

RAMSDEN, HOWARD

Professional Senior Executive, Certified Energy Efficiency Specialist, Energy & Solar PV Expert, QA/QC Manager, Tier III Data Centre evaluations

NATIONALITY: South African , Belgian
D.O.B: 1961
LANGUAGES: English (mother tongue), French (excellent), Afrikaans (excellent)

EDUCATION:

1995 Senior Management Certificate , University of Stellenbosch
 1994 Westinghouse Nuclear Engineering, Cape Town, South Africa
 1984 B.Sc. (Electrical and Electronic Engineering), University of Cape Town, South Africa

OTHER TRAINING:

Various courses in project management, renewable energy, sustainable development, and occupational safety.
 Certified Energy Manager.

PROFESSIONAL REGISTRATIONS:

ECSA(940088), CEM, MSAIEE(11135), UIDIP, SPE(4342), ISPE

EXPERIENCE:

2017 – present RECCA Group, MD
 2015- 2017 Norconsult Africa - Manager RE-EE
 2007 – 2015 Terra Power Solutions/Geo Solar -CEO
 2006 – 2007 Standard Electrical -Senior Design Engineer
 2005 – 2006 ESKOM Senior Advisor – Generation Strategy
 1997 – 2005 Secondment from ESKOM to EURELECTRIC
 1990 – 1996 Koeberg Nuclear Power Station (KNPS)
 Electrical Maintenance Manager
 1987 - 1989 KNPS, EIT, Electronic Systems Manager
 1985 – 1986 Military Service, Maintenance of 35mm Anti-Aircraft guns

INTERNATIONAL EXPERIENCE:

27 EU member states for 8 years- working with the European utilities transitioning to a competitive electricity market. Detailed drafting of European Directives on Nuclear, CHP, Cogen, RES, Standardisation of Distribution, Internal Electricity Market rules, Tax Harmonisation, Electricity Trading, Statistics, Research Programs, Smart metering and Corporate IT Solutions.

Zimbabwe, Ghana, Ivory Coast, Uganda, Cameroon, Nigeria, Zambia, Botswana, Mozambique, Namibia, Kenya, Tanzania –feasibility studies of small scale electricity generation units for private companies and data centres.

**KEY QUALIFICATIONS:**

More than thirty (30) years professional experience, mostly in electricity and energy sector development in Southern Africa. Extensive knowledge of and experience in the African power sector.

Responsible for renewable energy advisory services business development and project management in Sub-Saharan Africa. Data Centre construction in Africa

Key expertise

- **Energy sector development:** Electricity market scenario development, business imperative analysis, deregulation and re-regulation in competitive markets, inclusion of RES on the connected grid and off grid solutions, diversification of fuel sources and environmental impact evaluation
- **Power generation project development:** market formation in RSA, evaluation and growth in the EU, project development and due diligence
- **Renewable energy development:** Drafting of the REIPP in RSA, preparation of wind and solar submission for the PPA, service delivery models, business development,
- **Data Centres: Commissioning, verification Tier III and QC/QA Manager,**
- **Project Management/Director:** Experience in the development of RE/ infrastructure projects and the PM for construction of 5000 m² office blocks and shopping centre for the electrical sub-contractor

Management skills and experience

High-level business management *
 Financial control * Team leadership and coordination * Multi-disciplinary project management * Workshop/seminar facilitation * Stakeholder liaison *
 Presentation and reporting skills

Personal attributes

Highly professional, outcomes focused, pro-active team leader and member, always examine alternatives for better solutions, Strategic planner, International perspective.

Computer skills

GIS-expert, SCADA intergration, DB interrogation, Microsoft office, expert (.doc,.xls,.ppt,.mmp,*.db.) PVSyst, SAM, QGIS, Draft Sight, ACAD

PROFESSIONAL EXPERIENCE:

