

Powering a Sustainable Future through Innovative Energy Solutions



Your Trusted Partner for Turnkey Energy and Agricultural Projects

www.enertecmada.mg



Your Trusted Partner for Turnkey Energy and Agricultural Projects

Summary



Your Trusted Partner for Turnkey Energy and Agricultural Projects



About Enertec Mada

1. Introduction and Core Expertise

About Enertec MADA: ENERTEC MADA is a premier EPC (Engineering, Procurement, and Construction) company, based in Madagascar and established in 2018.

2. Integrated Value Proposition

We design and deliver complete and integrated solutions covering the **ENERGY**, **TELECOMMUNICATIONS**, and **INFRASTRUCTURE** sectors. Our mission is to catalyze the development of projects characterized by their reliability, sustainability, and high level of innovation.

3. Strategic Sector (Agriculture)

Building upon our solid foundations, we are also highly engaged in the **AGRICULTURE** sector, making a significant contribution to sustainable development and the strengthening of food security in Madagascar and across the African continent.







The Founder: André VENEZIANO - ENERTEC MADA

International Leadership & Project Management Expertise

Proven Competencies in Global Engineering & Project Management:

- **Key Roles:** Demonstrated experience as Resident Engineer, Owner's Engineer, Owners Representative; and Senior Project Manager.
- Technical Expertise: Management and execution of very large-scale EPC power plants, covering a complete technological spectrum: coalfired plant, hydroelectric, solar, wind, and geothermal.
- Complete Project Lifecycle: Mastery of the entire project lifecycle, from design to operation and maintenance, across AFRICA and ASIA

Significant Project Portfolio (Selection)

- Successful management of a cumulative value exceeding \$18 billion USD.
- MEDUPI 4800 MW Coal-Fired Thermal Power Plant (Resident Engineer; South Africa).
- MANANTALI 200 MW Hydroelectric Project (Project Manager; Mali, Senegal & Mauritania).
- Upper Cisokan 1040 MW Pumped-Storage Power Plant (Owner's Engineer; Indonesia)
- Ambatolampy 20 MW Solar Power Plant (Project Manager & CEO; Madagascar).
- Arsenal 14 MW Solar Power Plant (Project Manager & CEO; Mauritius).
- This experience underscores a strong capacity to lead complex, high-value-added initiatives.

Visionary Founder and Impact

- Founded Enertec Mada in November 2018.
- **Objective:** To bring unparalleled expertise and a firm commitment to delivering high-quality energy solutions to Madagascar and Africa.

Awards and Recognitions

- **2009 First Tech Group:** Achiever of the Year Award For Exceptional Work.
- **2006 ESKOM:** Chairman's Award In recognition of an exceptional contribution to ESKOM.









Our Expertise (Energy)

1. Renewable Energy Solutions (EPC) Services

Complete EPC (Engineering, Design, Construction, Testing, Operation, including Maintenance (O&M)) services for Solar, Wind, and Hydroelectric energy



EPC Expertise, Operation, and Maintenance for installations and equipment in Mines, Plants, and Substations.

3. Transmission and Distribution Infrastructure (EPC)

Specializing in Design Engineering, Construction, Operation, and Maintenance of Overhead Transmission and Distribution Lines.

4. Rural Electrification

As an Independent Power Producer and Distributor. We specialize in the design, construction, operation, and maintenance of rural mini-grid systems, empowering local communities











Our Expertise (Infrastructure & Services)

4. Telecommunication Infrastructure Solutions

■ Complete Turnkey EPC for telecommunication towers, providing reliable network infrastructure.

5. Agricultural Solutions

- Supplier of Tractors, trailers, and agricultural machinery/equipment.
- Execution of Agricultural Development Projects Tractors,, including Water Drilling and the installation of complete Hydro and Irrigation Systems.

6. Electromechanical Services

Installation, on-site maintenance, and repair of electric motors and electromechanical equipment up to 30 MW.





