

# Weekly System Status Report – 2021 Week 39 (27/09/2021 – 03/10/2021)

## Introduction

This document is intended to provide a general picture of the Adequacy of the National Electricity Supply System in the medium term. The Report will be updated weekly, on Tuesdays and circulated Wednesdays, thereafter, published on the Eskom website, updated on Wednesdays. The values contained in this report are unverified and not official yet and can change at any time.

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## Historic Daily Peak System Capacity/Demand

Date	Available Dispatchable Generation (MW)	Non-commercial Generation (MW)	Residual Load Forecast (MW)	Demand (MW) Incl	Operating Reserve Margin (Excl Non- Commercial Units)	Operating Reserve Margin (Incl Non- Commercial Units)	Forecast vs. Actual (Residual Demand)
Mon 27/Sep/2021	31,665	0	28,212	27,552	14.9%	14.9%	2.4%
Tue 28/Sep/2021	30,445	0	28,830	28,444	7.0%	7.0%	1.4%
Wed 29/Sep/2021	31,245	0	28,097	27,916	11.9%	11.9%	0.6%
Thu 30/Sep/2021	31,512	0	28,326	28,407	10.9%	10.9%	-0.3%
Fri 01/Oct/2021	30,936	0	27,314	27,799	11.3%	11.3%	-1.7%
Sat 02/Oct/2021	29,804	0	26,371	25,115	18.7%	18.7%	5.0%
Sun 03/Oct/2021	29,534	0	26,156	26,620	10.9%	10.9%	-1.7%

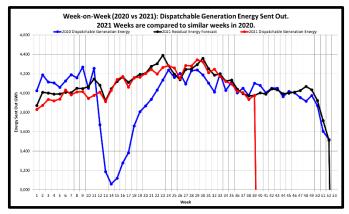
Date	Total Available Generation Incl Renewables (MW)	Non-commercial Generation (MW)	RSA Contracted Load Forecast (MW)	Actual RSA Contracted Demand (MW) Incl IOS	Operating Reserve Margin (Excl Non- Commercial Units)	Operating Reserve Margin (Incl Non- Commercial Units)	Forecast vs. Actual (RSA Contracted Demand)
Mon 27/Sep/2021	33,873	0	30,482	29,760	13.8%	13.8%	2.4%
Tue 28/Sep/2021	32,167	0	30,658	30,166	6.6%	6.6%	1.6%
Wed 29/Sep/2021	33,509	0	30,443	30,180	11.0%	11.0%	0.9%
Thu 30/Sep/2021	33,304	0	30,381	30,199	10.3%	10.3%	0.6%
Fri 01/Oct/2021	32,626	0	29,038	29,490	10.6%	10.6%	-1.5%
Sat 02/Oct/2021	35,209	0	28,860	27,984	25.8%	25.8%	3.1%
Sun 03/Oct/2021	31,140	0	27,916	28,226	10.3%	10.3%	-1.1%

## Notes:

- Available Dispatchable Generation means all generation resources that can be dispatched by Eskom and includes capacity available from all emergency generation resources.
- 2. RSA Contracted Load Forecast is the total official day-ahead hourly forecast. Residual Load Forecast excludes the expected generation from renewables.
- 3. Actual Residual Demand is the aggregated metered hourly sent-out generation and imports from dispatchable resources and includes demand reductions. The Actual RSA Contracted Demand includes renewable generation.
- 4. Net Maximum Dispatchable Capacity (including imports and emergency generation resources) = 49 590 MW (Incl. non-comm. Kusile units).
- 5. These figures do not include any demand side products.
- 6. The peak hours for the residual demand can differ from that of the RSA contracted demand, depending on renewable generation.



# Week-on-Week Dispatchable Generation Energy Sent Out



## [2021 weeks compared to similar 2020 weeks]

Week 39 : Dispatchable Generation Energy Sent Out Statistics					
Energy Sent Out	3,977	GWh			
Week-on-Week Growth	-3.02	%			
Year-on-Year Growth (Year-to-Date) Annual	3.30	%			

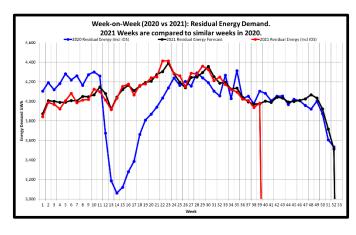
## Note:

2021 Weeks are compared to similar weeks in 2020.

(2021 week 1 ~ 2020 week 1)

