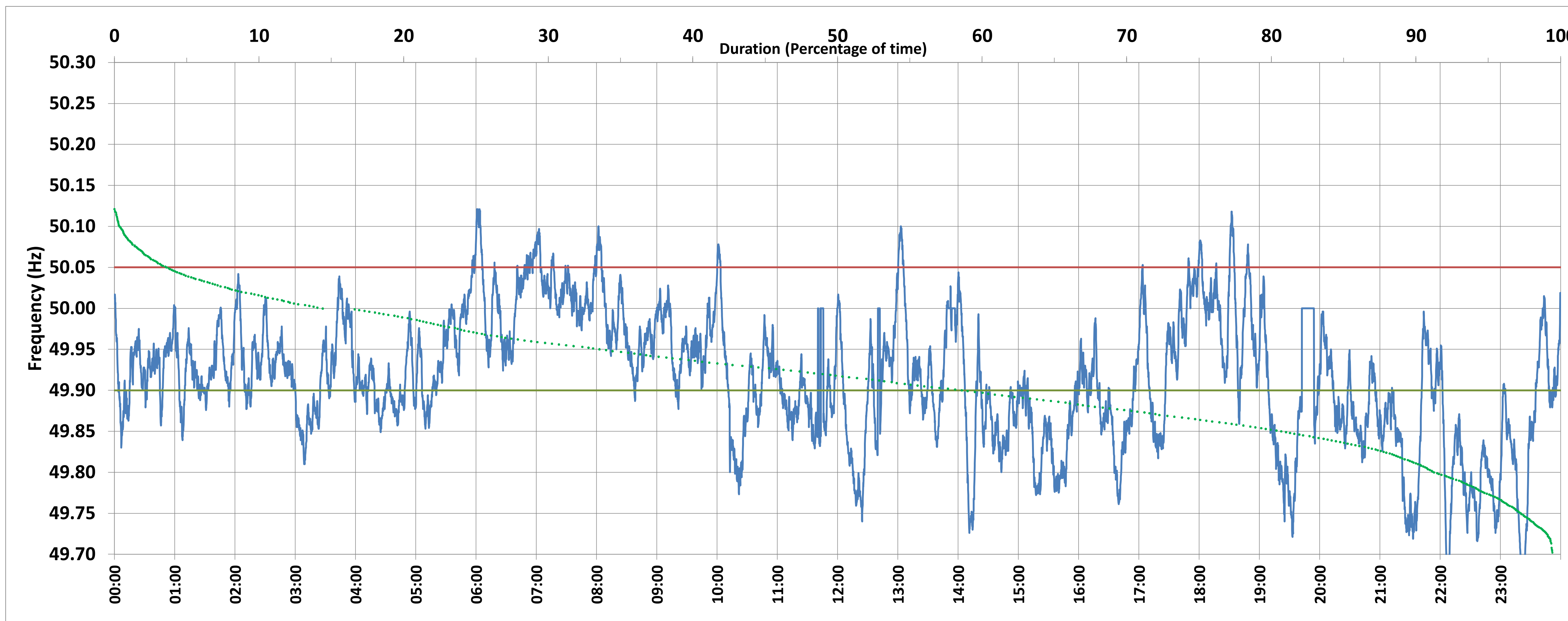


POWER SYSTEM OPERATION CORPORATION LIMITED

NATIONAL LOAD DESPATCH CENTRE, NEW DELHI



Frequency profile for 18-May-2018 (Friday)



<49.7	<49.90	<49.97	49.7-49.8	49.8-49.9	49.9-50.0	50.0-50.1	50.1-50.2	49.90-50.05	49.7-50.2	49.97-50.03	50.05-50.1	>50	>50.03	>50.05	>50.2	<49.95	49.95-50.05	49.90-49.95
0.6	41.0	74.6	8.0	32.5	42.4	16.2	0.4	55.4	99.4	18.6	3.4	14.4	6.8	3.6	0.0	66.0	30.4	25.0

Average Frequency : 49.916	Frequency Variation Index : 0.134	Standard Deviation : 0.079	Mileage: 46.0	FDI: 44.6
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Instantaneous Frequency		
Max	50.121	6:01:00
Min	49.651	23:22:00

15 minute Average Frequency		
Max	50.052	7:00:00
Min	49.743	23:30:00

No. of excursions	
above 50.03 Hz	38
below 49.97 Hz	67
above 50.00 Hz	49
below 50.00 Hz	52

