



Prayas (Energy Group)

# Electricity Supply Monitoring Initiative (ESMI)

Watch Your Power Quality

[www.watchyourpower.org](http://www.watchyourpower.org)

## Summary Analysis - September 2018

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](http://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 55 districts across India.

This report presents a summary analysis of supply quality data from 207 locations (63 Rural and 144 Urban) for September 2018. 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 September 2018

59%

ESMI locations experienced outages for more than 15 hours

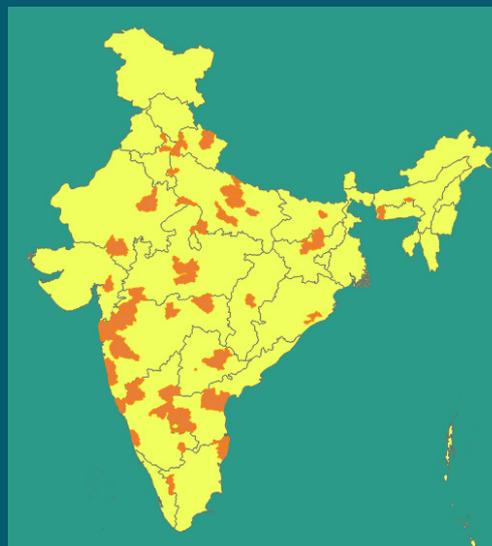
38%

ESMI locations experienced more than 30 interruptions, each greater than 15 min

31%

ESMI locations experienced average daily outage of 30 min or more during evening hours

Map showing current ESMI expanse at district level

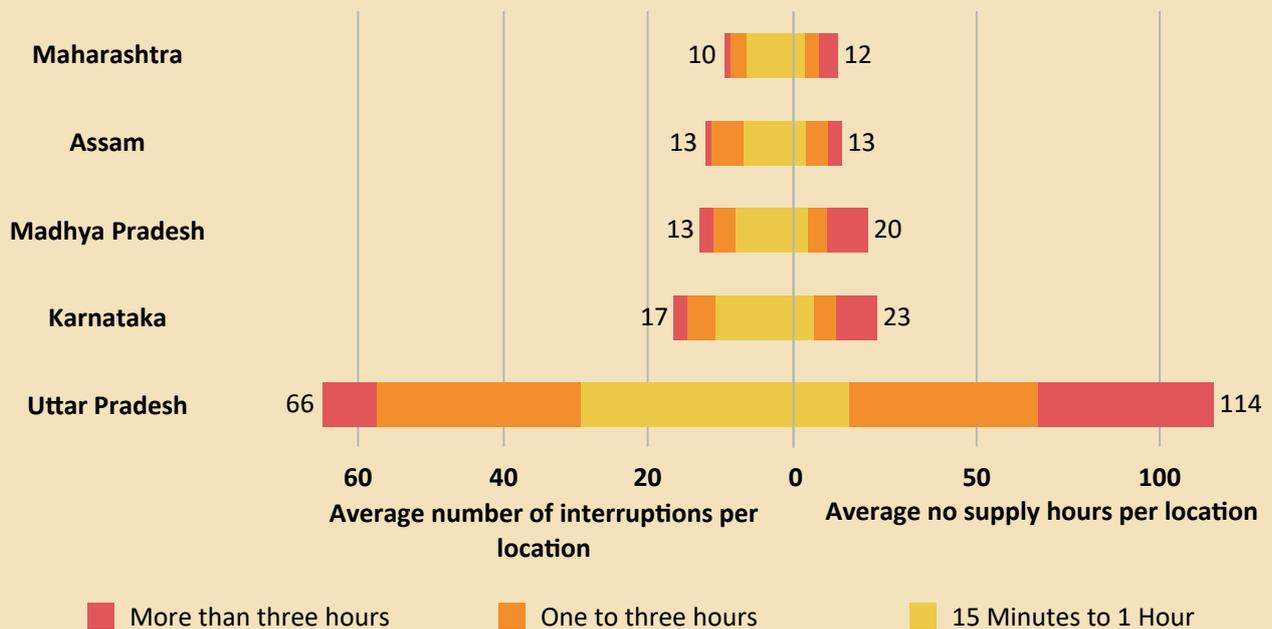


## Supply Quality in Mega Cities - September 2018

| Megacity  | ESMI locations | Average number of interruptions per location |                        |                                      |
|-----------|----------------|--|------------------------|--------------------------------------|
|           |                | Short - 15 min to hour                       | Long - 1 hour and more | Average no supply hours per location |
| Kolkata   | 4              | 1  | 0                      | 1                                    |
| Pune      | 5              | 5  | 1                      | 4                                    |
| Chennai   | 12             | 5  | 2                      | 4                                    |
| Hyderabad | 6              | 5  | 3                      | 6                                    |
| Lucknow   | 4              | 8  | 3                      | 8                                    |
| Nagpur    | 4              | 2  | 3                      | 15                                   |
| Bengaluru | 4              | 11   | 5                      | 17                                   |

