

Robert Moses Niagara Power Project

Turbine Runner Replacement Program | Contract No. Q25-7727JV

Institutional Time and Responsibility Schedule — 20-Step / 8-Phase / 17-Year Master
Program | All 13 Turbine Units

CONFIDENTIAL — PROPRIETARY BID DOCUMENT

NEW YORK POWER AUTHORITY



Program At a Glance

13

Francis Turbine Runners

Full replacement across all generating units at RMNPP, Lewiston, NY

17

Year Program Duration

2027–2043+, one runner replaced every 16 months per NYPA outage schedule

20

Execution Steps

Steps 1–8 executed once; Steps 9–18 repeat for each of 13 unit outages

8

Program Phases

Pre-Construction, Engineering, Site Prep, Construction, Fabrication, Installation, Commissioning, Program Management

The New York Power Authority (NYPA) Robert Moses Niagara Power Project (RMNPP), located in Lewiston, Niagara County, New York, requires design, fabrication, delivery, installation, and commissioning of thirteen (13) replacement Francis turbine runners under Fixed-Duration contract Q25-7727JV. The program is structured as a rolling outage sequence spanning 17 years, with one runner completed every 16 months. This document constitutes the Detailed Schedule per RFP Section 12.7 and the Responsibility Matrix per RFP Section 12.4.

Consortium Overview

Jonahs Enterprises Inc. serves as Prime Contractor and sole NYPA contract signatory in a joint venture with Metis/Serris LLC, supported by a specialized team of Brazilian OEM fabricators, US EPC site contractors, and independent engineering consultants.

Prime Contractor

Jonahs Enterprises Inc.

652 Lefferts Avenue, Brooklyn, NY 11203

EIN: 141962956 | DUNS: 830775511

FMS: VS00071607 | PASSPort: Filed

Rep: Manny Stone, President

JV Partner

Metis / Serris, LLC

1251 6th Avenue, New York, NY 10020

Partners: Jeremiah O'Carroll & Sebastian Raspanti

JVA dated June 18, 2026 (DRAFT)

5-Year initial term

OEM Fabricator

Inepar S.A. (Brazil)

Turbine OEM — Design & Fabrication of all 13 Francis runners. Same hydraulic design family as Iguazu Falls runners, customized to RMNPP dimensions per 27 NYPA drawings.

EPC Contractor

OEC Engineering / OEC America

US Site Works Lead — all civil engineering, construction management, and site execution at RMNPP from dewatering through NYPA acceptance.

Consortium Directory — Supporting Partners

Engineering Support — Hacker Industrial (Brazil)

Industrial engineering support to Inepar fabrication; supplemental manufacturing and machining; QC support at Brazilian facilities; material traceability documentation. Website: hacker.ind.br

Engineering Consultant — Lagan Energy Engineering

Review of all 27 NYPA engineering drawings; hydraulic flow path analysis; wicket gate type clarification (1957 BLH vs. 2011 Hitachi per unit); air system engineering; Q4-2025 vibration data baseline analysis; deviation log maintenance throughout the 17-year program.

Lead Legal Counsel — DLA Piper

Global law firm operating across 40+ countries. Lead legal counsel for the Jonahs Enterprises Inc. / Metis-Serris LLC consortium for all NYPA contract matters throughout the 17-year program term.

- Lead review and negotiation of JVA and NYPA Fixed-Duration Agreement
- Contract structuring, risk allocation, and subcontractor agreement review
- Regulatory compliance counsel — NYPA procurement rules, NY State law, and federal contracting
- Bonding and surety coordination; insurance structure review
- Ongoing counsel throughout program; dispute resolution and claims management as required

Role of Jonahs Enterprises Inc. — Prime Contractor

Jonahs Enterprises Inc. is the sole legal signatory to NYPA contract Q25-7727JV. As Prime Contractor, Jonahs assumes full accountability to NYPA for all program deliverables, schedule compliance, regulatory adherence, and financial reporting across the entire 17-year program.

→ **NYPA Contract Execution**

Hold and execute NYPA prime contract Q25-7727JV as sole legal signatory answerable to NYPA. All subcontractor relationships flow through Jonahs as the single point of accountability.

→ **Supply Chain and Logistics**

Provide access to equipment manufacturers, technical resources, and supply chain per JVA Section 4.2. Coordinate manufacturing schedules, logistics, and delivery planning for each of the 13 runners.

→ **Financial and Regulatory Compliance**

MWBE certification compliance and quarterly reporting; PASSPort regulatory compliance; all NYPA financial reporting; subcontractor payments per RMNPP Turbine Runner Schedule of Values Rev. 2.

Role of Metis / Serris LLC — JV Partner

Project Origination & Business Development

Lead all project origination activities, business development strategy, and opportunity identification. Manage all bid preparation, project structuring, and formal proposal submissions to NYPA and successor procurements.

EPC Partner Coordination

Source, coordinate, and manage EPC partner participation — specifically OEC America — per JVA Section 7.1. Serve as the day-to-day commercial operational lead for all joint project pursuits per JVA Section 6.4.

Financing and Bonding

Support project financing and capital structuring; manage investor engagement; source and maintain all bonding and surety requirements for the program. Critical function given the 17-year financial exposure of the program.

- ❑ The JV between Jonahs Enterprises Inc. and Metis/Serris LLC is governed by the JVA dated June 18, 2026 (DRAFT), with a 5-year initial term. The JV is unincorporated and contractual in nature.

Role of Inepar S.A. — Turbine OEM Fabricator

Inepar S.A. (Brazil) is the OEM responsible for the hydraulic design, full fabrication, factory acceptance testing, and international shipping of all 13 Francis turbine runners. Inepar brings direct precedent from the Iguazu Falls runners — the same hydraulic design family — customized to Robert Moses dimensions per 27 NYPA engineering drawings.

01

Hydraulic Design

Wide Operating Range Francis runner hydraulic design per NYPA engineering drawings — runner blade profiles, crown and band clearances, and anti-cavitation geometry at all part-load operating points.

03

Factory Acceptance Test

Factory Acceptance Testing (FAT) and hydraulic model test data submission to NYPA. All test data reviewed against NYPA performance guarantees before runner release for shipment.

02

Fabrication to Drawing

Full fabrication per drawings 227728 (Sectional Elevation), 227512 (General Arrangement), 2632-0945 (Coupling Bolt), 2632-0872/0873 (Runner), and 2632-0914 (Discharge Ring).

04

Shipping and Warranty

Runner shipping from Brazil to Niagara Falls, NY including import/customs coordination. Five (5)-year warranty on all fabricated components, clocked from NYPA unit acceptance.

Role of OEC America — EPC Contractor (US Site Works)

OEC Engineering / OEC America serves as Engineering, Procurement and Construction (EPC) lead for all US-based site works at RMNPP. OEC holds direct responsibility for every physical construction and commissioning activity inside the powerhouse, from initial dewatering through NYPA Final Acceptance.



Dewatering & Vane Inspection

Dewater turbine pit; remove and inspect all 24 fixed stay vanes and deck plates per drawings 227525/26/27.



Discharge Ring Work

Discharge ring removal by air arc gouging; weld and machine to 0.030-inch roundness tolerance per drawings 227559, 2632-0914, 2631-0106.



HP Oil Lift & Servomotors

Commission HP oil lift (dwg 537F297) and 24-gate servomotor system (dwg 2631-0110) BEFORE runner installation. No exceptions.



Runner Installation

Lower and install new runner; precision alignment; torque coupling bolts per dwg 2632-0945 Rev 3 to OEM specification.



Safety Compliance

NYPA Division 1 Section 011400 compliance; EHS Forms Rev 2; CPP-1 lockout/tagout protocol maintained throughout every unit outage.

Program Master Schedule — All 13 Units

Program commences upon NYPA Notice to Proceed (NTP). Inepar runner fabrication begins concurrent with pre-construction activities at Month 1. One runner is replaced every 16 months. Steps 1–8 are one-time program setup; Steps 9–18 repeat per unit outage. Total program duration from NTP through final warranty expiry: approximately 22.5 years.



