

## Distribution System Reliability Indices (SAIFI, SAIDI &amp; MAIFI) of Urban Feeders of UPCL for the month of February 2018

| Sl No       | Name of Electricity Distribution Division | No. of Urban Feeders | Feeder Voltage<br>KV | Nos of Outages > 5 Min | Total Connected Load KW | Affected Load KW | SAIFI Calculation                  |           | SAIDI Calculation                  |            | MAIFI Calculation      |                  |                                    |          |
|-------------|---|----------------------|----------------------|------------------------|-------------------------|------------------|------------------------------------|-----------|------------------------------------|------------|------------------------|------------------|------------------------------------|----------|
|             |   |                      |                      |                        |                         |                  | $\sum A_i \times N_i$ for Division | SAIFI     | $\sum B_i \times N_i$ for Division | SAIDI      | Nos of Outages < 5 Min | Affected Load KW | $\sum C_i \times N_i$ for Division | MAIFI    |
|             |   |                      |                      |                        |                         |                  |                                    | Nos.      |                                    | Min        |                        |                  |                                    |          |
|             |   |                      |                      |                        |                         |                  | 7                                  | 8=7/5     | 9                                  | 10=9/5     | 11                     | 12               | 13                                 | 14=13/5  |
| 1           | Raipur Dehradun                           | 6                    | 11                   | 132                    | 9817                    | 9817             | 254746                             | 26        | 5328658                            | 543        | 86                     | 9817             | 225478                             | 23       |
| 2           | Mohanpur                                  | -                    | 11                   | -                      | -                       | -                | -                                  | -         | -                                  | -          | -                      | -                | -                                  | -        |
| 3           | Vikasnagar                                | 7                    | 11                   | 185                    | 17664                   | 14618            | 474387                             | 27        | 11820847                           | 669        | 9                      | 14618            | 26039                              | 1        |
| 4           | Rishikesh                                 | 17                   | 11                   | 217                    | 15691                   | 13367            | 209040                             | 13        | 2467357                            | 157        | 72                     | 13380            | 47224                              | 3        |
| 5           | Uttarkashi                                | 10                   | 11                   | 87                     | 17327                   | 13027            | 136378                             | 8         | 525553                             | 30         | 3                      | 13027            | 4657                               | 0.3      |
| 6           | Doiwala                                   | 3                    | 11                   | 140                    | 4372                    | 4372             | 239353                             | 55        | 5988841                            | 1370       | 67                     | 4372             | 93417                              | 21       |
| 7           | Dehradun (North)                          | 38                   | 11                   | 461                    | 45827                   | 45827            | 664950                             | 15        | 20721136                           | 452        | 391                    | 45827            | 581545                             | 13       |
| 8           | Dehradun (South)                          | 35                   | 11                   | 387                    | 79470                   | 79470            | 967051                             | 12        | 17292941                           | 218        | 355                    | 77657            | 828613                             | 10       |
| 9           | Dehradun (Central)                        | 23                   | 11                   | 107                    | 43144                   | 43144            | 229095                             | 5         | 4540475                            | 105        | 111                    | 41687            | 230389                             | 5        |
| 10          | Srinagar                                  | 5                    | 11                   | 131                    | 6154                    | 3077             | 109019                             | 18        | 2373341                            | 386        | 9                      | 3077             | 6235                               | 1        |
| 11          | Pauri                                     | 7                    | 11                   | 164                    | 16191                   | 5887             | 98274                              | 6         | 1311368                            | 81         | 16                     | 7331             | 22744                              | 1.4      |
| 12          | Tehri                                     | 15                   | 11                   | 69                     | 29942                   | 29942            | 168240                             | 6         | 4706422                            | 157        | 28                     | 29942            | 83041                              | 3        |
| 13          | Gopeshwar                                 | 8                    | 11                   | 252                    | 7449                    | 7449             | 302475                             | 41        | 8930972                            | 1199       | 35                     | 7449             | 37311                              | 5        |
| 14          | Narayanbagar                              | 6                    | 11                   | 167                    | 8382                    | 9973             | 363979                             | 43        | 9594736                            | 1145       | 25                     | 9973             | 57928                              | 7        |
| 15          | Kotdwar                                   | 6                    | 11                   | 296                    | 18154                   | 4795             | 243123                             | 13        | 4465770                            | 246        | 14                     | 4795             | 6222                               | 0.3      |
| 16          | Rudraprayag                               | 4                    | 11                   | 9                      | 1159                    | 254              | 575                                | 0         | 755                                | 1          | 20                     | 166              | 823                                | 1        |
| 17          | Roorkee(Urban)                            | 14                   | 11                   | 722                    | 32440                   | 32440            | 1869405                            | 58        | 40617525                           | 1252       | 33                     | 32440            | 77515                              | 2        |