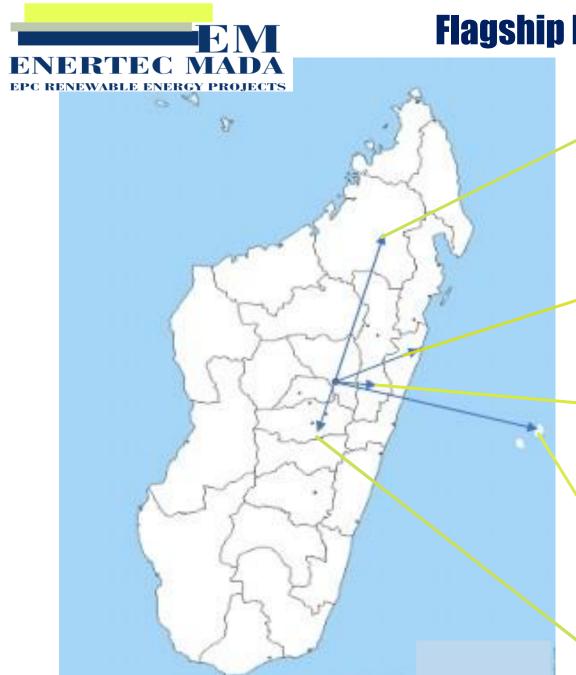












Flagship Projects

SOFIA Region:

7 Off-Grid Installations with BESS (Battery Energy Storage System).





Tamatave:

Motor Maintenance (Ambatovy Mine).





Moramanga:

Hybrid Installation





Mauritius:

13.86 MW Grid-Connected Installation.





Ambatolampy:

20 MW 20/63kV Grid-Connected Installation.





Delivering Comprehensive Mechanical Project Solutions Across Madagascar

Industrial Electrical and Mechanical Projects

- National Mechanical Services: Providing complete installation, repair, and maintenance solutions for mines and industrial environments across Madagascar
- Customized Maintenance Programs: Offering continuous maintenance services specifically designed to meet the unique operational needs of each client.



Ensuring Operational Efficiency and Minimizing Downtime





Our Projects

Large-Scale Solar Power Plant Projects





Delivery of a 13.86 MW Solar Power Plant in Arsenal, Mauritius



Project Key Points

★ Location : Arsenal; Mauritius

Project Owenr : GreenYellow

★ Capacity: 13.86 MW

Timeline: Aug 2023 – Feb 2024

→ Scope of Services :

- Engineering, Procurement, and Construction (EPC)
 Design Review.
- Partial civil engineering and construction activities.
- Assembly, installation, testing, and commissioning of 22kV Schneider switchgear apparatus, including the installation of primary electrical equipment (e.g., mini-substations).
- Installation of DC; LV AV; MV Cabling and grounding systems, including MV Cable jointing and terminations.
- Site installation testing and complete plant commissioning to ensure operational readiness.
- As-Built Documentation (Redlining) to reflect final installed condition.



Centrale Solaire d'Arsenal, Île Maurice (13,86 MW)















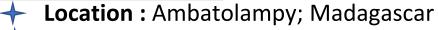


Contributing to the Clean Energy Transition of Mauritius



Providing Complete Infrastructure for the Ambatolampy 20 MW Solar Power

Project Key Points



↑ Project Owner : GreenYellow

★ Capacity: 20 MW

→ Timeline: Aug 2022 – April 2023

Scope of Services :

Engineering, Procurement, and Construction (EPC) Design Review.

Partial civil engineering and construction activities.

Assembly and installation of substation Steel Structures.

Assembly and Installation of primary substation equipment, including 22/63 kV Transformer; SF6 Breaker; MOD's; and all associated substation apparatus.

Assembly and installation of substation steel structures.

Installation of DC; LV AV; MV Cabling and grounding systems.

Installation of 63 kV Overhead Line Infrastructure.

 Plant Testing; Cold Commissioning and Hot Commissioning Procedures ensuring operation readiness.

 As-Built Documentation (Redlining) to reflect final installed condition.



Plant.



Ambatolampy Solar Power Plant, Madagascar (20 MW)























Our Projects

Rooftop Solar Solutions

Autonomous and hybrid systems





Tailored Off-Grid and Grid-Connected Systems

Project Key Points



- → Location: Sofia Region & Moramanga; Madagascar.
- Project Owner : Enat Energy
- → Projects: 8 Rooftop & BESS (Battery Energy Storage System)
- **Timeline :** Sept 2024 Dec 2024
- Scope of Services :
- Engineering, Procurement, and Construction (EPC) Design Review.
- Procurement and supply of specified project materials and equipment.
- Partial civil engineering and construction activities.
- Assembly and installation of photovoltaic PV mounting structures and modules on the roof.
- Installation of all electrical balance of plant (BOP) equipment, including inverters, switchgear, and the Battery Energy Storage System (BESS).
- Execution of all DC; LV; and plant grounding works.
- Plant Testing; Cold Commissioning and Hot Commissioning Procedures ensuring operation readiness.
- As-Built Documentation (Redlining) to reflect final installed condition.