Average time freq per excursion remains	
below 49.97	0:16:02
above 50.03	0:02:34

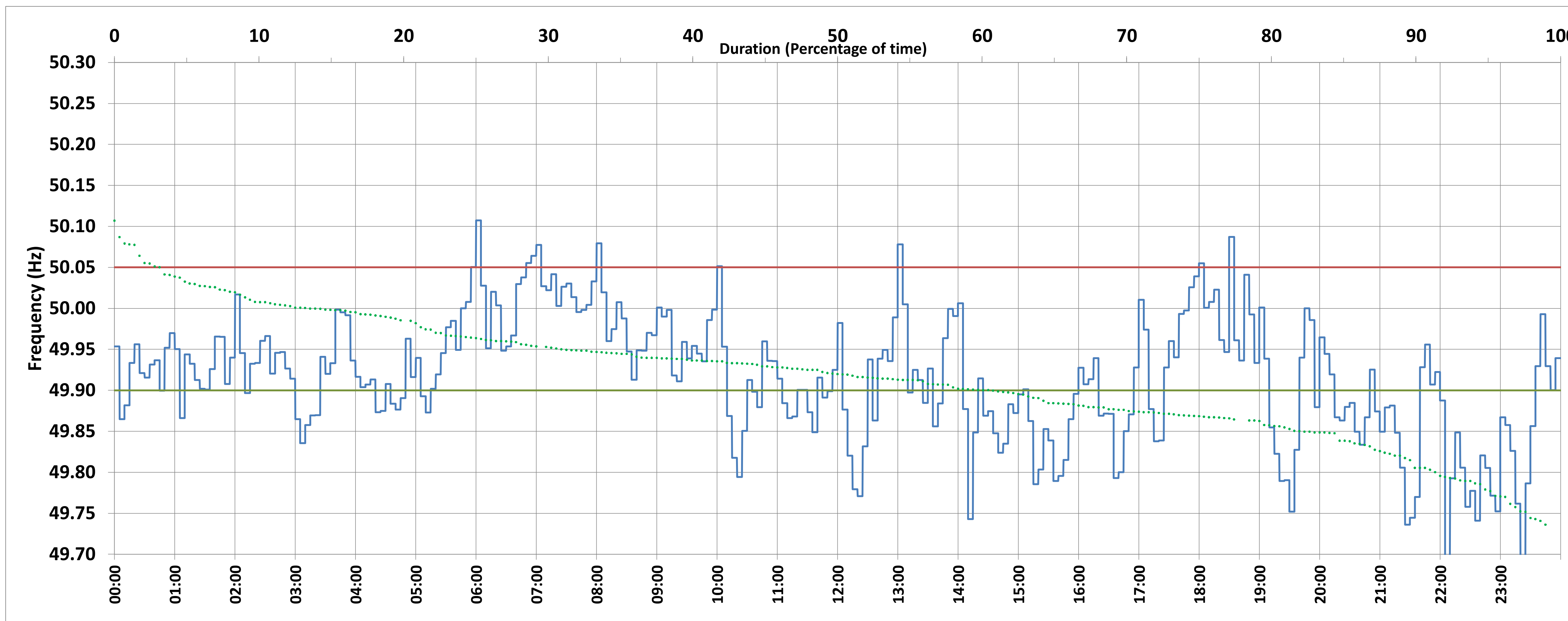
No. of hours freq outside 49.9-50.05 Hz	10:42:30
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Source : BALLIA:Frequency 10 Sec. (8640 samples)

POWER SYSTEM OPERATION CORPORATION LIMITED

NATIONAL LOAD DESPATCH CENTRE, NEW DELHI

5 Min. Average Frequency profile for 18-May-2018 (Friday)



<49.7	<49.90	<49.97	49.7-49.8	49.8-49.9	49.9-50.0	50.0-50.1	50.1-50.2	49.90-50.05	49.7-50.2	49.97-50.03	50.05-50.1	>50	>50.03	>50.05	>50.2	<49.95	49.95-50.05	49.90-49.95
0.69	39.24	77.43	7.64	30.90	46.88	13.54	0.35	57.29	99.31	17.01	3.13	13.54	5.56	3.47	0.00	68.8	27.8	29.5

Average Frequency : 49.916	Frequency Variation Index : 0.129	Standard Deviation : 0.076	Mileage: 11.1	FDI: 42.7
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Instantaneous Frequency		
Max	50.121	6:01:00
Min	49.651	23:22:00