	Annual Dispatchable Generation Energy Sent Out Statistics					
Year	01 Jan to 03 Oct Energy	Annual Energy (01 Jan to 31 Dec)	Unit			
2016	172,931	226,721	GWh			
2017	171,377	225,203	GWh			
2018	170,704	224,202	GWh			
2019	167,386	219,563	GWh			
2020	156,640	206,725	GWh			
2021 (YTD)	161,182		GWh			

## Week-on-Week Residual Energy Demand



## [2021 weeks compared to similar 2020 weeks]

Week 39 : Residual Energy Demand Statistics (Incl IOS)					
Energy Demand 3,982 GWh					
Week-on-Week Growth	-2.99	%			
Year-on-Year Growth (Year-to-Date) Annual	3.13	%			

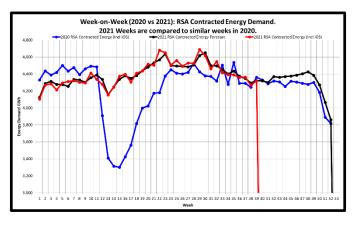
### Note:

2021 Weeks are compared to similar weeks in 2020.

(2021 week 1 ~ 2020 week 1)

	Annual Residual Energy Demand Statistics (Incl IOS)				
Year	01 Jan to 03 Oct Energy	Annual Energy (01 Jan to 31 Dec)	Unit		
2016	172,996	226,808	GWh		
2017	171,405	225,248	GWh		
2018	170,849	224,594	GWh		
2019	168,121	220,924	GWh		
2020	157,993	208,151	GWh		
2021 (YTD)	162,290		GWh		

# Week-on-Week RSA Contracted Energy Demand



## [2021 weeks compared to similar 2020 weeks]

Week 39 : RSA Contracted Energy Demand Statistics (Incl IOS)					
Energy Demand 4,321 GWh					
Week-on-Week Growth	-0.94	%			
Year-on-Year Growth (Year-to-Date) Annual	4.27	%			

## Note:

2021 Weeks are compared to similar weeks in 2020.

(2021 week 1 ~ 2020 week 1)

Annual RSA Contracted Energy Demand Statistics (Incl IOS)				
Year	01 Jan to 03 Oct Energy	Annual Energy (01 Jan to 31 Dec)	Unit	
2016	180,797	238,069	GWh	
2017	178,793	235,426	GWh	
2018	178,733	235,482	GWh	
2019	176,574	232,511	GWh	
2020	166,765	220,630	GWh	
2021 (YTD)	173,181		GWh	



# Week-on-Week Dispatchable Generation Peak Demand

# Week-on-Week (2020 vs 2021): Dispatchable Generation Peak Demand. 2021 Weeks are compared to similar weeks in 2020. 34,000 32,000 31,000 32,000 27,000 28,000 27,000 28,000 21,200 21,200 22,000 22,000 24,000 25,000 26,000 27,000 28,000 29,000 20,000 20,000 20,000 21,000 22,000 22,000 23,000 24,000 25,000 26,000 27,000 28,000 28,000 29,000 20,0

## [2021 weeks compared to similar 2020 weeks]

Week 39 : Dispatchable Generation Peak Demand Statistics					
Peak Demand	28,235	MW			
Week-on-Week Growth	-4.48	%			
Year-on-Year Growth (Year-to-Date) Annual -0.28 %					

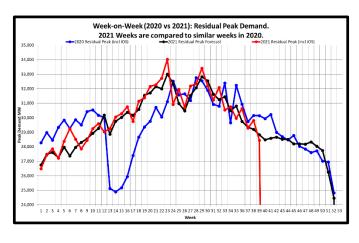
## Note:

2021 Weeks are compared to similar weeks in 2020.

(2021 week 1 ~ 2020 week 1)

Annual Dispatchable Generation Peak Demand Statistics						
Year	Peak Date	Annual Peak	Unit			
2016	Thu 04-Aug-2016	34,181	MW			
2017	Tue 30-May-2017	35,457	MW			
2018	Mon 16-Jul-2018	34,256	MW			
2019	Thu 30-May-2019	33,066	MW			
2020	Wed 17-Jun-2020	32,384	MW			
2021 (YTD)	Thu 15-Jul-2021	32,292	MW			

## Week-on-Week Residual Peak Demand



# [2021 weeks compared to similar 2020 weeks]

Week 39 : Residual Peak Demand Statistics (Incl IOS)					
Peak Demand	28,444	MW			
Week-on-Week Growth	-5.65	%			
Year-on-Year Growth (Year-to-Date) Annual	3.89	%			

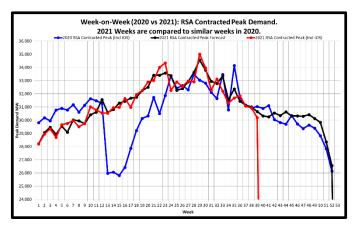
Note:

