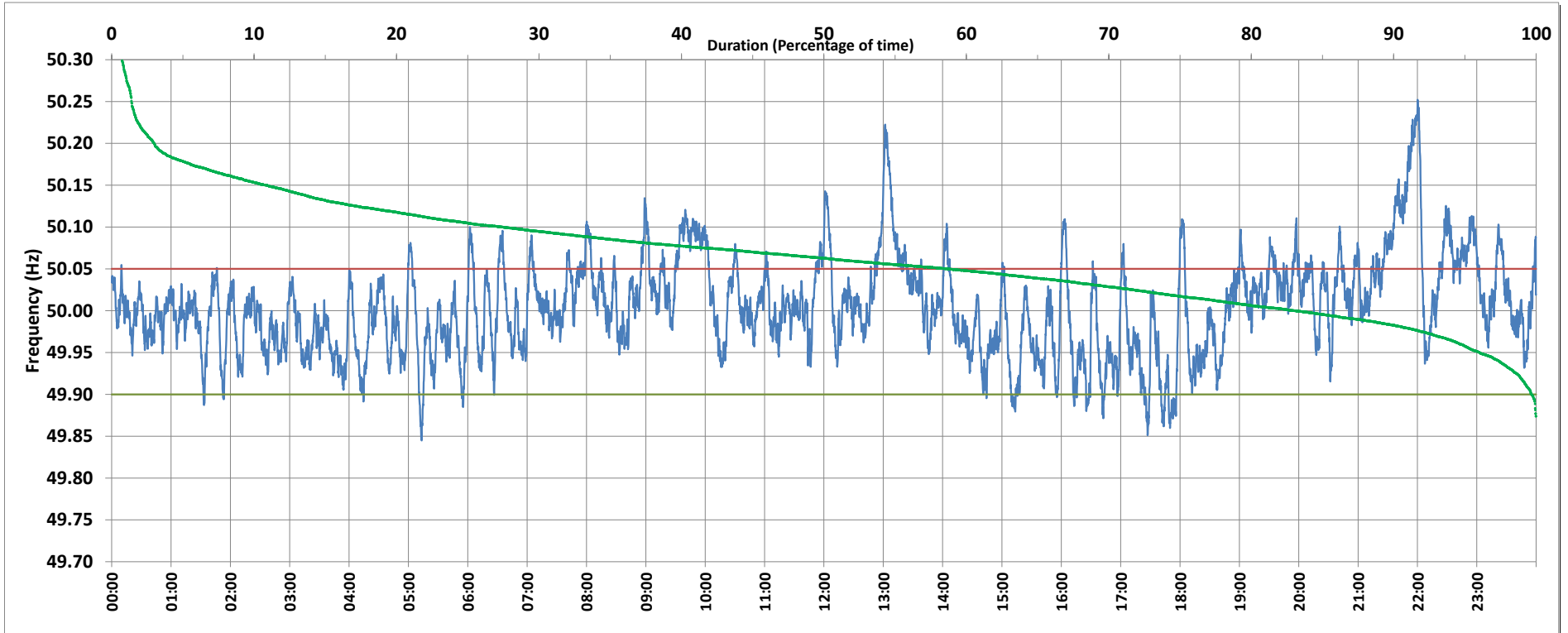


POWER SYSTEM OPERATION CORPORATION LIMITED

NATIONAL LOAD DESPATCH CENTRE, NEW DELHI



Frequency profile for 22-Nov-2018 (Thursday)



|       |        |        |           |           |           |           |           |             |           |             |            |       |        |        |       |        |             |             |
|-------|--------|--------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|-------------|------------|-------|--------|--------|-------|--------|-------------|-------------|
| <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  | 2.62   | 27.82  | 0.00      | 2.62      | 45.67     | 46.92     | 4.06      | 78.29       | 99.27     | 42.84       | 14.41      | 51.64 | 29.34  | 19.10  | 0.73  | 16.89  | 64.02       | 14.27       |

|                            |                                    |                             |               |           |
|----------------------------|------------------------------------|-----------------------------|---------------|-----------|
| Average Frequency : 50.004 | Frequency Variation Index : 0.0334 | Standard Deviation : 0.0576 | Mileage: 44.6 | FDI: 21.7 |
|----------------------------|------------------------------------|-----------------------------|---------------|-----------|

| Instantaneous Frequency |        |          |
|-------------------------|--------|----------|
| Max                     | 50.252 | 22:00:10 |
| Min                     | 49.845 | 5:13:20  |

| 15 minute Average Frequency |        |          |
|-----------------------------|--------|----------|
| Max                         | 50.181 | 22:00:00 |
| Min                         | 49.916 | 17:30:00 |

| No. of excursions |     |
|-------------------|-----|
| above 50.03 Hz    | 138 |
| below 49.97 Hz    | 117 |
| above 50.00 Hz    | 175 |
| below 50.00 Hz    | 173 |

| Average time freq per excursion remains |         |
|---|---------|
| below 49.97                             | 0:03:25 |
| above 50.03                             | 0:03:04 |

|   |         |
|---|---------|
| No. of hours freq outside 49.9-50.05 Hz | 5:12:40 |
|---|---------|

Source : NTPC-VINDHYACHAL:Frequency 10 Sec. (8640 samples)