

# moving you forward

# AUTO EVOLVE CONCEPTS COMPANY PROFILE 2015



**EXECUTIVE NOTE** 

We thank you for the opportunity to introduce our business Auto Evolve Concepts (AEC) to you and

your team.

Since 1995, AEC's senior management team has jointly integrated over 2500 projects throughout Africa,

Russia, the Middle East and Australia. With 2500 process, 300 MW Diesel Generation and 160MW PV

Solar projects successfully executed, we have developed the ability to deliver both partial and complete

integrated Energy-Process Solutions for new and existing facilities. While we are well aware of the

fierce competition for your business, we believe that, with our long-term vision, proven project

methodology and expertise in the energy and process industries, we can provide the optimal solution to

meet our client's needs.

AEC offers world renowned integration which is able to meet the requirements of any industrial hybrid

energy application. AEC's proven methodologies and practices for rural and remote projects ensure

that not only excellent service delivery, but also a successful project implementation. We trust that the

solutions we propose will offer optimal return on investment while offering maximum uptime due to

innovative technology. We strive to provide maximized simplicity in our designs which aims to leverage

standardization and focused on reducing maintenance effort.

We look forward to discussing any concerns you may have or opportunities which exist. We trust that

this profile demonstrates our ability to satisfy all of the requirements that you might require and that

we may be given the opportunity to provide our services. Should you have any questions, please feel

free to contact us at your convenience.

Yours sincerely,

Ricky Huyser Managing Director

moving you forward Mobile: +2782 556 0621

Email: ricky.huyser@autoconcept.biz

"Intelligent Process to Energy integration through Hybrid Solutions"

2015 1 I PAGE

## Introduction

AEC utilizes its client focus and intellectual capacity to deliver large and complex projects. As a service focused organization, our existence depends on our ability to provide superior services to our clients at reduced risk.

#### **OUR MISSION**

To passionately meet the needs of our clients whilst exploring new opportunities and conducting business in a socially, economically and environmentally responsible manner, thereby creating value and sustainability for all our stakeholders

#### **OUR VISION**

To become leading pioneers in hybrid energy systems. This can only be achieved through commitment, passion and persistent push in developing new business opportunities; we will promote a culture of reliability, customer satisfaction and social integrity whilst developing and inspiring our workforce.

#### **OUR PURPOSE**

#### Value Add beyond the Obvious

AEC's experience in the Process and Energy sectors has given us a unique insight into the modern day process facility. We constantly strive to be abreast on the latest technology developments, cross sector solutions and client constraints. Through this process centered approach, we proactively identify partners and opportunities that will complement our customers.

Our approach is based on the *Plan-Build-Run* philosophy.

2015 2 I PAGE

## PLAN-BUILD-RUN PHILOSOPHY

#### **PLAN**

With a clear understanding of the cause and effect relationship between challenges faced in industry, AEC is able to design and develop bankable solutions that allow for the efficient and effective resolution of problematic events, providing clients a quick and profitable solution.

AEC's consulting services are based on expert leveraging through our extensive industry knowledge and experience. Our practical, no-nonsense approach assists you in realizing the maximum value from your existing and future investments.

AEC offers the following services:

- Feasibility Studies
- Hybrid Energy Studies
- Energy Optimization Studies
- Design & Engineering
- R.O.I roadmaps
- Effective Energy Concepts

#### BUILD

By providing a combination of consulting, engineering design, project management and construction services, AEC has the ability to provide complete turnkey E,C&I and Energy solutions. Cardinal to our success is the fact that we regard integrated systems as a solution and not a technology.

The engineering design team delivers following:

- Turnkey Responsibility
- Integrated E,C&I Design
- Integrated Power Generation Solutions
- Smart equipment sourcing & procurement
- Electrical manufacturing and installation
- Site & Quality management

2015 3 I PAGE

## RUN

Plant inefficiencies consistently accumulate over years, ultimately resulting in plant chaos. With the current shortage of on-site specialist technical skills, our clients find themselves focusing on daily production problems leading to long term plant inefficiencies.