2021 Weeks are compared to similar weeks in 2020.

(2021 week 1 ~ 2020 week 1)

Annual Residual Peak Demand Statistics (Incl IOS)					
Year	Peak Date	Annual Peak	Unit		
2016	Thu 07-Jul-2016	34,488	MW		
2017	Tue 30-May-2017	35,517	MW		
2018	Tue 29-May-2018	34,907	MW		
2019	Thu 30-May-2019	33,746	MW		
2020	Wed 15-Jul-2020	32,756	MW		
2021 (YTD)	Tue 08-Jun-2021	34.029	MW		

## Week-on-Week RSA Contracted Peak Demand



## [2021 weeks compared to similar 2020 weeks]

Week 39 : RSA Contracted Peak Demand Statistics (Incl IOS)							
Peak Demand	30,199	MW					
Week-on-Week Growth	-2.68	%					
Year-on-Year Growth (Year-to-Date) Annual	2.49	%					

## Note:

2021 Weeks are compared to similar weeks in 2020.

(2021 week 1 ~ 2020 week 1)

Annual RSA Contracted Peak Demand Statistics (Incl IOS)							
Year	Peak Date	Annual Peak	Unit				
2016	Mon 30-May-2016	34,913	MW				
2017	Tue 30-May-2017	35,769	MW				
2018	Tue 29-May-2018	35,345	MW				
2019	Thu 30-May-2019	34,510	MW				
2020	Tue 01-Sep-2020	34,155	MW				
2021 (YTD)	Thu 22-Jul-2021	35.005	MW				



# Weekly Generation Availability

	Week							Annual (J	lan - Dec)							
	26	27	28	29	30	31	32	33	34	35	36	37	38	39	YTD	2020
Energy Availability Factor (Eskom EAF)	68.50	67.15	68.23	66.90	68.09	69.75	64.72	65.38	65.21	64.65	62.12	64.10	62.37	61.13	63.02	65.04
Planned Outage Factor	8.76	8.94	7.53	5.92	7.60	9.59	11.85	9.69	12.79	11.61	10.52	11.35	13.36	12.21	10.50	11.24
Unplanned Outage Factor	20.42	21.30	21.76	24.88	21.96	18.58	21.08	22.58	19.46	21.25	24.79	21.26	20.98	23.33	23.47	20.88
Other Outage Factor	2.32	2.61	2.48	2.30	2.35	2.08	2.35	2.35	2.54	2.49	2.57	3.29	3.29	3.33	3.01	2.84

EAF: Ratio of the available energy generation over a given time period to the maximum amount of energy which could be produced over the same time period.

Outage Factors: Ratio of energy losses over a given time period to the maximum amount of energy which could be produced over the same time period.

YTD: Year-to-Date (01 January of current year to current week)

## **Three Month Outlook**

This is the forecast demand vs. available generating capacity for each week for 3 months ahead. Colour codes ranging from Green (no shortage) to Red (worst case) are used to indicate the absence or presence of a capacity constraint.

