

ALGOA LIGHTING AND SOLAR ENERGY SOLUTIONS

▶ **Offer an unbiased, comprehensive solution**

▶ **Industrial & Commercial**

▶ **We:**

1. Measure-your current electricity usage and patterns
2. Check that you are on the correct electricity tariff
3. Analyse and advise
4. Implement lighting technologies with shortest return on investment while not reducing light levels and efficiency.
5. Advise on the integration of Energy Efficient Technologies.
6. Design and implement Renewable Energy systems that generates electricity that offsets directly against clients Municipal Electricity Bill.
7. Design and implement Renewable Energy systems that generates electricity in order to resell electricity.

ENERGY EFFICIENT LIGHTING

- ▶ **FEATURES**
- ▶ **WARRANTY BETWEEN 3-5 YEARS**
- ▶ **QUALITY BRANDS ONLY**
- ▶ **EXPERT ADVICE FROM LIGHTING ENGINEERS**
- ▶ **ON SITE INSPECTIONS**
- ▶ **LIGHTING DESIGN FREE ON PLACING OF ORDER**
- ▶ **ENERGY EFFICIENT FLUORESCENT**
- ▶ **INDUCTION LIGHTING**
- ▶ **LED LIGHTING**
- ▶ **ALL LIGHTING CAN BE LINKED TO BMS (Building management OR HOME AUTOMATION**

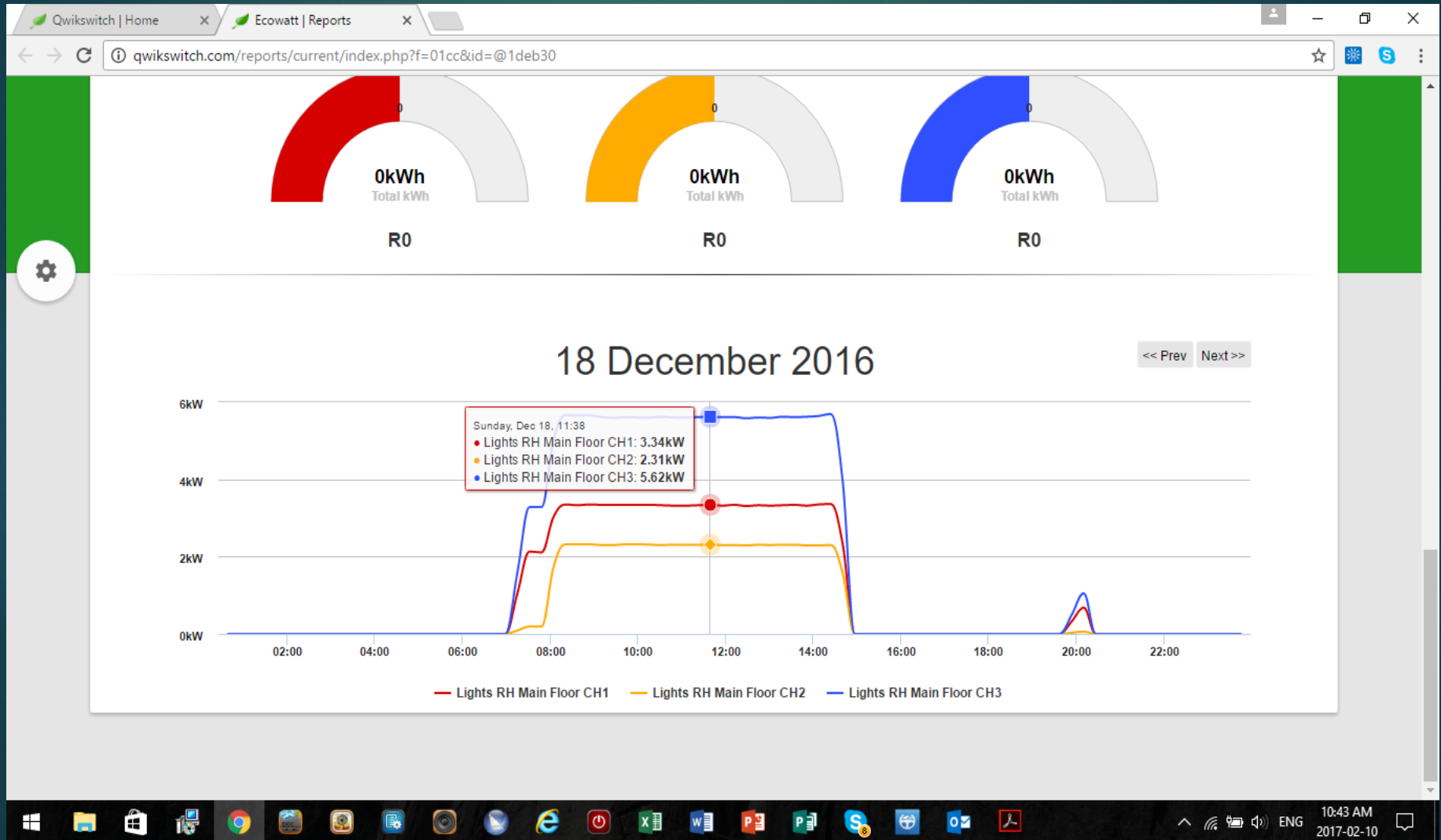
BUILDING MANAGEMENT SYSTEM(BMS)

- ▶ A **building management system (BMS)**, is a computer-based control system installed in buildings that controls and monitors the building's equipment such as ventilation, lighting and air conditioning.
- ▶ A BMS consists of software and hardware; the software program, usually configured in a hierarchical manner for internal load shedding-Switching off non critical components such as Air conditioning , non essential fridges (i.e. cooldrinks) lighting etc.
- ▶ A BMS systems is a critical component to managing energy demand. (At OK Grocer 75% of the trading lights have been set to be off for 2 hours a day during non trading hours-This is in addition to the 61% saving already achieved)