Pre-Construction Setup

Months 1–6: mobilization and prep



Active Replacement Cycle

Units 1–13 over Months 7–208



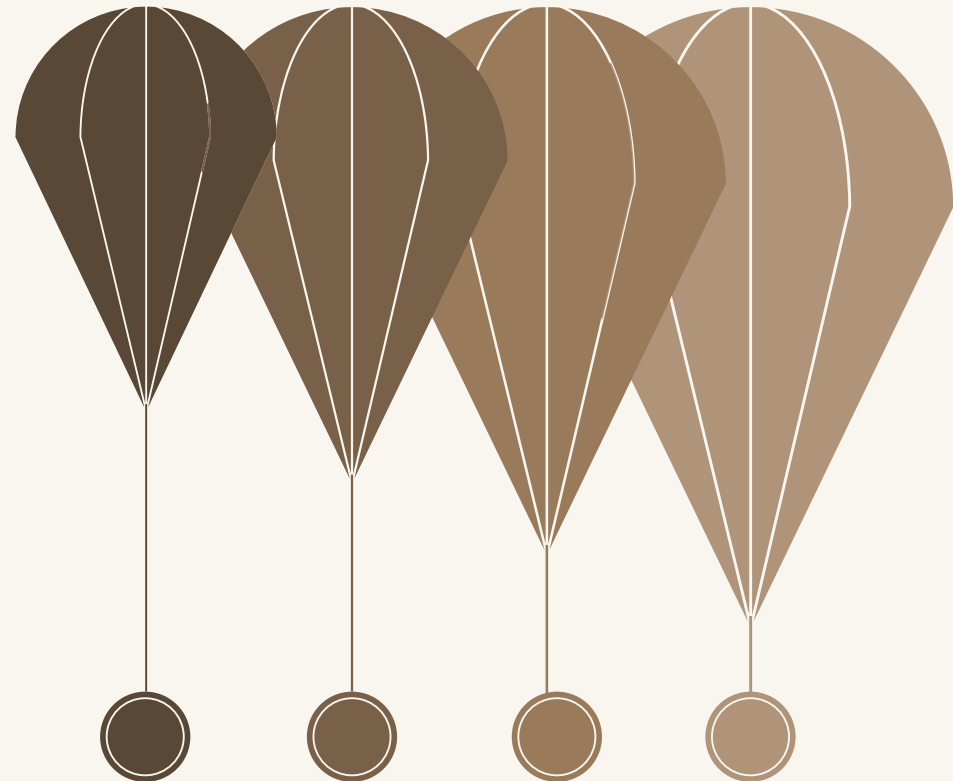
Final Completion

Month 208: project handover



Warranty Period

Months 209–270: ~5 years

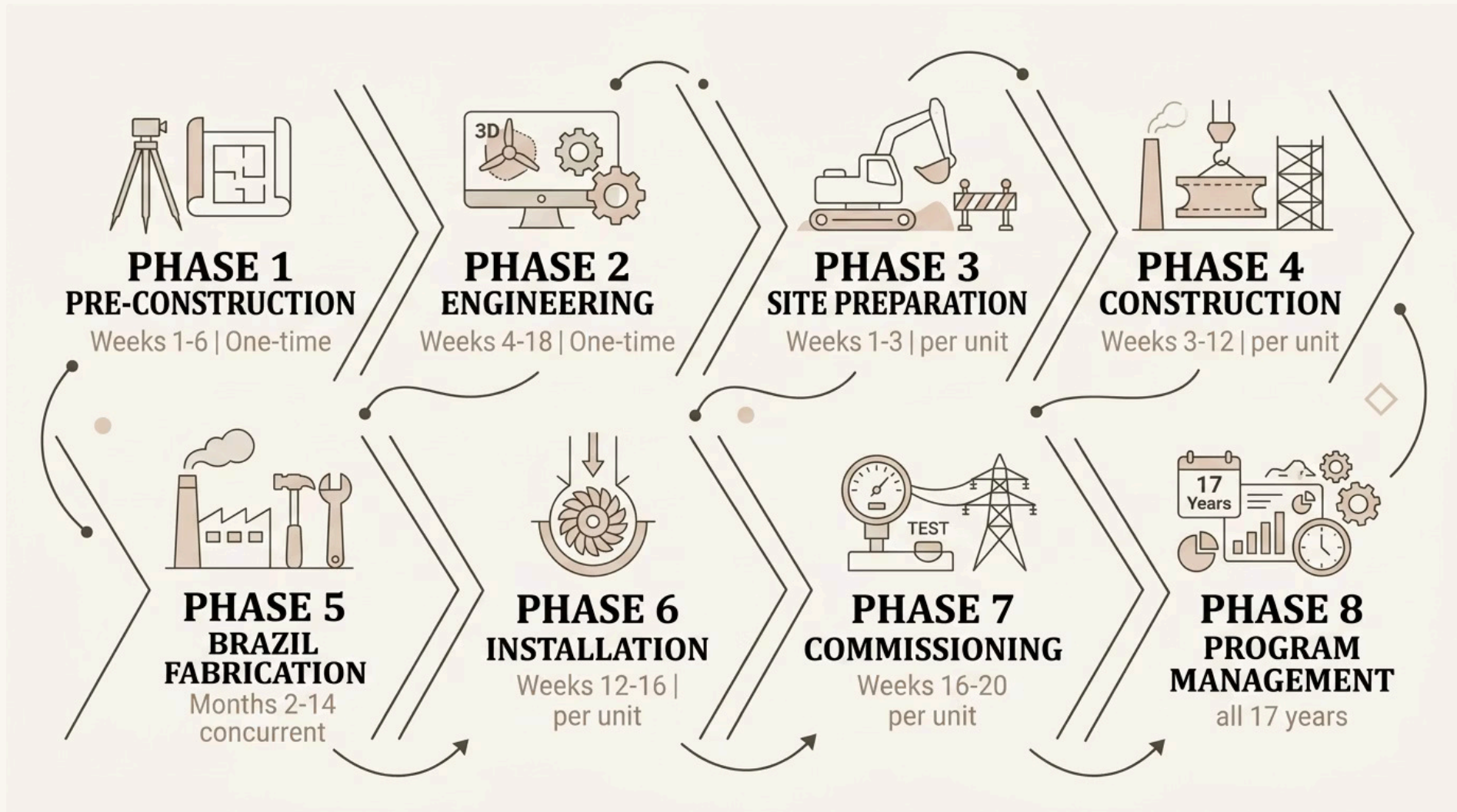


The critical path runs: NTP → Engineering Complete → Runner 1 Shipped → Unit 1 Outage → Discharge Ring → Runner Install → NYPA Acceptance. Delay at any critical path gate may trigger Liquidated Damages at **\$50,000 USD per calendar day**.

17-Year Unit-by-Unit Schedule

Milestone / Unit	Responsible Party	Start Month	End Month	Duration	Key Gate / Deliverable
Pre-Construction — One-Time Setup	Jonahs / Metis-Serris / All	Month 1	Month 6	6 months	All contracts executed; engineering complete; Runner 1 fabrication commenced
Unit 1 — First Runner	Jonahs / OEC / Inepar / Hacker	Month 7	Month 22	16 months	Runner 1 installed and accepted; 5-year warranty clock starts
Unit 2 — Second Runner	Jonahs / OEC / Inepar	Month 23	Month 38	16 months	Runner 2 accepted; 15% of program complete
Unit 3 — Third Runner	Jonahs / OEC / Inepar	Month 39	Month 54	16 months	Runner 3 accepted; 23% complete
Unit 4 — Fourth Runner	Jonahs / OEC / Inepar	Month 55	Month 70	16 months	Runner 4 accepted; 31% complete
Unit 5 — Fifth Runner	Jonahs / OEC / Inepar	Month 71	Month 86	16 months	Runner 5 accepted; 38% complete
Unit 6 — Mid-Program Review	Jonahs / OEC / Inepar	Month 87	Month 102	16 months	NYPA Mid-Program Performance Review — 46% complete
Unit 7 — Seventh Runner	Jonahs / OEC / Inepar	Month 103	Month 118	16 months	Runner 7 accepted; program past halfway
Unit 8 — Eighth Runner	Jonahs / OEC / Inepar	Month 119	Month 134	16 months	Runner 8 accepted; 62% complete
Unit 9 — Ninth Runner	Jonahs / OEC / Inepar	Month 135	Month 150	16 months	Runner 9 accepted; 69% complete
Unit 10 — Tenth Runner	Jonahs / OEC / Inepar	Month 151	Month 166	16 months	Runner 10 accepted; 77% complete
Unit 11 — Eleventh Runner	Jonahs / OEC / Inepar	Month 167	Month 182	16 months	Runner 11 accepted; 85% complete
Unit 12 — Twelfth Runner	Jonahs / OEC / Inepar	Month 183	Month 198	16 months	Runner 12 accepted; final unit fabrication underway
Unit 13 — Final Runner	Jonahs / OEC / Inepar	Month 199	Month 208	~10 months	FINAL COMPLETION — Final payment triggered
Program Closeout & Warranty	Jonahs Enterprises Inc.	Month 209	~Month 270	~5 years	5-year warranty on all 13 units; discharged at warranty expiry

The Eight Program Phases



Phases 1 and 2 (Pre-Construction and Engineering) are executed once at program inception and establish the technical and contractual foundation for all 13 unit outages. Phases 3 through 7 repeat for each unit. Phase 5 (Brazil Fabrication) runs concurrently with all other activities throughout the program. Phase 8 (Program Management) is continuous for the full 17-year duration.

Step 1: Form Consortium and Sign All Contracts

Timing: Program Weeks 1–4. NYPA will NOT issue Notice to Proceed until all contracts are fully executed and insurance certificates are on file. This is the absolute first gate of the program.

Key Contracts to Execute

- Joint Venture Agreement (JVA) — Jonahs / Metis-Serris joint venture
- NYPA Fixed-Duration (FD) Agreement — Q25-7727JV
- FD General Conditions
- NDA (Version 2020-10) — all parties
- Insurance Provisions and certificate delivery to NYPA

Party Responsibilities

Jonahs Enterprises Inc. (A/R): Execute JVA; sign NYPA FD Agreement; coordinate all signatories; deliver insurance certificates to NYPA. Accountable and Responsible — program cannot proceed without Jonahs execution.

OEC America (C): Review insurance provisions; confirm EPC scope definition within the FD Agreement. Consulted to ensure construction scope is correctly reflected.

Inepar / Hacker (C): Review and sign NDA; confirm technical capability statement for bid submission. Brazilian personnel entering RMNPP subject to NDA obligations.