Week Start Week RSA Residual Available Available Planned Unplanned Planned Like Contracted Forecast Dispatchable Capacity (Less Maintenance Outage Risk Level Ser			MW	MW	MW	MW	MW	MW	MW	MW
Contracted   Forecast   Capacity   Capacit	Maale Ctart	Maak								Likely Risk
Capacity	week Start	week								Senario
14-0c+21   40   30329   28486   42921   28721   6669   12000   11-0c+21   41   30266   28588   42829   28629   6761   12000   18-0c+21   42   30552   28660   43354   29154   6236   12000   0   18-0c+21   43   30350   28518   42831   28633   6759   12000   0   0   0   0   0   0   0   0   0				1 Orecase			mannenance			(-16200 MW)
11-0c-21   41   30266   28588   42829   28629   6761   12000   25-0c-21   42   30552   28660   43354   29154   6236   12000   25-0c-21   43   30360   28518   42831   28631   6759   12000   28518   42831   28631   6759   12000   28518   42831   28631   6759   12000   28518   42831   28631   6759   12000   28518   42831   28631   6759   12000   28518   42831   28631   6759   12000   28518   42831   28631   6759   12000   28518   42831   28631   6759   12000   28518   42831   28631   6759   12000   28518   42831   28633   12000   22400-21   46   30326   28198   43297   29097   6293   12000   22400-21   48   30427   28326   43008   28808   6582   12000   66-0e-21   49   30138   28837   43388   28838   6552   12000   66-0e-21   50   29837   27735   43960   29760   5630   12000   220-0e-21   51   28582   28261   42240   28040   7350   12000   270-0e-21   52   28656   24664   42240   28040   7350   12000   270-0e-21   52   28656   24664   42240   28040   7350   12000   270-0e-21   52   28656   24664   42240   28040   7350   12000   270-0e-21   29054   26537   42335   28135   7255   12000   10-Jan-22   2   29675   27479   42100   27900   7490   12000   24-Jan-22   4   30149   27953   42335   28135   7255   12000   10-Jan-22   3   30014   27818   44071   29871   5519   12000   24-Jan-22   4   30149   27953   42873   28673   6717   12000   24-Jan-22   5   30660   28504   42813   28613   6777   12000   274-0e-21   5   30660   28504   42813   28613   6777   12000   274-0e-21   5   3138   28872   42681   28481   6909   12000   284-0e-22   9   31137   29264   42640   28646   6744   12000   428-0e-20   9   31137   29264   42640   28646   6744   12000   428-0e-20   9   31139   28652   43807   28607   5783   12000   248-0e-20   9   31139   28652   43807   28667   5783   12000   248-0e-20   9   31139   28652   43807   28667   5783   12000   248-0e-20   9   31139   28652   43650   33654   33654   33654   33654   33654   33654   33654   33654   33654   33654   33654   33654   33654   33654   33654   33654   33654   33654   33654	04-Oct-21	40		28486			6669		(14200 1111)	( 10200 11111)
		42		28660	43354	29154				
	25-Oct-21	43	30360	28518	42831	28631	6759	12000		
15-Nov-21   46   30326   28198   43297   29097   6293   12000   22-Nov-21   47   30305   28177   42517   28317   7073   12000   22-Nov-21   48   30427   28326   43008   28808   6582   12000   31-30-62-1   50   29837   43038   28838   6552   12000   31-30-62-1   50   29837   27735   43960   29760   5630   12000   20-Dec-21   51   28362   26261   42240   28040   7350   12000   27-Dec-21   51   28362   26261   42240   28040   7350   12000   27-Dec-21   51   26665   24664   42490   28290   7100   12000   27-Dec-21   52   26665   24664   42490   28290   7100   12000   27-Dec-21   52   26665   24664   42490   28290   7100   12000   27-Dec-21   52   26665   24664   42490   28290   7490   12000   27-Dec-21   52   26675   27479   42100   27900   7490   12000   27-Dec-21   3   30014   27818   44071   29871   5519   12000   24-Jan-22   4   30149   27953   42873   28673   6717   12000   31-Jan-22   3   30014   27818   44071   29871   5519   12000   27-Dec-26   6   31070   28914   42846   28646   6774   12000   31-Jan-22   5   30660   28504   42813   28613   6777   12000   31-Jan-22   6   31070   28914   42846   28646   6744   12000   42-Feb-22   7   31222   29066   42562   28352   7038   12000   21-Feb-22   9   31137   28264   43125   28825   6465   12000   27-Mar-22   10   31398   28525   43807   29807   5783   12000   21-Mar-22   10   31398   28525   43807   29807   5783   12000   21-Mar-22   12   31216   29161   42913   28713   6677   12000   28-Mar-22   13   31470   29415   43776   25856   5664   12000   28-Mar-22   15   31814   30437   44537   31337   5053   11000   42-Mar-22   15   31814   30437   44537   31337   5053   11000   30-Mar-22   17   32052   30674   44492   31292   5098   11000   30-Mar-22   21   33899   33668   46401   33201   3189   11000   30-Mar-22   21   33899   33686   46601   33201   3189   11000   30-Mar-22   23   33397   33683   44644   33264   33365   11000   30-Mar-22   23   33397   33683   44644   33264   33365   33557   11000   30-Mar-22   24   34186   32620   44667   34667   34667   34667	01-Nov-21	44	30631	28503	43094	28894	6496	12000		
