ATTACHMENT 1 – COST SCHEDULE

ALASKA DEPARTMENT OF FISH AND GAME

R/V Medeia Main Engine Repower

BID SCHEDULE (BUDGETARY) — Respondent shall enter a budgetary price for each work item. Prices are understood to be estimates for planning purposes and are not binding. All prices include labor, materials, equipment, and engineering, in U.S. Dollars. The installed keel coolers are the only Owner-furnished equipment; everything else is Contractor-furnished.

Item #	Work Item Description	Budgetary Price (USD)
SECTION 1: ENGINEERING, SHIP CHECK, AND DESIGN		
1.1	Ship check and field verification (engine room, exhaust, deck above engine room, control stations, electrical)	$
1.2	Propulsion match and driveline engineering (engine rating, gear ratio, propeller and shaft check, torsional vibration analysis from OEM, rotation and flywheel housing confirmation)	$
1.3	Foundation design (new or modified engine and gear foundations, drawings and calculations)	$
1.4	Exhaust, cooling, ventilation, and fuel system engineering (exhaust design and backpressure calculation; keel cooler capacity check and piping design; ventilation evaluation; fuel supply and return check)	$
1.5	Electrical, controls, and starting system engineering (24 VDC system if required, control and monitoring, ZF control integration, CO2 shutdown tie-in, air or electric start)	$
1.6	Weight and stability log and preliminary stability check; design submittals to Owner	$
	TOTAL — Work Item #1 Engineering	**$**
SECTION 2: MAIN ENGINES, MARINE GEARS, CONTROLS, AND ASSOCIATED EQUIPMENT		
2.1	Two (2) new main engines, with marine accessories, engine room panels, wheelhouse monitoring display, and aft deck rpm readouts — make, model, and rating as stated in the Information table below	$
2.2	Two (2) new marine gears with couplings, mounts, and driveline hardware — make, model, and ratio as stated in the Information table below	$
2.3	Propulsion control equipment for the wheelhouse and wheelhouse aft deck stations (new ZF control processors compatible with existing control heads, or complete replacement control system); trolling valve or similar if recommended	$
2.4	24 VDC system, batteries, chargers, and distribution (if required by the proposed engines); starting system components	$
2.5	Exhaust components engine to silencers, piping, valves, hangers, wiring, and consumables; freight to Contractor's facility; receiving and storage	$
	TOTAL — Work Item #2 Equipment	**$**
SECTION 3: REMOVAL OF EXISTING MAIN ENGINES AND MARINE GEARS		
3.1	Drain and dispose of fluids; disconnect; cut temporary deck openings and protect; lift out both 16V-92 engines and MG-530 gears; remove foundations, piping, ducting, wiring, and brackets not reused; record weights and locations; clean and prime disturbed steel	$
3.2	Removal of old engines and gears from the vessel and Owner's custody; retention, resale, or disposal by Contractor	$
3.3	CREDIT — Salvage value of old engines and gears, if any (enter as a negative number or $0)	($)
	TOTAL — Work Item #3 Removal (net of salvage credit)	**$**