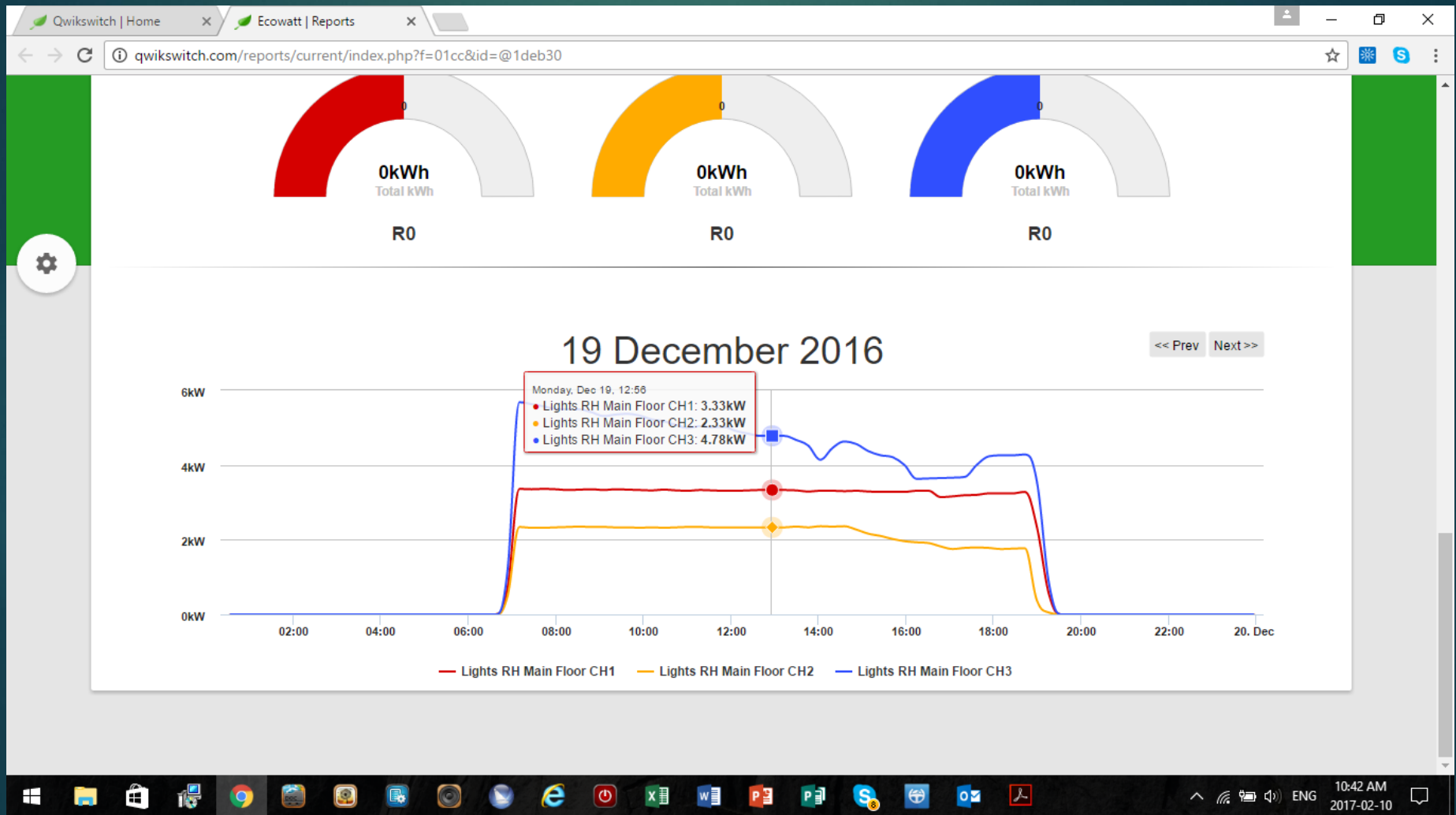
RENEWABLE ENERGY PV PANELS (PHOTO VOLTAIC)

- ▶ GENERATE YOUR OWN ELECTRICITY WITH PHOTO VOLTAIC PANELS
- ▶ SEE PROJECTS LIST-
- ▶ REFERENCE :
- ▶ SHERWOOD SPAR generated R310 000,00 IN 1 YEAR
- ▶ OK GROCER generated R70,000 SINCE DECEMBER 2016
- ▶ DR CHARL STRYDOM ZERO ELECTRICITY BILL