22-Nov-21   47   30305   28177   42517   28317   7073   12000	08-Nov-21	45	30332	28203	43316	29116	6274	12000		
	15-Nov-21	46	30326	28198	43297	29097	6293	12000		
	22-Nov-21	47	30305	28177	42517	28317	7073	12000		
13-Dec-21   50   29837   27735   43960   29760   5630   12000	29-Nov-21	48	30427	28326	43008	28808	6582	12000		
20-Dec-21   51   28382   28281   42240   28040   7350   12000   27-Dec-21   52   26565   24464   42490   28290   7100   12000   03-Jan-22   1 29054   26557   24464   42490   28290   7100   12000   03-Jan-22   1 29054   26557   42335   28135   7255   12000   04-Jan-22   2 29675   27479   42100   27900   7490   12000   17-Jan-22   3 30014   27818   44071   29871   5519   12000   24-Jan-22   4 30149   27953   42873   28673   6717   12000   31-Jan-22   5 30660   28504   42813   28613   6777   12000   07-Feb-22   6 31070   28914   42846   28546   6774   12000   07-Feb-22   6 31070   28914   42846   28546   6774   12000   04-Jan-22   7 31222   29066   42552   28352   7038   12000   21-Feb-22   9 31137   29264   43125   28925   6465   12000   07-Jan-22   10 31398   29525   43807   29807   5783   12000   07-Jan-22   11 31249   23375   43797   29597   5793   12000   12-Jan-22   12 31216   29161   42913   28713   6677   12000   28-Jan-22   14 31552   30175   43477   31147   5243   11000   28-Jan-22   14 31552   30175   43437   31147   5243   11000   28-Jan-22   15 31814   30437   44537   31337   5053   11000   11-Jan-22   15 31814   30437   44492   31292   5098   11000   25-Jan-22   17 32052   30674   44492   31292   5098   11000   23-Jan-22   12 3326   33684   44492   31292   5098   11000   23-Jan-22   12 3329   33686   46401   33201   3189   11000   23-Jan-22   23 33893   33566   46401   33201   3189   11000   33-Jan-22   23 33893   33686   46401   33201   3189   11000   33-Jan-22   23 33393   33686   46401   33201   3189   11000   33-Jan-22   23 33393   33686   46401   33201   3189   11000   23-Jan-22   23 33393   33686   46541   33261   3389   33686   46601   33201   3189   11000   33-Jan-22   23 33393   33686   46640   33201   3189   11000   33-Jan-22   24 33186   33266   44649   33266   33644   33565   33655   11000   34-Jan-22   25 34457   33000   46033   32833   3557   11000   35-Jan-22   25 34457   33000   46033   32833   3557   11000   35-Jan-22   25 34457   33000   46033   32833   3557   11000   35-Jan-22	06-Dec-21	49	30138	28037	43038	28838	6552	12000		
27-Dec-21   52   26565   24464   42490   28290   7100   12000   12000   10-Jan-22   1 29054   26537   42335   28135   7255   12000   12000   17-Jan-22   2 29675   27479   42100   27900   7490   12000   17-Jan-22   3 30014   27818   44071   29871   5519   12000   24-Jan-22   4 30149   27953   42873   28673   6717   12000   31-Jan-22   5 30660   28504   42813   28613   6777   12000   31-Jan-22   5 30660   28504   42813   28613   6777   12000   67-Feb-22   6 31070   28914   42846   28646   6744   12000   44-Feb-22   7 31222   29066   42562   28352   7038   12000   21-Feb-22   9 31137   29264   43125   28825   6465   6744   12000   28-Feb-22   9 31137   29264   43125   28825   6465   12000   28-Feb-22   9 31137   29264   43125   28925   6465   12000   28-Feb-22   13 3137   29264   43125   28925   6465   12000   28-Har-22   10 31388   29525   43807   29607   5783   12000   14-Mar-22   12 31249   29375   43797   29597   5793   12000   28-Mar-22   13 31470   29415   43726   29526   5864   12000   28-Mar-22   13 31470   29415   43726   29526   5864   12000   28-Mar-22   15 31814   30437   44537   31137   5053   11000   11-Apr-22   15 31814   30437   44537   31337   5053   11000   18-Apr-22   15 3389   3368   46401   33201   3189   11000   28-Mar-22   19 33399   3368   46401   33201   3189   11000   28-Mar-22   10 33899   33488   46401   33201   3189   11000   28-Mar-22   20 33997   32566   46401   33201   3189   11000   28-Mar-22   21 33899   33468   46401   33201   3189   11000   28-Mar-22   22 3359   33928   46624   45755   32556   3384   11000   34-Mar-22   22 33399   33488   46624   33264   33364   1000   34-Mar-22   23 33489   33924   46568   33644   33661   33661   3369   33648   46601   33201   3389   11000   34-Mar-22   23 33489   33924   46568   33656   3374   11000   34-Mar-22   23 33499   33488   46641   33201   3389   11000   34-Mar-22   23 33499   33488   46641   33201   3389   11000   34-Mar-22   23 33499   33454   45568   32566   3354   11000   34-Mar-22   24 33489   33524   45656   33644   33664   336	13-Dec-21	50	29837	27735	43960	29760	5630	12000		
