JUSTIFICATION AND APPROVAL FOR OTHER THAN FULL AND OPEN COMPETITION

Updated IAW Revolutionary FAR Overhaul 6 and DOI-AAAP-F006

In accordance with Revolutionary FAR Overhaul 6.103 or FAR 13.501(a), the proposed contractual action is pursuant to the statutory authority identified in paragraph 4. This template is required for actions over the Simplified Acquisition Threshold (unless the procurement is acquired as a limited source IAW FAR 8.405-6 or is an Exception to Fair Opportunity IAW FAR 16.505(b)(2)).

1. **Agency and Contracting Activity (FAR 6.104-1(a)(1)).** Interior Region 8: Lower Colorado Basin, Bureau of Reclamation, (Reclamation) Acquisition and Assistance Management Office, Boulder City, NV

2. **Nature/Description of Action (FAR 6.104-1(a)(2))**.
   This action for the award of a new firm-fixed-price sole-source contract to Andritz Hydro for the procurement of wide-head range turbine runners required at Hoover Dam. The contract will be funded with Colorado River Dam Fund (Power Contractor funding) . This acquisition is driven by critical operational needs resulting from historically low water levels in Lake Mead, which threaten Hoover Dam's ability to generate power reliably. Timely execution of this contract is essential to avoid significant downtime and economic harm when lake elevations fall below 1,035 feet [redacted]

3. **Description of Supplies/Services (FAR 6.104-1(a)(3))**.
   The supplies to be procured under this contract consist of two stainless-steel wide-head range turbine runners, each weighing approximately 73,000 pounds. These runners are precision-engineered to withstand extreme hydraulic forces and minimize cavitation—a damaging process where vapor bubbles collapse and erode metal surfaces, causing vibration, structural damage, and potential outages. The runners will be installed [redacted] at Hoover Dam, which share identical dimensions with [redacted] successfully upgraded with Andritz wide-head runners in 2012 and 2013. The installation of these components will enable Hoover Dam to maintain reliable power generation at significantly lower lake elevations, reduce cavitation-related damage, and protect the financial model that funds operations and maintenance through customer revenues. [redacted] These upgrades are critical to sustaining Hoover Dam's operational viability and ensuring regional grid stability during ongoing drought conditions.

4. **Statutory Authority Permitting Other than Full and Open Competition (FAR 6.104-1(a)(4)).** *(Check one)*

	Authority	FAR Coverage	Application
☐	41 U.S.C. 1901	FAR 13.501	Only one responsible source using Simplified Acquisition Procedures (above SAT but at or below $9M)
☐	41 U.S.C. 1903	FAR 13.501	Special emergency procurement authority
☒	41 U.S.C. 3304(a)(1)	FAR 6.103-1	Only one responsible source and no other supplies or services will satisfy agency requirements
☐	41 U.S.C. 3304(a)(1)	FAR 6.103-1(d)	Application for brand-name descriptions
☐	41 U.S.C. 3304(a)(2)	FAR 6.103-2	Unusual and compelling urgency
☐	41 U.S.C. 3304(a)(3)	FAR 6.103-3	Industrial mobilization; engineering, developmental or research capability; or expert services
☐	41 U.S.C. 3304(a)(4)	FAR 6.103-4	International Agreement
☐	41 U.S.C. 3304(a)(5)	FAR 6.103-5	Authorized or required by statute
☐	41 U.S.C. 3304(a)(6)	FAR 6.103-6	National Security
☐	41 U.S.C. 3304(a)(7)	FAR 6.103-7	Public Interest

5. **Demonstration of Contractor's Unique Qualifications (FAR 6.104-1(a)(5))**.
The Colorado River Basin is experiencing the most severe drought on record, causing Lake Mead's water levels to fall far below the elevations anticipated during Hoover Dam's original design and construction. This decline has created a critical operational challenge: 12 of Hoover Dam's 17 hydroelectric generating units are nearing the bottom of their design head range and cannot reliably operate below elevation 1,035 feet. At these lower elevations, the older turbines experience aggressive cavitation and will not be able to be used.

[redacted]

To mitigate this risk, Reclamation must install two additional wide-head range turbine runners capable of operating efficiently at low lake elevations. [redacted]

However, Hoover Dam's turbines are not uniform; they vary in size and dimensions, requiring customized designs and model testing for each unit before manufacturing and installation. This complexity makes the procurement highly specialized.