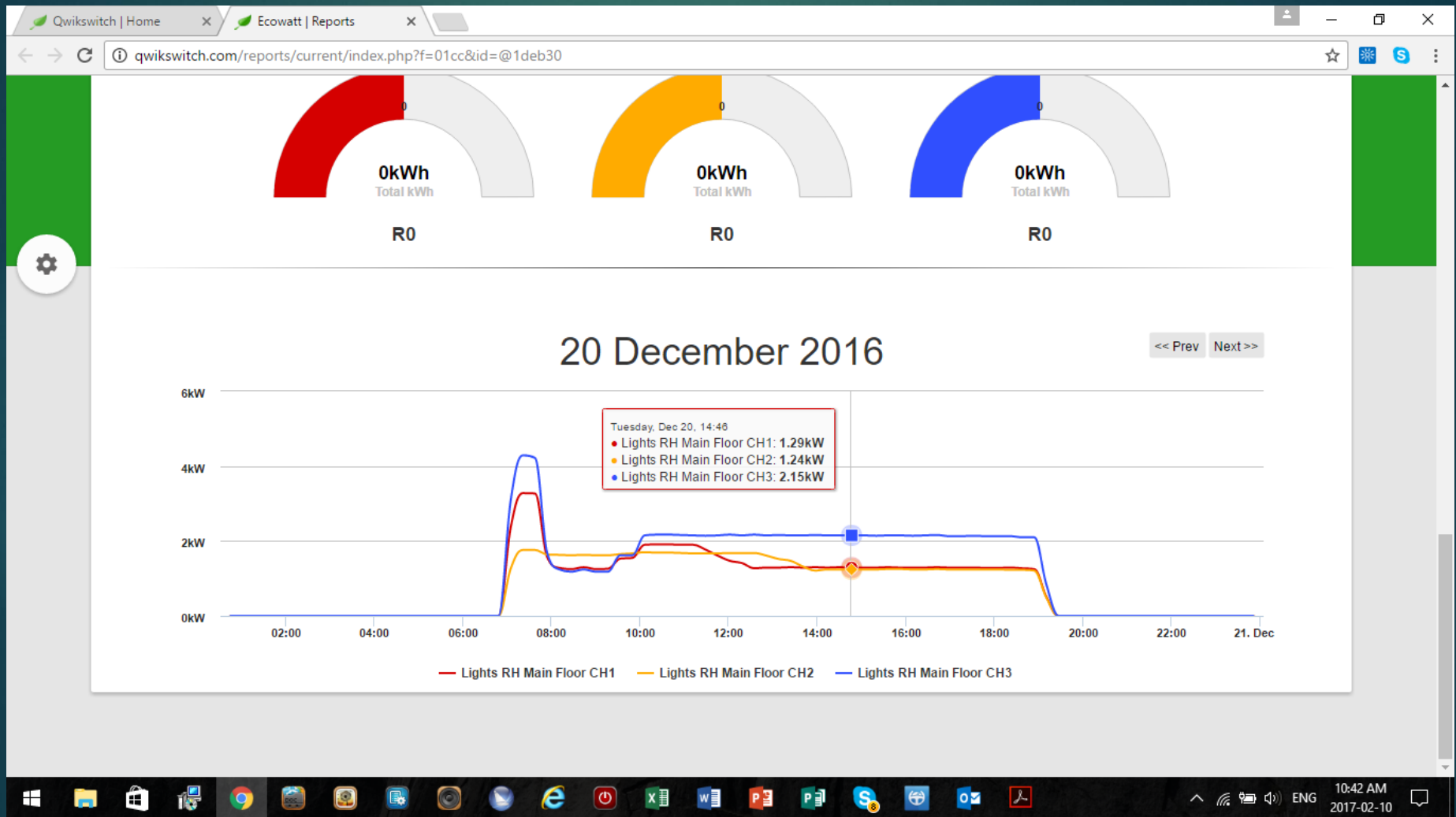
CASE STUDY OK GROCCER



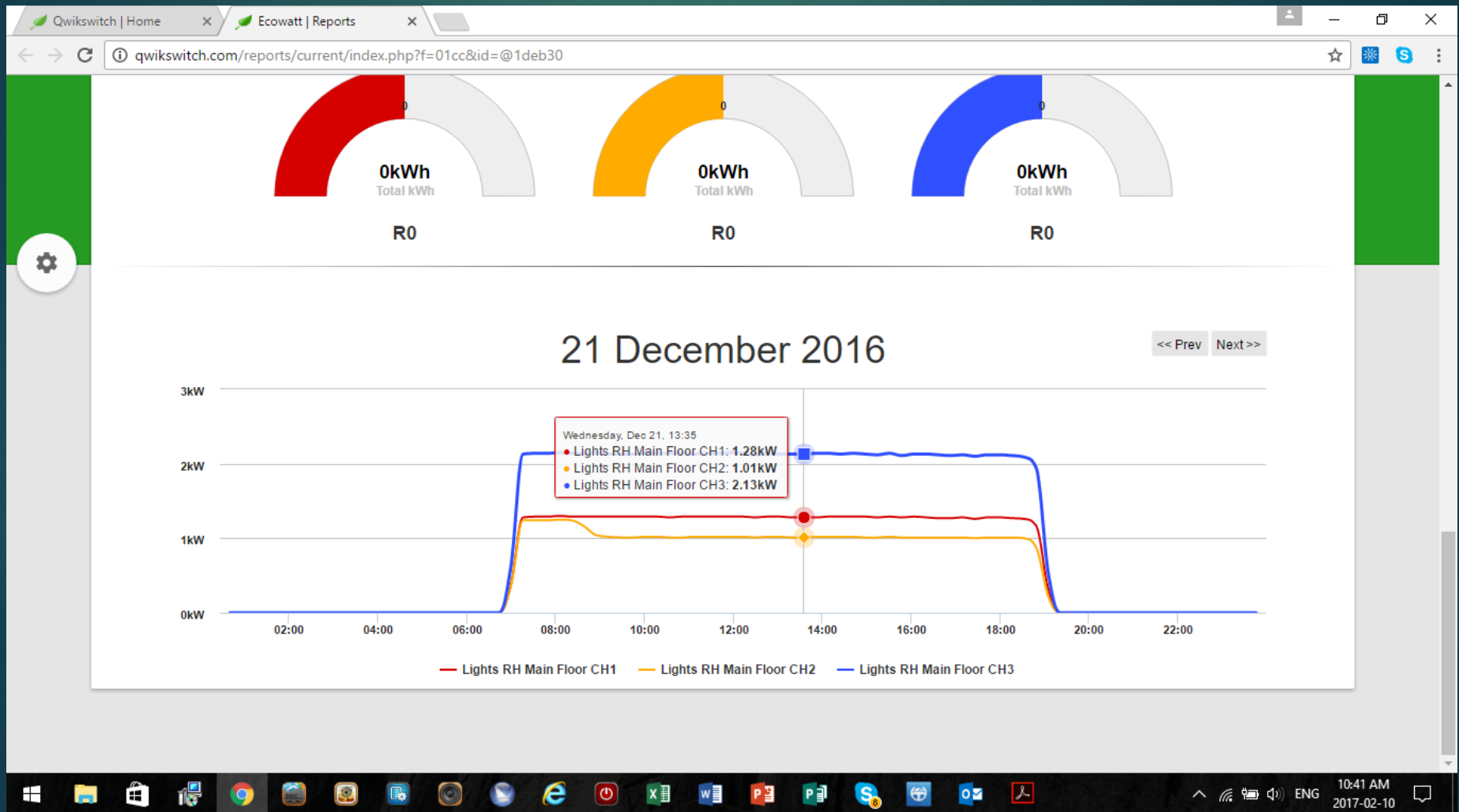
CASE STUDY OK GROCCER



CASE STUDY OK GROCCER



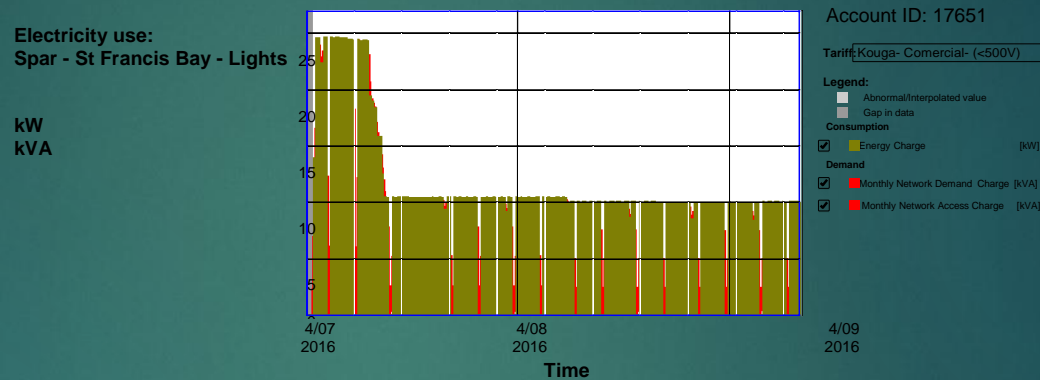
CASE STUDY OK GROCCER



OK GROCER ACTUAL MEASURED ENERGY REDUCTION IN TRADING AREA

OK GROCER KW REDUCTION FROM 18 DEC 2016 ONGOING					
DATE	18-Dec-16	19-Dec-16	20-Dec-16	21-Dec-16	% Saving
BLUE PHASE Kw	5,62	4,26	2,15	2,14	61
RED PHASE Kw	2,37	2,31	0,92	0,91	65
YELLOW PHASE kw	2,31	1,75	1,25	1,02	71

VILLAGE SUPERSPAR ST FRANCIS BAY- MEASURED RESULTS 61% LIGHTING SAVINGS