Step 2: Regulatory and Procurement Compliance

Timing: Program Weeks 2–6. All NYPA vendor registrations and procurement compliance filings must be completed concurrent with contract execution. Non-compliance blocks payment processing and may result in NTP delay.

PASSPort Registration

Jonahs Enterprises Inc. PASSPort status: Filed. FMS Vendor Code: VS00071607. Payee Information Portal (PIP) registration confirmed. Jonahs is Accountable and Responsible for maintaining all registrations current throughout the 17-year program.

MWBE Compliance

MWBE certification and utilization plan submission per Appendix C — FINAL 5.24. Quarterly MWBE reporting is a recurring obligation for all 17 years. Failure to report may result in payment suspension or potential contract breach.

NYPA System Registrations

NYPA Ariba procurement system registration; Supplier Pre-Qualification (SPQ) registration; EIN/DUNS/FMS confirmation for all consortium parties. OEC America provides EPC credentials, license numbers, and insurance certificates. Inepar provides subcontractor EIN, legal address, and scope value for RFP Section 12.5 disclosure.

Step 3: Execute All NYPA Certifications

Timing: Program Weeks 3–6. All certifications must be signed and submitted by Jonahs Enterprises Inc. on behalf of the consortium before NYPA will process the NTP. Jonahs is Accountable and Responsible for all submissions.

Online Confidentiality Agreement and NDA (Version 2020-10)

All parties — Jonahs, Metis-Serris, Inepar, Hacker, OEC, and Lagan Energy — must execute the NYPA Online Confidentiality Agreement. All Brazil-based personnel entering RMNPP must sign the NDA individually before accessing the powerhouse.

Executive Order 16 (EO16) and Omnibus Procurement Certifications

EO16 Certification and Omnibus Procurement Certification signed on behalf of Jonahs Enterprises Inc. The Omnibus certification was signed by Moshe Abraham, Partner, as documented in the bid submission package.

Safety and EHS Certifications

Contractor Safety Performance Bid Form (Appendix H) submitted by Jonahs / OEC America. NYPA EHS Explanation Request Form Rev 2 completed by OEC America as site lead. All site personnel complete NYPA mandatory safety orientation per Division 1 Section 011400 before any powerhouse entry.

Step 4: Engineering Drawing Review

Timing: Program Weeks 4–12. A complete review of all 27 NYPA engineering drawings is mandatory before runner fabrication final drawings can be issued. Jonahs is Accountable; Inepar S.A. is Responsible for full hydraulic and mechanical design review. Lagan Energy Engineering manages the review process and drawing transmittal log.

Key Engineering Drawings

- 227728 — Sectional Elevation
- 227512 — General Arrangement
- 2C-7 — Powerhouse Cross Section
- 2G-001 — Elevation View
- 2638-0010 Rev 14 — Distributor Section
- 2632-0872 / 0873 — Runner
- 2632-0914 — Discharge Ring

Party Roles

Jonahs (A): Receive and distribute all 27 drawings; coordinate Lagan Engineering; manage drawing transmittal log.

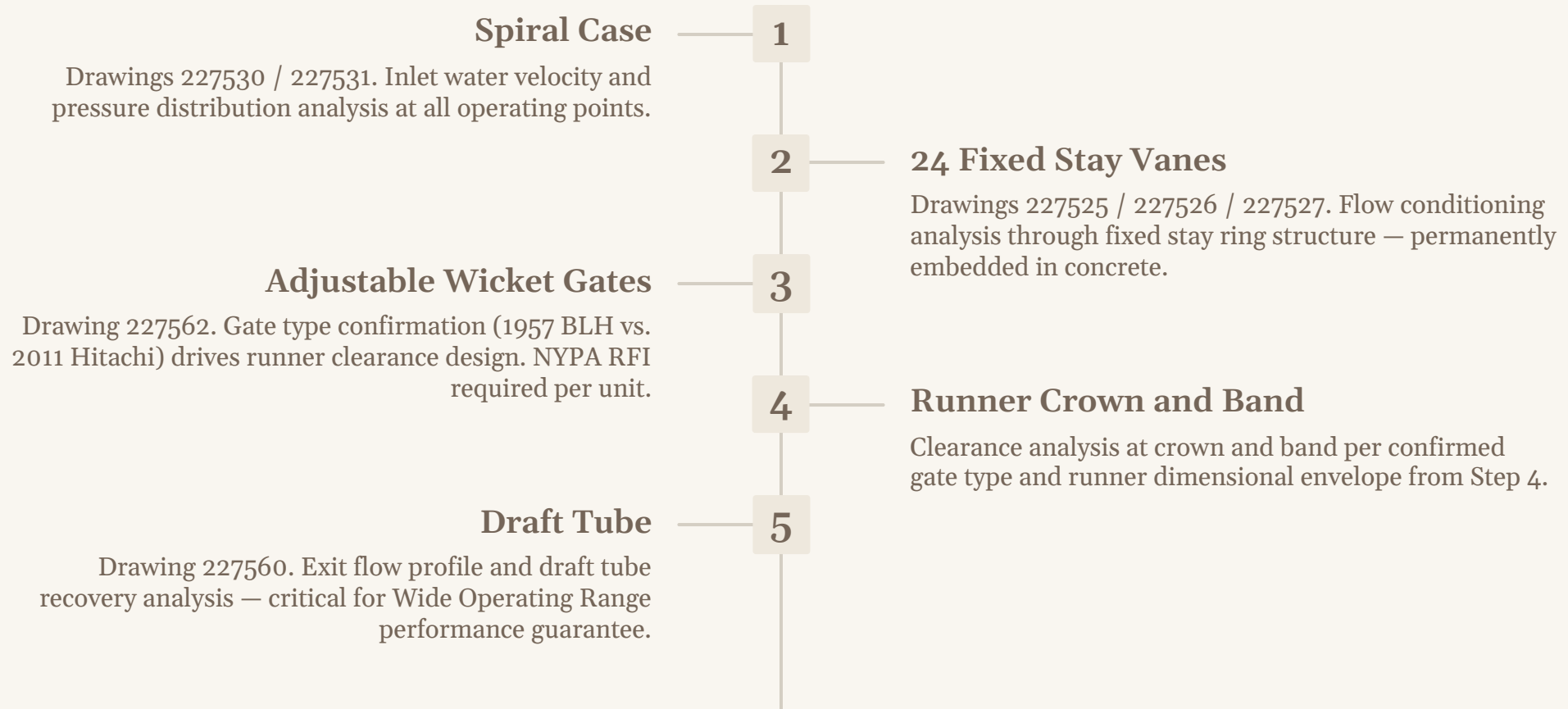
OEC America (C): Civil and mechanical interface review; verify field dimensions; flag all discrepancies between drawings and as-found site conditions.

Inepar S.A. (R): Full hydraulic and mechanical design review; establish runner dimensional envelope; issue design basis memorandum for NYPA review.

Lagan Energy (R): Independent engineering review of all 27 drawings; deviation log maintenance; formal documentation of any drawing non-conformances.

Step 5: Hydraulic Flow Path Analysis

Timing: Program Weeks 4–14. Inepar S.A. is Responsible for the complete hydraulic flow path analysis of the water passage from spiral case through draft tube. The OEM runner blade design is directly derived from this analysis and must be completed before fabrication drawings can be finalized.



OEC America verifies on-site measurements against drawing dimensions and flags all field-to-drawing discrepancies. Lagan Energy coordinates the analysis report and integrates findings into the deviation log.

Step 6: Wicket Gate Type Clarification Per Unit

Timing: Program Weeks 8–16. Each of the 13 units must be individually confirmed as either the 1957 Baldwin-Lima-Hamilton (BLH) original wicket gates or the 2011 Hitachi replacement gates. Runner clearance design and manufactured tolerances depend directly on the confirmed gate type for each unit. This determination cannot be generalized across units — an NYPA RFI is required before each unit's runner design is finalized.

Why Gate Type Matters

The geometric difference between 1957 BLH and 2011 Hitachi wicket gates affects the radial clearance between the runner blade leading edges and the closed gate position. An incorrect clearance design could result in blade contact during emergency shutdown — a catastrophic outcome. Per-unit documentation is mandatory.

- Relevant Drawings: 227562, 21640600MEF24-201FTB_B, 310QC82-676
- NYPA RFI required before each unit runner design is finalized
- Gate log maintained by Lagan Energy for all 13 units

Party Responsibilities

Jonahs (A): Manage the NYPA RFI process per unit; track and document per-unit gate type in the master gate log throughout the program.

OEC America (R): On-site gate type inspection; precise field measurement per unit; document findings in the gate log before transmitting to Inepar.

Inepar S.A. (R): Adjust runner clearance per confirmed gate type for each unit; update FAT and manufacturing drawings to reflect per-unit specification.

Lagan Energy (R): Independent review; maintain consolidated gate log; flag any ambiguous gate type determinations requiring further investigation.

Step 7: Air System Engineering Review

Timing: Program Weeks 10–18. Two distinct air systems must be reviewed, documented, and confirmed operational before any unit is commissioned. Both systems are mandatory — they cannot be bypassed or deferred. Drawing 227574 governs both systems.

System 1: 8-Inch Turbo-Vent Line

Startup trapped-air release system. The 8-inch turbo-vent line releases air trapped in the spiral case and draft tube during initial unit startup following outage. If air is not purged, hydraulic shock can damage the runner, draft tube liner, and associated piping. OEC America is Responsible for field measurement of existing piping, confirmation of operability, and planning any pre-installation repairs. Must be operational before commissioning.