July 2017– present RECSA Group - MD

- Independent verification of data centres commissioning and operations in RSA, Ghana, Nigeria, Ivory Coast, Uganda – Tier III operations
- Independent QA/QC Electrical Consultant on Atlantic Hills Data Centre
- Commissioning engineer – Atlantic Hills Data Centre
- Independent Consulting to energy projects and energy efficiency programs.
- Pre-feasibility and feasibility studies for energy projects in Southern Africa.
- Design Engineer (feasibility study) for Delf Consulting on 28MW Hydro-Solar PV project in Zambia
- Chief Design Engineer for Solar and Wind Systems taking projects thru feasibility to final design, on numerous Solar PV projects in Southern Africa
- Design Engineer-Manager for Generacy for Solar rooftop projects and electricity trading
- Lead Consulting Engineer for the multidisciplinary professional team for the refurbishment of an International Bank Energy Centre – 15MW gas turbines, standby diesel generation and distribution system in the banking precinct in Johannesburg for Single Destination Engineering –ABSAs Towers North Phase 1.
- Regular feasibility designer on SEGEN, SolarEdge, Helioscope, SMA, PVSyst, Windpro
- Financial feasibility and resource modeling for PV installations, business strategist for energy companies
- Assisting Global Hands acquiring, developing from feasibility to constructing a pipeline of projects.
- Develop Southern African trading platform for Electricity and Gas
- CEO Fixed term contract - Develop an Independent Power Producer of electricity and hot water at scale, behind the meter.(SolarCo)
- Prepared PPA and Financial model for Commercial and Industrial rooftop Solar PV projects (Rhino Energy)
- Identify and engage with customer segments and candidates for root-top Solar PV to grow the business to a listed company within 24 months (Rhino Energy Solutions)
- Independent consulting on energy usage improvement, involving production line optimization using the digital sensing, artificial intelligence, IOT technology and remote monitoring for ITEXACT
- Independent consulting for clients in the construction industry covering HV, MV networks, wind and solar plant design integration to the grid and construction.
- Consulting on national grid expansion models and programs for off grid technology roll out in SADC countries.
- Consulting as owners' engineer, funders technical advisors, EPC design Engineer
- Energy Efficient building evaluation for small and medium enterprises SWS - (CEM)
- Consulting on improved PV panel design and plant integration with compatible SCADA and Grid requirements.
- **Consulting on the LCOE for evaluation of renewable energy projects especially for mines (Siyatamba, Northam, Pembane, Anglo Plats: 10MW – 80MW)**
- Owners Engineer for Lubbersrust Guest lodge 48kW **hybrid solar, storage, generator system**, Ekurhuleni 10MW
- Energy Efficiency Evaluation and Audit for Education colleges – Mauprojects (CEM)
- Owners Engineer for feasibility studies of 90MW Solar PV project in Polokwane and 10MW Solar PV in Ekurhuleni, with Jeka Projects
- Design Engineer for 50MW Gweru and 50MW Chegutu PV projects in Zimbabwe.
- Owners Engineer for 10MW Solar PV Project in Ekurhuleni for Black Swan.
- Principle Technical Advisor for ENGCO Engineering Services, Mojo Energy in RSA, Sasol Pipeline earthing in Mozambique and feasibility studies for 6 PV projects in Mozambique.
- Principle Technical Advisor for Solar and Wind Systems (PTY) Ltd
- Associate Advisor to Geo Group, Impondo Power, Bigen Africa, Group Five, CONCO.

Acting as a Project Director/Manager, Design Engineer, Independent Engineer, Owners or Advisory Engineer, the following responsibilities were covered representing the interests of the client.

- System specification, design and lay-out of PV plants for Southern African market, using tools such PVSyst, SAM, QGIS, Draft Sight, ACAD
- Technical design including cable sizing, component specification and selection, electrical single line diagrams and layouts of optimized economic and technical performance design according to relevant international standards.
- Technical support and advisory functions during development and verification for proposal preparation
- Ensuring the completeness, coherence and control of contracts and documents between the EPC, Equipment suppliers, funders and other contract.
- Witnessing of FAT and SAT according to specifications
- Verification of design and build including the Utility connection according to regulations & codes
- Optimize the grid connection with the utility saving costs and time.
- Co-ordination of information and status with Senior Management, O&M, Project Finance, Engineering in structured reporting formats

October 2015 – July 2017 Norconsult Africa, (Renewables Energy & Energy Efficiency Manager) [resigned/ voluntary separation]

- Development of a Rural Energy Master plan for Zimbabwe including grid expansion, off-grid technology [micro-grid, mini-grid, stand-alone systems] based on SE4ALL criteria.
- Mozambique mini-grid definition and design program for DIFID
- Assessment of grid capacities for grid extension purposes in Zimbabwe
- Prioritising wards for electrification by different technologies (micro grids, mini-grids, Solar Home Systems) - using QGIS
- Conducting feasibility studies for mini-grids, micro-grids and grid extension for prioritized wards in Zimbabwe.
- Assisting the Zambian Renewables Energy Agency in Strategic Approach to RE roll out plans.
- Small and large energy efficient solutions and renewable electrical production in rural areas.
- Strategic policy development and advisory services
- Identification and hands on roll out of off grid technically sound solutions for rural communities
- Preparation of design package for REIPP-75MW PV single tracker installations for Group Five
- Conceptual design of 132kV and 400kV ring and substation around Nairobi, Kenya
- Design of MV substation layout including lighting and lightning.
- Evaluation of energy efficient technology for deployment at university campuses.
- Evaluation of City Power Roof top solar and energy efficiency and savings opportunities in compliance with ISO 5001 and other international norms.
- Owners Engineer for 104kw roof top installation at UNDP, Windhoek

April 2007- September 2015 Terra Power Solutions/ Geo Solar CEO) [resigned]

Small and large energy efficient solutions and Renewable electrical production.

- Utility scale wind and solar PV projects for the REIPPP.
- Practicing energy efficiency engineer.
- Successful in REIPP [140MW (Golden Valley) in construction] and Small Scale submissions [7*5MW selected bidder projects]. 280MW permitted projects.
- Due diligence for lenders – technical, financial, insurance, legal
- Independent verification of projects as owners engineer

Consulting Engineer:

- Involvement in Bid Submission and technical due diligence for REIPP and SMIPP programs project submission.