| 18          | Roorkee(Rural)                            | 4                    | 11                   | 184                    | 15600                   | 15600            | 708800                             | 45        | 25336500                           | 1624       | 99                     | 15600            | 404300                             | 26       |
| 19          | Ramnagar (Roorkee)                        | 11                   | 11                   | 341                    | 27562                   | 27562            | 1046412                            | 38        | 11486045                           | 417        | 60                     | 27562            | 162161                             | 6        |
| 20          | Bhagwanpur                                | 1                    | 11                   | 12                     | 2170                    | 2170             | 26034                              | 12        | 238700                             | 110        | 8                      | 2170             | 17360                              | 8        |
| 21          | Haridwar(Urban)                           | 29                   | 11                   | 472                    | 1878                    | 1456             | 33538                              | 18        | 949306                             | 505        | 321                    | 1456             | 24630                              | 13       |
| 22          | Haridwar(Rural)                           | 2                    | 11                   | 66                     | 1825                    | 1659             | 46893                              | 26        | 935541                             | 513        | 27                     | 1659             | 26604                              | 15       |
| 23          | Laksar                                    | 2                    | 11                   | 37                     | 2200                    | 2200             | 42260                              | 19        | 16909                              | 8          | 18                     | 2200             | 20840                              | 9        |
| 24          | Hadwani (Urban)                           | 21                   | 11                   | 504                    | 56274                   | 14471            | 374099                             | 7         | 5836791                            | 104        | 103                    | 14471            | 81949                              | 1        |
| 25          | Haldwani (Rural)                          | 2                    | 11                   | 58                     | 5768                    | 3160             | 56766                              | 10        | 1131552                            | 196        | 1                      | 3160             | 1457                               | 0.3      |
| 26          | Nainital                                  | 10                   | 11                   | 217                    | 24840                   | 18829            | 415112                             | 17        | 12063703                           | 486        | 32                     | 18829            | 62526                              | 3        |
| 27          | Ramnagar                                  | 4                    | 11                   | 130                    | 15995                   | 12225            | 392350                             | 25        | 5245495                            | 328        | 47                     | 15995            | 198430                             | 12       |
| 28          | Kashipur                                  | 10                   | 11                   | 356                    | 30695                   | 30695            | 1095076                            | 36        | 27868118                           | 908        | 132                    | 30695            | 410316                             | 13       |
| 29          | Bazpur                                    | 7                    | 11                   | 186                    | 12690                   | 12690            | 379319                             | 30        | 12193032                           | 961        | 40                     | 12690            | 90173                              | 7        |
| 30          | Jaspur                                    | 4                    | 11                   | 104                    | 11368                   | 11368            | 301504                             | 27        | 8626230                            | 759        | 10                     | 11368            | 30576                              | 3        |
| 31          | Rudrapur                                  | 25                   | 11                   | 89                     | 59423                   | 59423            | 224343                             | 4         | 1121715                            | 19         | 0                      | 59423            | 0                                  | 0        |
| 32          | Sitraganj                                 | 27                   | 11                   | 61                     | 28800                   | 28800            | 74769                              | 3         | 403706                             | 14         | 36                     | 197440           | 54377                              | 2        |
| 33          | Almora                                    | 11                   | 11                   | 671                    | 6458                    | 6458             | 413594                             | 64        | 10402713                           | 1611       | 12                     | 6458             | 7171                               | 1        |
| 34          | Bageshwar                                 | 1                    | 11                   | 75                     | 4166                    | 4166             | 312450                             | 75        | 6294826                            | 1511       | 1                      | 4166             | 4166                               | 1        |
| 35          | Ranikhet                                  | 6                    | 11                   | 61                     | 3481                    | 2656             | 47291                              | 14        | 888872                             | 255        | 44                     | 2656             | 20471                              | 6        |
| 36          | Pithoragarh                               | 10                   | 11                   | 454                    | 31684                   | 13380            | 765240                             | 24        | 27565243                           | 870        | 52                     | 7839             | 63488                              | 2        |
| 37          | Dharchula                                 | 6                    | 11                   | 348                    | 7935                    | 3732             | 228560                             | 29        | 11606825                           | 1463       | 68                     | 3732             | 40910                              | 5        |
| 38          | Champawat                                 | 6                    | 11                   | 58                     | 12790                   | 12790            | 123108                             | 10        | 31432335                           | 2458       | 44                     | 44               | 99700                              | 8        |