## AEC .offers the following:

- Remote plant Commissioning
- Stay in Business "SIB" concepts
- On-site investigate and optimize
- Short and Long term site contracts
- Renewable O&M services

2015 4 I PAGE

## SENIOR MANAGEMENT

#### MANAGING DIRECTOR: RICKY HUYSER

With over 2000 global projects sold and implemented and with the experience of starting three businesses in the last two decades that all have been sold to JSE listed entities, I believe I have the passion and vision to create industry solutions that is of value not just to me but shareholders and clients alike. In 2013 I established its new Renewable business for the manufacturing of key PV systems. This business successfully won and executed 160 MW projects in both the round 1 and 2 of the South African REIPP program.

#### Skill Highlights:

- Strategic Understanding and Growth
- Product Development and Alignment
- New Market Research and Analysis

## DIRECTOR CONSULTING SERVICES & MANAGING DIRECTOR AEC DEVELOPMENT: KARESSA GOUNDEN-YSSEL

Using the methodical and logical approach inherited from my training as an Industrial Engineer, I am able to integrate the inherently different elements of a project to enable the analysis and development of a project to ensure a client's goals are not only met but optimized. Having developed a number of new, industry specific Hybrid Generation models for industrial and mega power users to integrate Renewable and Thermal solutions with peak R.O.I's, I have established unique power strategies, these successful feasible projects featured in countries as far as Somaliland and Tanzania.

#### Skill Highlights:

- Thermal and Renewable Power Analyst
- Costing and Performance Analysis of Power Systems
- Feasibilities Studies of Power Systems
- Hybrid Power Financial Models and Algorithms

Karessa also heads up AEC Development which is a 70% Black Woman Owned BBBEE business focusing on developing people and projects for the Energy Sector. AEC Development has full support of AEC and its sub-suppliers to ensure commitments are made and kept.

2015 5 I PAGE

## DIRECTOR - PROJECTS: ROBBY ROCHA

Failure to execute is this decade's biggest problem. Current work-norms are dysfunctional and there is one profoundly simple thing we can change to improve execution – we need to be better at making and keeping commitments. Scrutiny reveals that our common work norms do not support this principle. In the last two decades I have developed a key project methodology to ensure I always track and deliver commitments. My commitments are underlined by a clear project execution methodology which allows me to deliver regardless of project technology or country risks. Trust increases over time as commitments are honored. Meeting commitments is the single biggest contributor to building trust.

#### Skill Highlights:

- 2500 Cross Border Projects Delivered
- 17 International Project Awards
- 160 MW of PV Projects
- Commitment to Workable Methodologies

2015 6 I PAGE

## PROJECT HISTORY

#### MANAGEMENT PROJECT HISTORY

Our management team has been responsible for a great number of Firsts:

- "Manless" underground vehicle for De Beers -1997
- Dorbyl coil line upgrade with torque VSD and Simocodes 1998
- PCS7/WinCC Beta testing and demo projects for Siemens AG 1998 to 2004
- Online/life Nampak Glass furnace upgrades 1999
- Win CC to SAP R3 interface created 1999
- Biggest install base for PCS7 and Win CC worldwide 2002
- Turnkey upgrades of E,C&I in Saudi Arabia for Aramco 2002 to 2006
- Develop the Anglo American C1-C3 standards methodology for large complex projects 2002
- Develop Furnace and Mining standard Libraries, Xstarta, Anglo America, PPC and Mittal
- Largest PCS7 Mining project 56 AS' 2003
- Develop Hybrid Diesel power controller for mining operations 2006
- Sappi paper machine upgrades, specialised drives applications 2007
- Transnet Coega Harbour project 2008
- Turnkey Matomo Mozambique harbour upgrade project -2010
- AML Sierra Leone Siemens Liquid cooled drive systems to Energy Integration -2010
- Largest International PCS7 mining project 78 AS' 2011
- 44MWp CPV Solar plant at Touwsriver, inverter cabins 2013
- 6oMWp Solar plant installation at Lesedi 2014
- 62MWp Solar plant cabins at Boshoff 2014
- 4MW Heat to Power Anglo Platinum 2014

