

ANALOGUE TARIFF REVISION: Analogue TV Tariffs

	100W	200W	1kW	2kW
Equipment Cost	R 403 680	R 453 680	R 648 689	R 691 121

Tariff Summary

Depreciation (Capex)	R 3 364	R 3 781	R 5 406	R 5 406
Cost of Capital (WACC)	R 2 571	R 2 889	R 4 131	R 4 401
Ops and Support Costs	R 3 869	R 4 348	R 6 217	R 7 460
Energy	R 102	R 205	R 1 024	R 2 048
Accommodation Charge	R 54	R 54	R 54	R 54
Pass-Through Costs	R 12 381	R 12 381	R 12 381	R 12 381
Monthly Tariff	R 22 341	R 23 657	R 29 212	R 31 750

ANALOGUE TARIFF REVISION: Community Television Tariffs Comparison

Comparison (TV)

	100W	200W	1kW	2kW
Standard Tariff 2011/12	R 22 729	R 32 413	R 52 312	R 44 647
Standard Tariff 2012/13	R 24 457	R 34 872	R 56 282	R 70 677
Proposed Community Tariff	R 22 341	R 23 657	R 29 212	R 31 750
% Change (2011/12)	-2%	-27%	-44%	-29%
% Change (2011/13)	-9%	-32%	-48%	-55%

ANALOGUE TARIFF REVISION: Television Revenue - Customer Impact

CUSTOMER	2011/12 ANNUAL INCOME	2012/13 BUDGETED ANNUAL INCOME	REVISED ANNUAL INCOME	CHANGE VS 2011/12	CHANGE VS 2012/13 BUDGET	% CHANGE VS BUDGET
NELSON MANDELA BAY TV	R 535 764	R 437 792.47	R 381 002.57	-R 154 761	-R 56 790	-13%
CAPE TV	R 726 636	R 550 384	R 402 010	-R 324 626	-R 148 374	-27%
TSHWANE TV	R 672 545	R 721 819	R 386 210	-R 286 335	-R 335 609	-46%
SOWETO TV	R 810 672	R 464 060	R 381 003	-R 429 669	-R 83 057	-18%
TOTAL	R 2 209 853	R 1 736 263	R 1 169 222	-R 1 040 631	-R 567 041	-33%

ANALOGUE TARIFF REVISION: Tariff Calculation Model – 10W FM

				R	40 000						
					Annual Cost	Mark-up	Annual Tariff	Monthly Tariff			
Depreciation (CAPEX)		10 years		R	4 000	R	200	R	4 200	R	350
Cost of Capital		12.61% WACC		R	3 057	R	-	R	3 057	R	255
Operational Cost		5% of Capex		R	2 000	R	100	R	2 100	R	175
Energy		R 1.22 per KWh		R	106.87	R	5	R	112	R	9
Assumptions				Comparison							
WACC	12.61%		Asset Base	Standard Tariff 2011/12				R	6 297	R	195
Depreciation (years)	10			Standard Tariff 2012/13*				R	2 237		
Markup - Opex	5%			Proposed Community Tariff				R	2 123	R	1 139
Markup - Capex	5%			R	25 059	R	417	R	25 476	R	2 123
Markup - Network Access	5%			% Change from 2011/12					-66%		
Markup (ave)	2%			% Change from 2011/12					-5%		
Ops as % of Capex	5%										

ANALOGUE TARIFF REVISION: Analogue FM Tariffs

	10W	20W	50W	100W	300W	500W	1KW
Equipment Cost	R 40 000	R 40 000	R 66 000	R 66 000	R 166 000	R 166 000	R 221 000

Tariff Summary

Depreciation (Capex)	R 350	R 350	R 605	R 605	R 1 522	R 1 522	R 2 026
Cost of Capital (WACC)	R 255	R 255	R 420	R 420	R 1 057	R 1 057	R 1 407
Ops and Support Costs	R 175	R 175	R 633	R 633	R 1 591	R 1 591	R 2 118
Energy	R 9	R 19	R 51	R 102	R 307	R 512	R 1 024
Accommodation Charge	R 195	R 195	R 204	R 204	R 204	R 204	R 204
Pass-Through Costs	R 1 139	R 1 139	R 1 253	R 1 253	R 1 253	R 1 253	R 1 253
Monthly Tariff	R 2 123	R 2 132	R 3 166	R 3 217	R 5 934	R 6 139	R 8 032