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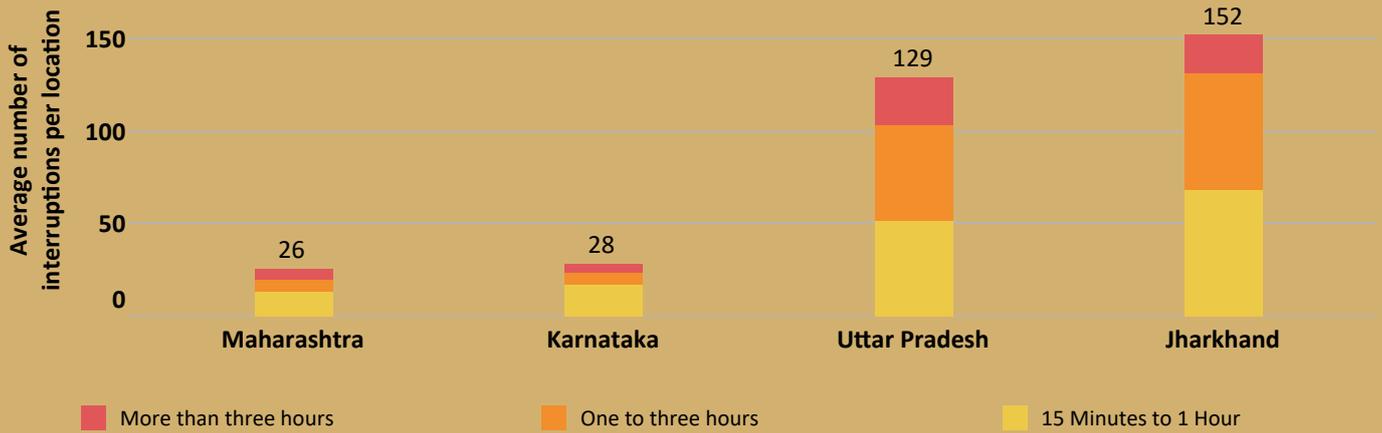
## Supply Quality in Other Cities - September 2018



| State          | Towns covered | ESMI locations |
|----------------|---------------|----------------|
| Maharashtra    | 11            | 19             |
| Assam          | 1             | 6              |
| Madhya Pradesh | 2             | 7              |
| Karnataka      | 4             | 9              |
| Uttar Pradesh  | 16            | 31             |

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# Supply Quality in Rural Areas - September 2018



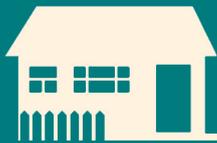
|                                      | Maharashtra | Karnataka | Uttar Pradesh | Jharkhand |
|--------------------------------------|-------------|-----------|---------------|-----------|
| ESMI locations                       | 12          | 5         | 33            | 4         |
| Average no supply hours per location | 48          | 49        | 278           | 259       |

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## ESMI Locations Receiving Entire Six Hours of Evening Supply



**65%**  
Mega Cities



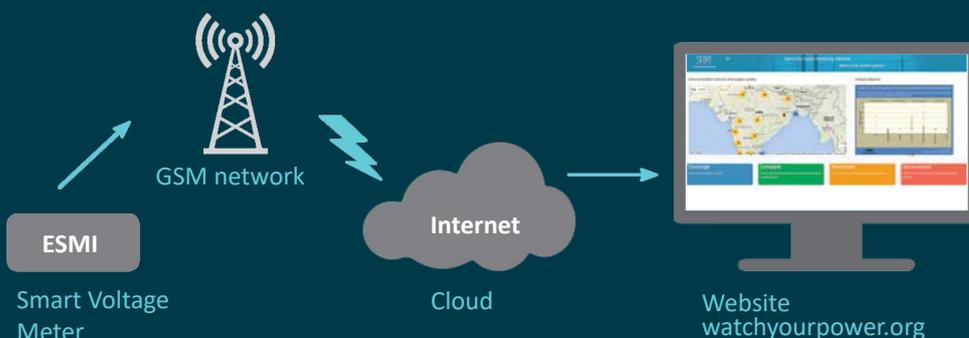
**33%**  
Other Cities



**10%**  
Rural 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

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### Electricity Supply Monitoring Initiative

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#### 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
- Analyses, except evening hours of supply consider interruptions of more than 15 minutes



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