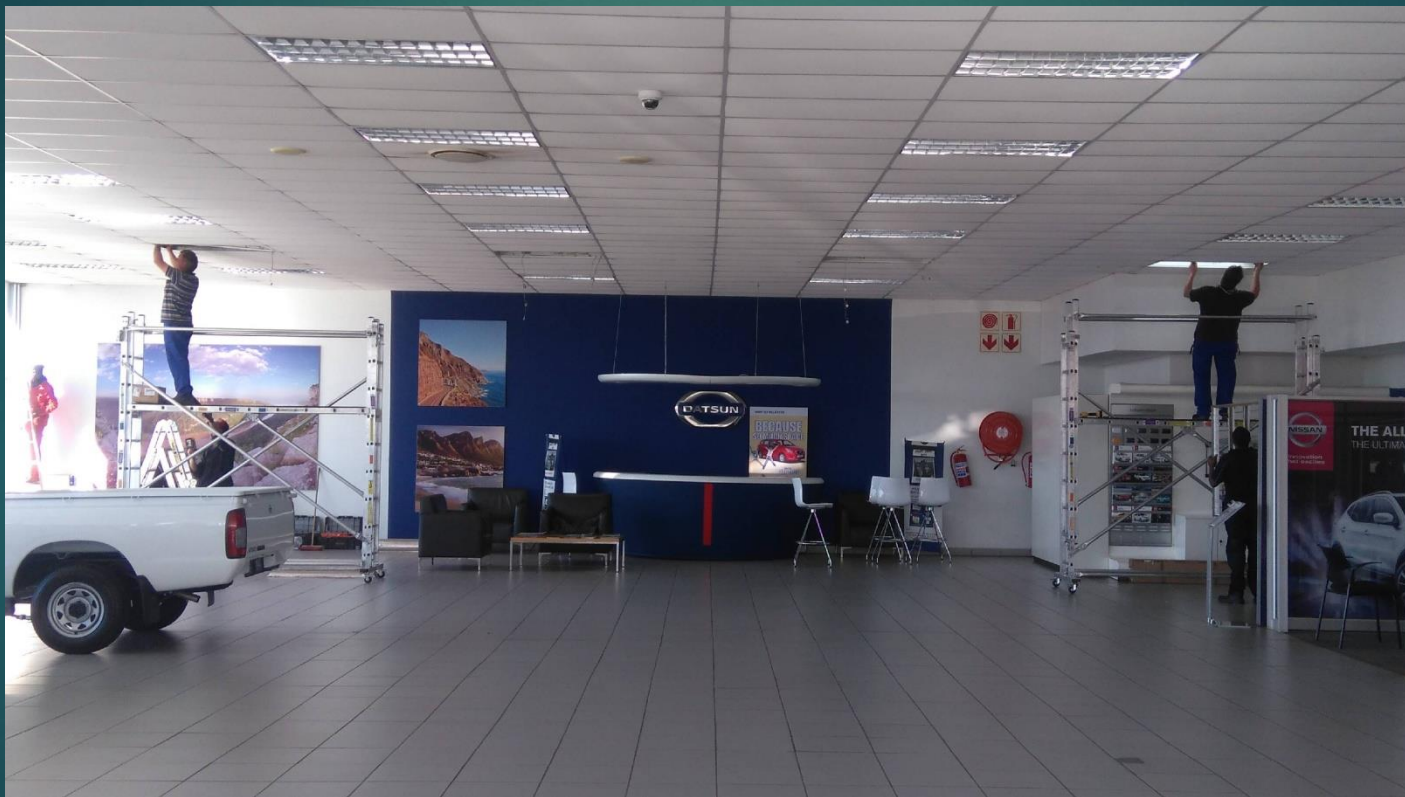
Mon Jul 04 2016 00:00 to Wed Sep 14 2016 00:00
EXAMPLE OF ST FRANCIS SUPERSPAR
SAVINGS

The first line of the graph from Mon 4-7-16 to Mon 11-7-16 showed the inefficient lighting load. From Tues 12-7-16 till Fri 15-7-16 while the electrician was installing the lighting load reduces dramatically. From 12-08-16 to current date the installation is complete and the lighting load has reduced from 24kW to 10 Kw

ALGOA NISSAN HUMANSDORP

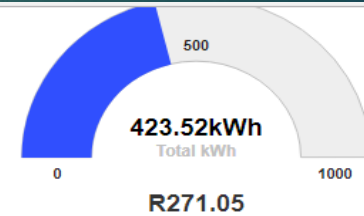
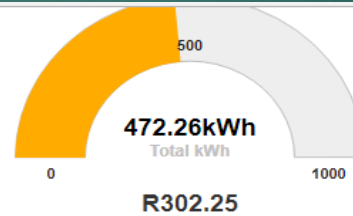
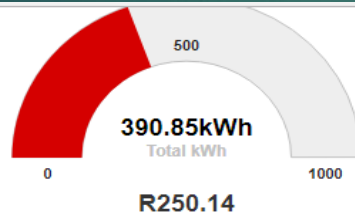