Pioneer in Distributed Solar Energy for Education, Health and Commerce



Pioneer of Distributed Solar Energy for Education, Health, and Commerce

Rooftop Projects:

- ☐ CEG (College) Andranomanintsy + BESS: Isolated Site (Off-Grid)
- ☐ CEG (College) Antanambao Sahavoanina + BESS: Isolated Site (Off-Grid)
- ☐ CSBII (Health Center) Morafeno + BESS: Isolated Site (Hospital/Health Center).
- ☐ EPP (Primary School) Ambohdiharara + BESS: Isolated Site (Off-Grid).
- ☐ EPP (Primary School) Andranomanintsy + BESS: Isolated Site (Off-Grid).
- ☐ EPP (Primary School) Antanambao Sahavoanina + BESS: Isolated Site (Off-Grid).
- ☐ EPP (Primary School) Morafeno + BESS: Isolated Site (Off-Grid).
- Mialy Moramanga-Jovena (Petrol Station): Connected to the Grid (On-Grid).















Customized Systems (Off-Grid and On-Grid): Powering a Sustainable Future, Today.





Electromechanical Maintenance and Repairs





Optimiser la Puissance ; Maximiser le Rendement





Project Key Points

- Location: Ambatovy Mine; Madagascar.
- → Project Owner: Sumitono Corporation (Japan) and KOMIR (Korea Rehabilitation and Mineral Resources Corporation).
- **→ Timeline : 2019** to Date.
- ★ Scope of Services :
- Comprehensive On-site Maintenance: Provision of onsite maintenance and repair services for electrical motors and associated equipment, covering MV; LV; Hydraulic Systems; Instrumentation; and protection Equipment.
- Project Experience: Completed on-site maintenance and repairs for 25 motors across various projects.
- Operational Capacity: Equipped to handle on-site power system installations with a capacity of up to 40 MW.



Providing our partners with reliable electric motor services





















Nos Valeurs Fondamentales

Uncompromising Quality Standard: We ensure absolute compliance with current international standards. This excellence is guaranteed by the application of rigorous and strict quality assurance protocols, thereby delivering superior and proven quality services

Customer-Centric Approach: We deliver products and services entirely custom-designed, generating significant added value. Furthermore, our extended warranties attest to our unwavering commitment to our clients' lasting success and return on investment.

Sustainable Development: We are the drivers of economic progress, positioning ourselves as champions of innovation. This is achieved through continuous talent development and the creation of substantial and lasting employment opportunities.

Environmental and Social Responsibility (ESR):

We are **committed to operating in an ecoresponsible manner**, promoting the prosperity of our local communities, and **deploying lasting solutions** that are essential to building a **sustainable future**.



Continuous Learning &

Training

Compétences Clés & Excellence d'Équipe

At ENERTEC MADA, our competitive advantage rests on the perfect synergy between cutting-edge technical expertise, rigorous

Area of <u>Excellence</u>	Description
operational excellence. Key Competencies & Team Excellence:	
and methodical project management, an uncompromising quality standard, and an exceptional team whose motivation is fueled by	

Deep industry knowledge and a strong track record of successfully executing EPC projects across Madagascar and **Proven Technical Expertise** Africa, reflecting our leadership in renewable energy and infrastructure development.

Project Management Project completion on time and within budget, thanks to structured planning, continuous monitoring, and flawless **Excellence** coordination at every stage.

Quality & Compliance Strict adherence to international standards and ISO 9001, 14001, 18001 & 45001 certifications.

Custom Engineering Design and delivery of personalized, customer-focused solutions, adapted to the unique technical, environmental,

Solutions and logistical realities of each project. **Qualified and Dedicated** Multidisciplinary team of project managers, engineers, supervisors, technicians, and craftspeople—all trained to

deliver excellence in every discipline. Personnel **Extensive Sectoral** With decades of combined experience, our professionals consistently execute complex infrastructure projects **Experience** safely, efficiently, and to world-class standards.