2015 7I PAGE

## KEY PROJECTS IN ENERGY AND PROCESS SECTOR

## DIESEL GENERATION PROJECTS

COUNTRY	CLIENT	PROJECT COMPONENTS	APPLICATION
Australia	CSR Limited	<ul> <li>Automatic Oil Separator Unit</li> </ul>	Power Generation
Burma	Sihanoukville Port	<ul> <li>Land based: 6 MW HFO Power Plant</li> </ul>	Power Generation
Bangladesh	Bangladesh Power	<ul> <li>50 MW Power Plant (including fuel oil treatment)</li> </ul>	Power Generation
Bangladesh	New Topstar	<ul><li>HFO booster unit</li><li>Fuel oil separator unit</li><li>Oily water seperator</li></ul>	Power Generation
Bangladesh	KBSL Shipbuilding	<ul><li>HFO booster unit</li><li>Fuel oil separator unit</li><li>Oily water seperator</li><li>Sewage treatment plant</li></ul>	Marine
Greece	OMNINM	HFO booster unit	Power Generation
Iraq	HPC Pipe Factory	<ul> <li>4MW HFO Containerised Power Plants [2 x 2 MW Units]</li> </ul>	Power Generation
Iraq	Ardh Alnigood Co.	<ul><li>12MW HFO</li><li>HFO booster unit</li><li>Fuel oil separator unit</li></ul>	Power Generation
Iraq	Ali Abdulkakhim Baghdad Co.	<ul><li>12MW HFO</li><li>HFO booster unit</li><li>Fuel oil separator unit</li></ul>	Power Generation
Indonesia	Makassar	• 14MW HFO Containerised Power Plants [7 x 2 MW units]	Power Generation
Nigeria	Nigeria Mayor steel	9 MW HFO Power Plant	Power Generation
Congo	Banro Mining	<ul><li>18 MW Power Plant</li><li>Diesel Oil Separator Unit</li></ul>	Power Generation
Sierra Leone	AML Mining	<ul><li>22 MW Power Plant</li><li>Diesel Oil Separator Unit</li></ul>	Power Generation
Angola	Tafugari	<ul><li>13 MW Power Plant</li><li>Diesel Oil Separator Unit</li></ul>	Power Generation

2015 8 I PAGE

## PV SOLAR SYSTEMS

COUNTRY	CLIENT	PROJECT COMPONENTS	PROJECT SIZE
South Africa	Lesedi Solar	<ul> <li>Full Construction installation of Panels and Balance of System</li> </ul>	60 MW
South Africa	Touwsriver	<ul> <li>Inverters Stations and Balance of System</li> <li>Plant Management SCADA System</li> </ul>	40 MW
South Africa	Boshoff	<ul> <li>Inverters Stations and Balance of System</li> </ul>	60 MW
Somaliland	BNZ	<ul> <li>Feasibility Study</li> </ul>	10 MW
Tanzania	Barrick Gold	<ul> <li>Rural Electrification Feasibility Study</li> </ul>	20MW
Tanzania	Afrisam	<ul> <li>Feasibility Study</li> </ul>	10 MW
Africa	PPC	<ul><li>Multisite Feasibility Study</li></ul>	
Botswana	Mining Company	<ul> <li>Feasibility Study</li> </ul>	15 MW Solar
South Africa	Pharmaceutical Manufacturing	<ul> <li>Feasibility Study</li> </ul>	2 MW Solar
South Africa	Cement Manufacturing	<ul> <li>Multisite Feasibility Study</li> </ul>	
South Africa	Milk/Cheese Manufacturing	<ul> <li>Multisite Feasibility Study</li> </ul>	

2015 9 I PAGE

## PROCESS PROJECTS

COUNTRY	CLIENT	PROJECT COMPONENTS	PROJECT
South Africa	Anglo Platinum	<ul><li>Group Standards</li><li>The "Anglo Way"</li><li>9 Smelters Integration</li><li>168 Projects</li></ul>	E,C&I
Africa	PPC Cement	<ul><li>Group Standards</li><li>258 Projects throughout Africa</li></ul>	E,C&I
Africa	Glencore	<ul><li>Group Standards</li><li>11 Projects throughout Africa</li></ul>	E,C&I
Africa	Banro Mining	<ul><li>Group Standards</li><li>3 Projects throughout Africa</li></ul>	E,C&I
Sierra Leone	AML	<ul> <li>Group Standards</li> <li>New Iron Ore Mine Development</li> <li>Hybrid Energy Systems</li> </ul>	E,C&I
Africa	Grinrod	<ul> <li>Harbour Expansions throughout Africa</li> </ul>	E,C&I
Africa	ThyssenKrupp	<ul> <li>Cement projects throughout Africa</li> </ul>	E,C&I
Madagascar	Ambatovy	<ul> <li>Largest Mining System in the world</li> </ul>	Control and O&M