ALGOA NISSAN HUMANSDORP



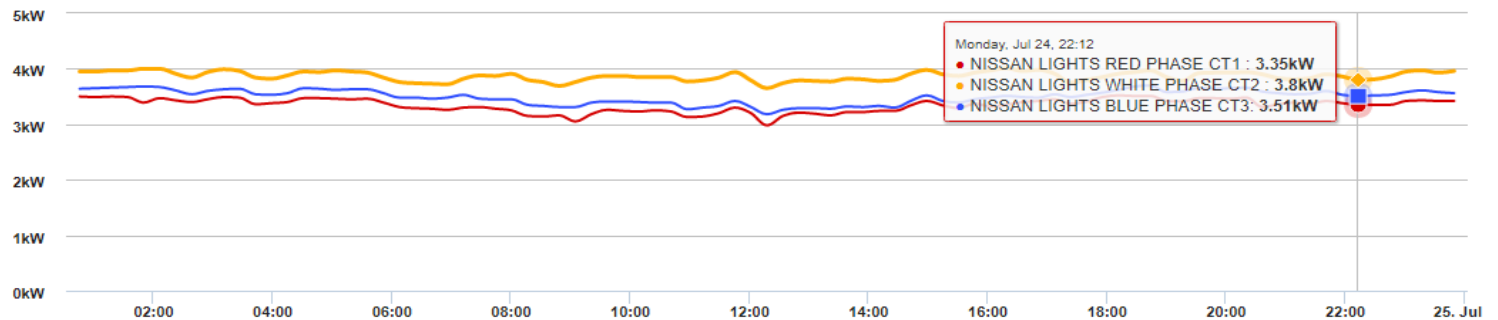
CASE STUDY ALGOA NISSAN HUMANSDORP

BASE LOAD 24-7-17 PRIOR TO INTERVENTION

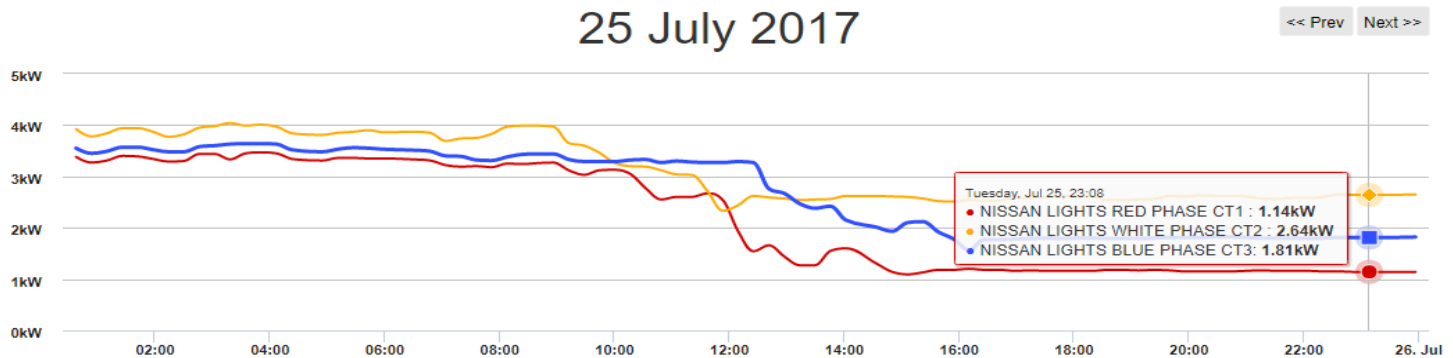
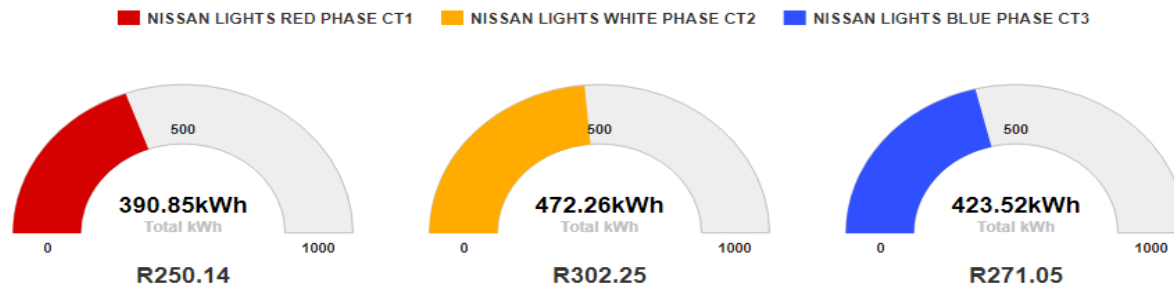