10-Jan-22   1   29054   26537   42335   28135   7255   12000   10-Jan-22   2   29675   27479   42100   279900   7-490   12000   12000   12000   1200000   1200000   1200000   1200000   1200000000   120000000000	20-Dec-21	51	28362	26261	42240	28040	7350	12000		
10-Jan-22	27-Dec-21	52	26565	24464	42490	28290	7100	12000		
17-Jan-22   3   30014   27818   44071   29871   5519   12000   24-Jan-22   4   30149   27953   42873   28673   6717   12000   37-Jan-22   5   30660   28504   42813   28613   6777   12000   37-Jan-22   5   30660   28504   42813   28613   6777   12000   37-Jan-22   5   30660   28504   42813   28613   6777   12000   37-Jan-22   6   31070   28914   42846   28646   6744   12000   44-Feb-22   7   31222   29066   42552   28352   7038   12000   21-Feb-22   8   31028   28872   42881   28481   6909   12000   22-Feb-22   9   31137   29264   43125   28825   6465   12000   7-Mar-22   10   31388   29525   43807   29607   5783   12000   21-Mar-22   11   31249   29375   43797   29697   5793   12000   21-Mar-22   12   31216   29161   42913   28713   6677   12000   28-Mar-22   13   31470   29415   43726   29526   5864   12000   24-Mar-22   15   31814   30437   44537   31147   5243   11000   11-Apr-22   15   31814   30437   44537   31137   5053   11000   18-Apr-22   16   32020   30642   44492   31292   5098   111000   22-Mar-22   17   33052   30674   44492   31292   5098   111000   22-Mar-22   19   33309   31578   44601   33201   3189   11000   22-Mar-22   21   3326   30674   444967   31767   4623   11000   23-Mar-22   22   33539   33268   46401   33201   3189   11000   23-Mar-22   22   33539   33984   46254   43034   3336   11000   23-Mar-22   23   34352   32766   46401   33201   3189   11000   23-Mar-22   23   3486   32568   46254   33054   3336   11000   30-Mar-22   23   34864   33071   46033   32833   3557   11000   30-Mar-22   23   34486   32568   46564   33268   33656   3732   11000   30-Mar-22   23   34486   32568   32566   3334   11000   30-Mar-22   24   34186   32560   45756   32566   3334   11000   30-Mar-22   23   34480   32560   45756   32566   3334   11000   30-Mar-22   24   34486   32560   45756   32566   3334   11000   30-Mar-22   24   34186   32560   45756   32566   3334   11000   30-Mar-22   23   34480   33260   45766   32596   33934   11000   30-Mar-22   24   34486   33260   45756   32566   3334   11000   30-M										
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14-Feb-22	31-Jan-22	5	30660	28504	42813	28613	6777	12000		
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28-Feb-22   9   31137   29264   43125   28925   6465   12000	14-Feb-22	7	31222	29066	42552	28352	7038	12000		
07-Mar-22         10         31398         29525         43807         29607         5783         12000           14-Mar-22         11         31249         295375         43797         29597         5793         12000           28-Mar-22         12         31216         29161         42913         28713         6677         12000           28-Mar-22         13         31470         29415         43726         29526         5864         12000           04-Apr-22         14         31552         30175         44347         31147         5243         11000           11-Apr-22         15         31814         30437         44537         31337         5053         11000           11-Apr-22         15         31814         30437         44537         31337         5053         11000           18-Apr-22         17         32052         30642         44492         31292         5098         11000           02-May-22         18         32255         31122         44967         31767         4623         11000           09-May-22         19         33309         31878         46401         33201         3189         11000	21-Feb-22	8	31028	28872	42681	28481	6909	12000		
14-Mar-22	28-Feb-22	9	31137	29264	43125	28925	6465	12000		
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	21-Mar-22	12	31216	29161	42913	28713	6677	12000		
11-Apr-22	28-Mar-22	13	31470	29415	43726	29526	5864	12000		