2015 10 | PAGE

## PROJECT REFERENCES

## AMABATOVY MADAGASCAR

- Greenfields Minerals project in Madagascar
- Largest PCS7 Mining site Internationally
- Did full project standards for SNC Canada
- 25 OEM with central S88 control System
- 78 PCS7 Hot Standby stations
- Over 2 million SCADA tags
- Implamented total C3-C5 for project phases





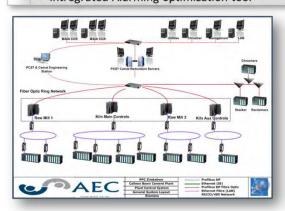


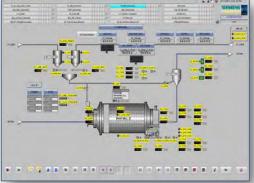
## PPC COLEEN BAWN ZIMBABWE

PPC Coleen Bawn

- PPC Brownfields project Zimbabwe
- Emergency Project 3 Months delivery
- 8000 IO from S5 to PCS7
- Total software rewrite and IO replacement
- Full Cemat cement solution
- Full new Fibre Optic plant backbone
- Intregrated Alarming optimization tool







2015 11 I PAGE

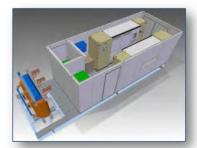
## TOUWSRIVER 44MW SOLAR PLANT

Touwsriver

Full turnkey Inverter cabin design and supply

44MWp CPV system with Gptech Inverters

- Full plant central control systems
- KPI interfaces to Eskom and Soitec Germany
- PPC controller responsibility
- O&M Responsibility for supplied tech
- 40% local content, can deliver upto 80%





## MATOLA HARBOUR MOZAMBIQUE

- Combination Brown & Greenfields
- Two Stacker Reclaimers and Two Shiploader
- All Plant & Conveyors included
  - Full E,C&I. MV, LV and Control System
  - All electrical construction, instrument & cabling
  - Full MES Scheduling System
  - Work done between ships harbouring







2015 12 I PAGE

## **AEC'S CONSULTING SERVICES**

#### ENERGY AUDITS AND FEASIBILITY STUDY'S

With a holistic approach to energy solutions, AEC understands the inherent need to determine the viability of an energy projects by initiating a solution that offers not just a power supply solution, but also offers operational and financial benefits.

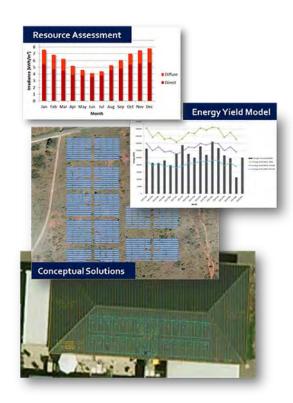
#### AEC'S DEFINITION OF FEASIBILITY

Feasibility analysis can mean different things to different people. Let's define the term feasibility. The word "feasibility" is derived from "feasible", which simply means capable of being done or accomplished. Feasibility studies aim to logically find the strengths and weaknesses of a proposed project and the required resources to carry through and ultimately guarantee its success. At AEC our approach includes observing all the key metrics such as technology, funding and legal requirements to ensure the client's ultimate expectations are met.

### Realising your Project's Potential

Central to AEC's approach is our energy model which incorporates all factors involved in the setup and execution of an energy project. By tailoring our energy model to your project, AEC is able to efficiently deliver:

- Site and Resource Assessments
- Conceptual Solutions
- Energy Yield Models
- Project Finance Models
- Project Risk Evaluation and Mitigation
   Plans



2015 13 I PAGE

#### **ENERGY EFFICIENCY AUDITS**

## "The Cheapest Energy is that which is not necessary to be produced"

With a constant increase in the demand of energy and an equally increasing constraint being placed on both our national and global energy resources, AEC understands the drive toward energy efficiency and offers the undertaking of an Electrical Energy Audit. AEC's approach to Electrical Energy Audits is five stage audit model which incorporates the optimization of both essential and non-essential assets. Ultimately the project success is the alignment of your requirements with the focus being:

- To use energy more efficiently and reduce energy wastage
- To differentiate between essential and nonessential applications
- To propose alternative methodologies that can result in savings
- To identify process optimization opportunities
- To ensure sustainability in the proposed solutions