| <b>UPCL</b> |   | <b>403</b>           | <b>11</b>            | <b>8010</b>            | <b>716784</b>           | <b>602948</b>    | <b>13437607</b>                    | <b>19</b> | <b>342330853</b>                   | <b>478</b> | <b>2429</b>            | <b>755170</b>    | <b>4150785</b>                     | <b>6</b> |

## Distribution System Reliability Indices (SAIFI, SAIDI &amp; MAIFI) of Rural Feeders of UPCL for the month of February 2018

| Sl No | Name of Electricity Distribution Division | No. of Rural Feeders | Feeder Voltage | Nos of Outages > 5 Min | Total Connected Load KW | Affected Load KW | SAIFI Calculation                  |           | SAIDI Calculation                  |            | MAIFI Calculation      |                  |                                    |          |
|-------|---|----------------------|----------------|------------------------|-------------------------|------------------|------------------------------------|-----------|------------------------------------|------------|------------------------|------------------|------------------------------------|----------|
|       |   |                      |                |                        |                         |                  | $\sum A_i \times N_i$ for Division | SAIFI     | $\sum B_i \times N_i$ for Division | SAIDI      | Nos of Outages < 5 Min | Affected Load KW | $\sum C_i \times N_i$ for Division | MAIFI    |
|       |   |                      |                |                        |                         |                  |                                    | Nos.      |                                    | Min        |                        |                  |                                    | Nos.     |
|       |   |                      |                |                        |                         |                  | 7                                  | 8=7/5     | 9                                  | 10=9/5     | 11                     | 12               | 13                                 | 14=13/5  |
| 1     | Raipur Dehradun                           | 21                   | 11             | 671                    | 32745                   | 33003            | 1281927                            | 39        | 24115535                           | 736        | 502                    | 33003            | 1667983                            | 51       |
| 2     | Mohanpur                                  | 32                   | 11             | 678                    | 158582                  | 78123            | 1776153                            | 11        | 43700271                           | 276        | 444                    | 78123            | 997063                             | 6        |
| 3     | Vikasnagar                                | 29                   | 11             | 701                    | 50380                   | 38810            | 1288486                            | 26        | 31074232                           | 617        | 16                     | 38810            | 44648                              | 1        |
| 4     | Rishikesh                                 | 12                   | 11             | 171                    | 8054                    | 7119             | 97400                              | 12        | 863149                             | 107        | 45                     | 7119             | 26323                              | 3        |
| 5     | Uttarkashi                                | 23                   | 11             | 322                    | 35952                   | 29711            | 439257                             | 12        | 1756127                            | 49         | 1                      | 29711            | 464                                | 0.01     |
| 6     | Doiwala                                   | 15                   | 11             | 361                    | 13963                   | 13963            | 470905                             | 34        | 18321282                           | 1312       | 202                    | 13963            | 219148                             | 16       |
| 7     | Dehradun (North)                          | -                    | -              | -                      | -                       | -                | -                                  | -         | -                                  | -          | -                      | -                | -                                  | -        |
| 8     | Dehradun (South)                          | -                    | -              | -                      | -                       | -                | -                                  | -         | -                                  | -          | -                      | -                | -                                  | -        |
| 9     | Dehradun (Central)                        | -                    | -              | -                      | -                       | -                | -                                  | -         | -                                  | -          | -                      | -                | -                                  | -        |
| 10    | Srinagar                                  | 28                   | 11             | 581                    | 18057                   | 9028             | 242273                             | 13        | 11257860                           | 623        | 104                    | 9028             | 34218                              | 2        |
| 11    | Pauri                                     | 31                   | 11             | 870                    | 46552                   | 17457            | 643554                             | 14        | 19317385                           | 415        | 176                    | 14577            | 163988                             | 4        |
| 12    | Tehri                                     | 61                   | 11             | 1622                   | 104059                  | 104059           | 4031395                            | 39        | 142823676                          | 1373       | 213                    | 104059           | 325712                             | 3        |
| 13    | Gopeshwar                                 | 15                   | 11             | 469                    | 7676                    | 7676             | 372985                             | 49        | 20751766                           | 2703       | 70                     | 7676             | 45262                              | 6        |
| 14    | Narayanbagar                              | 22                   | 11             | 619                    | 24581                   | 25884            | 992888                             | 40        | 31289522                           | 1273       | 118                    | 25884            | 182330                             | 7        |
| 15    | Kotdwar                                   | 50                   | 11             | 1222                   | 96234                   | 29349            | 795408                             | 8         | 26441072                           | 275        | 524                    | 29349            | 454236                             | 5        |
| 16    | Rudraprayag                               | 17                   | 11             | 76                     | 5405                    | 1358             | 5949                               | 1         | 6273                               | 1          | 145                    | 1365             | 11706                              | 2        |
| 17    | Roorkee(Urban)                            | 11                   | 11             | 616                    | 17095                   | 17095            | 1022710                            | 60        | 48375525                           | 2830       | 204                    | 17095            | 364720                             | 21       |