18-Apr-22 16 32020 30642 44492 31292 5098 11000 25-Apr-22 17 32052 30674 44492 31292 5098 11000 02-May-22 18 32553 31122 44967 31767 4623 11000 09-May-22 19 33309 31878 44601 33201 3189 11000 10-May-22 13 33997 32566 46601 33201 3189 11000 12-May-22 13 33899 32488 46401 33201 3189 11000 13-Jay-22 24 33899 32488 46401 33201 3189 11000 14-Jay-22 25 3359 33928 46254 33054 3336 11000 15-Jun-22 24 34186 32620 45437 32237 4153 11000 13-Jun-22 24 34186 32620 45437 32237 4153 11000 13-Jun-22 26 34427 32861 45756 32556 3834 11000 00-Jun-22 25 34427 32861 45755 32535 38555 11000 13-Jun-22 28 34544 33000 45796 32596 3794 11000 01-Jul-22 28 34544 33000 45796 32596 3794 11000 01-Jul-22 29 36023 33450 46033 32833 3557 11000 01-Jul-22 18 34574 33000 45796 32596 3794 11000 01-Jul-22 18 34544 33071 46033 32833 3557 11000 01-Jul-22 18 33498 31924 45228 32633 3557 11000 01-Jul-22 13 33439 31924 45228 32633 3557 11000 01-Jul-22 29 300 34323 32750 45843 32634 32634 3747 11000 01-Jul-22 31 33489 31924 45228 32028 4562 11000 01-Jul-22 31 3349 31924 45228 32028 4562 11000 01-Jul-22 31 3349 31924 45228 32028 4562 11000 01-Jul-22 31 33498 31924 45628 31647 31647 44561 31361 5029 11000 01-Jul-22-22 31 33297 30683 44616 31361 5029 11000 01-Jul-22-22 37 32937 30684 44416 31216 5174 11000 01-Jul-22-22 37 32937 30684 44416 31216 5174 11000 01-Jul-22-22 37 32937 30684 44416 31216 5174 11000	04-Apr-22	14	31552	30175	44347	31147	5243	11000		
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04-Jul-22         27         34574         33000         45796         32596         3794         11000           11-Jul-22         28         34644         33071         46033         32833         3557         11000           18-Jul-22         29         35023         33450         46033         32833         3557         11000           25-Jul-22         30         34323         32750         45843         32643         3747         11000           01-Aug-22         31         33489         31924         45228         32028         4362         11000           06-Aug-22         32         33039         31474         44544         31341         5046         11000           15-Aug-22         33         33212         31647         44561         31361         5029         11000           15-Aug-22         34         32881         31323         44561         31361         5029         11000           29-Aug-23         34         32841         31263         31561         5029         11000           29-Aug-23         35         32397         30678         44416         31216         5174         11000           29-Aug-22		-								
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25-Jul-22   30   34323   32750   45843   32643   3747   11000		_								
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08-Aug-22         32         33039         31474         44544         31344         5046         11000           15-Aug-22         33         33212         31647         44561         31361         5029         11000           22-Aug-22         34         32861         31323         44561         31361         5029         11000           29-Aug-22         35         32397         30878         44416         31216         5174         11000           05-Sep-22         36         32731         30641         44676         31476         4914         11000           12-Sep-22         37         32973         30883         44291         31091         5299         11000		•								
15-Aug-22     33     33212     31647     44561     31361     5029     11000       22-Aug-22     34     32861     31323     44561     31361     5029     11000       29-Aug-22     35     32397     30878     44416     31216     5174     11000       05-Sep-22     36     32731     30641     44676     31476     4914     11000       12-Sep-22     37     32973     30883     44291     31091     5299     11000		_								
22-Aug-22     34     32861     31323     44561     31361     5029     11000       29-Aug-22     35     32397     30878     44416     31216     5174     11000       05-Sep-22     36     32731     30641     44676     31476     4914     11000       12-Sep-22     37     32973     30883     44291     31091     5299     11000		_								
29-Mug-22         35         32397         30878         44416         31216         5174         11000           05-Sep-22         36         32731         30641         44676         31476         4914         11000           12-Sep-22         37         32973         30883         44291         31091         5299         11000		_								
05-Sep-22         36         32731         30641         44676         31476         4914         11000           12-Sep-22         37         32973         30883         44291         31091         5299         11000		_								
12-Sep-22 37 32973 30883 44291 31091 5299 11000										
26-Sep-22 39 32082 29992 43058 29858 6532 11000										
03-Oct-22 40 32470 30308 43590 30390 6000 11000										
10-Oct-22 41 31922 29809 42623 29423 6967 11000										