24 July 2017

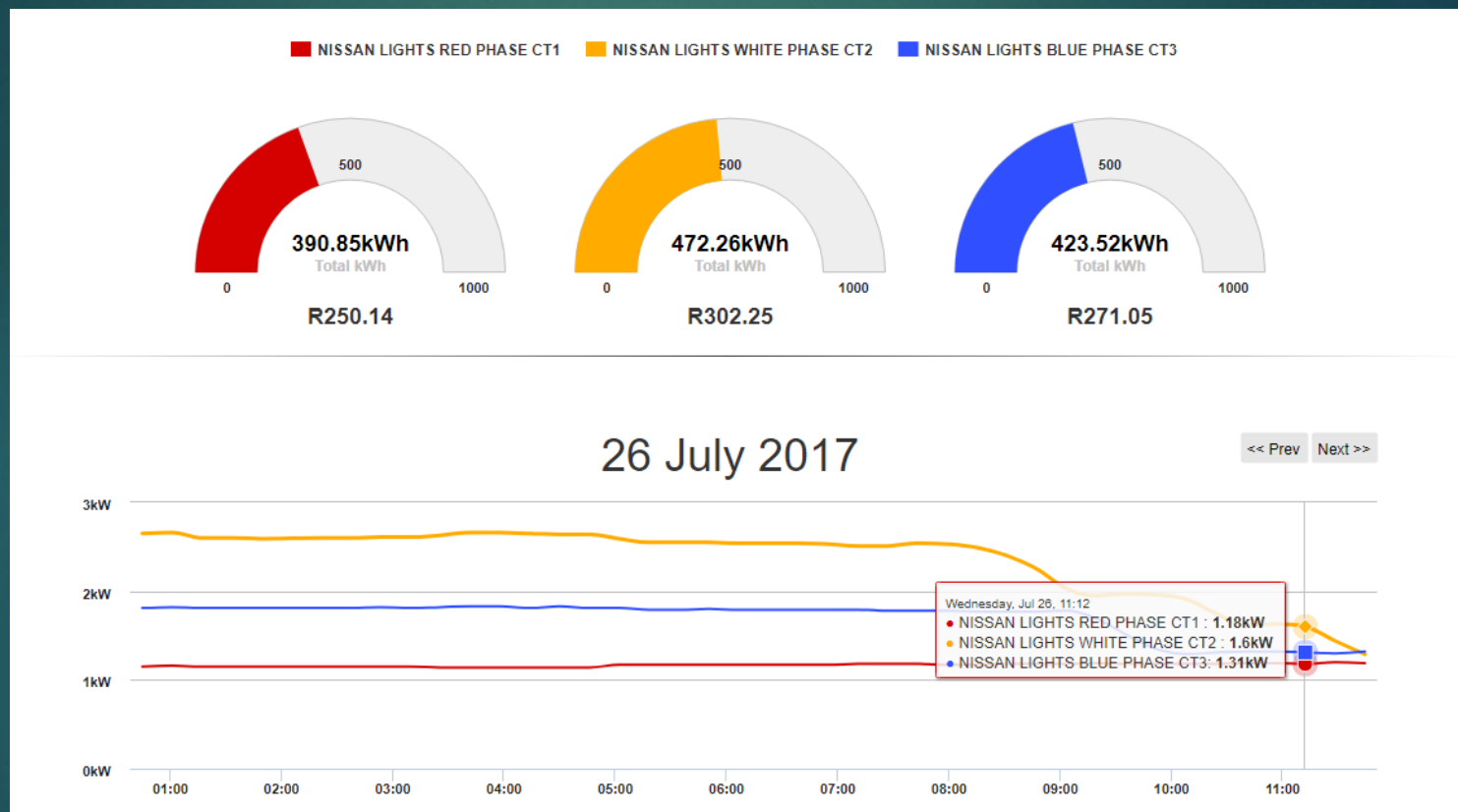
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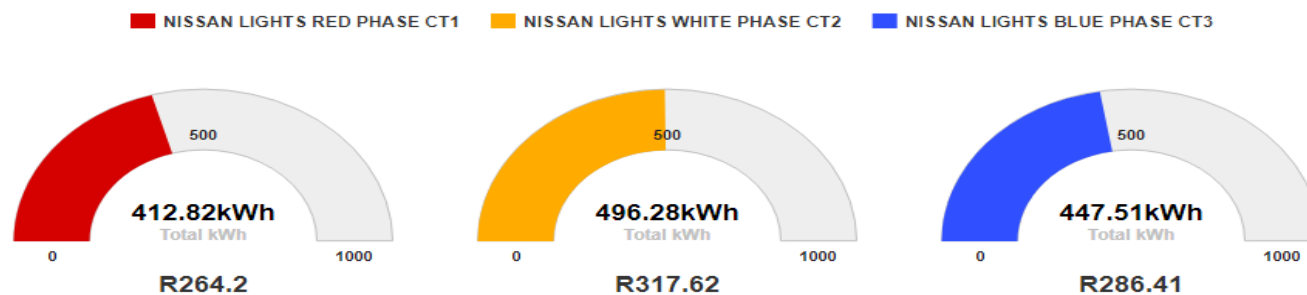
CASE STUDY ALGOA NISSAN HUMANSDORP BASE LOAD 25-7-17 INTERVENTION STARTED



CASE STUDY ALGOA NISSAN HUMANSDORP BASE LOAD 26-7-17 INTERVENTION STARTED

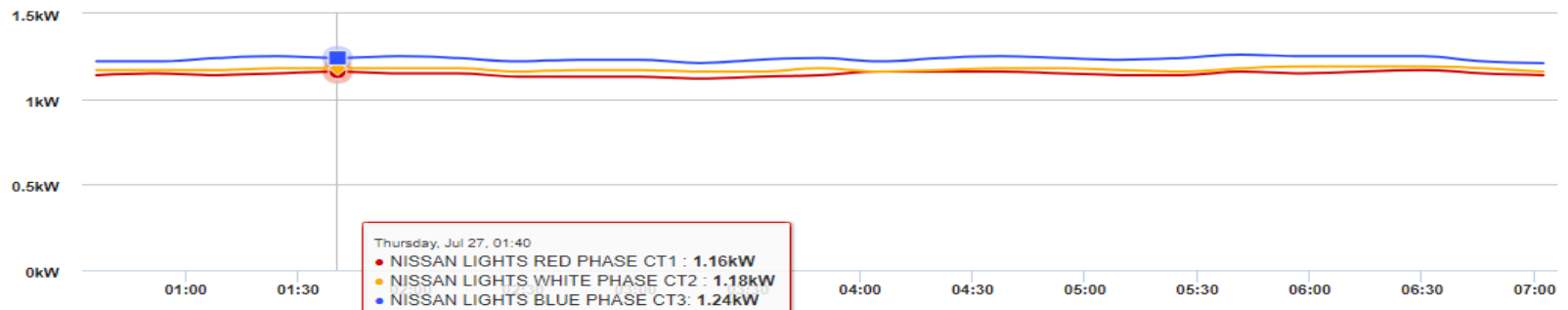


CASE STUDY ALGOA NISSAN HUMANSDORP BASE LOAD 27-7-17 INTERVENTION DONE



27 July 2017

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ALGOA NISSAN ACTUAL MEASURED ENERGY REDUCTION

ALGOA NISSAN HUMANSDORP ACTUAL MEASURED ENERGY REDUCTION					
DATE	JULY 23-17	JULY 24-17	JULY 25-17	JULY 26-17	% SAVING
BLUE PHASE	3,61 Kw	3,51kW	1,81kW	1,31kW	63
YELLOW PHASE	3,91 Kw	3,8kW	2,64kW	1,6kW	59
RED PHASE	3,45kW	3,35kW	1,14kW	1,18kW	65