| 18    | Roorkee(Rural)                            | 31                   | 11             | 1903                   | 103581                  | 89460            | 5211424                            | 50        | 237399960                          | 2292       | 417                    | 89460            | 1166502                            | 11       |
| 19    | Ramnagar (Roorkee)                        | 6                    | 11             | 433                    | 22023                   | 22023            | 1670216                            | 76        | 24097882                           | 1094       | 44                     | 22023            | 227652                             | 10       |
| 20    | Bhagwanpur                                | 42                   | 11             | 765                    | 127967                  | 127967           | 1861532                            | 15        | 41257135                           | 322        | 567                    | 127967           | 1489207                            | 12       |
| 21    | Haridwar(Urban)                           | 5                    | 11             | 103                    | 318                     | 230              | 9197                               | 29        | 414617                             | 1304       | 88                     | 230              | 9401                               | 30       |
| 22    | Haridwar(Rural)                           | 63                   | 11             | 528                    | 87356                   | 79408            | 749799                             | 9         | 13367662                           | 153        | 294                    | 79408            | 382222                             | 4        |
| 23    | Laksar                                    | 20                   | 11             | 1076                   | 40080                   | 40080            | 2791955                            | 70        | 1540308                            | 38         | 112                    | 38810            | 197030                             | 5        |
| 24    | Haldwani (Urban)                          | 3                    | 11             | 69                     | 5878                    | 1477             | 35705                              | 6         | 414740                             | 71         | 16                     | 1334             | 7138                               | 1        |
| 25    | Haldwani (Rural)                          | 33                   | 11             | 1203                   | 186046                  | 101887           | 2020344                            | 11        | 29764756                           | 160        | 182                    | 101887           | 412082                             | 2        |
| 26    | Nainital                                  | 29                   | 11             | 543                    | 44236                   | 16595            | 421637                             | 10        | 5544282                            | 125        | 85                     | 16595            | 51338                              | 1        |
| 27    | Ramnagar                                  | 15                   | 11             | 574                    | 22585                   | 22304            | 1188917                            | 53        | 24599387                           | 1089       | 164                    | 22585            | 315168                             | 14       |
| 28    | Kashipur                                  | 34                   | 11             | 599                    | 102304                  | 102304           | 1493858                            | 15        | 78243796                           | 765        | 219                    | 102304           | 468564                             | 5        |
| 29    | Bazpur                                    | 18                   | 11             | 377                    | 39863                   | 39863            | 1002287                            | 25        | 40106521                           | 1006       | 74                     | 39863            | 194618                             | 5        |
| 30    | Jaspur                                    | 27                   | 11             | 624                    | 41637                   | 41637            | 1099251                            | 26        | 50528119                           | 1214       | 158                    | 41637            | 315268                             | 8        |
| 31    | Rudrapur                                  | 104                  | 11             | 361                    | 257122                  | 257122           | 914194                             | 4         | 4610970                            | 18         | 10                     | 257122           | 36088                              | 0.1      |
| 32    | Sitraganj                                 | 34                   | 11             | 131                    | 52082                   | 52082            | 225475                             | 4         | 2801344                            | 54         | 69                     | 52082            | 124619                             | 2        |
| 33    | Almora                                    | 25                   | 11             | 1672                   | 14540                   | 14540            | 1089883                            | 75        | 19688263                           | 1354       | 43                     | 14540            | 28613                              | 2        |
| 34    | Bageshwar                                 | 22                   | 11             | 891                    | 39320                   | 39320            | 1743232                            | 44        | 36094909                           | 918        | 186                    | 39320            | 357238                             | 9        |
| 35    | Ranikhet                                  | 29                   | 11             | 879                    | 11919                   | 10040            | 456682                             | 38        | 11917934                           | 1000       | 151                    | 10040            | 72636                              | 6        |
| 36    | Pithoragarh                               | 33                   | 11             | 918                    | 47950                   | 15807            | 594370                             | 12        | 18131034                           | 378        | 143                    | 7591             | 75633                              | 2        |
| 37    | Dharchula                                 | 22                   | 11             | 1183                   | 24454                   | 9561             | 621668                             | 25        | 25747630                           | 1053       | 370                    | 9561             | 172557                             | 7        |
| 38    | Champawat                                 | 20                   | 11             | 232                    | 23032                   | 23032            | 263431                             | 11        | 50457976                           | 2191       | 143                    | 143              | 171966                             | 7        |
|       | <b>UPCL</b>                               | <b>982</b>           | <b>11</b>      | <b>24043</b>           | <b>1913627</b>          | <b>1519373</b>   | <b>38926346</b>                    | <b>20</b> | <b>1136822899</b>                  | <b>594</b> | <b>6299</b>            | <b>1484263</b>   | <b>10813342</b>                    | <b>6</b> |