Comprehensive training programs including Photovoltaic and ATEX certification, Electrical Authorization, etc.



Quality Assurance & Execution Excellence



- Core Value: At ENERTEC MADA, our unwavering commitment to excellence, reliability, and the adoption of international best practices is the cornerstone of the success of each of our projects.
- Mastery and Certification: We guarantee Total Compliance by systematically aligning our work execution with the most rigorous international standards. Our full adherence to ISO 9001, ISO 14001, OHSAS 18001, and ISO 45001 standards ensures a world-class level of execution and the longevity of our performance.

Our Commitment to Excellence

- Solid Workmanship Warranty: Every installation is covered by a comprehensive 2-year workmanship warranty.
- Long-Term Equipment Warranties: We ensure lasting value with equipment warranties ranging from 2 to 20 years, depending on the product.
- Rigorous Supplier Pre-Qualification: All components undergo strict supplier review, ensuring that we partner only with certified and globally recognized manufacturers.
- Superior Standardization: Systematically exceeding industry expectations by integrating excellence into every phase of project execution.
- Continuous Innovation: Maintaining constant technological monitoring to offer the most high-performing, durable, and economically advantageous solutions.
- **Customer Focus:** Placing our clients' strategic needs at the center of our concerns to ensure maximum satisfaction and build long-term partnerships.



Our Commitment to Safety, Health and the Environment (SHE)



Fundamental Principle

- At ENERTEC MADA, the well-being of our employees, the integrity of our operations, and the protection of our planet are non-negotiable.
- Our unwavering commitment to SHE guides every action.

Compliance and Quality

Compliance and Quality Management

- All our work is carried out in full compliance with ISO 9001 (Quality Management), ISO 14001 (Environmental Management), and ISO 18001 (Occupational Health and Safety) standards
- We apply international best practices and adhere to local and international regulatory frameworks for each of our projects.

Safety

A Perfect Record

■ We proudly report **0.00 Lost Time Incidents (LTI)**—a reflection of proactive safety leadership, rigorous training, and constant vigilance.

Health

- Integrated Health and Well-being
- We create a working environment where health, respect, and performance coexist—thanks to proactive wellness programs.

Environment

- **Environmental Management**
- ENERTEC MADA operates with deep respect for the environment—reducing our footprint, advocating for renewable energies, and ensuring sustainable resource use.

Continuous Improvement

- Continuous Improvement
- Continuous Improvement: We are constantly refining our systems, embracing innovation, and raising performance to ensure a safe and lasting legacy for future generations.



Our Valued Partners



Partnerships and Geographic Reach

ENERTEC MADA leverages privileged partnerships with industry leaders to offer comprehensive and cutting-edge energy solutions throughout Madagascar and the African continent.



Competitive Advantages and Quality

These strategic alliances are essential for fully leveraging cutting-edge technologies, allowing us to optimize project execution and ensure compliance with the most rigorous standards for quality and reliability.



Rousant International Limited: Specializing in the supply of electrical transmission and distribution equipment and components.



ACTOM (Pty) Ltd: A leading manufacturer, solution provider, repairer, and distributor of electromechanical equipment in Africa.



Sieyuan: Specializing in R&D for electrical power technology, equipment manufacturing, and engineering services.



Toshiba: A global technology leader offering various energy solutions.



Powering Your Vision ; Delivering Sustainable Solutions



Acknowledgments and Vision: We sincerely thank you for placing your trust in ENERTEC MADA by choosing us as your strategic partner for energy solutions. Our commitment is absolute: to collaborate closely with you to design and deploy innovative and sustainable projects, which are the true drivers of progress and creators of long-term value for your organization

Call to Action: We invite you to contact us today for an in-depth analysis of your specific needs. Together, we will determine the optimal strategy to meet and exceed your most ambitious energy objectives.

Contact us



www.enertecmada.mg



+261 34 33 184 62

+261 34 88 586 86



andreveneziano@enertecmada.com colettesylvie@enertecmada.com



K4/108 Ampandrona; Ivato; Antananarivo; Madagascar