ANALOGUE TARIFF REVISION: FM - Customer Impact (Non Sponsored)

COMMUNITY RADIO	2011/12 REVENUE	2012/13 BUDGETED REVENUE	COMMUNITY TARIFF REVENUE	CHANGE VS 2011/12 REVENUE	CHANGE VS 2012/13 BUDGET	% CHANGE VS 2011/12
Voice of the Cape	41 805	38 201	26 657	-15 148	-11 544	-36%
Fine Music Radio	41 285	36 333	24 621	-16 664	-11 712	-40%
Rippel	12 496	12 036	7 731	-4 765	-4 305	-38%
Christelike Radio	18 918	18 843	11 815	-7 103	-7 028	-38%
Link FM	8 723	8 036	6 382	-2 341	-1 654	-27%
Hindi Shiksha Sangh	26 901	10 465	14 917	-11 984	4 452	-45%
Kragbron	28 340	16 738	12 430	-15 910	-4 308	-56%
Eden	47 924	23 967	26 122	-21 802	2 155	-45%
Kovsie	13 173	12 754	7 615	-5 558	-5 139	-42%
Laeveld	20 655	21 895	10 536	-10 119	-11 359	-49%
Chai	16 089	10 465	8 983	-7 106	-1 482	-44%
Tuks	10 320	9 729	7 615	-2 705	-2 115	-26%

ANALOGUE TARIFF REVISION: FM - Customer Impact (DoC Sponsored; Sentech Equipment)

COMMUNITY RADIO	2011/12 REVENUE	2012/13 BUDGETED REVENUE	COMMUNITY TARIFF REVENUE	CHANGE VS 2011/12 REVENUE	CHANGE VS 2012/13 BUDGET	% CHANGE VS 2011/12
Bush Radio	10 271	9 677	7 083	-3 188	-2 594	-31%
Islamic Unity	8 073	10 199	6 266	-1 807	-3 933	-22%
Khwezi	19 402	21 067	14 299	-5 103	-6 768	-26%
Soshanguve	8 614	7 921	6 266	-2 348	-1 654	-27%
Namaqualand	13 588	8 149	6 495	-7 093	-1 654	-52%
Radio KC	8 614	7 921	6 266	-2 348	-1 655	-27%
Barberton	9 828	9 377	6 215	-3 613	-3 162	-37%
N-FM	20 655	14 492	10 536	-10 119	-3 955	-49%
Star	16 089	10 465	8 983	-7 106	-1 482	-44%
Mafikeng	20 212	14 835	12 046	-8 166	-2 789	-40%
West Coast	5 791	5 895	8 983	3 192	3 088	55%
Mash	13 172	12 753	7 615	-5 557	-5 139	-42%
Sekgogese	16 090	10 466	8 983	-7 107	-1 483	-44%
Umgungundhlovu	18 500	13 021	10 331	-8 169	-2 689	-44%
Village	19 371	13 946	11 259	-8 112	-2 687	-42%
Silambu	1 915	2 030	3 049	1 134	1 019	59%
Khanya	3 608	5 890	6 266	2 658	376	74%
CC FM	13 903	13 101	9 786	-4 117	-3 316	-30%
Helderberg	14 410	14 065	8 925	-5 485	-5 140	-38%
Izwilomzansi	18 244	11 936	9 188	-9 056	-2 748	-50%
UJ	14 828	14 677	7 564	-7 264	-7 114	-49%

ANALOGUE TARIFF REVISION: FM - Customer Impact (DoC Sponsored; DoC Equipment)

