

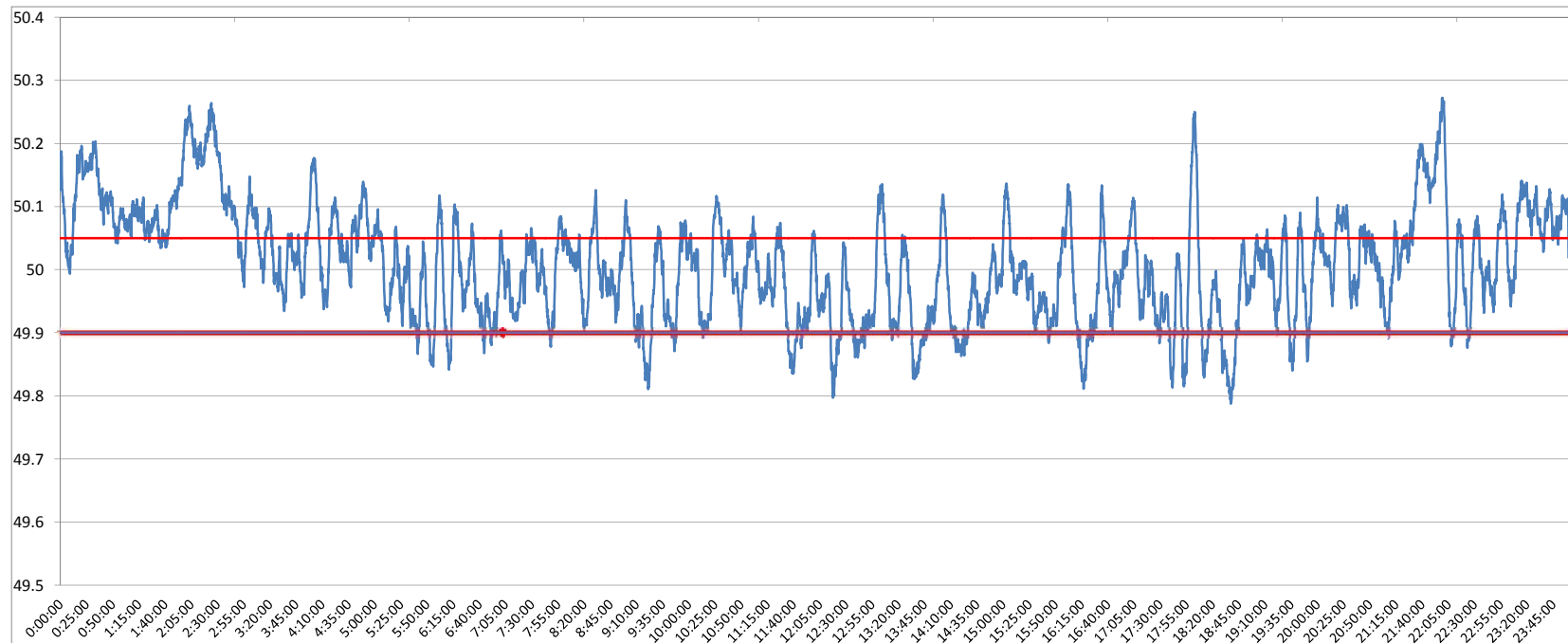


**POWER SYSTEM OPERATION CORPORATION LIMITED**  
NATIONAL LOAD DESPATCH CENTRE NEW DELHI

HISSAR:Frequency

National Grid Frequency Profile for

20-Jan-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  | 10.47  | 35.78  | 0.16      | 10.31     | 37.16     | 38.82     | 11.45     | 57.84       | 97.91     | 24.34       | 18.19      | 52.34 | 39.88  | 31.69  | 2.09  |

|  |              |                 |   |               |                 |  |  |              |
|--|--------------|-----------------|---|---------------|-----------------|--|--|--------------|
| <b>Average Frequency</b>                                   |              | <b>50.01</b>    | <b>Frequency Variation Index :</b>                              |               | <b>0.077</b>    | <b>Standard Deviation :</b>            |  | <b>0.087</b> |
| <b>Instantaneous Frequency</b>                             |              |                 | <b>15 minute average Frequency</b>                              |               |                 | <b>No. of excursion above 50.03 Hz</b> |  | <b>105</b>   |
| <b>Max</b>   | <b>50.27</b> | <b>21:59:30</b> | <b>Max</b>  | <b>50.213</b> | <b>2:30:00</b>  | <b>No. of excursion below 49.97 Hz</b> |  | <b>107</b>   |
| <b>Min</b>   | <b>49.79</b> | <b>18:37:30</b> | <b>Min</b>  | <b>49.847</b> | <b>18:45:00</b> | <b>No. of excursion above 50.00 Hz</b> |  | <b>102</b>   |
| <b>Average time freq remains below 49.97 per excursion</b> |              | <b>0:04:49</b>  | <b>Average time frequency remains above 50.03 per excursion</b> |               | <b>0:05:28</b>  | <b>No. of excursion below 50.00 Hz</b> |  | <b>100</b>   |