5 minute Average Frequency		
Max	50.107	6:05:00
Min	49.680	23:30:00

No. of excursions	
above 50.03 Hz	10
below 49.97 Hz	21
above 50.00 Hz	15
below 50.00 Hz	16

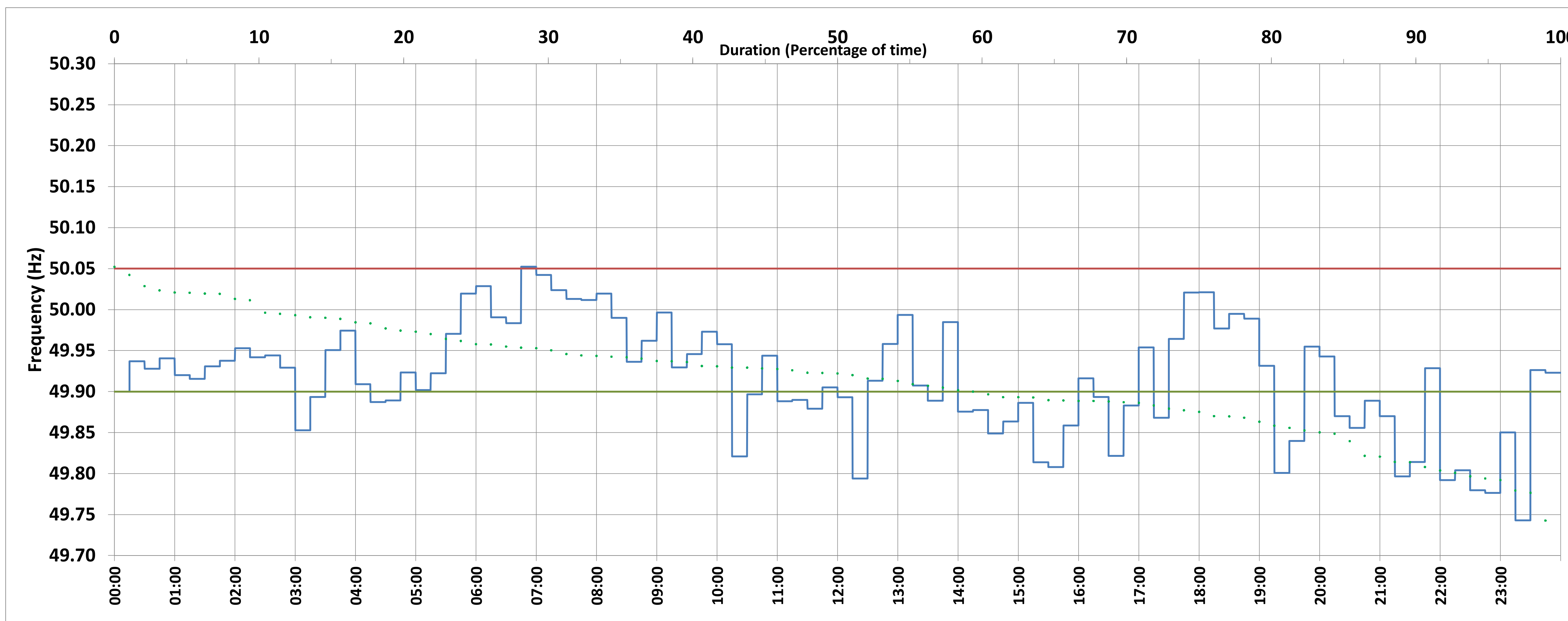
Average time freq per excursion remains	
below 49.97	0:53:06
above 50.03	0:08:00

Source : BALLIA:Frequency 5 Min. (288 samples)

POWER SYSTEM OPERATION CORPORATION LIMITED

NATIONAL LOAD DESPATCH CENTRE, NEW DELHI

15 Min. Average Frequency profile for 18-May-2018 (Friday)



<49.7	<49.90	<49.97	49.7-49.8	49.8-49.9	49.9-50.0	50.0-50.1	50.1-50.2	49.90-50.05	49.7-50.2	49.97-50.03	50.05-50.1	>50	>50.03	>50.05	>50.2	<49.95	49.95-50.05	49.90-49.95
0.00	39.58	77.08	6.25	33.33	50.00	10.42	0.00	59.38	100.00	20.83	1.04	10.42	2.08	1.04	0.00	68.8	30.2	29.2

