

JUSTIFICATION AND APPROVAL
FOR OTHER THAN FULL AND OPEN COMPETITION

(1) Agency and contracting activity

This requirement is for the Portland District. The contracting agency is the U.S. Army, Corps of Engineers.

(2) Nature and/or description of the action being approved:

Only one responsible source and no other supplies or services will satisfy agency requirements.

(3) Supplies or services required to meet the Agency needs (including estimated Value:

The supplies and services are to design, construct, deliver, install, test, and demonstrate a modern version of an Index Test Box (ITB). This device performs "index" or relative efficiency tests on Kaplan turbines, while the generating unit remains in normal operation. This Type 1 optimization, when tested in an unattended, labor free manner, is also known as self-optimization. The output of any index test is the relative efficiency profile to determine the power level of peak relative efficiency, the power operating limits for a one-percent drop in efficiency, and the optimum blade-to-gate control cam to be input to governor. The current estimate of the contract cost is \$150,000 and the estimated contract period is one year. The Value is that the cost of one ITB, which can be used sequentially on a number of units, will greatly reduce the costs of the present, labor intensive, manual index tests.

(4) Statutory authority:

10 U.S.C.2304 (c)(1) & FAR 6.302-1

(5) The proposed contractor's unique qualifications require use of the authority cited above:

The Contractor, Douglas Albright of Winnebago, Illinois, invented the technology and developed the original ITB while an employee of Woodward Governor Company. Subsequently Woodward did not commercialize this invention and has since allowed its patent to expire.

Unlike present commercial data logging or recording systems that simply record a continuous stream of data over a time interval, a unique feature of the original ITB is its signal processing software to determine average values. The Contractor was an Air Force fire control technician and specialized in signal processing technology. One of the contract deliverables will be a complete source code listing of the software such that the Government will have access to this signal processing technology and the right to use such in any manner desired.

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Attachment B

- (6) Description of efforts to ensure that offers are solicited from as many potential Sources as practicable:

The original ITB was developed under a Bonneville Power Administration (BPA) R,D&D contract. The first, or prototype device was then installed on a single Kaplan generating unit at Portland General Electric's Portland Hydro Plant #2 and its test results compared with those from an independent, manual index test conducted at the same time. Consequently, there are no other potential sources with both the expertise and level of experience already acquired by virtue of having previously developed a successful self-optimizing device.

- (7) Determination of fair and reasonable cost:

The original ITB was purchased twenty (20) years ago for \$68,000. Given inflation and the additional technical requirements being sought by the Government in a modernized version of the ITB, the Contractor's present estimate of \$150,000 appears to be a fair and reasonable cost.

- (8) Market survey:

Technical experts at the Hydroelectric Design Center (HDC) continually monitor new product developments in the technical literature and at conferences. No comparable, stand alone, self-optimizing device as been found to be available in the commercial market.

- (9) Other facts supporting the use of other than full and open competition:

The Contractor is incorporated as Actuation Test Equipment Company, and qualifies as a small business.

- (10) List of sources, if any, that expressed a written interest in the acquisition:

This acquisition has been formally presented to and approved by the interagency Hydro Optimization Team (HOT), including the Bonneville Power Administration.

- (11) Actions that are being taken to remove and overcome any barriers to competition before any subsequent acquisitions for the supplies or services required:

The Government will have a royalty free right to use the resulting optimization technology in any manner desired. In addition, the Government will have an option price in the contract for as many additional devices as desired. However, the Contractor will retain all rights in the resulting technology to market the device in the commercial market.

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(12) Technical requirements personnel certification

I hereby certify that this justification and approval for other than full and open competition is made in good faith, that the supporting data and information are accurate and complete to the best of my knowledge and belief, and that I would not be making this request if it were feasible to fully compete this requirement. I further certify that this request is not the result of lack of advanced planning or a desire to expend funds while those funds are still available.

Requestor:

(13) Division Chief Certification

I hereby certify this sole source is required and meets legal requirements of which I am aware.



Division Chief

(14) Contracting Officer's certification

I have determined that the anticipated cost to the government will be fair and reasonable and certify that the justification is/is not accurate and complete to the best of my knowledge and belief.

Contracting Officer

(15) Legal Officer's Review

I have reviewed this justification and it is/is not deemed to be legally sufficient for the following reason(s) [if any]

Legal Counsel

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(16) Recommendation of the Competition Advocate

I recommend approval/disapproval of the above justification.

Competition Advocate

(17) Approval (FAR 6.304)

In accordance with FAR 6.304, the above justification for other than full and open competition is hereby approved.

Chief, Contracting Division

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