

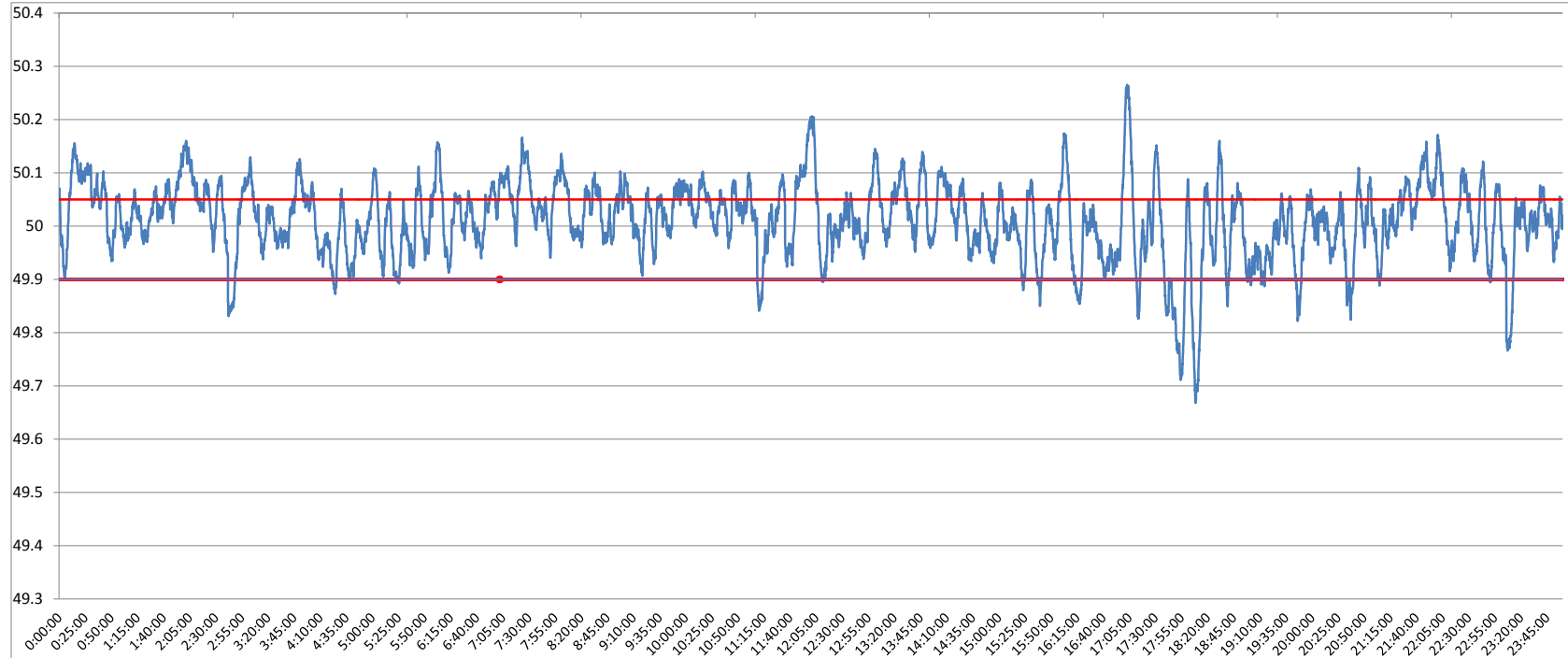


POWER SYSTEM OPERATION CORPORATION LIMITED
NATIONAL LOAD DESPATCH CENTRE NEW DELHI

NTPC-VINDHYACHAL:Frequency

National Grid Frequency Profile for

12-Nov-15



| <49.2 | <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 | 0.17 | 6.02 | 24.79 | 1.12 | 4.72 | 35.39 | 50.29 | 7.91 | 63.92 | 99.43 | 33.21 | 21.85 | 58.55 | 42.00 | 30.06 | 0.39 |

| | | | | | |
|--------------------------|--------------|------------------------------------|--------------|-----------------------------|--------------|
| Average Frequency | 50.01 | Frequency Variation Index : | 0.054 | Standard Deviation : | 0.073 |
|--------------------------|--------------|------------------------------------|--------------|-----------------------------|--------------|

| Instantaneous Frequency | | |
|-------------------------|-------|----------|
| Max | 50.27 | 17:02:50 |
| Min | 49.67 | 18:08:20 |

| 15 minute average Frequency | | |
|-----------------------------|--------|----------|
| Max | 50.117 | 12:00:00 |
| Min | 49.815 | 18:00:00 |

| | |
|---------------------------------|-----|
| No. of excursion above 50.03 Hz | 155 |
| No. of excursion below 49.97 Hz | 109 |
| No. of excursion above 50.00 Hz | 135 |
| No. of excursion below 50.00 Hz | 135 |

| | | | |
|---|---------|--|---------|
| Average time freq remains below 49.97 per excursion | 0:03:17 | Average time frequency remains above 50.03 per excursion | 0:03:54 |
|---|---------|--|---------|