ALGOA NISSAN ACTUAL ELECTRICITY BILLS BEFORE & AFTER UPGRADE



Jeffreys Bay Loerie Thornhill 21 JEFFREYS BAY 6330 Tel :042 200 2200 Fax :042 200 8609	Humansdorp 26 HUMANSDORP 6300 Tel:042 200 8300 Fax :042 200 8625	St Francis Bay Cape St Francis Oyster Bay 137 ST FRANCIS BAY 6312 Tel :042 200 2250 Fax :042 200 8645	Hankey 3 HANKEY 6350 Tel :042 200 8407 Fax :042 200 8630	Patensie 129 PATENSIE 6335 Tel :042 200 8450 Fax :042 200 8640
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ERF 2098 HUMANSDORP EIENDOMME PTY LTD
POSBUS 1073
HUMANSDORP
6300

Algoa Nissan Humansdorp

TAX INVOICE # / BELASTINGFAKTUUR #	2014650118
KOUGA VAT Reg. #/KOUGA BTW Reg. #	4070193497
Account Holder VAT Reg. #/ Rekeninghouder BTW Reg. #	
VAT Amount / BTW Bedrag	1824.38

YOUR Account # / U Rekening #		Date / Datum	Receipts posted to : / Kwitanties gepos tot :		Due Date / Betaaldatum	
3002089008		29/05/2017	27/05/2017		15/06/2017 596	
Property Details / Eiendom Besonderhede			Deposit / Deposito		Valuation / Waardasie	
Suburb / Voorstad		Erf	Site / Ligging		330000	
HUMANSDORP		2089	BOSBOKSTRAAT		Area	3607
Type	Meter #	Previous Reading Vorige Lesing	Current Reading Huidige Lesing	Period Periode	Consumption Verbruik	Daily Average Daaglikse Gemiddeld
W	324	10651	10851	27/05-28/05		
E	9631782	1042312	1050487	13/04-15/05 27-10/8	8175	255.48

Description / Beskrywing	Cons./Verbruik	Basic/Basies	VAT/BTW	Total/Totaal
Saldo oorgeleë: Kwitanties: 2150213054				18463.06 18463.06
Rates Monthly Levy		7.94774		191.08
Water Basic		150.11000	21.02	171.13
Water Use @ Huidige	29			
Water Verbruik@Huidige		1838.25000	257.36	2085.61
Elektrisiteit Basic	32			
Elektrisiteit Use @ Huidige	5			
Elektrisiteit Verbruik@Huidige		270.59000	37.88	308.47
Vullis Verwydering		410.98000	57.54	468.52
DBF		322.22000	45.11	367.33
Riool Vaste Koste				15046.47

R1224WR - R13000
65 KWSISTEM
ELECTRICITY RATE
R12282 / KW
± 65 KWSISTEM

Old acc June 2017 kWH usage before lighting upgrade

New acc OCT 2017 KWH usage AFTER lighting upgrade

RAND SAVING
AVERAGE Kwh saving of

Monthly / Maandeliks		Annual / Jaarliks		TOTAL NOW DUE / TOTAAL NOU
Arrears/Agterstallig	Current/Huidige	Arrears/Agterstallig	Current/Huidige	VERSKULDIG
0.00	15046.47	0.00	0.00	15046.47
Payable by ACB :		0.00	Nett Due :	0.00
Reference / Verwysing		Branch Code / Takkode	Account #/ Rekening #	
3002089008XXXXXX		250 655	52540033504	



Jeffreys Bay Loerie Thornhill 21 JEFFREYS BAY 6330 Tel :042 200 2200 Fax :042 200 8609	Humansdorp 26 HUMANSDORP 6300 Tel:042 200 8300 Fax :042 200 8625	St Francis Bay Cape St Francis Oyster Bay 137 ST FRANCIS BAY 6312 Tel :042 200 2250 Fax :042 200 8645	Hankey 3 HANKEY 6350 Tel :042 200 8407 Fax :042 200 8630	Patensie 129 PATENSIE 6335 Tel :042 200 8450 Fax :042 200 8640
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ERF 2098 HUMANSDORP EIENDOMME PTY LTD
POSBUS 1073
HUMANSDORP
6300

BEB Motors (Pty) Ltd.
t/a ALGOA NISSAN
Reg No: 2007/023207/07
1 Bosbok Street, P.O. Box 1073
Humansdorp 6300
Tel: (042) 291 0478 Fax: (042) 291 0480

TAX INVOICE # / BELASTINGFAKTUUR #	2014726882
KOUGA VAT Reg. #/KOUGA BTW Reg. #	4070193497
Account Holder VAT Reg. #/ Rekeninghouder BTW Reg. #	
VAT Amount / BTW Bedrag	1176.46

YOUR Account # / U Rekening #	Date / Datum	Receipts posted to : / Kwitanties gepos tot :	Due Date / Betaaldatum
3002089008	22/09/2017	20/09/2017	16/10/2017
Property Details / Eiendom Besonderhede	Deposit / Deposito	Valuation/Waardasie	
Suburb/Voorstad HUMANSDORP	Erf 2089	Site / Ligging BOSBOKSTRAAT	Area 3607

Type	Meter #	Previous Reading Vorige Lesing	Current Reading Huidige Lesing	Period Periode	Consumption Verbruik	Daily Average Daaglikse Gemiddeld
W E	324 9631782	10889 1070727	10989 1074972	24/07-21/08 10/08-14/08	4245	121.28

Description / Beskrywing	Cons./Verbruik	Basic/Basies	VAT/BTW	Total/Totaal
Saldo oorgeleë: Kwitanties: 2150253376				13837.74 13937.74
Rates Monthly Levy		0.00750		1875.00
Water Basic		164.38000	23.01	187.39
Water Use @ Ou Tar	7			
Water Verbruik@Ou Tar				
Water Use @ Huidige	21			
Water Verbruik@Huidige		1842.40000	257.94	2100.34
Elektrisiteit Basic	35			
Elektrisiteit Use @ Huidige	4245			
Elektrisiteit Verbruik@Huidige		294.94000	41.29	6058.80
Vullis Verwydering	1	435.64000	60.99	338.23
DBF	1	351.22000	49.17	496.63
Riool Vaste Koste				400.39
** Totale maandelikse saldo:				11454.78