Andritz Hydro is uniquely qualified to perform this work for the following reasons:

- Proprietary Design Expertise: Andritz holds the proprietary designs for the exact turbine configurations needed [redacted]—two units where Andritz successfully delivered wide-head range runners in 2012 and 2013.
- Proven Performance: Andritz has already designed, model-tested, manufactured, and installed four of the five newer wide-head runners at Hoover Dam. These units have been field-tested and have consistently met or exceeded performance expectations.
- Schedule Advantage: Leveraging existing proprietary designs allows Andritz to begin manufacturing immediately, avoiding the 18-month design and model testing cycle required for any other vendor. [redacted]
- Technical Continuity: Using the same manufacturer ensures compatibility with existing equipment, minimizes integration risk, and maintains operational consistency across units.

In summary, only Andritz Hydro can meet Reclamation's critical schedule and technical requirements without incurring significant delays and costs associated with new design development. Awarding this sole-source contract is essential to protect Hoover Dam's operational reliability, financial sustainability, and contribution to the regional power grid.

6. **Description of efforts made to maximize competition (FAR 6.104-1(a)(6)).**
Hoover Dam and Reclamation's Technical Service Center (TSC) are preparing an open, competitive package for other units that do not rely on proprietary designs. This sole source covers only [redacted], where Andritz's existing proprietary designs and prior experience uniquely apply. The requested sole source solicitation will parallel the competitive effort and provide a quicker means to respond to the ongoing drought.

7. **Determination of Fair and Reasonable Cost (FAR 6.104-1(a)(7)).**
The CO will determine price reasonableness using a combination of price analysis, cost analysis and commercial considerations. First, a price analysis will compare Andritz Hydro's proposed price to most recent Hoover Dam runner acquisitions from 2012–2013 and other similar hydropower projects and validate these figures against an Independent Government Cost Estimate, which accounts for materials, labor, and escalation factors. If necessary, a cost analysis will be conducted to evaluate individual cost elements such as raw materials, machining, reuse of model verification data, quality assurance, delivery, and installation support, as well as assess overhead, general and administrative expenses, and profit in accordance with FAR 15.404 methodologies. Additionally, the CO will review commercial reasonableness by considering current steel market conditions, specialized machining trends, lead times, and logistics, along with warranty provisions

and performance guarantees. Upon completion of these evaluations, the CO will document the findings and issue a written determination that the price is fair and reasonable prior to award.

8. **Description of Market Research Conducted (FAR 6.104-1(a)(8))**.
Formal market research was not conducted. Based on past purchases of this requirement, it is known that the turbine runner manufacturing market is dominated by large businesses (GE, Andritz, Voith). This is due to technical complexity, of the work, proprietary hydraulic designs, model test data, and specialized foundry capability required. While small businesses can support repair, machining, and refurbishment activities, they typically can't manufacture new large or wide-head runners from design to final acceptance.

9. **Any Other Supporting Facts (FAR 6.104-1(a)(9)).**
Hoover Dam faces significant operational and financial risks if action is delayed. First, the financial model that funds all operations, maintenance, and capital improvements depends entirely on power customers. If Hoover's electricity becomes more expensive than market rates due to reduced generation, customers will have no economic incentive to continue purchasing power, jeopardizing the dam's ability to sustain Operation & Maintenance and future capital planning. Second, system reliability is at stake. A substantial reduction in generation during low water conditions would strain the regional power grid, potentially increasing costs for ratepayers and creating operational stress during peak demand periods. Finally, there is a critical technical risk: continuing to operate older turbine runners near or below their design head range accelerates cavitation and ultimately unplanned outages. These combined risks underscore the urgency of timely procurement and installation of wide-head range turbines to maintain Hoover Dam's viability and protect the regional power supply.

10. **Listing of Interested Sources (FAR 6.104-1(a)(10))**.
Andrtiz Hydro Corp, [redacted]

11. **Actions Taken to Remove Barriers to Competition (FAR 6.104-1(a)(11)).**

To promote future competition and reduce reliance on sole-source actions, Reclamation is taking several proactive steps. First, Reclamation is proceeding with full and open competition for other Hoover units that do not involve proprietary design constraints, with a procurement package currently in development. Additionally, where feasible, we will negotiate the delivery of non-proprietary performance data—such as test curves and maintenance guidance—that could enable broader competition in future acquisitions. Even under this sole-source award, we will identify opportunities for small businesses to participate through competitively subcontracted work, including installation, ancillary machining, inspection, and logistics support. Finally, lessons learned from this procurement will be documented to explore design standardization strategies that reduce customization and increase competitive opportunities for future turbine replacements.