May 2006 to March 2007 Standard Electrical Consultants (Senior Design Engineer) [resigned]

- Project Manager for the electrical Sub-contractor and Design engineer for the installation of the electrical distribution from 11kv to lights a
GMSA Head office, Motorola Head Office, Oracle Head Office, KPMG Head Office, Blue Bird Shopping Centre, Maponya Mall, Upmarket Morningside houses with BMS
- Co-ordination of services eg: Telkom, data network, fire management, access, security, air-conditioning, BMS,
- Promote efficient use of energy by combining electrical design with ergonomics and choice of mechanical air-conditioning plants.

March 2005 to April 2006 ESKOM – Generation Strategy (Senior Advisor) [resigned]

- Responsible for Benchmarking of Generation activities against the best in the world regarding Coal procurement, Insurance, Plant performance and Human Resources.
- Prepared comment during the drafting phase for the Electricity Regulators Bill and the new Energy Bill.

October 2003 to February 2005 EURELECTRIC, Energy policy, Generation and Networks, (Head Of Unit)

- Responsible for work on Energy Policy, Nuclear, Thermal, Hydro and Renewable Energy Sources, Transmission and Distribution issues and distributed generation, preparing and representing Industry positions to the European Commission, Parliament and the Council for European Energy Regulation.
- Co-ordination of 1500 experts from 27 member states of the EU, drafting industry representative position papers, opinion papers, legislative and regulatory commentary.

January 1997 to September 2003 Secondment to EURELECTRIC, (Head of Unit) [promoted]

- HOU, Management Practices – Responsible for the formulation of International Industry policy and positions with regards to the political agenda of the European Union
- Co-ordination of the Structure of expertise and organisation of Seminars, conferences and workshops.
- Groups under my responsibility: Statistics & Benchmarking, Standardisation, Information Technologies, Finance & Economics, Fiscal Issues, Research & Development, Legal Issues, Social Affairs

January 1995 to December 1996 KNPS –(Electrical Maintenance Manager) [promoted]

- Continued improvements in department performance and completed **Senior Management Program** at University of Stellenbosch.

June 1993 to May 1994 Nuclear Engineering Course

- Graduated from Nuclear Engineering Course designed to enhance the operating knowledge of reactors in severe accident conditions.
- June 1994 to December 1994 – 6 months as Senior Engineer in the Engineering Support Group evaluating and analysing the Koeberg events as well as worldwide events according to the INES scale and ASSET root cause analysis systems.

August 1990 to December 1996 (Electrical Maintenance Manager) [training]

- Managed a- staff 52 (4 engineers, 8 Snr. Technicians, 10 Technicians, 23 Artisans, 6 Admin) – budget R12m.
- Director of projects to modify the existing equipment for better functionality
- Responsible for the formulation and implementation of maintenance philosophies and schedules of all electrical supplies, equipment and rotating machinery from 48V to 400kV, daily defect work implementation and 6 monthly unit shutdown planning, including timeous spares identification.
In Particular
- the identification of design faults and subsequent replacement programs for the 6k6 SF6 Moulded circuit breakers
- identification of electrostatic discharge within the cooling oil of the 24/400kv generator transformers and subsequent replacement and modification of the transformers.
- The identification of performance monitoring program for critical electrical machines throughout the plant.
- 24kv generator inspection program and hydrogen leak detection methodologies.
- Onsite building and auxiliary system maintenance
- Identification and implementation of regulatory maintenance, as well as maintaining the Nuclear Fuel Handling Equipment and plant protection systems.
- All maintenance improvement projects were based on performance indicators.
- The work scope and corresponding staff and budget reduction by 30% was achieved.

September 1989 to July 1990 Secondment in France [promoted]

- Represent ESKOM in France for 10 months sharing knowledge with the French manufacturers and operators in the field of Electrical Engineering and Nuclear Plant operations.
In Particular
 - Updates on the logic decision making for the reactor control circuitry and software
 - Updates on the technical requirements for the replacement of nuclear grade items no longer commercially available.

February 1989 to August 1989 Electronic Systems (Superintendent) [promoted]

- Assistant Superintendent - Staff 47 (6 Senior Technicians), budget R5m.
- Sections under my management were: Security Maintenance, Telecommunications, Calibration Laboratory, Computer Hardware, Computer Software and Plant computer processing

January 1987 to January 1989 ESKOM, (KNPS) (Engineer in training) [promoted]

- A period of Power Station familiarisation and project work with the Instrumentation and Electrical Support Group.
- Attained membership of the Electrical Liaison Committee and was elected as secretary for the Eskom National DC Committee.
- Compiled and presented courses to other Eskom staff on the Psion Organiser, which is a data capturing and analysis tool for battery data.

June 1982 to December 1982 Biederman, Finn, Beekhuizen & Assoc. (Student)

- As a part time student, I was responsible for the successful commissioning of the electrical distribution system and equipment installed in the Cape Sun Hotel.
- This involved verification and rectification, as well as contractor, architect, consultant interfacing

Signed:


Date: 25th November 2021

Howard Ramsden

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