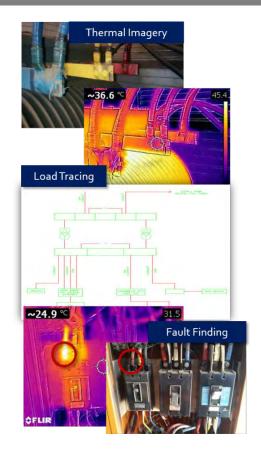
2015 14 I PAGE

#### ELECTRICAL AUDITS

Electrical systems can be compared to the human body's cardiovascular system, operating in the background, energising your facility, a fundamental function to any facility operation. It is therefore imperative that proper electrical installation and maintenance procedures are executed. With this growing awareness for electrical compliance, AEC offers the undertaking of an electrical audit.

Our electrical audit ensure the fundamental safety principles and optimum performance of the electrical system are in line with the current code of practice (SANS 10142-1). Audits are conducted on both the incoming supply of electricity and the distribution throughout the facility as well as the earthing and lighting protection systems.

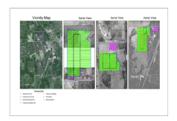
The outcomes of the report identified areas of non-compliance as well proposed recommendation to ensure a safe and optimum electrical system



2015 15 I PAGE

## DESIGN ABILITY

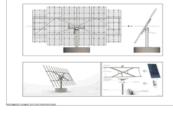
## SOLAR PV FIELD AND ELECTRICAL DESIGN SERVICE





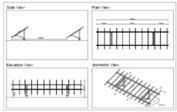


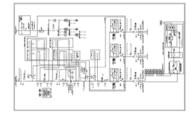




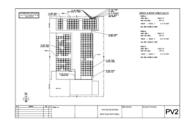


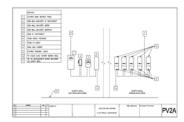


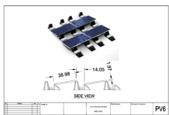


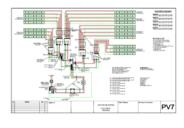






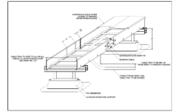


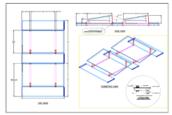






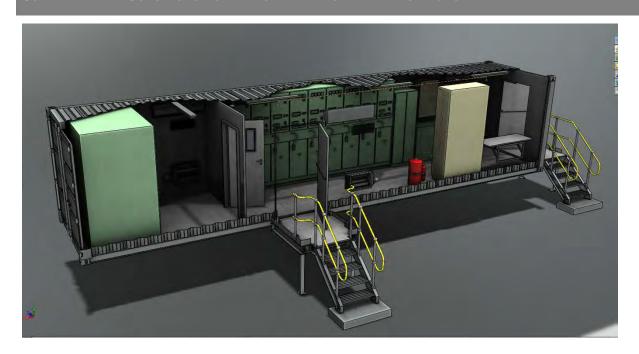






2015 16 | PAGE

## CONTAINERIZED SOLUTIONS FOR REMOTE AND RURAL APPLICATIONS





2015 17 I PAGE

## MV SWITCHGEAR CONTAINER SOLUTION



2015 18 | PAGE

## **AEC'S PROJECT DELIVERY SERVICES**

#### SMART SOURCING FOR SMART DELIVER

Backed by the experience of 2500 projects AEC has developed a Project Methodology that ensures optimum results and quality measures are met consistently. AEC has identified the highest quality and efficient suppliers at reasonable costs that will enable us to deliver our designs timely and within budget. With these suppliers integrated into our holistic project approach we can ensure that commitments and solutions are delivered.

AEC has historic relationships with hardware technology providers from both Europe and China with the ability to expedite locally to ensure quality measures are met. These suppliers have a significant track record with AEC and are audited and controlled throughout the manufacturing process.

AEC pides itself in taking full project responsibility ensuring all sub-suppliers are integrated and managed in a transparent and efficient manner. The attractive facet of this contracting model is that there is a level of accountability to reassure investors that if the project does encounter difficulties, a significant portion of the risk remains with AEC.



Some suppliers: LV –ZEST group, CBI electric, K&S and JB Switchgear. MV – CBI electric, JSHP, Sunel, Revive and Outec. PLC – Internally sourced and independents. Installation – B&W, ENI, CBI electric

2015 19 I PAGE