System 2: 6-Inch Compressed Air Anti-Cavitation Line

Part-load anti-cavitation air injection system. At part-load operating points below the Best Efficiency Point (BEP), Francis turbine runners are susceptible to draft tube vortex and cavitation. The 6-inch compressed air injection line suppresses this phenomenon. Inepar S.A. provides Wide Operating Range anti-cavitation analysis and confirms air volume requirements at all part-load operating points. Critical for extended part-load grid-support operation.

- ❏ Both air systems must be confirmed operational before commissioning begins (Step 17). NYPA design modifications or waivers, if required, are approved by Jonahs Enterprises Inc. as Accountable party.

Step 8: Mobilize to RMNPP and Safety Orientation

Timing: Unit Weeks 1–2 (repeats for each of 13 units). Site mobilization and NYPA mandatory safety orientation must be completed before any unit outage work begins. Physical site setup — including offices, lay-down areas, crane scheduling, and material staging — must be established prior to the first physical construction action.

Safety Orientation Requirements

ALL personnel — including Brazilian technical representatives from Inepar and Hacker — must complete NYPA mandatory safety orientation before entering the powerhouse. No exceptions are permitted. NYPA Division 1 Section 011400 governs all site access and safety compliance requirements.

Party Responsibilities

Jonahs (A): Coordinate mobilization sequence; confirm NYPA outage schedule; arrange travel logistics for Brazilian personnel in coordination with Inepar.

OEC America (R): Conduct and formally document NYPA safety orientation for all personnel; establish physical site setup including lay-down, crane schedule, and staging areas.

Inepar (I): Coordinate Brazilian technical representative arrival timing with OEC site manager; confirm personnel are available and NDA-signed before site access.

Step 9: Shut Down Unit and Dewater Turbine Pit

Timing: Unit Weeks 2–3 (repeats for each of 13 units). This is the first physical construction action on every unit outage. No work begins until dewatering is complete and the CPP-1 Clearance and Protection Procedure lockout/tagout is fully executed. Duration: 3 to 5 days.

1

NYPA CPP-1 Lockout/Tagout

NYPA Clearance and Protection Procedure (CPP-1) must be executed and documented before any personnel enter the turbine pit. Jonahs Enterprises Inc. receives and holds the CPP-1 clearance document as the Accountable party. OEC America maintains all lockout/tagout records throughout the dewatering and subsequent work phases.

2

Spiral Case Dewatering

Pump out spiral case volume. The spiral case is a large embedded concrete structure — complete drainage is required before any access to the stay vane ring is possible. OEC America is Responsible for executing dewatering per NYPA protocol.

3

Turbine Pit and Draft Tube

Pump out turbine pit and draft tube. Both volumes must be fully dewatered and confirmed dry before vane inspection (Step 10) can begin. Inepar confirms dewatering complete and updates runner shipping ETA to align with site readiness.

Step 10: Remove Deck Plates; Inspect 24 Fixed Stay Vanes

Timing: Unit Weeks 3–5 (repeats for each of 13 units). The stay ring is permanently embedded in concrete and is NOT replaced under this program. All 24 fixed stay vanes are inspected individually for cracks, corrosion, and mechanical damage. All bolt holes are cleaned, gauged, and verified. A QA hold-point sign-off by Jonahs is required before proceeding to Step 11.

Scope of Work

- Remove lower deck plates to access stay ring and vane inspection areas
- Inspect all 24 fixed stay vanes for cracks, wear, and corrosion
- Repair any identified vane defects per approved repair procedure
- Clean, gauge, and verify all bolt holes for dimensional compliance
- Document all findings in formal inspection report

Governing drawings: 227525, 227526, 227527, 2633-0053

Party Responsibilities

Jonahs (A): QA hold-point sign-off required before proceeding to Step 11. No work on headcover removal begins until Jonahs formally approves the vane inspection report.

OEC America (R): Remove deck plates; inspect, repair, and document all 24 stay vanes; clean all bolt holes and record dimensional measurements.

Inepar (C): Provide dimensional tolerances and inspection acceptance criteria derived from runner design. Review any anomalous findings against runner interface requirements.

Step 11: Remove and Fully Document Headcover Assembly

Timing: Unit Weeks 3–6 (repeats for each of 13 units). The headcover assembly removal is a precision disassembly operation requiring systematic recording of all as-found conditions. All measurements and photographs constitute the quality control baseline for reinstallation in Step 16. Jonahs must formally approve the as-found condition report before Step 12 begins.

Removal Sequence

Remove headcover, packing box, and top cover plates in the correct sequence per drawing 227556 (Headcover Plan) and drawing 227547 (Packing Box). Sequence is critical — incorrect removal order can damage sealing surfaces and gate stems.

As-Found Documentation

Record all as-found conditions: gap measurements, wear patterns on packing box sealing surfaces, corrosion locations, and any mechanical anomalies. All components are photographed before removal. This data is the reinstallation quality baseline.

NYPA QA Gate

Jonahs Enterprises Inc. (A) reviews and formally approves the as-found condition report. OEC America (R) conducts the full disassembly and documents all findings. Inepar (C) reviews as-found conditions against factory drawings and flags any material deviations that affect runner or headcover interface dimensions.

Step 12: Discharge Ring Removal and Replacement

Timing: Unit Weeks 4–10 (repeats for each of 13 units). The discharge ring work is the most complex and highest-risk welding operation in the entire program. The bore must be machined to a roundness tolerance of **0.030 inches**. Any out-of-round condition will cause the rotating runner to contact the stationary ring during operation — a catastrophic failure resulting in unit destruction. Multiple QA hold-points are mandatory.

Air Arc Gouging

Weld New Ring

Machine Bore

Dimensional QA

Governing Drawings

- 227559 — Discharge Ring Assembly
- 2632-0914 — Discharge Ring Detail
- 2631-0106 — Weld Procedure Reference

Party Responsibilities

Jonahs (A): QA hold-point sign-off at each stage — removal, weld, machining, and dimensional measurement. No stage advance without written Jonahs approval.

OEC America (R): Air arc gouging removal; weld new ring per approved weld procedure; precision machining; complete dimensional verification against drawing tolerance.

Inepar (C): Confirm dimensional compliance vs. design drawing 2632-0914; review weld procedure for compatibility with runner interface requirements.

Step 13: Commission HP Oil Lift System and Servomotor System

Timing: Unit Weeks 8–12 (repeats for each of 13 units). Both the HP oil lift system and the 24-gate servomotor system **MUST** be fully commissioned and accepted **BEFORE** the new runner is lowered into the turbine pit. This is a hard program constraint — there are no exceptions.

HP Oil Lift System (Dwg 537F297)

The HP oil lift system generates a high-pressure oil film beneath the thrust bearing that floats the entire 1-million-pound rotating assembly during startup and slow-speed rotation. Without a functioning oil lift, startup friction would damage the thrust bearing within seconds. OEC America commissions the system and documents all oil pressure setpoints and flow rates. Inepar provides runner weight, center of gravity, and hydraulic axial thrust data for oil film pressure calculations.

24-Gate Servomotor System (Dwg 2631-0110)

The servomotor system actuates all 24 wicket gates simultaneously to control water flow and unit power output. OEC America adjusts and sets servomotor stroke on all 24 gates and documents all setpoints before the runner is installed. Gate type (1957 BLH or 2011 Hitachi, confirmed in Step 6) determines stroke settings. If the servomotor system is not commissioned before runner installation, removal of the runner to access the gate mechanism would be required — an enormous cost and schedule impact.

Step 14: Fabricate Francis Turbine Runner in Brazil

Timing: Program Months 2–14 (concurrent with all other program activities) — repeats for each unit. Runner fabrication at Inepar's Brazilian facilities begins at Month 1 concurrent with Pre-Construction and runs continuously throughout the program. Each runner has an approximately 12-month fabrication lead time. Hacker Industrial provides supplemental manufacturing and machining support.

01

Hydraulic Design and Drawing Issue

Based on Step 5 flow path analysis, confirmed gate type from Step 6, and NYPA drawing set. Same hydraulic design family as Iguazu Falls runners, customized to Robert Moses dimensional envelope.

03

Factory Acceptance Test (FAT)

FAT conducted at Inepar's Brazilian facility. Hydraulic model test data submitted to NYPA. All test data reviewed by Jonahs and Lagan Energy against NYPA performance guarantees before runner release for shipment.

02

Material Procurement and Casting

Runner material procurement with full material traceability documentation per Design Build QA Spec Rev 2. Hacker Industrial supports supplemental machining and manufacturing. QC support at Brazilian facilities throughout fabrication.

04

Shipping and Customs

Runner shipped from Brazil to Niagara Falls, NY. Inepar manages all import and customs logistics. Jonahs tracks milestones against the Schedule of Values payment schedule and manages payment applications triggered by FAT completion and shipping milestones.

Step 15: Lower New Runner into Turbine Pit

Timing: Unit Weeks 12–14 (repeats for each of 13 units). Runner lowering is the single most consequential installation operation in the program. The RMNPP powerhouse overhead crane is used to lower the runner — a precision lift requiring alignment to ± 0.010 inch to the turbine shaft centerline. All alignment measurement records must be signed off by Jonahs before the runner is bolted.

