

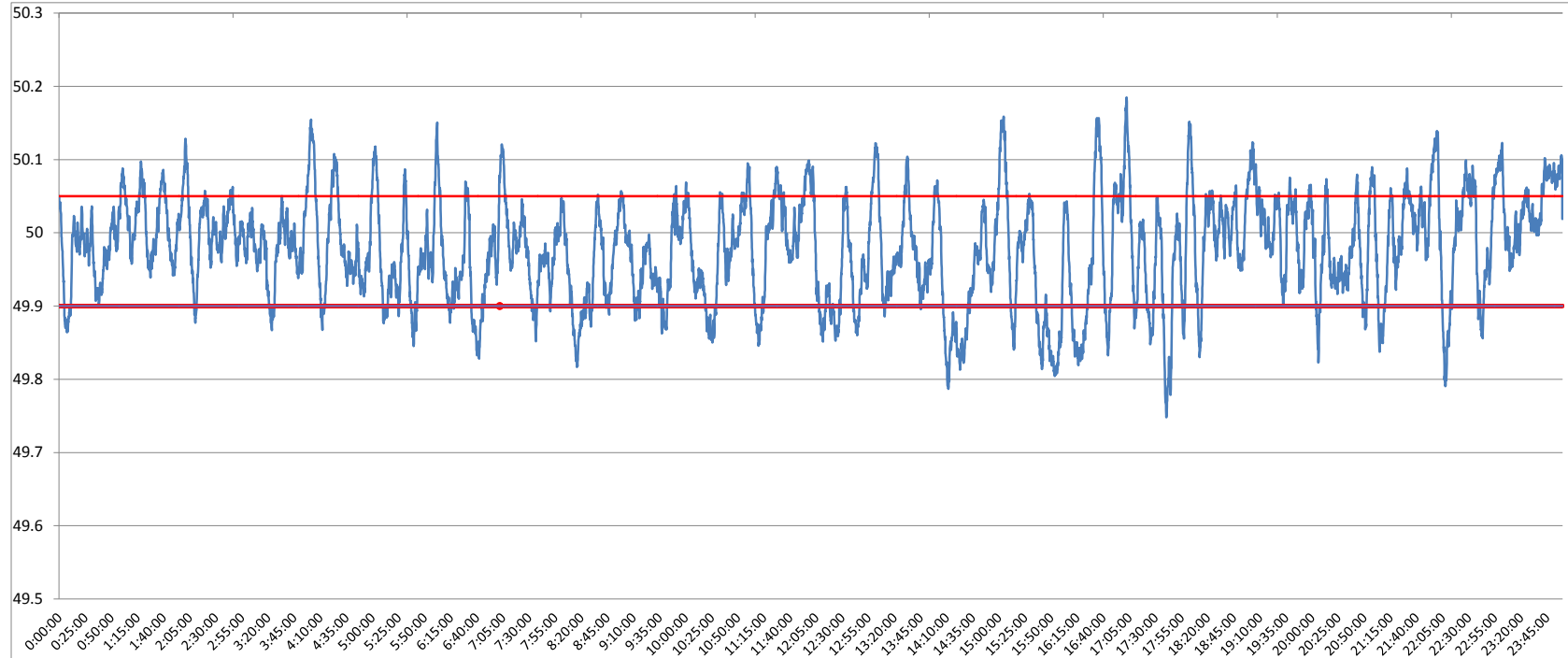


POWER SYSTEM OPERATION CORPORATION LIMITED
NATIONAL LOAD DESPATCH CENTRE NEW DELHI

NTPC-VINDHYACHAL:Frequency

National Grid Frequency Profile for

21-Nov-16



| <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 | 0.00 | 16.09 | 44.55 | 0.50 | 15.59 | 45.08 | 35.46 | 3.37 | 68.68 | 100.00 | 30.83 | 11.93 | 38.82 | 24.62 | 15.23 | 0.00 |

| | | | | | |
|--------------------------|--------------|------------------------------------|--------------|-----------------------------|--------------|
| Average Frequency | 49.98 | Frequency Variation Index : | 0.056 | Standard Deviation : | 0.071 |
|--------------------------|--------------|------------------------------------|--------------|-----------------------------|--------------|

| Instantaneous Frequency | | |
|-------------------------|-------|----------|
| Max | 50.19 | 17:02:20 |
| Min | 49.75 | 17:40:20 |

| 15 minute average Frequency | | |
|-----------------------------|--------|----------|
| Max | 50.080 | 0:00:00 |
| Min | 49.839 | 16:00:00 |

| | |
|---------------------------------|-----|
| No. of excursion above 50.03 Hz | 125 |
| No. of excursion below 49.97 Hz | 134 |
| No. of excursion above 50.00 Hz | 134 |
| No. of excursion below 50.00 Hz | 134 |

| | | | |
|--|----------------|---|----------------|
| Average time freq remains below 49.97 per excursion | 0:04:47 | Average time frequency remains above 50.03 per excursion | 0:02:50 |
|--|----------------|---|----------------|