8175 Kwh = R 11 444.35

4245 Kwh = R 6 058.80

R 5 385.55

3930 kWH

TOTAL SAVING = 48%

Monthly / Maandeliks		Annual / Jaarliks		TOTAL NOW DUE / TOTAAL NOU VERSKULDIG
Arrears/Agterstallig	Current/Huidige	Arrears/Agterstallig	Current/Huidige	
0.00	11454.78	0.00	0.00	11454.78

PV (PHOTO VOLTAIIC)

ELECTRICITY GENERATING SYSTEMS

- ▶ These solar systems pay themselves back, by off-setting the electricity generated by the system, directly against the clients municipal electricity account.
- ▶ What this means , is that the clients electricity bill is reduced on a monthly basis , by the amount that the solar system generates.
- ▶ The ROI (Return on investment) is usually between 3,5 - 5 years, and thereafter the electricity generated is pure profit.
- ▶ IRR (Internal rate of return) is between 22 -25% per annum over a 10 year period. After 10 years the IRR exponentiates.
- ▶ The life expectancy of the system is excess of 20 years.
- ▶ There is a special tax incentive by SARS -12B allowing the client to write off the initial project costing at 100% in the first year.

PV (PHOTO VOLTAIC)
Sherwood Spar -Daron Forlee - 0823202397

100kW three Phase Grid Tied System. - Offsetting against own electricity account.



SHERWOOD SUPERSPAR PV



OK GROCER PV

OK Grocer - JOGESH GAJJAR - 0823202397

100kW three Phase Grid Tied System. - Offsetting against own electricity account.



OK GROCER PV PANELS



PV OK GRO CER INVERTORS



PV PROJECTS COMPLETED

- ▶ **Sherwood Spar -Daron Forlee - 0823202397**
- ▶ 100kW three Phase Grid Tied System. - Offsetting against own electricity account.
- ▶ **OK Grocer - JOGESH GAJJAR - 0823202397**
- ▶ 100kW three Phase Grid Tied System. - Offsetting against own electricity account.
- ▶ **Sel Rangers Out Doors - Mr. C Ranger -0879425723**
- ▶ These two Photovoltaic Systems were the first two small scale (>100kW) commercial installations in the NMBM that created the Wheeling/trading platform for Amatola Green Power, wheeling through the metro's grid.
- ▶ **1.) Bauerskraal - 100kW Grid tied System -Selling Generation to Amatolla Green Power**
- ▶ **2.)University Lodge. -100kW Grid tied System - Selling Generation to Amatola Green Power**
- ▶ **Welgevonde - Mr. A Rudman - 0721505152**
- ▶ 100kW - Tree Phase Grid Tied Installation - Offsetting against own account Currently in discussions with Eskom. Eskom wants to use this site as a pilot site in the EC.
- ▶ **Chem-Dry SA cc St Francis Bay - Mr. C Steenkamp - 083 462 5529**
- ▶ 3kW Grid Tied + Battery Back-up system- Offsetting own account.
- ▶ **The Terminators - Mr. J Botha -0828002909**
- ▶ Installed 10 kw Grid Tied System with 5kw Battery Back-up - Offsetting own account.
- ▶ **Peperhoek Farm, Kirkwood - Mr. J Welgemoed -0828217971**
- ▶ 10kW 3Phase Grid Tied System to offset against his own account. We're busy with a proposal to increase this installation to 100kW. Customer wants to sell-off the excess generation to Amatola Green.
- ▶ **28 Walton Road , Mill Park - Dr Charl Strydom - 0825759058**
- ▶ 5kW Single Phase Grid Tied System with Battery Back-up - Offsetting own electricity account.
- ▶ **Tactile 3 Urmarah Close, Constantia -Rod Beck - 0836545450**

LIGHTING PROJECTS COMPLETED

▶ ESKOM ENERGY SAVING PROJECTS

- ▶ UNIFRUTTI PACK-HOUSE
- ▶ EVEREADY
- ▶ BLUEWATER BAY SUPERSPAR
- ▶ KRAGGA KAMMA SPAR
- ▶ BOPEDI SPAR
- ▶ PRICE WATERHOUSE COOPERS
- ▶ BILLSONS TRUCKS
- ▶ QUEENSTOWN SPAR
- ▶ FORT BEAUFORT SPAR
- ▶ ONVLEE ENGINEERING

LIGHTING PROJECTS COMPLETED

- ▶ **NON ESKOM PROJECTS:**
- ▶ SA BREWERIES HOPS LIGHTING
- ▶ TELKOM PARK STADIUM LIGHTING
- ▶ NMMU HOCKEY FIELD LIGHTING
- ▶ CENTRAL RUGBY STADIUM UITENHAGE
- ▶ ST AIDEN'S HOCKEY FIELD GRAHAMSTOWN
- ▶ MARITIME MOTORS
- ▶ BMW SHOWROOM
- ▶ PE CASINO
- ▶ PE AIRPORT (COMPLETE COMPLEX ENERGY EFFICIENT LIGHTING)
- ▶ BASF
- ▶ NISSAN HUMANSDORP
- ▶ FEDERAL MOGUL
- ▶ VILLAGE SUPERSPAR ST FRANCIS BAY
- ▶ OK GROCER UITENHAGE
- ▶ HEYDENRICHS MEAT PROCESSING PLANT
- ▶ FRUIT & VEG DEPOT COLDROOM LIGHTING
- ▶ SUNDAYS RIVER CITRUS COMPANY (PTY) ,LTD
- ▶ NEWTON PARK SUPERSPAR

A woman in a white sweater and black pants is kneeling in a supermarket aisle, reaching into a glass-fronted refrigerator. She has a shopping basket next to her. The aisle is lined with similar refrigerators filled with various food items. The background is a solid teal color.

ALGOA LIGHTING

ENERGY AND SOLAR SOLUTIONS

Web- www.algoalighting.co.za

Email- mike@algoalighting

**Lighting- Mike Beck
Cell 0825650464**

**PV- - Marius Welgemoed
Cell 0844664553**