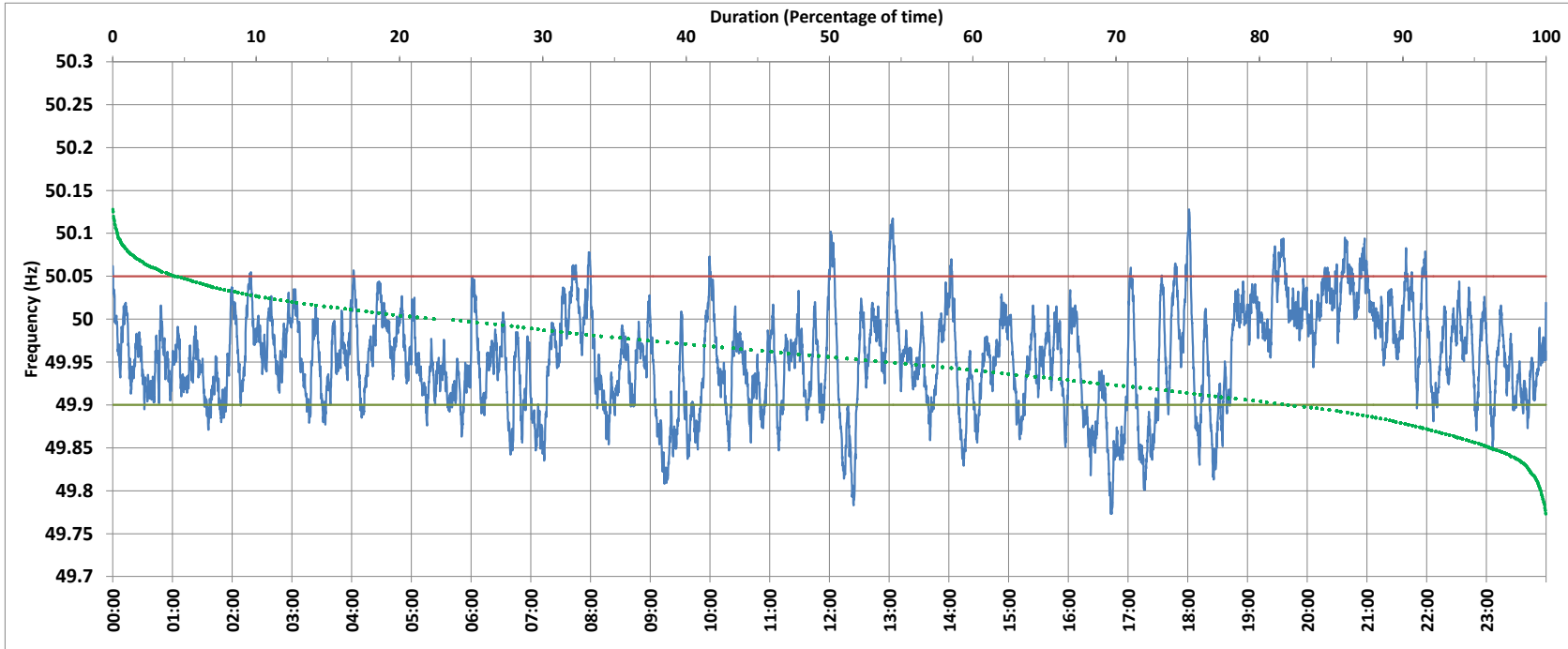


POWER SYSTEM OPERATION CORPORATION LIMITED  
NATIONAL LOAD DESPATCH CENTRE NEW DELHI



BAWANA:Frequency

National Grid Frequency Profile for 23-Oct-2017



|       |        |        |           |           |           |           |           |             |           |             |            |       |        |        |       |
|-------|--------|--------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|-------------|------------|-------|--------|--------|-------|
| <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  | 17.55  | 58.74  | 0.35      | 17.20     | 58.72     | 23.41     | 0.32      | 78.13       | 100.00    | 32.22       | 4.21       | 22.38 | 9.04   | 4.33   | 0.00  |

|                     |        |                             |       |                      |       |
|---------------------|--------|-----------------------------|-------|----------------------|-------|
| Average Frequency : | 49.955 | Frequency Variation Index : | 0.054 | Standard Deviation : | 0.058 |
|---------------------|--------|-----------------------------|-------|----------------------|-------|

|                         |        |          |
|-------------------------|--------|----------|
| Instantaneous Frequency |        |          |
| Max                     | 50.128 | 18:01:10 |
| Min                     | 49.773 | 16:42:30 |

|                             |        |          |
|-----------------------------|--------|----------|
| 15 minute Average Frequency |        |          |
| Max                         | 50.046 | 20:45:00 |
| Min                         | 49.856 | 17:30:00 |

|                                  |     |
|----------------------------------|-----|
| No. of excursions above 50.03 Hz | 70  |
| No. of excursions below 49.97 Hz | 120 |
| No. of excursions above 50.00 Hz | 88  |
| No. of excursions below 50.00 Hz | 93  |

|   |         |  |         |
|---|---------|--|---------|
| Average time freq remains below 49.97 per excursion | 0:07:03 | Average time frequency remains above 50.03 per excursion | 0:01:52 |
|---|---------|--|---------|