COMMUNITY RADIO	2011/12 REVENUE	2012/13 BUDGETED REVENUE	COMMUNITY TARIFF REVENUE	CHANGE VS 2011/12 REVENUE	CHANGE VS 2012/13 BUDGET	% CHANGE VS 2011/12
Newcastle	3 608	5 890	2 911	-697	-2 979	-19%
Vaalbar	3 290	5 068	2 860	-430	-2 209	-13%
Mosupatsela	3 290	5 068	2 860	-430	-2 209	-13%
Maputaland	7 424	7 627	6 858	-566	-770	-8%
Voice of Thembisa	3 571	4 605	2 192	-1 379	-2 413	-39%
Gamkaland	10 338	8 716	5 422	-4 916	-3 294	-48%
Naledi	6 248	6 156	4 074	-2 174	-2 082	-35%
Qwaqwa	3 608	5 890	2 911	-697	-2 979	-19%
Setsoto	3 031	4 749	2 876	-155	-1 873	-5%
Vukani	19 327	13 429	11 526	-7 801	-1 903	-40%
Takalani	3 608	5 890	2 911	-697	-2 979	-19%
TUT	3 210	4 605	2 192	-1 018	-2 413	-32%
Nkqubela	5 502	6 653	2 911	-2 591	-3 742	-47%
Orange Farm	5 791	5 895	4 074	-1 717	-1 821	-30%
Alfred Nzo	26 899	15 336	14 917	-11 982	-419	-45%
Inanda	10 099	7 634	4 279	-5 820	-3 355	-58%
Vibe	7 930	6 162	4 074	-3 856	-2 089	-49%
Motheo	17 767	12 159	5 318	-12 449	-6 841	-70%
Ubuhlebeshowe	10 099	7 634	4 279	-5 820	-3 355	-58%
Karabo	12 509	10 188	5 627	-6 882	-4 561	-55%
Inkonjane	14 223	12 833	9 120	-5 103	-3 714	-36%
Sunny South	4 428	5 896	2 911	-1 517	-2 986	-34%
Ekhephini	4 428	5 896	2 911	-1 517	-2 986	-34%
Unitra	3 608	5 890	2 911	-697	-2 979	-19%

ANALOGUE TARIFF REVISION: Community FM Tariffs Comparison

Comparison (FM)

	10W	20W	50W	100W	300W	500W	1KW
Standard Tariff 2011/12	R 6 297	R 3 094	R 4 551	R 5 486	R 10 810	R 12 966	R 22 801
Standard Tariff 2012/13	R 2 237	R 3 279	R 4 824	R 5 816	R 11 387	R 13 817	R 24 169
Proposed Community Tariff	R 2 123	R 2 132	R 3 166	R 3 217	R 5 934	R 6 139	R 8 032
% Change (2011/12)	-66%	-31%	-30%	-41%	-45%	-53%	-65%
% Change (2012/13)	-5%	-35%	-34%	-45%	-48%	-56%	-67%

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CONSIDERATIONS FOR EXPANDING DTT COVERAGE:

April 2012

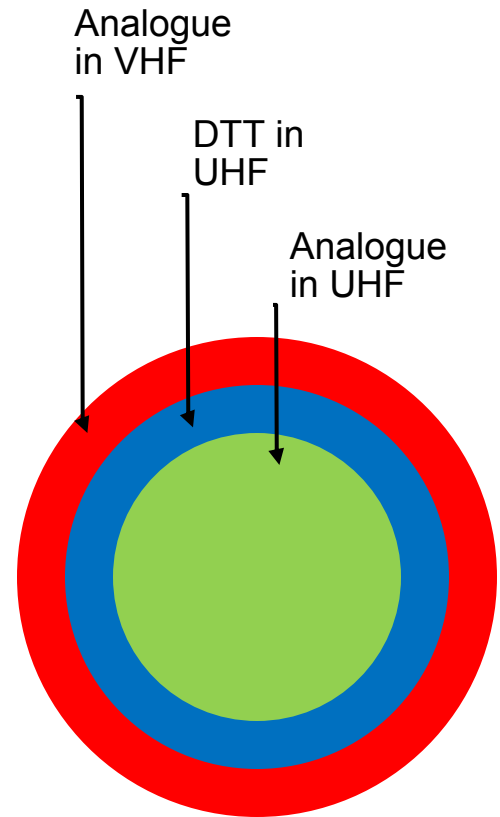
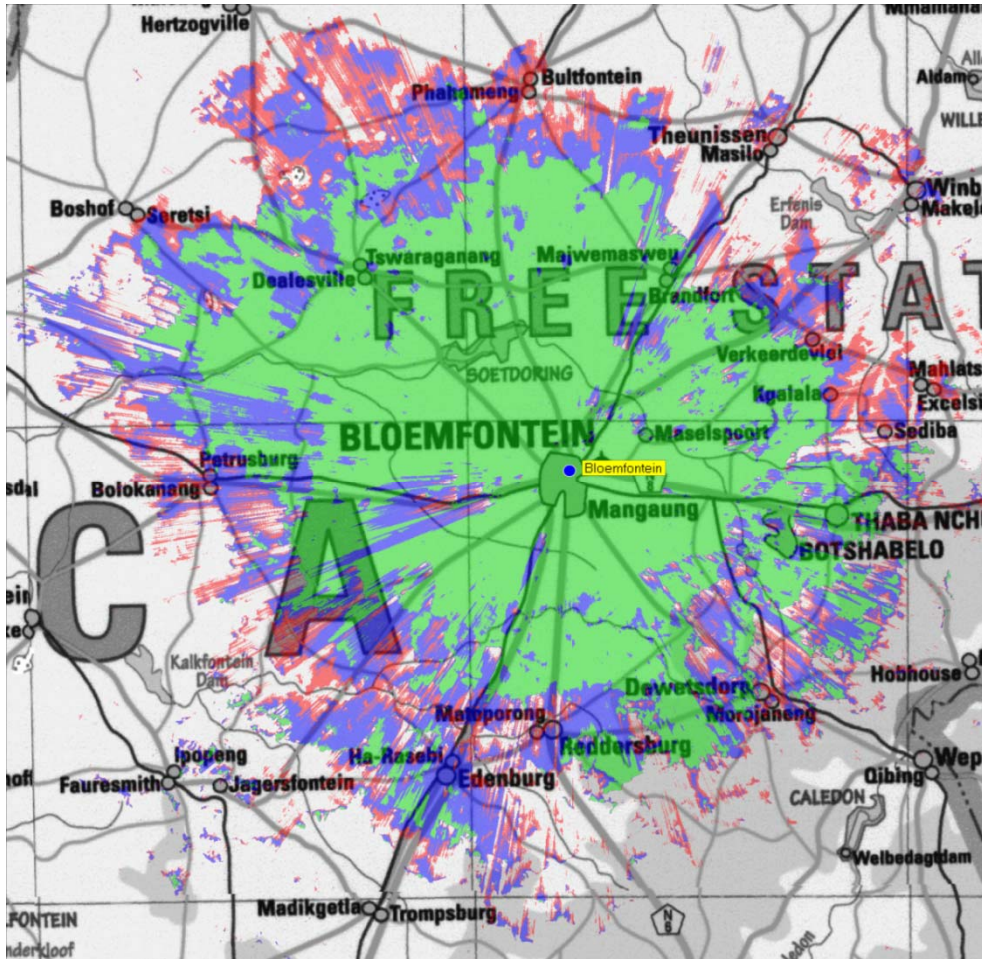
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- **Transmitter network (design layers)**
 - High and medium power sites (currently there are about 183 of such sites)
 - Additional gap filler and low power sites to cater for some loss of coverage and increase penetration
 - Replace several analogue low power sites next to each with up to 100W gap filler sites – can be part of existing SFNs where applicable
 - Replace analogue low power sites in remote areas and covering a small area with low power DTT sites (2W to 10W)
- **Decoders/ set-top boxes for both terrestrial and DTH**
- **Modifications in the current deployment to cater for some loss of coverage**
 - To further increase power levels – this may require some swapping of transmitters, hence minimum cost
 - Digital-to-digital migration to allow further digital dividends
- **Catering for community broadcasters on both core and distribution levels**
- **Opportunity cost due to under utilization of multiplexes**

- SENTECH's sites for the analogue TV signal are configured to either have VHF frequencies only, UHF frequencies only or both:
 - 21 sites are both UHF and VHF
 - 19 sites are VHF only, and
 - 141 sites are UHF only
- DTT is only implemented on UHF which consist of higher frequencies than VHF. This means that while it is generally possible to replicate analogue UHF coverage in the DTT environment, it is technically not possible to the same for analogue VHF to be replicated by DTT in the UHF without considerably increasing the power levels.
- It has been possible to make small gains in some previously analogue UHF areas (that is DTT covering more than the analogue signal covered). However, while the net result is an increase in population coverage, this denies access to a section of a population that previously received the VHF analogue signal.



