existing canal system.
- Turnbull Hydro Projects – MT, 2011, D-B retrofit of a 8-MW and 6-MW hydro projects on an existing canal system.

These projects were developed using the design-build approach to optimize project design and cost through team collaboration and value engineering, to expedite project implementation and to best manage risk.

4. **Regarding the Project Organization Chart *(Attachment B)*: Please indicate the time commitment of the proposed management team to the project and their availability to meet those intended commitments particularly for the Project Manager and Construction Manager. What other project commitments do they have and how would changes in those commitments *(e.g., schedule changes)* affect their ability to fulfill their intended role on the project.**

Other than day-to-day operations, Okanogan PUD has one other major construction project at this time. In 2016, the District began construction of a 26 mile 115 KV transmission line from Pateros, WA to Twisp, WA. That project was suspended until April 2017 to accommodate migrating deer issues. The District expects to resume construction in April 2017 and have the line energized in July 2017. Any changes to this project will not affect the Enloe Dam project. With respect to other members of the project team, the attached shows an estimated time allocation for each person.

Public Utility District No. 1 of Okanogan County
Enloe Hydroelectric Project
Estimated Project Team Participation

		Design-Build Phase			
POSITION	NAME	RFQ and RFP	VALIDATION	PERMITTING and DESIGN	PROCUREMENT and CONSTRUCTION
District Manager	John Grubich	as-needed	as-needed	as-needed	as-needed
District Legal Counsel	Heidi Smith	10%	on-call	on-call	on-call
D-B Legal Counsel	Robynne Parkinson	10%	on-call	on-call	on-call
Project Manager	Tim DeVries	25%	25%	50%	50%
Assistant Project Manager	Dan Boettger	50%	50%	50%	50%
Project Management and Engineering Support	John Christensen	50%	50%	50%	50%
Construction Management Expert	Thomas McCreedy	on-call	on-call	on-call	on-call
Cost Estimating and Cost Controls	Dan Hertel	on-call	10%	10%	10%
Hydropower Engineering	Paul Carson	on-call	20%	50%	10%
Resident Engineer/Construction Manager	TBD				100%