Item #	Work Item Description	Budgetary Price (USD)
SECTION 4: INSTALLATION OF NEW MAIN ENGINES, MARINE GEARS, CONTROLS, AND ASSOCIATED SYSTEMS		
4.1	Fabricate and install foundations; set engines and gears; align to existing shaft line; fit couplings; record alignment	$
4.2	Exhaust engine to silencers, expansion joints, supports, lagging; any silencer or stack piping changes identified under Item 1	$
4.3	Cooling: engine room piping to installed keel coolers, place aftercooler coolers in service, isolation valves, flex connections, expansion tanks with low-level alarms; flush, fill, pressure test, bleed; any additional cooling identified under Item 1	$
4.4	Fuel and lube: connections, filtration, flex connections, any fuel system changes identified under Item 1; initial fill of lube and gear oil	$
4.5	Electrical, controls, and monitoring: 24 VDC system if required, engine room panels, wheelhouse monitoring and controls, aft deck controls and rpm readouts, CO2 shutdown tie-in, starting system, all wiring	$
4.6	Ventilation changes identified under Item 1	$
4.7	Deck restoration to original scantlings, watertight, coated; reinstall deck equipment and fittings in way of the opening	$
4.8	Close-up: reinstall deck plates, rails, insulation; prepare and paint disturbed steel; clean engine room	$
	TOTAL — Work Item #4 Installation	**$**
SECTION 5: DOCK TRIALS, SEA TRIALS, AND COMMISSIONING		
5.1	Dock trials and OEM commissioning of engines and gears; alarms, shutdowns, CO2 tie-in, controls from both stations and engine room panels	$
5.2	Sea trials (not less than 4 hours at rated load with recorded data, maneuvering, control response) with OEM representatives aboard; written trials report	$
	TOTAL — Work Item #5 Trials	**$**
SECTION 6: STABILITY TEST AND UPDATED STABILITY BOOK		
6.1	Digital hull model from lines plan with field verification; capture of house, stacks, and gantry profile	$
6.2	Inclining experiment per ASTM F1321 (procedure, certified weights, crane, berth, instruments, personnel, naval architect on site)	$
6.3	Inclining report and updated stability book (up to six Owner-identified operating conditions, trawl and pot loads, gantry, operating guidance)	$
	TOTAL — Work Item #6 Stability	**$**
SECTION 7: DOCUMENTATION, MANUALS, SPARES, AND CREW TRAINING		
7.1	As-built drawings (PDF and native CAD), manuals, commissioning and alignment records, TVA, trials report	$
7.2	Spares package — manufacturers' recommended one-year spares for engines and gears, plus special tools (attach list)	$
7.3	Crew training, not less than one day, hands-on	$
	TOTAL — Work Item #7 Documentation and Spares	**$**
SECTION 8: FACILITY AND SUPPORT		
8.1	Safe lay berth, shore power, gangway, crane or lift service beyond the ship's crane, shop support, and project management for the duration of the work	$
TOTAL BUDGETARY PRICE — ALL WORK ITEMS (Items 1–8):		**$**

INFORMATION — Respondent shall complete the following. These entries are part of the response and are needed to compare approaches.

Item	Respondent's Entry
Proposed main engine (make, model, rating, hp and rpm, duty rating, emissions tier)	
Proposed marine gear (make, model, ratio, input rating, clutch duty; trolling valve yes/no)	
Authorized engine parts and service dealer in Juneau, Alaska	
Authorized gear parts and service dealer in Juneau, Alaska	
Naval architect / engineering firm	
Location where the work would be done	
Engine and gear lead time from order to delivery	
Vessel out-of-service duration required (days), not counting transit	
Can the work be done in the November 2027 – March 2028 window? If not, when?	
Suitability of proposed engine for extended idle and light load (brief explanation)	
Starting system proposed (tie into existing air start / electric)	
Propulsion controls proposed (new ZF processors with existing heads / full replacement)	
Is 24 VDC required? If so, how would it be provided?	
Are the installed keel coolers adequate for the proposed engine? If not, what is added?	
Engine warranty terms	
Gear warranty terms	
Contractor workmanship warranty	
Hourly labor rate for change work (straight time)	
Material markup for change work	
Price validity period	

Notes: This is a budgetary schedule for a Request for Information; prices entered are not bids and do not bind the respondent or the State. Items are priced separately so the Owner can see where the cost sits and adjust scope before a formal solicitation. The salvage credit on Item 3.3 is optional; enter $0 if none is offered. Items 1.4, 4.3, and 4.6 should include anything the respondent believes the installed keel coolers or the existing ventilation cannot cover for the proposed engine, with a note explaining what was added. Where a respondent's approach does not fit a line as written, use the nearest line and explain in the response narrative. Attach the spares list for Item 7.2.