Precision Alignment Requirements

- Alignment tolerance: ± 0.010 inch to turbine shaft centerline
- Coupling bolt torque per drawing 2632-0945 Rev 3 and OEM specification
- Runner cone installed per drawing 26320895
- Brazilian technical representative from Inepar must be on-site during lowering operation
- All torque values documented in formal bolt torque log

Party Responsibilities

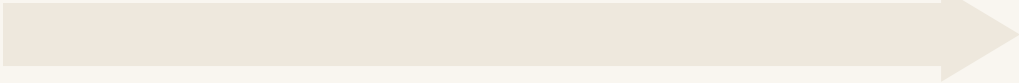
Jonahs (A): Sign off on all alignment measurement records. Formally authorize lowering operation in writing before crane lift begins. No runner lowering without Jonahs written authorization.

OEC America (R): Oversee crane operation; execute precision alignment; torque all coupling bolts and document results in the torque log. Responsible for all rigging and lift safety.

Inepar (C): Provide OEM torque specifications and alignment tolerances. Brazilian technical representative is on-site to verify alignment and confirm compliance with factory design intent before bolting.

Step 16: Full Mechanical Reinstallation

Timing: Unit Weeks 13–16 (repeats for each of 13 units). Following runner installation, all mechanical components removed during Steps 11–13 are reinstalled in the reverse sequence, working from the bottom up. All air piping is pressure-tested, all instrumentation is reconnected, and a formal punch list is completed and closed before commissioning begins.



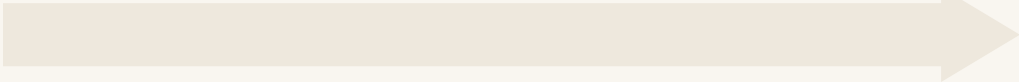
Headcover Reinstallation

Reinstall headcover per drawing 227556 sequence. All gap measurements recorded against as-found baseline from Step 11.



Wicket Gates and Packing Box

Reinstall confirmed gate type (per Step 6) wicket gates; reinstall packing box per drawing 227547; verify gate stem sealing against packing box baseline.



Servomotors and Air Piping

Reconnect servomotors. Reinstall and pressure-test both 8-inch and 6-inch air piping systems per drawing 227574. Both systems confirmed operational.



Instrumentation and Punch List

Reconnect all instrumentation. Complete formal punch list review. Jonahs formally closes the punch list and authorizes transition to commissioning phase in writing.

Step 17: Initial Commissioning and Vibration Testing

Timing: Unit Weeks 16–18 (repeats for each of 13 units). Initial commissioning begins with a no-load spin test following completion of all punch list items. Vibration data is collected per the RMNPP Operations Vibration 5-Minute protocol and compared against the Q4-2025 baseline data. Any anomalous vibration at no-load or partial load must be investigated and resolved before the NYPA Final Acceptance Test.

Commissioning Sequence

- No-load spin test following punch list closure
- Collect vibration data per RMNPP Operations 5-Minute protocol
- Compare to Q4-2025 vibration baseline (established by Lagan Energy)
- Confirm no anomalous vibration at no-load operating point
- Advance to partial load — confirm vibration signature
- Submit all vibration and performance data to NYPA

Party Responsibilities

Jonahs (A): NYPA liaison and formal progress notifications; review vibration data against acceptance criteria; authorize advance to Step 18 Final Acceptance Test.

OEC America (R): Execute the full commissioning plan; collect, document, and submit all vibration and performance data per RMNPP protocol.

Inepar (C): Compare measured vibration data to factory model test predictions; advise on any detected anomalies and recommend corrective action if required.

Lagan Energy (C): Independent review of vibration data against Q4-2025 baseline; maintain deviation log entry if any anomaly is identified.

Step 18: NYPA Final Acceptance Test

Timing: Unit Weeks 18–20 (repeats for each of 13 units). The NYPA Final Acceptance Test is the formal gate that returns each unit to full commercial generation service. Upon NYPA sign-off, the Substantial Completion Certificate is issued, the 5-year warranty clock starts for that unit, and the payment milestone per Schedule of Values Rev. 2 is triggered.

Full-Load Performance Test

Full-load performance test across the operating range. Efficiency curve verification against OEM performance guarantee data submitted by Inepar.

Hydraulic Thrust Measurement

Hydraulic axial thrust measured and compared to OEM design values. Confirms HP oil lift system adequacy under actual operating conditions.

NYPA Sign-Off and Completion

NYPA issues Substantial Completion Certificate. Unit returned to full generation service. Jonahs files warranty dates and submits payment application per SoV Rev. 2.

Documentation Package

OEC America submits all completion documentation and as-built records. Inepar submits OEM warranty certificate, spare parts schedule, and technical on-call support confirmation.

Step 19: Program Management — All 17 Years

Program management is a continuous function spanning the full 17-year duration of the program. Steps 9–18 repeat for all 13 units with Jonahs Enterprises Inc. serving as the primary program management accountable party throughout. The central risk is the \$50,000 USD per calendar day Liquidated Damages exposure for schedule non-compliance.



NYPA Schedule Management

Avoid triggering Liquidated Damages at \$50,000 USD per calendar day. Submit 4-week look-ahead schedules monthly. OEC America provides monthly progress reports and milestone updates.



Payment Applications

Process payment applications per Schedule of Values Rev. 2 on a per-unit milestone basis. Manage cash flow to prevent subcontractor default risk across the 17-year timeline. Inepar invoices per fabrication milestones.



MWBE Quarterly Reporting

Jonahs Enterprises Inc. is Responsible for quarterly MWBE reporting throughout all 17 years. Non-compliance may result in payment suspension and potential contract breach per NYPA Appendix C — FINAL 5.24.



Biannual Management Committee

Biannual Management Committee meetings co-chaired by Jonahs and Metis-Serris per JVA provisions. Inepar and OEC America provide manufacturing schedule updates and lead-time flags for each upcoming unit outage.

Step 20: Final Program Closeout and Warranty Period

Timing: End of Program (~Months 208–270). Following NYPA acceptance of Runner 13, the program enters the Final Closeout and Warranty phase. All 13 runners carry individual 5-year warranty clocks from the date of their respective NYPA Substantial Completion Certificates. The program is not fully complete until the last unit warranty expires — approximately Year 22–23 from NTP.

Final Closeout Obligations

- Complete all closeout documentation for all 13 units
- Submit final payment application and obtain final payment release
- Confirm all 13 warranty certificates are filed with NYPA
- Inepar provides as-built drawings and spare parts provisioning plan
- Technical on-call support commitment from Inepar confirmed

Warranty Period Management

Jonahs Enterprises Inc. is Accountable and Responsible for managing the full warranty period for all 13 units — individual warranty clocks run from each unit's acceptance date. The 5-year warranty on Runner 1 (accepted ~Month 22) expires ~Month 82, while Runner 13's warranty expires ~Month 268 (~Year 22.3). Jonahs maintains warranty response obligation throughout this entire period, supported by Inepar's technical on-call and spare parts commitments.

Responsibility Assignment Matrix (RACI) — Program Setup Steps

A = Accountable (owns outcome; answers to NYPA) | R = Responsible (performs work) | C = Consulted (input required) | I = Informed (notification only) | — = Not applicable

Step / Function	Jonahs Ent.	Metis/Ser ris	Inepar S.A.	Hacker Ind.	OEC America	Lagan Energy
1 — Form Consortium and Contracts	A/R	R	C	—	C	C
2 — Regulatory and Procurement Compliance	A/R	C	I	I	C	I
3 — NYPA Certifications (NDA, EO16, Safety)	A/R	R	I	—	C	I
4 — Engineering Drawing Review	A	C	R	C	C	R
5 — Hydraulic Flow Path Analysis	A	C	R	C	C	R
6 — Wicket Gate Type Clarification	A	I	R	C	R	R
7 — Air System Engineering Review	A	I	C	—	R	R
8 — Site Mobilization and Safety Orientation	A	I	I	I	R	I

Responsibility Assignment Matrix (RACI) — Unit Outage Steps

Steps 9–18 repeat for each of the 13 unit outages throughout the 17-year program. RACI designations remain consistent across all 13 repetitions unless a unit-specific deviation is documented and approved.

