

# Report on solar

STEELPOORT INDUSTRIAL PARK

MARCH 2022 TO FEBRUARY 2023

# Extract from AGM presentation – June 2022

## Solar

- ▶ *With the current power supply interruptions in South Africa and escalating costs of energy we embarked on the planning, procuring, construction and installation of two Solar powered PV plants. We completed and commissioned two of 266kw AC PV plants, one on the East side and one on the West side of the park.*
- ▶ *Aim is to reduce our cost of energy (paid to Eskom), some R10,5 m per annum until 28 February 2022, and working towards a sustainable supply for tenants of Steelpoort Industrial Park*
- ▶ *Decided on a roof mounted , grid tied Solar PV System as the Kadoma area is situated in an area with relatively high annual irradiance levels*
  - ▶ *Replace electricity supplied by ESKOM during daylight hours*
  - ▶ *Currently PV Plants will not provide electricity during ESKOM Load Shedding events. Emergency electricity remains the responsibility of the tenants of Steelpoort Industrial Park*

# General comments

- ▶ Compiled by management with the assistance of solar professionals engaged at Steelpoort Industrial Park
- ▶ The data was extracted from the inverter readings installed at Steelpoort Industrial Park
- ▶ March 2022 and April 2022 were not full months as the installation of both the East and West park solar was completed during these months

# Eskom tariff applied to solar Kwh

Month	Park Area	Eskom Tariff	Kwh per Eskom invoice	Total cost per Eskom invoice	Cost per Kwh	Solar utilised - Kwh	Saving value
Mar-22	WEST	Ruraflex	205 409,00	289 689,72	1,41		
	EAST	Ruraflex	283 428,90	395 323,62	1,39	29 426,36	41 043,57
Apr-22	WEST	Ruraflex	214 588,00	314 449,49	1,47	28 573,48	41 870,54
	EAST	Ruraflex	307 719,00	441 187,10	1,43	38 078,64	54 594,63
May-22	WEST	Ruraflex	186 419,00	291 020,37	1,56	35 983,38	56 173,98
	EAST	Ruraflex	291 159,00	442 180,34	1,52	31 918,88	48 474,89
Jun-22	WEST	Ruraflex	154 139,00	288 290,89	1,87	33 823,50	63 261,13
	EAST	Ruraflex	324 998,00	578 943,74	1,78	26 449,34	47 116,22
Jul-22	WEST	Ruraflex	168 748,00	377 172,69	2,24	31 802,03	71 081,48
	EAST	Ruraflex	310 761,00	660 262,05	2,12	21 946,81	46 629,56
Aug-22	WEST	Ruraflex	362 164,00	810 181,16	2,24	42 589,07	95 274,14
	EAST	Ruraflex	191 799,00	431 595,23	2,25	30 251,47	68 073,29

# Eskom tariff applied to solar Kwh (continued)

Month	Park Area	Eskom Tariff	Kwh per Eskom invoice	Total cost per Eskom invoice	Cost per Kwh	Solar utilised - Kwh	Saving value
Sep-22	WEST	Ruraflex	181 714,00	348 146,73	1,92	33 721,30	64 606,79
	EAST	Ruraflex	316 999,00	587 229,98	1,85	25 572,24	47 371,71
Oct-22	WEST	Ruraflex	149 648,00	248 331,55	1,66	43 443,28	72 091,42
	EAST	Ruraflex	271 843,00	416 158,14	1,53	36 323,30	55 606,50
Nov-22	WEST	Ruraflex	171 353,00	281 057,81	1,64	31 895,13	52 315,26
	EAST	Ruraflex	246 290,00	382 567,06	1,55	33 398,32	51 878,27
Dec-22	WEST	Ruraflex	99 882,00	188 369,30	1,89	27 927,89	52 669,73
	EAST	Ruraflex	206 353,00	327 007,92	1,58	28 477,03	45 127,59
Jan-23	WEST	Ruraflex	125 888,00	216 086,29	1,72	30 882,71	53 010,05
	EAST	Ruraflex	119 077,00	212 073,22	1,78	31 271,47	55 693,72
Feb-23	WEST	Ruraflex	154 365,00	256 081,01	1,66	25 642,22	42 538,69
	EAST	Ruraflex	195 995,00	316 948,23	1,62	23 669,19	38 276,01
						<b>723 067,04</b>	<b>1 264 779,18</b>

# Forecast vs. actual reconciliation

Plant	KWh
<b><u>Kadoma East PV Plant:</u></b>	
· Forecasted Annual Energy Production (AEP)	599 838
· Actual Production	486 790
o Actual Consumption of PV energy	410 680
o Actual Excess PV Energy	76 110
· Estimated PV Production Loss Loadshedding	72 000
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<b><u>Kadoma West PV Plant:</u></b>	
· Forecasted Annual Energy Production (AEP)	602 202
· Actual Production	427 800
o Actual Consumption of PV energy	397 940
o Actual Excess PV Energy	29 860
· Estimated PV Production Loss Loadshedding	72 000
Rest of production differential can be attributed to weather (cloudy days / Rainy days / Etc.)	

# Solar Savings

Month	Saving	Interest on finance from bank	Net Saving
Mar-22	41 043,57	36 632,14	4 411,42
Apr-22	96 465,17	36 112,26	60 352,91
May-22	104 648,88	35 589,17	69 059,71
Jun-22	110 377,35	35 062,86	75 314,50
Jul-22	117 711,04	34 533,30	83 177,74
Aug-22	163 347,43	34 000,47	129 346,95
Sep-22	111 978,51	33 464,37	78 514,14
Oct-22	127 697,92	32 924,96	94 772,97
Nov-22	104 193,52	32 382,22	71 811,31
Dec-22	97 797,32	31 836,14	65 961,18
Jan-23	108 703,77	31 286,69	77 417,08
Feb-23	80 814,70	30 733,85	50 080,85
	<b>1 264 779,18</b>	<b>404 558,41</b>	<b>860 220,77</b>

# Return on investment

<b>Cost of Solar investment</b>				<b>8 740 241,65</b>
Tax saving				(2 447 267,66)
<b>NET Investment</b>				<b>6 292 973,99</b>
Impact of loadshedding				
<b>Period</b>	<b>Plant</b>	<b>Estimated KWh lost due to load shedding</b>	<b>Eskom average rate</b>	<b>Additional savings potential</b>
March 2022 to February 2023	East side	72000	1,74	125 037,51
March 2022 to February 2023	West side	72000	1,74	125 037,51
				<b>250 075,01</b>
Savings prior to finance costs (refer to previous slide)				1 264 779,18
Savings including estimated impact of loadshedding				<b>1 514 854,20</b>
% Return on investment prior to finance raised				<b>20,10</b>
Potential % Return on investment prior to finance raised excluding loadshedding				<b>24,07</b>
Finance cost				404 558,41
% cost of finance				(4,63)
% NET return after finance cost				<b>15,47</b>