

Alternate Project Delivery

Progressive Design Build - Power Grid Projects

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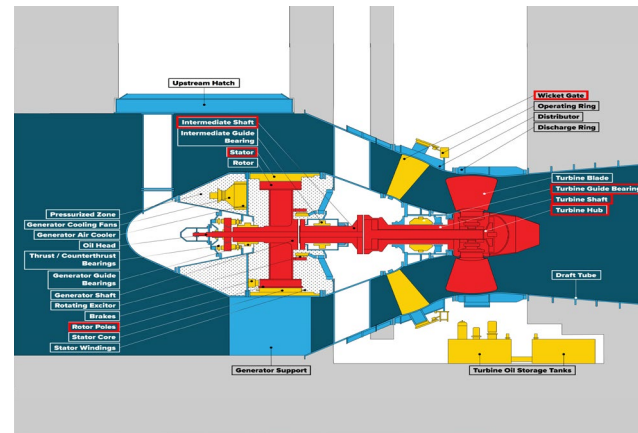


Why We Are Here

- Seeking support to begin application process to the state of Washington project review committee for use of progressive design build on power delivery projects.
- Use of alternate project delivery on Chelan PUD projects. What have we learned?
- Differences between progressive design build and traditional design build.
- Use of progressive design build on power delivery projects.

Current Projects Utilizing Alternate Delivery Methods

- Chelan PUD Facility Projects – General Contractor/Construction Manger
- Rock Island Powerhouse 2 Rehabilitation – Traditional Design Build
- Rock Island Powerhouse 2 Draft Tube Upgrades – Traditional Design Build
- Rock Island Powerhouse 2 Generator Lead Replacement – Traditional Design Build
- Rock Island Dam Powerhouse 2 Unit Motor Control Center Replacement – Traditional Design Build



What Have We Learned

- Fosters innovation and creativity with the design, contractor and owner teams working together before final pricing.
- Reduced District resources required after Guaranteed Maximum Price (GMP) contract is signed to manage procurements and contracts.
- Improved completion schedules
- Reduced District financial risks:
 - Costs established at 60% design.
 - Reduced change order costs after GMP

Traditional Design Build Vs Progressive Design Build

Design Build

- Selection of the contractor and team is primarily based on qualifications not design pricing.
- Scope and budget are developed through a collaborative process.
- Team is allowed to take the design to a more mature level before price is locked unlike traditional design build.
- Contractor can be selected first through the Request For Quotation process before design consultant is selected.

TRADITIONAL DESIGN-BUILD

Structure

```

    graph TD
      Owner[Owner] --> DBC[D/B Contractor]
      DBC --> AEA[A/E]
      DBC --> S1[ ]
      DBC --> S2[ ]
      DBC --> S3[ ]
      DBC --> S4[ ]
      DBC --> S5[ ]
      DBC --> S6[ ]
      DBC --> S7[ ]
      DBC --> S8[ ]
      DBC --> S9[ ]
      DBC --> S10[ ]
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      style S5 fill:none,stroke:none
      style S6 fill:none,stroke:none
      style S7 fill:none,stroke:none
      style S8 fill:none,stroke:none
      style S9 fill:none,stroke:none
      style S10 fill:none,stroke:none
    
```

Schedule

```

    graph LR
      A[Quals, Design and Pricing Based Selection] --> B[Final Design and Build]
    
```

- Up to 30% design
- Honorariums to firms not selected
- Heavy owner involvement up front
- Low owner involvement

** Owner holds one contract and GC warrants the design*

Pros/Cons - Owner/Agency

	Less	More
Time	█	
Cost		█
Risk		█
Flexibility	█	

- Typically suited for longer/larger projects
- Honorarium paid to proposers not selected

PROGRESSIVE DESIGN-BUILD

Structure

```

    graph TD
      Owner[Owner] --> DBC[D/B Contractor]
      DBC --> AEA[A/E]
      DBC --> S1[ ]
      DBC --> S2[ ]
      DBC --> S3[ ]
      DBC --> S4[ ]
      DBC --> S5[ ]
      DBC --> S6[ ]
      DBC --> S7[ ]
      DBC --> S8[ ]
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      style S7 fill:none,stroke:none
      style S8 fill:none,stroke:none
      style S9 fill:none,stroke:none
      style S10 fill:none,stroke:none
    
```

Schedule

```

    graph LR
      A[Primary Quals Based Selection with a Small pricing Component] --> B[Phase I: Design Services]
      B --> C[Phase II: Final Design and Build]
    
```

- Qualifications
- Interview
- Proposal
- Pricing factor
- Usually up to DD level but can be more
- Collaborative
- Transparent
- Heavy owner involvement
- Lower owner involvement

** Owner holds one contract and GC warrants the design*

Pros/Cons - Owner/Agency

	Less	More
Time	█	
Cost		█
Risk		█
Flexibility		█

- Scope and budget determined through collaborator process between owner and team

Power Delivery Projects Proposed to Leverage Progressive Design Build

- Transmission Line Rebuild Projects
- Large Interconnected Loads and Generator Connections
- Future Station Projects



Next Steps

- Seeking support to develop state of Washington project review committee application to allow the use of progressive design build on Chelan PUD power delivery projects.
- Individual projects will be approved by the commission before contract signature.
- With approval, the team will target submission of the application to the state project review committee on May 20 and present on June 22.

Questions