Step / Function	Jonahs Ent.	Metis/Ser ris	Inepar S.A.	Hacker Ind.	OEC America	Lagan Energy
9 — Unit Shutdown and Dewatering	A	I	I	—	R	—
10 — Stay Ring, Deck Plates, Vane Inspection	A	I	C	—	R	C
11 — Headcover Removal and Documentation	A	I	C	—	R	C
12 — Discharge Ring Removal and Replacement	A	I	C	—	R	C
13 — HP Oil Lift and Servomotor Commissioning	A	I	C	—	R	C
14 — Runner Fabrication and FAT (Brazil)	A	I	R	R	I	C
15 — Runner Lowering and Shaft Installation	A	I	R	C	R	—
16 — Full Mechanical Reinstallation	A	I	C	—	R	C
17 — Initial Commissioning and Vibration Test	A	C	C	—	R	C
18 — NYPA Final Acceptance Test	A/R	C	C	—	R	—

Responsibility Assignment Matrix (RACI) — Program Functions

Program Function	Jonahs Ent.	Metis/Ser ris	Inepar S.A.	Hacker Ind.	OEC America	Lagan Energy
19 — Program Management (17-Year)	R	R	C	—	C	—
20 — Final Closeout and Warranty Period	A/R	C	C	C	C	—
MWBE Compliance Reporting (Quarterly)	R	C	I	I	C	—
Quality Assurance / QC (QA Spec Rev 2)	A	C	R	R	R	C
Subcontractor Disclosure (RFP Sec. 12.5)	R	C	I	I	I	—
Schedule of Values / Payment Applications	R	C	I	I	C	—



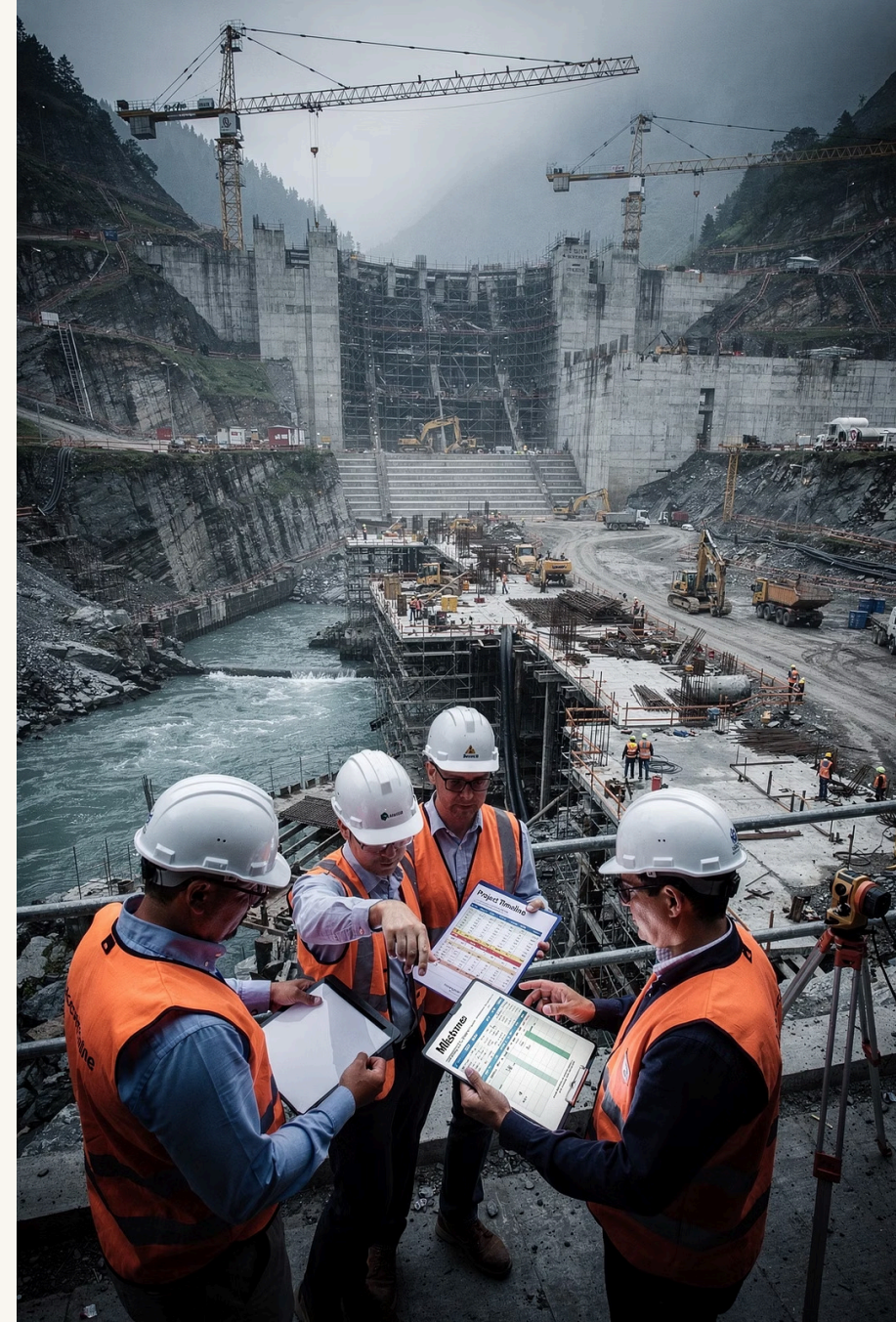
Jonahs Enterprises Inc. holds Accountability (A) on every step of this program. Accountability is non-delegable and cannot be transferred to any JV partner, subcontractor, or consultant. All escalations ultimately return to Jonahs as the sole NYPA contract signatory.

CRITICAL PATH

Key Milestones and Critical Path Overview

The following milestones constitute the binding schedule gates for the RMNPP Turbine Runner Replacement Program. Delay at any critical path gate may trigger Liquidated Damages at **\$50,000 USD per calendar day**. The critical path runs: **NTP → Engineering Complete → Runner 1 Shipped → Unit 1 Outage → Discharge Ring → Runner Install → NYPA Acceptance.**

Thirteen milestones govern the full 22.5-year program lifecycle from NTP through final warranty expiry. Mid-program and recurring milestones (MWBE reporting, payment applications) are equally binding — failure to meet them triggers compliance penalties and cash flow disruption independent of physical construction progress.



Milestone Schedule — M0 through M7

Ref.	Milestone	Responsible Party	Target (from NTP)	Consequence of Non-Compliance
M0	NYPA Notice to Proceed (NTP)	NYPA / Jonahs Enterprises Inc.	Month 0	Program does not commence; all activities delayed
M1	All Consortium Contracts Executed	Jonahs / Metis-Serris / All Subcontractors	Month 1 (Week 4)	NYPA may withhold NTP; program stalls entirely
M2	Engineering Package Complete (Steps 4–7)	Inepar S.A. / Lagan Energy Engineering	Month 6	Runner fabrication final drawings cannot issue; critical path delay
M3	Runner 1 Fabrication Complete and Shipped	Inepar S.A. (Brazil)	Month 12 from NTP	Delays Unit 1 installation; LD exposure at \$50,000/day
M4	Unit 1 Outage Authorized by NYPA	NYPA / Jonahs Enterprises	Month 7 from NTP	All Unit 1 site work cascades; master schedule impact
M5	Unit 1 Discharge Ring Complete and Accepted	OEC America	Unit Week 10 (Month 9)	Blocks runner lowering; critical path; LD exposure
M6	Unit 1 HP Oil Lift and Servomotor Commissioned	OEC America	Unit Week 12 (Month 10)	Runner cannot be lowered; testing blocked; LD clock running
M7	Unit 1 Runner Installation Complete	OEC America / Inepar	Unit Week 14 (Month 11)	Blocks commissioning; LD at \$50,000/day

Milestone Schedule — M8 through M13

Ref.	Milestone	Responsible Party	Target (from NTP)	Consequence of Non-Compliance
M8	Unit 1 NYPA Substantial Completion Accepted	Jonahs / OEC / NYPA	Unit Month 16 (Program Month 22)	First major payment milestone; Unit 1 warranty clock starts; program baseline established
M9	Mid-Program Review (Unit 6 Completion)	Jonahs / Metis-Serris / NYPA	Month 102 (Year 8.5)	NYPA performance review; program continuation approval required
M10	Unit 13 Final Acceptance — FINAL COMPLETION	Jonahs Enterprises Inc. / OEC	Month 208 (Year 17)	FINAL PAYMENT released; program complete; all 13 warranty periods active
M11	MWBE Quarterly Reports (recurring)	Jonahs Enterprises Inc.	Quarterly — all 17 years	NYPA compliance penalty; payment suspension; potential breach
M12	Payment Applications per Schedule of Values	Jonahs Enterprises Inc.	Monthly / per unit milestone	Cash flow interruption; subcontractor default risk
M13	All Warranty Periods Expired — Final Obligation	Jonahs Enterprises Inc.	~Year 22–23 (last unit warranty)	All program obligations discharged; program fully and finally complete



Liquidated Damages of \$50,000 USD per calendar day are triggered by delay at any critical path gate. Active risk management and 4-week look-ahead scheduling are mandatory throughout the program.

Regulatory, Insurance and Compliance Framework

All requirements below are mandatory per NYPA contract Q25-7727JV and the Fixed-Duration Agreement. Non-compliance may result in payment suspension, LD exposure, or contract termination. Jonahs Enterprises Inc. holds primary accountability for all compliance obligations, with specific responsibilities delegated to OEC America for site-based requirements and Inepar S.A. for QA fabrication compliance.

 PASSPort and Vendor Registration Jonahs Enterprises Inc. PASSPort Status: Filed. FMS Vendor Code: VS00071607. Payee Information Portal (PIP) registration confirmed. All registrations must remain current for the full 17-year program duration.	 MWBE Certification and Reporting MWBE utilization plan per Appendix C — FINAL 5.24 (No Goals). EO16 Certification signed. Quarterly MWBE reporting is a recurring obligation. Payment suspension is a direct consequence of reporting failure.
 NDA and Confidentiality NYPA Online Confidentiality Agreement and NDA Version 2020-10 executed by all parties: Jonahs, Metis-Serris, Inepar, Hacker, OEC, and Lagan. All Brazil-based personnel entering RMNPP must sign the NDA individually before site access.	 Insurance and Bonding Workers Compensation per Appendix E (Jan 2019) and Appendix F (Sep 2023). General Liability, Professional Liability, and Umbrella Insurance per NYPA Insurance Provision; Acord Certificate; Endorsement; Waiver of Subrogation. All bonding sourced by Metis/Serris per JVA Section obligations.

