

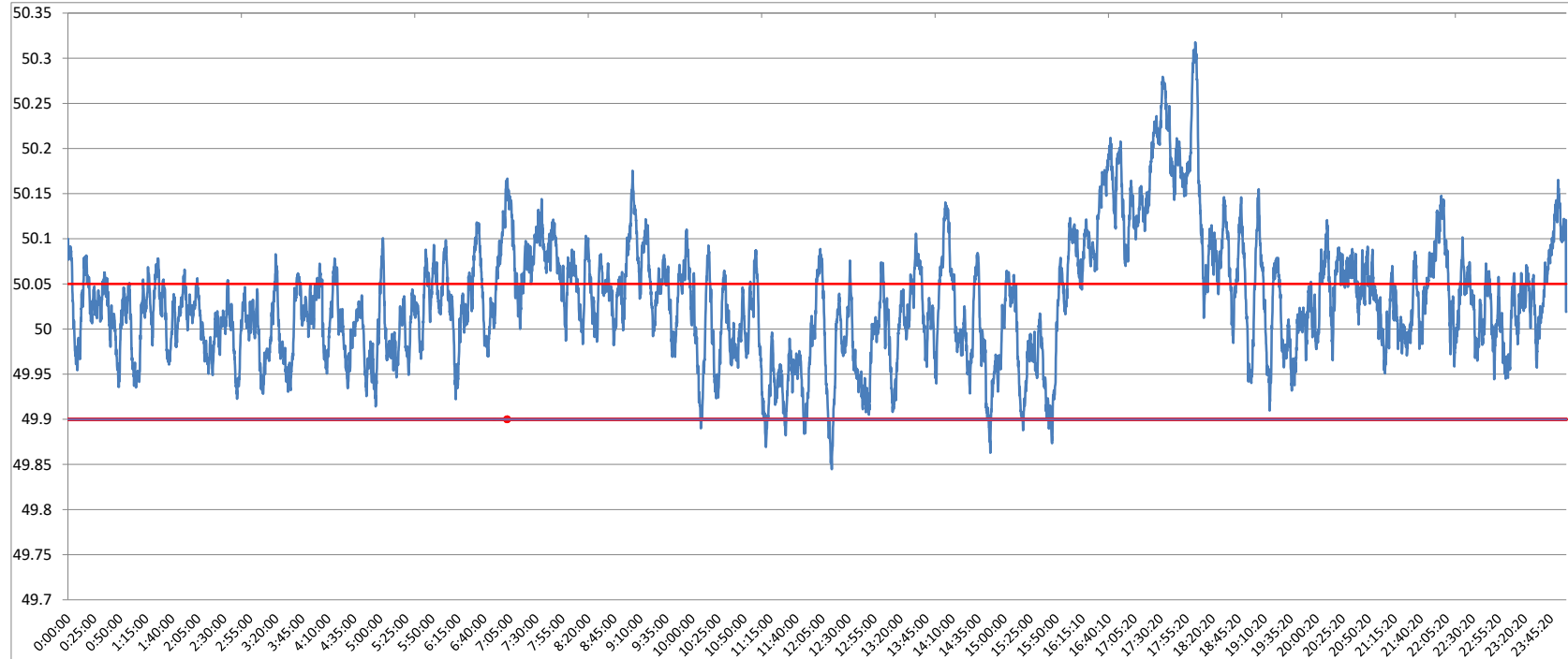


**POWER SYSTEM OPERATION CORPORATION LIMITED**  
NATIONAL LOAD DESPATCH CENTRE NEW DELHI

HISSAR:Frequency

National Grid Frequency Profile for

21-May-17



| <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  | 1.19   | 16.44  | 0.00      | 1.19      | 30.82     | 55.03     | 11.09     | 63.25       | 98.14     | 35.43       | 22.69      | 67.87 | 48.14  | 35.56  | 1.86  |

|                          |              |                                    |              |                             |              |
|--------------------------|--------------|------------------------------------|--------------|-----------------------------|--------------|
| <b>Average Frequency</b> | <b>50.03</b> | <b>Frequency Variation Index :</b> | <b>0.054</b> | <b>Standard Deviation :</b> | <b>0.066</b> |
|--------------------------|--------------|------------------------------------|--------------|-----------------------------|--------------|

| Instantaneous Frequency |                |
|-------------------------|----------------|
| Max                     | 50.32 18:03:40 |
| Min                     | 49.84 12:14:00 |

| 15 minute average Frequency |                 |
|-----------------------------|-----------------|
| Max                         | 50.219 17:45:00 |
| Min                         | 49.940 11:30:00 |

|                                 |     |
|---------------------------------|-----|
| No. of excursion above 50.03 Hz | 164 |
| No. of excursion below 49.97 Hz | 114 |
| No. of excursion above 50.00 Hz | 140 |
| No. of excursion below 50.00 Hz | 137 |

|   |         |  |         |
|---|---------|--|---------|
| Average time freq remains below 49.97 per excursion | 0:02:05 | Average time frequency remains above 50.03 per excursion | 0:04:14 |
|---|---------|--|---------|