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BROAD-BASED BLACK ECONOMIC EMPOWERMENT:

April 2012

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TOTAL PROCUREMENT

TOTAL PROCUREMENT SPENT ON VARIOUS LEVELS OF BEE FOR THE PERIOD FY 2011/2012

BEE Level	Total Procurement	% vs total spend	% CAPEX spend on BEE Level 1 to 4	% CAPEX spend on BEE Level 1 to 5
1	R20472770,06	15,08		
2	R1949274,43	1,44		
3	R36353616,32	26,79		
4	R19547326,27	14,40	57,71	
5	R1179503,61	0,80		62,14
6	R1443572,36	1,06		
7	R51889,05	0,04		
8	R34331097,58	2,53		
NON-BEE	R12908683,92	9,51	9,51	9,51
FOREIGN	R38478377,49	28,35	28,35	28,35
Total	R135718111,09	100,00	100,00	100,00

DTT SPENT ON VARIOUS LEVELS OF BEE FOR THE PERIOD FY 2011/2012

BEE Level	DTT	% vs total spend	% CAPEX spend on BEE Level 1 to 4	% CAPEX spend on BEE Level 1 to 5	% DTT spent in relation to total procurement
1	R11727201,03	20,97			8,64
2	R388175,83	0,69			0,29
3	R131091,09	2,35			0,97
4	R4963654,91	8,88	32,89		3,66
5	R231540,00	0,41		38,17	0,17
6	R66349,38	0,66			0,27
7	R47412,02	0,08			0,03
8	R2307197,12	4,13			1,70
NON-BEE	R1971193,94	3,53			1,45
FOREIGN	R2600607,94	58,30			24,02
Total	R55916423,26	100,00			

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LOW POWER POPULATION STATISTICS:

April 2012

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LOW POWER POPULATION STATISTICS

Province	Additional % coverage per province - Radio	Additional % coverage per province - TV	Additional % on total population - Radio	Additional % on total population - TV	Population per province	Total Population Radio	Total Population TV
In Service							
Eastern Cape	0,29%	0,49%	0,04%	0,07%	6 743 800	23 310	32 847
Free State	1,16%	2,27%	0,07%	0,13%	2 824 500	52 835	64 048
Kwazulu Natal	1,20%	1,56%	0,25%	0,33%	10 645 400	176 075	166 099
Limpopo	1,55%	2,11%	0,17%	0,23%	5 439 600	108 528	114 966
Mpumalanga	0,18%	0,56%	0,01%	0,04%	3 617 600	21 776	20 342
Northern Cape	0,01%	0,09%	0,00%	0,00%	1 103 900	772	944
North West	0,22%	0,48%	0,01%	0,03%	3 200 900	9 505	15 491
Western Cape	0,10%	0,47%	0,01%	0,05%	5 223 900	9 555	24 347
Sub - total						402 356	439 084
Ready For Service							
Kwazulu Natal	0,02%	0,44%	0,00%	0,09%	10 645 400	2 952	46 741
Limpopo	0,00%	0,01%	0,00%	0,00%	5 439 600	0	426
North West	0,11%	0,39%	0,01%	0,03%	3 200 900	4 381	12 608
Sub - total						7 333	59 775