## Notes - Assumptions critical:

The maintenance plan included in these assumptions includes a base scenario of outages (planned risk level). As there is opportunity for further outages, these will be included. This "likely risk scenario" includes an additional 2000 MW of outages on the base plan.

The expected imports at Apollo is included.

Avon and Dedisa is also included.

The forecast used is the latest operational weekly residual peak forecast, which excludes the expected renewable generation.

Operating Reserve (OR) from Generation: 2 200 MW Unplanned Outage Assumption (UA): 12 000 MW (11000 MW from April '22)

Reserves: OR + UA = 14200 MW

Eskom Installed Capacity: 48 585 MW (Incl. non-comm. Kusile units).

Installed Dispatchable Capacity: 49 590 MW (Incl. Avon and Dedisa).

Medupi Unit 4 capacity of 720MW has been removed from the capacity planning models by including it in the committed PCLF (although it is UCLF).

Key:

Risk Level	Description
Green	Adequate Generation to meet Demand and Reserves.
Yellow	< 1 000MW Possibly short to meet Reserves
Orange	1 001MW - 2 000MW Definitively short to meet Reserves and possibly Demand
Red	> 2 001MW Short to meet Demand and Reserves

# Medium Term Peak Demand/Capacity Forecast

Please go to the link below for the Medium-term System Adequacy Outlook - 2021 to 2025. (Published 30 October 2020).

https://www.eskom.co.za/Whatweredoing/SupplyStatus/Documents/Medium%20Term%20System%20Adequacy%20Outlook%20202.pdf



# **Renewable Energy Statistics**

Note: Times are expressed as hour beginning

Maximum Contribution (MW) - based on System Operator data (subject to metering verification)						
Cal Year	Indicator	CSP	PV	Wind (Eskom+IPP)	Total (Incl other REs)	
All Time	Maximum	504.5	2,030.0	2,284.0	4,437.6	
All Time	<b>Max Date</b>	25-Nov-2020 12:00	03-Oct-2021 12:00	21-Jun-2021 13:00	02-Oct-2021 14:00	
2016	Maximum	200.9	1,350.5	1,229.8	2,576.3	
2016	Max Date	11-Aug-2016 14:00	16-Dec-2016 12:00	23-Dec-2016 13:00	23-Dec-2016 13:00	
2017	Maximum	302.0	1,432.5	1,708.2	3,142.7	
2017 Max Date		07-Nov-2017 10:00	27-Oct-2017 12:00	25-Dec-2017 18:00	13-Dec-2017 13:00	
2018	Maximum	399.7	1,392.1	1,902.3	3,298.9	
Max Date		04-Dec-2018 16:00	03-Oct-2018 12:00	02-Oct-2018 16:00	28-Sep-2018 11:00	
2019	Maximum	502.1	1,375.6	1,872.0	3,530.6	
2019	Max Date	24-Sep-2019 11:00	19-Jan-2019 12:00	14-Dec-2019 15:00	27-Oct-2019 13:00	
2020	Maximum	504.5	1,929.2	2,113.9	4,050.0	
2020	Max Date	25-Nov-2020 12:00	25-Nov-2020 12:00	01-Dec-2020 19:00	24-Nov-2020 13:00	
2021	Maximum	502.2	2,030.0	2,284.0	4,437.6	
2021	Max Date	11-Mar-2021 15:00	03-Oct-2021 12:00	21-Jun-2021 13:00	02-Oct-2021 14:00	

Annual Energy Contribution (MWh) - based on System Operator data (subject to metering verification)							
Cal Year	Indicator	CSP	PV	Wind (Eskom+IPP)	Total (Incl other REs)		
All Time Maximum	Annual Energy	1,626,049	4,140,212	6,625,830	12,478,704		
2016	Total Energy	529,522	2,630,141	3,730,771	6,951,261		
2017	Total Energy	687,703	3,324,857	5,081,023	9,198,632		
2018	Total Energy	1,031,288	3,282,124	6,467,095	10,887,902		
2019	Total Energy	1,557,151	3,324,989	6,624,642	11,586,945		
2020	Total Energy	1,626,049	4,140,212	6,625,830	12,478,704		
2021	Total Energy	1,166,501	3,749,881	6,265,595	11,277,147		

Maximum Difference between Consecutive Evening Peaks (MW) -						
based on System Operator data (subject to metering verification)						
Cal Year	Indicator	Total (Incl other REs)				
All Time	Maximum	1,744				
All fille	Max Date	07-Aug-2021 to 08-Aug-2021				
2016	Maximum	828				
2016	Max Date	30-Aug-2016 to 31-Aug-2016				
2017	Maximum	1,038				
2017	Max Date	19-Jun-2017 to 20-Jun-2017				
2018	Maximum	1,336				
2010	Max Date	01-Sep-2018 to 02-Sep-2018				
2019	Maximum	1,464				
2019	Max Date	05-Jul-2019 to 06-Jul-2019				
2020	Maximum	1,488				
2020	Max Date	31-Aug-2020 to 01-Sep-2020				
2021 Maximum		1,744				
2021	Max Date	07-Aug-2021 to 08-Aug-2021				

Current Installed Capacity (MW)					
CSP	500.0				
PV	2,212.1				
Wind (Eskom+IPP)	2,921.4				
Total (Incl other REs)	5,659.0				