Electricity Supply Monitoring Initiative (ESMI) is a program being implemented by Prayas (Energy Group). It aims to improve transparency and provide evidence based feedback about the quality of electricity supply. Under ESMI, specially designed, mobile data enabled monitors are being deployed at each location and supply quality data is published daily at watchyourpower.org. ESMI was selected as a finalist for Google Impact Challenge, India, 2013, given to NGOs using technology for social impact. It was launched in March 2015 and currently covers over 50 districts across India.

This report presents a summary analysis of supply quality data from 138 locations (28 rural and 110 urban) for January 2016. This analysis covers three main parameters of supply quality: i) no supply hours, ii) number of interruptions, and, iii) evening hours of supply. The analysis is carried out for mega cities, other cities and rural areas. See notes at the end for more details and explanation.

In January 2016

- **43%** ESMI locations faced more than 4 hours of power outage per week
- **17%** ESMI locations faced more than 30 power supply interruptions
- **12%** ESMI Locations faced daily power outage of more than half an hour during evening hours

Map showing current ESMI Expanse at district level
## Supply Quality in Mega Cities - January 2016

<table>
<thead>
<tr>
<th>Mega City</th>
<th>ESMI locations</th>
<th>Short 15 min-1 hour</th>
<th>Long More than 1 hr</th>
<th>Average no supply hours per location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chandigarh</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Jaipur</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Hyderabad</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Delhi</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Nagpur</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Pune</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Bengaluru</td>
<td>8</td>
<td>14</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Kanpur</td>
<td>7</td>
<td>13</td>
<td>13</td>
<td>32</td>
</tr>
</tbody>
</table>

## Supply Quality in Other Cities - January 2016

### Average number of Interruptions per location

- **Haryana**
  - > 15 min-1 hr: 12
  - 1 hr-3 hrs: 19
  - >3 hrs: 191

- **Karnataka**
  - > 15 min-1 hr: 10
  - 1 hr-3 hrs: 14
  - >3 hrs: 191

- **Uttar Pradesh**
  - > 15 min-1 hr: 67
  - 1 hr-3 hrs: 6
  - >3 hrs: 9

- **Maharashtra**
  - > 15 min-1 hr: 6
  - 1 hr-3 hrs: 9

### Average no supply hours per location

- **Haryana**
  - > 15 min-1 hr: 12
  - 1 hr-3 hrs: 19
  - >3 hrs: 191

- **Karnataka**
  - > 15 min-1 hr: 10
  - 1 hr-3 hrs: 14
  - >3 hrs: 191

- **Uttar Pradesh**
  - > 15 min-1 hr: 67
  - 1 hr-3 hrs: 6
  - >3 hrs: 9

- **Maharashtra**
  - > 15 min-1 hr: 6
  - 1 hr-3 hrs: 9

### States

<table>
<thead>
<tr>
<th>States</th>
<th>Cities covered</th>
<th>ESMI locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haryana</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Karnataka</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>7</td>
<td>24</td>
</tr>
</tbody>
</table>
Supply Quality in Rural Areas - January 2016

Analysis in this report covers locations with more than 90% data availability during the month.

Urban locations are State Capitals, District Headquarters and Other Municipal Areas.

Mega Cities are urban locations as defined by Central Electricity Authority (typically with population more than 20 lakh).

Other cities are urban locations that are not mega cities.

Rural areas are those governed by Gram Panchayats (village councils).

Agricultural locations covered under ESMI are excluded from this analysis.

Analysis, except evening hours of supply, consider interruptions of more than 15 minutes.

ESMI Locations Receiving Entire Six Hours Of Evening Supply

Especially in these areas, evening supply hours considered is between 5 p.m. to 11 p.m. and this analysis ignores upto 2 hours of total evening supply interruptions during the month.

ESMI Locations

Karnataka

Maharashtra

Uttar Pradesh

January 2016

ESMI locations

4

12

6

Average no supply hours

51

33

452

Notes: 
- Analysis in this report covers locations with more than 90% data availability during the month.
- Urban locations are State Capitals, District Headquarters and Other Municipal Areas.
- Mega Cities are urban locations as defined by Central Electricity Authority (typically with population more than 20 lakh).
- Other cities are urban locations that are not mega cities.
- Rural areas are those governed by Gram Panchayats (village councils).
- Agricultural locations covered under ESMI are excluded from this analysis.
- Analysis, except evening hours of supply, consider interruptions of more than 15 minutes.

Electricity Supply Monitoring Initiative

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