LOW POWER POPULATION STATISTICS

Province	Additional % coverage per province - Radio	Additional % coverage per province - TV	Additional % on total population - Radio	Additional % on total population - TV	Population per province	Total Population Radio	Total Population TV
New Sites planned for 2012/2013 financial year							
Eastern Cape	0,43%	0,26%	0,06%	0,04%	6 743 800	34 883	17 580
Free State	0,31%	0,88%	0,02%	0,05%	2 824 500	21 972	24 746
Kwazulu Natal	0,12%	0,08%	0,03%	0,02%	10 645 400	20 947	8 816
Limpopo	2,85%	4,42%	0,31%	0,48%	5 439 600	178 815	240 231
Mpumalanga	1,57%	3,89%	0,11%	0,28%	3 617 600	67 783	140 837
Northern Cape	0,32%	0,34%	0,01%	0,01%	1 103 900	3 137	3 770
North West	0,55%	1,09%	0,04%	0,07%	3 200 900	18 190	34 929
Western Cape	0,20%	0,65%	0,02%	0,07%	5 223 900	14 477	33 738
Sub - total						360 204	504 647
Self-help station refurbishment planned for 2012/2013 financial year							
Eastern Cape	0,15%	0,24%	0,02%	0,03%	6 743 800	20 525	15 947
Free State	0,05%	0,24%	0,00%	0,01%	2 824 500	4 217	6 783
Kwazulu Natal	0,06%	0,18%	0,01%	0,04%	10 645 400	15 304	18 875
Limpopo	0,00%	0,00%	0,00%	0,00%	5 439 600	0	0
Mpumalanga	0,01%	0,06%	0,00%	0,00%	3 617 600	1 888	2 037
Northern Cape	0,98%	2,82%	0,02%	0,06%	1 103 900	18 952	31 182
North West	0,00%	0,00%	0,00%	0,00%	3 200 900	0	0
Western Cape	0,08%	0,24%	0,01%	0,03%	5 223 900	7 636	12 676
Sub - total						68 522	87 500
Total						838 415	1 091 006

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LOW POWER DTT IMPLEMENTATION:

April 2012

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LOW POWER DTT IMPLEMENTATION: Approach

- Design and development of specs for next generation Low Power sites consisting of DVB-T2 transmission along the line of industrialization policy framework (April – May):
 - Specify physical form-factor design to allow addition of low power DVB-T2 transmitters within the same enclosure used currently
 - Develop specifications for three scenarios:
 - Scenario 1: Replacing analogue low power TV transmitters and accessories on installed sites with low power DVB-T2 transmitters and accessories for at least two Multiplexes
 - Scenario 2: Inserting low power DVB-T2 transmitters and accessories for at least two Multiplexes in sites with FM transmitters only
 - Scenario 3: Next Generation Low Power sites: low power DVB-T2 transmitters and low power FM transmitters
 - Identify opportunities for industrialization in the Low Power Low Cost DTT project for various phase of the project and incorporate this as part of specifications
- Remove analogue TV transmitters and associated components from current deployment of low power low cost sites by August 2012
- First phase deployment from January 2013
- Technology absorption – local design and product development/commercialisation from January 2013
- Further development and reaching out to SADC and the rest of Africa from January 2014

LOW POWER DTT IMPLEMENTATION: Current Configuration Of Low Power Sites

- Each site typically consists of 3 TV services and 2 FM services in an enclosure of 1300mm x 800mm x 240mm
- Major components that may not be re-usable in a DTT environment are:
 - TV Transmitters x3 per site at R25, 000 each
 - Satellite IRDs x3 per site at R4 500 each
 - Small flat-screen TV receive monitor (may not required in future operating model) per site at R1,500
- Removing the above non re-usable components from a total of 42 sites will result in minimum **cost reduction R1.3 million** in the current deployment (see spreadsheet)
- In a similar vein a total of about R2 million would have to be written off (assuming an accumulation of 67 low power sites recently deployed)
- The above calculations excludes self-help sites