Quality Assurance and Safety Compliance

Design Build QA Specification Rev 2

All fabrication by Inepar S.A. must comply with the NYPA Design Build QA Specification Rev 2 and the QA Bidder Questionnaire — Short Form Rev 2. QC support at Brazilian facilities is provided by Hacker Industrial with full material traceability documentation required for all runner components. OEC America is responsible for QA compliance on all US site works.

NYPA Safety Compliance

NYPA Division 1 Section 011400 governs all site access and safety protocols. CPP-1 Clearance and Protection Procedure lockout/tagout is mandatory before every unit shutdown. NYPA EHS Explanation Request Form Rev 2 completed by OEC America as site execution lead. Contractor Safety Performance Bid Form submitted per Appendix H.

Subcontractor Disclosure

Full subcontractor information disclosed per RFP Section 12.5 Subcontractor Information Spreadsheet (Q25-7727JV Appendix). All subcontractor EINs, legal addresses, and scope values documented and submitted by Jonahs Enterprises Inc. as Prime Contractor.

Schedule and Organization Chart

Detailed Project Schedule submission per RFP Section 12.7 — this document. Project-Specific Organization Chart per RFP Section 12.4A submitted as a separate attachment by Jonahs Enterprises Inc. Both documents are formal RFP evaluation criteria deliverables.

Prompt Payment

PO Address Form Template 2024 and NYPA Prompt Payment Statement Appendix B (2018-08-09) filed by Jonahs Enterprises Inc. to ensure timely payment processing throughout the program.

The Francis Turbine Runner — Technical Context

The Francis turbine runner is the central rotating element of the generating unit — the component through which all hydraulic energy is converted to mechanical shaft power. At RMNPP, each of the 13 existing runners represents decades of operational service and requires replacement to restore hydraulic efficiency, eliminate cavitation damage, and extend unit service life.

Wide Operating Range Design

The replacement runners are specified as "Wide Operating Range" Francis runners — a design philosophy that maintains efficiency and suppresses cavitation across a broader load range than conventional Francis runners. This capability is increasingly important as hydropower units are called upon to provide grid-support services at part-load operating points, beyond their traditional role as baseload generation.

Iguazu Falls Design Lineage

Inepar S.A. brings direct precedent from the Iguazu Falls turbine runners — the same hydraulic design family applied at Robert Moses, customized to RMNPP dimensions per all 27 NYPA engineering drawings. This is a significant technical credential: the Iguazu Falls units operate under comparable hydraulic heads and represent proven large-Francis runner performance. Customization to Robert Moses dimensions is managed through the complete NYPA drawing set review completed in Steps 4 and 5.

Discharge Ring: The Most Critical Weld in the Program

The discharge ring is the stationary annular structure surrounding the bottom band of the rotating runner. The radial clearance between the runner band and the discharge ring bore is measured in thousandths of an inch. Any out-of-round condition after weld and machining causes the rotating runner to contact the stationary ring during operation — a catastrophic event that would destroy the runner, damage the discharge ring and draft tube liner, and require complete removal and replacement of the newly installed runner.

Removal Method

Air arc gouging — a controlled thermal cutting process — is used to remove the existing discharge ring. Air arc gouging offers superior control over flame cutting for embedded ring removal in confined turbine pit geometry.

Weld Procedure

New ring welded per approved weld procedure per drawing 2631-0106. Weld procedure qualification and welder certification are mandatory QA requirements per Design Build QA Spec Rev 2 before any welding commences.

Machining Tolerance

Ring bore machined to **0.030-inch roundness tolerance** — the most precise dimensional requirement in the entire program. Verified by precision measurement at multiple circumferential positions before QA hold-point sign-off.

QA Hold-Points

Jonahs Enterprises Inc. hold-point sign-off required at removal completion, weld completion, machining completion, and dimensional measurement. No advance without written Jonahs approval at each hold-point.

HP Oil Lift System — Why It Cannot Be Bypassed

The 1-Million-Pound Challenge

The complete rotating assembly of a large Francis turbine generating unit — runner, shaft, coupling, thrust collar, and generator rotor — weighs approximately 1,000,000 pounds. At rest, this full weight bears directly on the thrust bearing. Rotating a 1-million-pound assembly from rest under boundary lubrication conditions would destroy the thrust bearing surface within seconds. The HP oil lift system solves this by generating a pressurized oil film that hydraulically floats the entire rotating assembly, reducing effective bearing load by several orders of magnitude during startup.

Commission Before Runner Installation

The HP oil lift system must be commissioned and verified operational **before** the new runner is lowered into the turbine pit. After runner installation, access to the thrust bearing and oil lift components is obstructed. Discovering an HP oil lift failure after runner installation would require complete mechanical disassembly — a catastrophic schedule and cost event. OEC America is Responsible for commissioning; Inepar provides runner weight, center of gravity, and hydraulic axial thrust for oil film pressure calculations. Jonahs signs off before runner lowering is authorized.

Governing Drawing

Drawing 537F297 governs the HP oil lift system design, component specification, and commissioning procedure. All setpoints and measured values are documented in the commissioning record and submitted to NYPA before Step 15 is authorized.

Wicket Gate System — Per-Unit Complexity

The wicket gate system at RMNPP is complicated by the mixed heritage of gate replacement over the plant's operating history. Units equipped with their original 1957 Baldwin-Lima-Hamilton (BLH) gates have different geometric profiles from units where gates were replaced with 2011 Hitachi units. Because the Francis runner is custom-manufactured to precise clearance specifications, an incorrect gate type determination at the design stage would result in a runner that is out of specification by the time it arrives from Brazil.

1957 Baldwin-Lima-Hamilton (BLH)

Original wicket gates from initial plant construction. Gate stem diameter, leading edge radius, and closed-position geometry per 1957 design standard. Per-unit field measurement required to confirm BLH gate type is present and undisturbed. Governing drawing: 227562.

2011 Hitachi Replacement

Replacement gates installed on selected units during the 2011 refurbishment program. Different geometric profile than original BLH gates. Governing drawings: 21640600MEF24-201FTB_B and 310QC82-676. Hitachi gate type must be formally confirmed before any Inepar runner clearance adjustment is made.

OEC America performs on-site inspection and precise field measurement of gate type per unit. Findings are documented in the master gate log maintained by Lagan Energy Engineering. Inepar adjusts runner clearance per confirmed gate type and updates FAT and manufacturing drawings before fabrication of that unit's runner commences. An NYPA RFI is required for each unit before runner design is finalized — this is a formal program requirement, not optional.

Vibration Testing and Baseline Protocol

Vibration testing is the primary commissioning diagnostic tool used to confirm that each newly installed runner is performing within acceptable parameters before NYPA Final Acceptance. The RMNPP Operations Vibration 5-Minute protocol governs data collection procedures and acceptance criteria. The Q4-2025 vibration baseline data — established by Lagan Energy Engineering — provides the pre-outage reference against which all post-installation vibration signatures are compared.