Average Frequency : 49.916	Frequency Variation Index : 0.117	Standard Deviation : 0.068	Mileage: 4.1	FDI: 40.6
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Instantaneous Frequency		
Max	50.121	6:01:00
Min	49.651	23:22:00

15 minute Average Frequency		
Max	50.052	7:00:00
Min	49.743	23:30:00

No. of excursions	
above 50.03 Hz	1
below 49.97 Hz	8
above 50.00 Hz	3
below 50.00 Hz	4

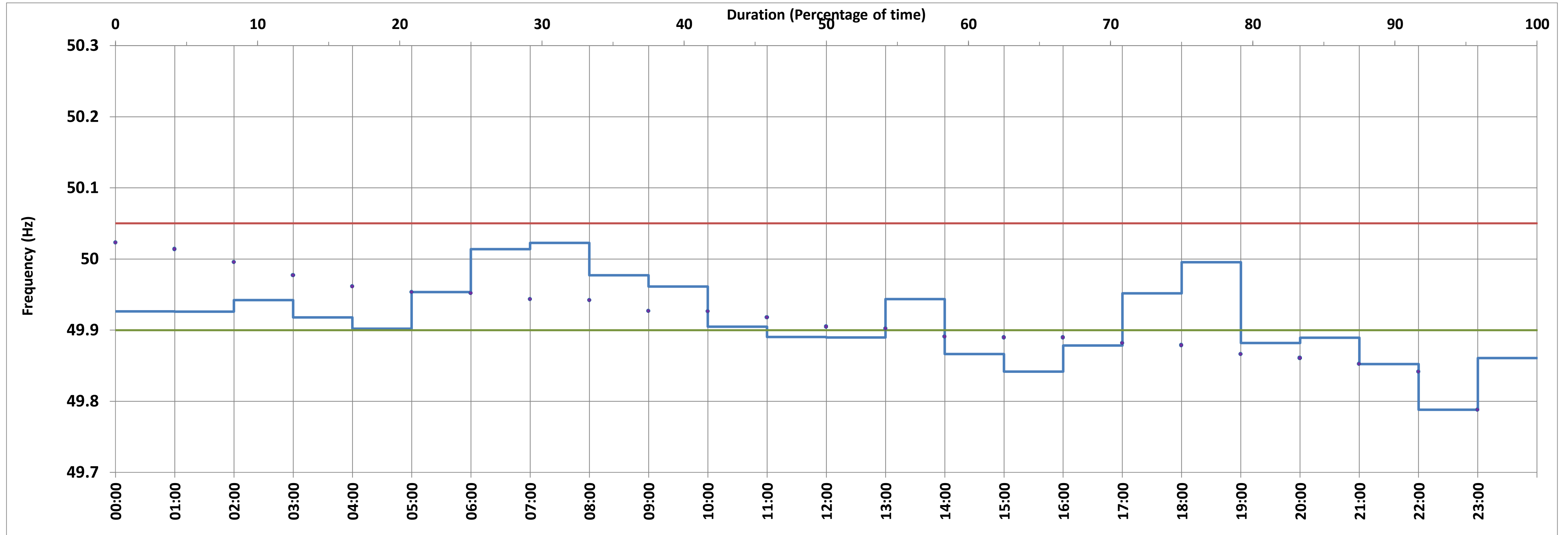
Average time freq per excursion remains	
below 49.97	2:18:45
above 50.03	0:30:00

Source : BALLIA:Frequency 15 Min. (96 samples)



BALLIA:Frequency

Hourly Average Frequency Profile for 18-May-2018



<49.7	<49.90	<49.97	49.7-49.8	49.8-49.9	49.9-50.0	50.0-50.1	50.1-50.2	49.90-50.05	49.7-50.2	49.97-50.03	50.05-50.1	>50	>50.03	>50.05	>50.2	
0.00	41.67	83.33	4.17	37.50	50.00	8.33	0.00	58.33	95.83	16.67	0.00	8.33	0.00	0.00	4.17	

Average Frequency :	49.916
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Mileage	0.9151
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Instantaneous Frequency		
Max	50.121	6:01:00
Min	49.651	23:22:00

Based on an hour Average Frequency			
Max	50.023	8:00:00	
Min	49.788	23:00:00	

No. of excursions above 50.03 Hz	0
No. of excursions below 49.97 Hz	3
No. of excursions above 50.00 Hz	1
No. of excursions below 50.00 Hz	2

% time <49.95	70.83
% time between 49.95 to 50.05	29.17

NOTE: All calculations except Instantaneous Max/Min based on an hour average frequency