LOW POWER DTT IMPLEMENTATION: Low Power DTT Sites – Technical Options

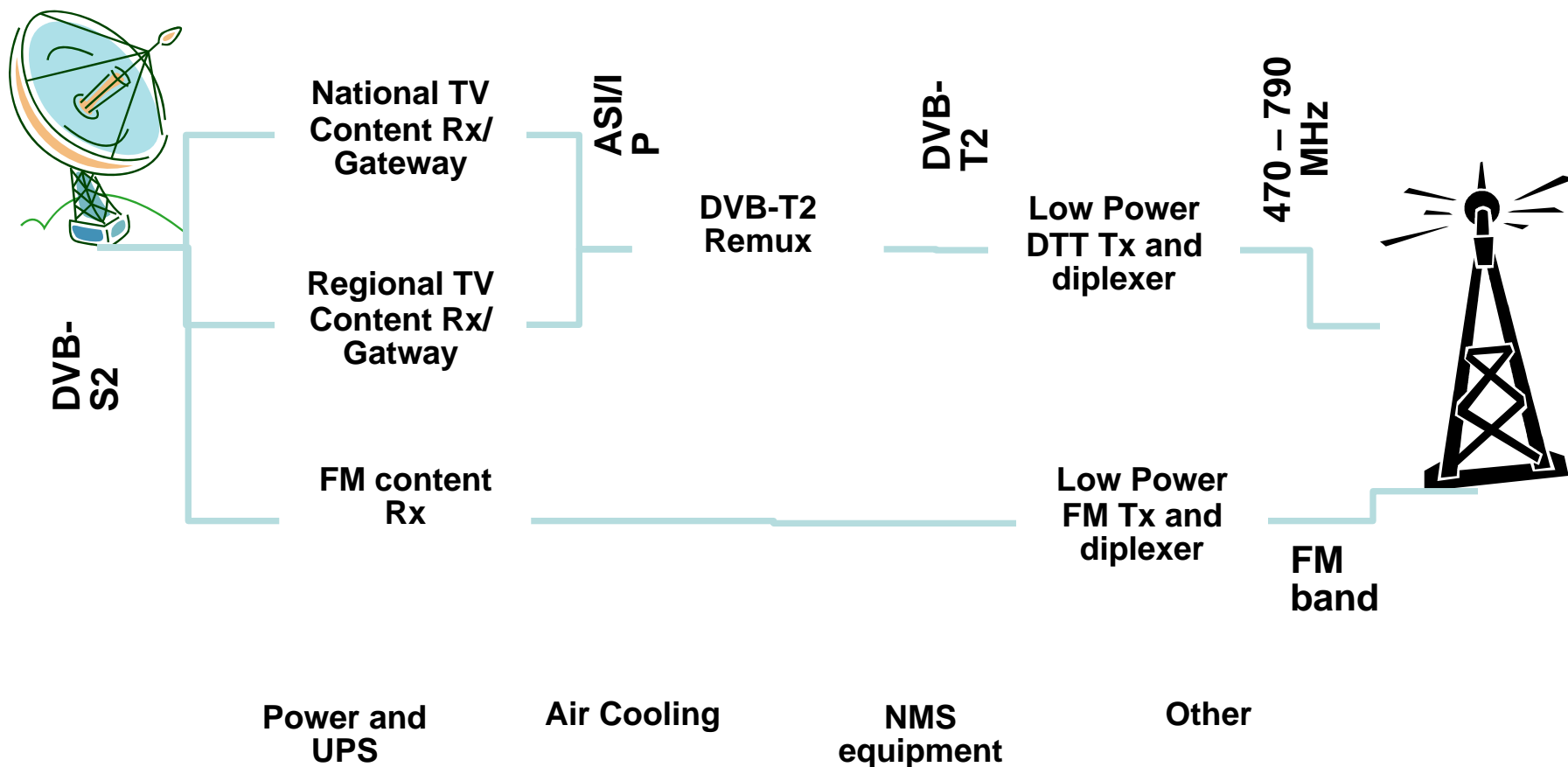
- Off-air received DVB-T2 re-transmit
 - On-channel repeater
 - SFN repeater
 - MFN repeater

- Satellite fed DVB-T2 transmitter (The transmitter can be part of an SFN or separate)

- DVB-IP fed (Optic Fibre or microwave)

- Currently the satellite fed DVB-T2 transmitter is the most feasible, due to the fact that the signal is readily available, followed by DVB-IP fed through microwave

LOW POWER DTT IMPLEMENTATION: Low Power DTT Sites – High Level Technical Design



LOW POWER DTT IMPLEMENTATION: Indicative Cost/Investment

Item/task	Indicative price
KU-antenna	5,000
Gateways/Receivers	20,000
Remux	160,000
GPS	60,000
TV Transmitter 10W (1Mux)	150,000
Mast+Civils	50,000
Antenna + Cable	70,000
Fitted container	120,000
Civil	20,000
Electrical+UPS	30,000
Fence and security	20,000
FM TxS	30,000
PM and installation costs	85,000
Other	180,000
Total (ZAR)	1,000,000

- Assuming 500 sites, risk factor and R&D - 10% and 5 year rollout period we are estimating a budget R550 million

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