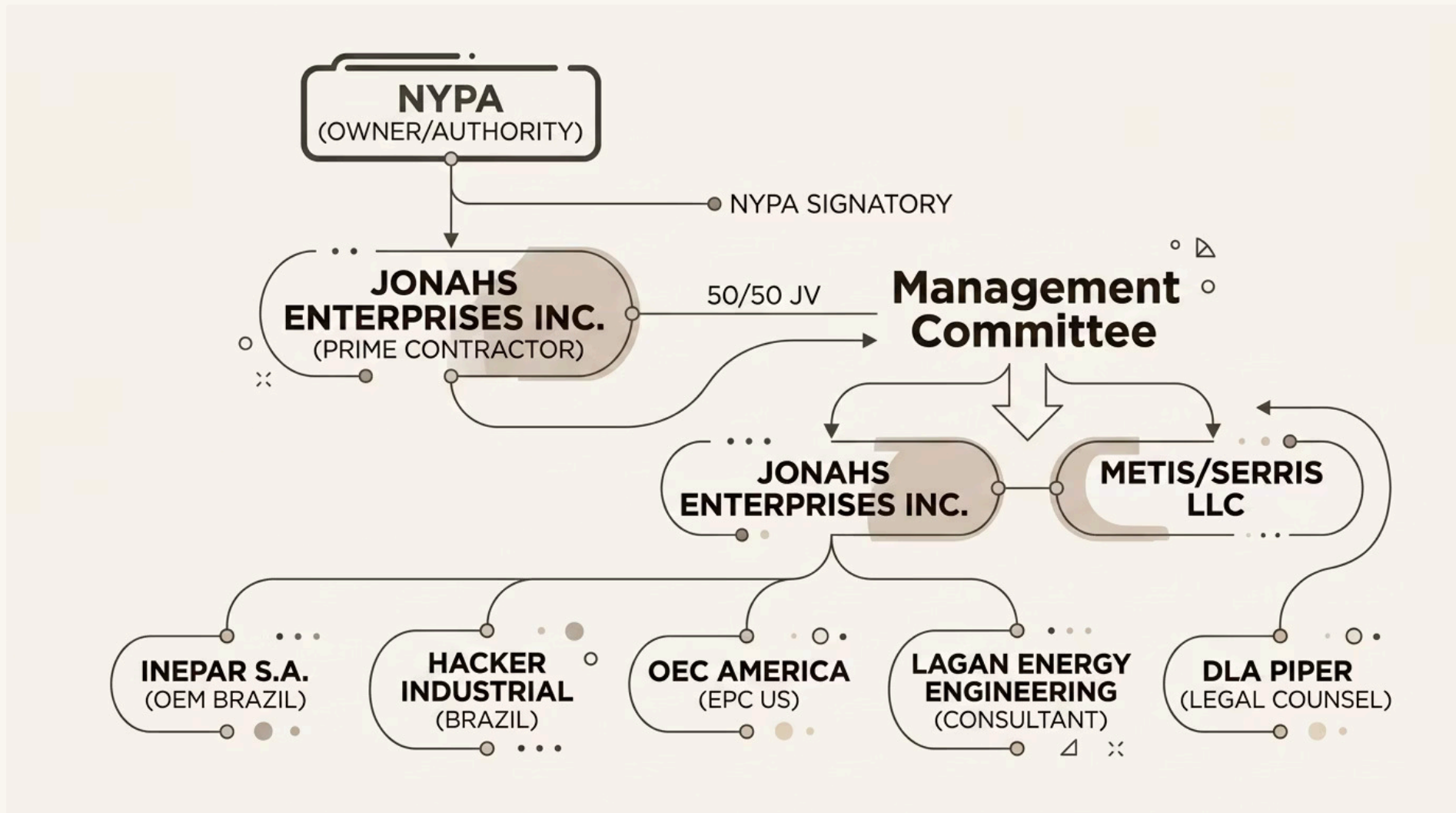
No-Load Spin Test

The initial spin test at no-load operating conditions provides the first vibration signature of the newly installed runner. Anomalous vibration at no-load — before any hydraulic loading — indicates a mechanical installation issue such as misalignment, imbalance, or a coupling bolt problem. Any anomaly must be investigated and resolved before advancing to partial-load testing.

Inepar Factory Model Comparison

Inepar compares all measured vibration data to factory hydraulic model test predictions established during FAT in Brazil. Divergence between measured site data and factory model predictions triggers an Inepar technical advisory — which Lagan Energy reviews and documents in the deviation log. This two-layer independent review (OEC collects, Inepar and Lagan independently review) provides the quality assurance rigor required by NYPA's QA Spec Rev 2 before Final Acceptance.

Program Governance and Joint Venture Structure



The unincorporated contractual Joint Venture between Jonahs Enterprises Inc. and Metis/Serris LLC is governed by the JVA dated June 18, 2026 (DRAFT) with a 5-year initial term. The Biannual Management Committee — co-chaired by Jonahs and Metis-Serris — provides the primary governance forum for program decisions, dispute resolution, and strategic direction throughout the 17-year program. DLA Piper serves as lead legal counsel for the full consortium for all NYPA contract matters.

Schedule of Values and Payment Structure

Payment applications are processed by Jonahs Enterprises Inc. per the RMNPP Turbine Runner Schedule of Values Rev. 2. Payment milestones are triggered by physical program events — primarily NYPA Substantial Completion Certificates issued per unit — ensuring that payment flows are directly tied to verified delivery performance. Subcontractor payments are managed by Jonahs as Prime Contractor per NYPA prompt payment requirements.



Pre-Construction Milestone

Initial payment milestone triggered upon execution of all consortium contracts and NYPA NTP issuance. Covers pre-construction mobilization costs and initial engineering expenditures per SoV Rev. 2.



Fabrication Milestone (Per Unit)

Payment triggered by completion of Factory Acceptance Test (FAT) at Inepar's Brazilian facilities and runner shipment confirmation. Jonahs tracks against SoV Rev. 2 and manages payment application submission timing.



Substantial Completion (Per Unit)

Major payment milestone triggered by NYPA issuance of Substantial Completion Certificate per unit. Unit returned to full generation service. Warranty clock starts. This is the primary cash flow driver for all 13 units.



Final Payment (Program Close)

Final payment released upon NYPA acceptance of Runner 13 at Program Month ~208. Full program completion triggers release of retained amounts. 5-year warranty active on all 13 units continues post-final payment.

Liquidated Damages Risk Management

The \$50,000 USD per calendar day Liquidated Damages (LD) exposure is the primary financial risk in this program. A 30-day delay at any critical path gate represents a \$1,500,000 LD exposure. Managing this risk requires active schedule monitoring, proactive supply chain management, and a rigorous 4-week look-ahead scheduling discipline throughout all 17 years.

Highest LD Risk Events

- **Runner shipping delays from Brazil** — 12-month lead time leaves no float for late fabrication or customs delays
- **Discharge ring weld/machining failures** — rework would extend the outage by weeks at \$50K/day
- **HP oil lift or servomotor failures discovered post-runner installation** — requires full runner removal and reinstallation
- **NYPA outage schedule conflicts** — NYPA controls outage authorization; schedule coordination is mandatory
- **Wicket gate type misidentification** — incorrect runner clearance results in runner replacement, not adjustment

Mitigation Strategies

- Inepar fabrication begins Month 1 — 6-month buffer before Unit 1 outage begins
- Multiple QA hold-points on discharge ring to catch dimensional non-conformance early
- HP oil lift and servomotor commissioning mandated before runner lowering — hard constraint
- Monthly 4-week look-ahead schedules submitted by OEC and Inepar to Jonahs for integration
- Biannual Management Committee reviews rolling program schedule against all upcoming unit outages
- Lagan Energy deviation log provides early warning of design or field measurement discrepancies

Mid-Program NYPA Performance Review (Milestone M9)

At the completion of Unit 6 — approximately Month 102 from NTP, representing Year 8.5 and 46% of the physical program — a formal NYPA Mid-Program Performance Review is required. This milestone represents a significant program continuation gate. NYPA's approval is required for the program to proceed to Units 7 through 13. Preparation for this review begins well in advance, with Jonahs and Metis-Serris jointly responsible for the review package.

Schedule Performance

Documentation of all 6 completed unit timelines against the master schedule. Any units where LD was incurred must be explained with root cause analysis and corrective action plans for the remaining 7 units. 4-week look-ahead compliance record reviewed.

Technical Performance

Efficiency curve data from all 6 completed units compared to OEM performance guarantees. Vibration data trends reviewed against Q4-2025 baseline. Any FAT deviations or site acceptance anomalies documented and resolved. Lagan Energy deviation log status reviewed.

Compliance Performance

6 years of MWBE quarterly reporting reviewed for completeness and accuracy. PASSPort and all NYPA registrations confirmed current. All insurance certificates and bonding documents reviewed for continued adequacy. Subcontractor payment records reviewed against NYPA prompt payment requirements.

Remaining Program Plan

Updated 11-year forward schedule for Units 7–13. Updated manufacturing schedule from Inepar. Any lessons learned from Units 1–6 incorporated into revised procedures. Management Committee composition and governance confirmed for the back half of the program.

Key Governing Documents Reference

The following documents constitute the full governing framework for the RMNPP Turbine Runner Replacement Program. All program decisions, design choices, schedule commitments, and compliance actions must be consistent with these governing documents. Any conflict between documents is resolved per the order of precedence established in the FD Agreement.

Document	Description	Primary Responsible Party
FD Agreement — Contract Q25-7727JV	NYPA Fixed-Duration Agreement — prime contract binding instrument	Jonahs Enterprises Inc.
FD General Conditions	General contract conditions governing all program activities	Jonahs Enterprises Inc.
NYPA RFP Q25-7727JV Addenda 1–15	All RFP addenda — binding modifications to original RFP scope	Jonahs / Metis-Serris
Design Build QA Spec Rev 2	Quality assurance specification governing fabrication and site works	Inepar S.A. / OEC America
27 NYPA Engineering Drawings	Complete drawing set defining runner and powerhouse dimensions	Inepar S.A. / Lagan Energy
JVA — Jonahs / Metis-Serris (June 18, 2026)	Joint Venture Agreement governing consortium structure and obligations	Jonahs / Metis-Serris / DLA Piper
Schedule of Values Rev. 2	Payment milestone schedule governing all payment applications	Jonahs Enterprises Inc.
NYPA NDA — Version 2020-10	Confidentiality agreement binding all consortium parties and site personnel	All Parties
NYPA Division 1 Section 011400	Site safety and access compliance requirements for RMNPP powerhouse	OEC America / Jonahs

Program Summary and Commitment

The Jonahs Enterprises Inc. / Metis-Serris LLC consortium presents this Institutional Time and Responsibility Schedule as a binding commitment to NYPA for the complete and compliant execution of the Robert Moses Niagara Power Project Turbine Runner Replacement Program under Contract Q25-7727JV.

Scope Commitment

Design, fabricate, deliver, install, and commission all 13 Francis turbine runners at RMNPP, Lewiston, NY — one every 16 months over 17 years — with full 5-year warranty on each unit.

Team Commitment

A purpose-built consortium: Jonahs as Prime; Metis-Serris as JV partner; Inepar (OEM Brazil); Hacker (engineering support); OEC America (EPC); Lagan Energy (consulting); DLA Piper (legal counsel).

Compliance Commitment

Full compliance with all NYPA procurement, regulatory, MWBE, QA, safety, and payment obligations throughout the 17-year program and the ~5-year warranty period that follows.

Document Date: June 2026 | Program Duration: 17 Years (2027–2043+) | Contract Q25-7727JV

CONFIDENTIAL — PROPRIETARY BID DOCUMENT — NYPA RFP Q25-7727JV