

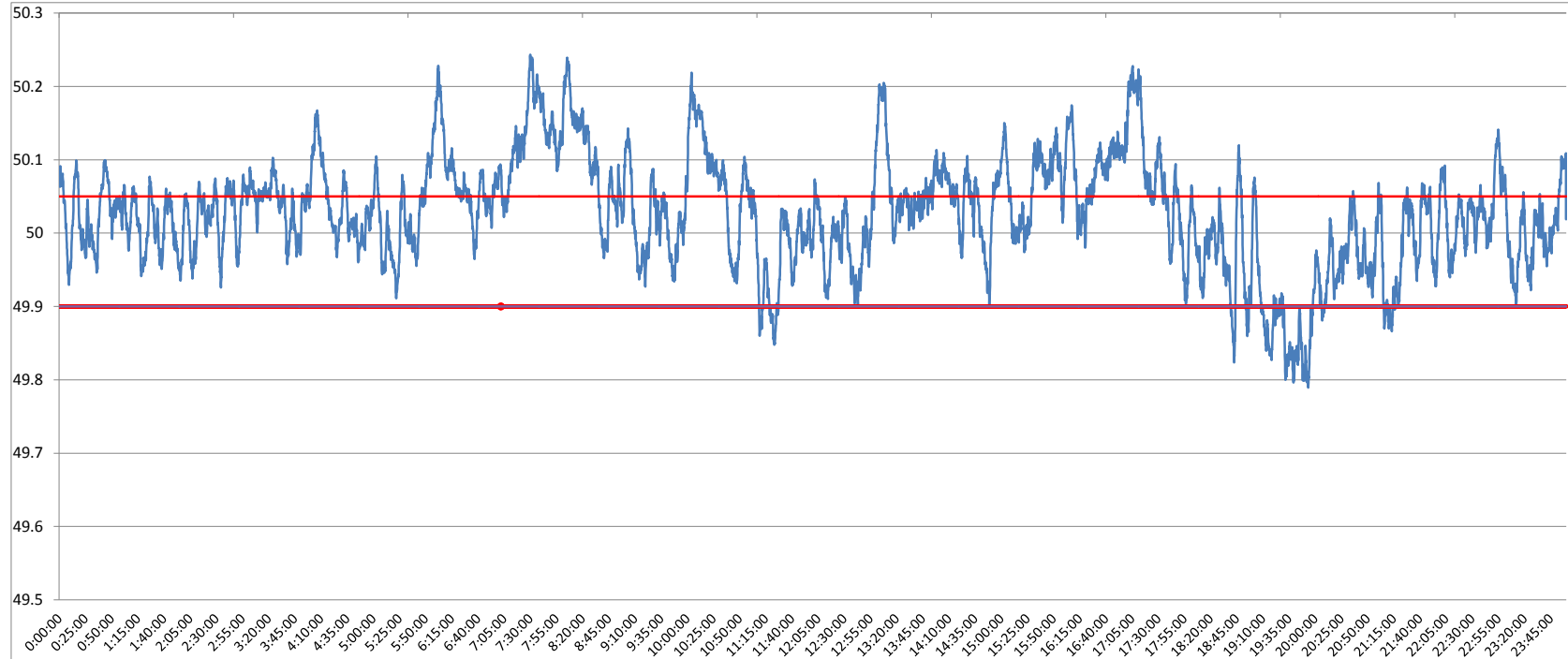


**POWER SYSTEM OPERATION CORPORATION LIMITED**  
NATIONAL LOAD DESPATCH CENTRE NEW DELHI

NTPC-VINDHYACHAL:Frequency

National Grid Frequency Profile for

14-Jun-15



|       |       |        |        |           |           |           |           |           |             |           |             |            |       |        |        |       |
|-------|-------|--------|--------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|-------------|------------|-------|--------|--------|-------|
| <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  | 5.13   | 20.66  | 0.17      | 4.95      | 28.44     | 51.97     | 12.91     | 57.64       | 98.44     | 28.52       | 22.88      | 66.41 | 50.82  | 37.23  | 1.56  |

|                          |              |                                    |              |                             |              |
|--------------------------|--------------|------------------------------------|--------------|-----------------------------|--------------|
| <b>Average Frequency</b> | <b>50.03</b> | <b>Frequency Variation Index :</b> | <b>0.064</b> | <b>Standard Deviation :</b> | <b>0.075</b> |
|--------------------------|--------------|------------------------------------|--------------|-----------------------------|--------------|

|                                |                       |
|--------------------------------|-----------------------|
| <b>Instantaneous Frequency</b> |                       |
| <b>Max</b>                     | <b>50.24 7:30:00</b>  |
| <b>Min</b>                     | <b>49.79 19:53:20</b> |

|                                    |               |                 |
|------------------------------------|---------------|-----------------|
| <b>15 minute average Frequency</b> |               |                 |
| <b>Max</b>                         | <b>50.194</b> | <b>17:15:00</b> |
| <b>Min</b>                         | <b>49.833</b> | <b>19:45:00</b> |

|  |            |
|--|------------|
| <b>No. of excursion above 50.03 Hz</b> | <b>141</b> |
| <b>No. of excursion below 49.97 Hz</b> | <b>94</b>  |
| <b>No. of excursion above 50.00 Hz</b> | <b>124</b> |
| <b>No. of excursion below 50.00 Hz</b> | <b>122</b> |

|  |                |   |                |
|--|----------------|---|----------------|
| <b>Average time freq remains below 49.97 per excursion</b> | <b>0:03:10</b> | <b>Average time frequency remains above 50.03 per excursion</b> | <b>0:05:11</b> |
|--|----------------|---|----------------|