

Charles Murove – Curriculum Vitae (January 2016)

1	TITLE	<u>Principal Consultant and Director</u>			
2	NAME	<u>Charles Sabata Murove</u>			
3	DATE OF BIRTH	16th March 1955			
4	NATIONALITY	Zimbabwean			
5	MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS	Zimbabwe Institution of Engineers <i>[state rank and name of society and year of attaining that rank].</i>			
6	EDUCATION:	Institution	Qualification Obtained		
		Bucharest Polytechnic, Bucharest Romania (1982)	MSc Chemical Engineering		
		Oradea Institute, Oradea, Romania (1977)	Baccalaureate Diploma		
7	OTHER TRAINING	<ul style="list-style-type: none"> • Project Design and Document (PDD) Preparation under the UN Kyoto Protocol Clean Development Mechanism (CDM) • Industrial, Commercial and Building Energy Auditing • Research, project management and report writing 			
8	LANGUAGES & DEGREE OF PROFICIENCY	Language	Speaking	Reading	Writing
		English	Excellent	Excellent	Excellent
		Shona	Excellent	Excellent	Excellent
		Romanian	Good	Good	Excellent
		Portuguese	Fair	Fair	Fair
9	COUNTRIES OF WORK EXPERIENCE	SADC and COMESA regions			

	Energy Audit Training Programme		Training of learners on Building Energy Audits Lead and supervise institutional and facility audits Evaluation of learners
2007 to 2009	Marbek Resource Consultants (Pvt) Ltd	Technical Consultant	Energy Efficiency and Renewable Energy projects development and management Evaluation of Energy Efficiency and Demandside Management (EE/DSM) Eskom MYPD2 Electricity Tariff Application Technical review/input into energy efficiency and renewable project development and execution. Preparations of PINs and PDDs Estimation of Greenhouse Gas emission reductions and Renewable energy and energy efficiency expertise Training workshops and seminars on energy efficiency and capacity building organisation and execution of capacity building seminars and workshops on EE to industrial, utility and government personnel Liaison with DNA and support of LoN application/Liaison with DOEs on validation of PPDs
2006 to 2009	Energy Services and Investments (Pvt) Ltd	Consultant/Director	Energy management performance contracting services Energy and water management training for industry Organize, conduct and evaluate seminars and workshops Project reporting and evaluations
2003 to 2005	COWI DANIDA "Capacity Building in Energy Efficiency and Renewable Energy" (CaBEERE)	Technical Consultant	Consultancy and capacity building for the Department of Energy – South Africa Part of a team responsible for input into EE & RE Implementation Strategy Participated in the engagement of service providers for the project Managed the service providers who were providing support into various aspects which included training and development of energy efficiency standards Evaluation of consultants reports Estimation of GHG emission reductions
1999 to 2002	Energy Services and Investments	Principal Consultant and Director	Energy management performance contracting services Energy and water management training Organize, conduct and evaluate energy management seminars and

				workshops Project reporting and evaluations Course leader: Course leader for the Zimbabwe Institution of Engineer's (ZIE) energy efficient utilization courses which were administered by a private college (Speciss Training Services)
	1994 to 1998	Agra Monenco	Associate Project Manager	Management of the SADC Industrial Energy Management Project funded by the Canadian International Development Agency (CIDA). Tasks included: Provision of consulting services in energy conservation. Capacity building and mentoring and presentations Activity analysis and assessments Project reporting and evaluations of energy management opportunities and savings potentials' Responsible for writing and production of energy management newsletter
	1992 to 1994	Department of Energy Zimbabwe	Assistant Direct Energy Conservation	Management of staff and projects Responsible for capacity building of department's technical personnel Project reporting and evaluations Responsible for department's energy information system (EIS)
	1987 to 1991	Aga-Shaw Mont, St John's Newfoundland, Canada	Engineer Counterpart	Part of a team of local and international engineers that implemented the SADC Industrial Energy Conservation Pilot Project funded by CIDA. Energy auditing of SADC industry Training of industrial personnel. Conduct seminars and workshops; Report writing
11	WORK UNDERTAKEN LATELY		See write-up below**	

Signature



Date of Signing

05/07/2017

Day/Month /Year

Brief Profile: Professional Experience

Charles is a chemical engineer by qualification has over thirty three years of experience in the energy sector as an, engineer, researcher, energy auditor, carbon originator, consultant and capacity building expert. He is active in energy efficiency and renewable energy technology/project development and evaluation and business case development. Capacity building for industrial, utility and government personnel and young people is an area of specific focus.

Charles has worked both in the public and private sectors undertaking national and regional project work and assignments both at technical and management levels. He has worked and travelled extensively especially in the Southern Africa and COMESA regions where he has provided consulting services as technical energy efficiency and renewable energy and capacity building expert.

He has worked on projects assignments for various local and international cooperation partners and these include the Canadian International Development Agency (CIDA), GIZ (formerly GTZ), UNIDO, DANIDA among others. He has contributed to energy policy and strategy and action planning development for the Departments of Energy in South Africa and Zimbabwe. Over the years he has established a network and contacts in the SADC and COMESA regions enabling him to found an independent resource management advisory and project development firm with particular focus energy and water efficiency and renewable energy).

Together with an associate Charles is currently research on and preparing the Renewable Energy Market Entry Study (REMS). The report aims to identify RE opportunities as well as challenges that might be faced by companies wishing to invest and do business in Zimbabwe.

Charles is providing support to SE4ALL Africa Hub in the preparation of the “Renewables 100% Global Futures Report 2017”. He has been involved in gathering information and interviewed Africa wide regional experts using various instruments including surveys and direct electronic communication via skype conferencing, telephone, and excel spreadsheets. The report is now at peer review stage pending approval and publication in April 2017.

Charles has co-authored the Southern African Development Committee (SADC) Renewable Energy Status Report (SADC RESR2015) on behalf of REN21 (Renewable Energy21). The report was launched in October 2015 at the Southern Africa International Renewable Energy Conference (SAIREC2015). He was also Technical Advisor on the SADC Energy Monitor 2016 on behalf of SARDC. The Baseline Study was recently launched in Mbabane, Swaziland at the SADC heads of state summit held at the end of August 2016. He is contributing to energy policy, strategy and target setting and development of roadmaps for solar thermal and solar PV. He is working on the Solar Thermal Road Map for Zimbabwe under the Solar Thermal Energy for Southern Africa (SOLTRAIN) programme. He is also providing input to the Renewable Energy Futures Report (RFS2017) on behalf of REN21 to be published in 2017 where he has interviewed experts from the Africa region as part of contribution to the

international understanding of the issues and perspectives towards 100% Renewable by 2050.

Concurrently Hermit Investments is developing and packaging for funding a pipeline of renewable energy technology projects encompassing Roof Top Solar PV (RTS-PV) for the commercial, industrial (C&I) and mining sectors and Ground Mounted Solar PV (Solar Parks) on selected properties in the SADC region.

Of particular relevance to the assignment is work done as Technical Advisor on the Renewable Energy Feed-in-Tariff (REFiT) for Zimbabwe. The main outputs included tariff recommendations for various technologies (Solar PV, Hydro, Wind, Biomass, Biogas, etc) and a model for use by the regulatory authorities to update the REFiT.

Specifically Charles is working with associate companies and EPC from the region (South Africa and Namibia) to develop RTS-PV for the commercial and industrial sectors. A "Proof of Concept" Project for a listed Retail Group (RG) is nearing financial close. Upon successful delivery the RG will rollout implementation to its facilities country wide (the RG has a national footprint of at least 60 sites).