

## Availability at Daily Maximum Demand Hour

|              |           |
|--------------|-----------|
| ST-Coal      | 0 MW      |
| ST-Gas       | 0 MW      |
| ST-Oil       | 0 MW      |
| Hydro        | 2,339 MW  |
| Distillate   | 0 MW      |
| Total TNB    | 2,339 MW  |
| Total IPP    | 14,175 MW |
| Total Co-Gen | 65 MW     |
| Total System | 19,081 MW |

## Generation Mix

| Type                    | MWh            | Percentage      |
|-------------------------|----------------|-----------------|
| Hydro                   | 8,594          | 2.38 %          |
| Gas                     | 48,597         | 13.48 %         |
| <b>Total TNB</b>        | <b>57,191</b>  | <b>15.87 %</b>  |
| ST-Coal                 | 183,499        | 50.92 %         |
| ST-Gas                  | 3,976          | 1.10 %          |
| LSS                     | 2,054          | 0.57 %          |
| Gas                     | 112,162        | 31.12 %         |
| <b>Total IPP</b>        | <b>301,691</b> | <b>83.71 %</b>  |
| Co-Gen                  | 1,255          | 0.35 %          |
| <b>Total Co-Gen</b>     | <b>1,255</b>   | <b>0.35 %</b>   |
| <b>Total Generation</b> | <b>360,137</b> | <b>99.93 %</b>  |
| PLTG                    | -986           | -0.27 %         |
| HVDC                    | 727            | 0.20 %          |
| <b>Interconnection</b>  | <b>-259</b>    | <b>-0.07 %</b>  |
| <b>Net Energy</b>       | <b>360,396</b> | <b>100.00 %</b> |

## Maximum Demand Record

|                 |             |
|-----------------|-------------|
| Date: 4/18/2019 | 18,566 MW   |
| Date: 4/18/2019 | 391,845 MWH |

## Set On Bus, TNB, IPP And MD

|                               |               |
|-------------------------------|---------------|
| Daily Maximum Demand Hour at: | 16:00:00 Hour |
| Total Set On Bus              | 18,998 MW     |
| TNB Generation                | 3,079 MW      |
| IPP Generation                | 14,061 MW     |
| Spinning Reserve              | 1,808 MW      |
| Maximum Demand                | 17,262 MW     |
| Net Energy                    | 360,396 MWH   |
| Load Factor                   | 86.99 %       |

## Fuel Cost

|               |                  |
|---------------|------------------|
| Total Cost:   | 69,918,136.89 RM |
| Cost per Unit | 19.39 cents/kWH  |

## Average Spinning Reserve During Peak Hour

| Type         | MW           |
|--------------|--------------|
| GT           | 590          |
| Hydro        | 414          |
| Syncon       | 896          |
| Thermal      | 217          |
| <b>Total</b> | <b>2,117</b> |

| Time      | Weather | Temperature |
|-----------|---------|-------------|
| Afternoon | Hot     | 35          |
| Morning   | Sunny   | 25          |

## Gas Usage

| Station                   | (mmscfd)     |
|---------------------------|--------------|
| GLGR                      | 50           |
| PAKA                      | 45           |
| PGPS                      | 36           |
| SRDG                      | 6            |
| TJGS                      | 216          |
| <b>Total TNB</b>          | <b>353</b>   |
| CBPS                      | 54           |
| KLPP                      | 98           |
| MPSS                      | 42           |
| PGLA                      | 110          |
| PKLG                      | 7            |
| PLPS                      | 93           |
| SGB3                      | 88           |
| SGRI                      | 121          |
| SKSP                      | 50           |
| YPKA                      | 75           |
| PKLG                      | 40           |
| <b>Total IPP</b>          | <b>779</b>   |
| <b>Total Gas</b>          | <b>1,133</b> |
| <b>Total Gas Required</b> | <b>1,133</b> |

## Alternate Fuel Usage

| Station      | (mmscfd) |
|--------------|----------|
| <b>Total</b> | <b>0</b> |

## Hourly System MW Generation

|              | 00:00 | 01:00 | 02:00 | 03:00 | 04:00 | 05:00 | 06:00 | 07:00 | 08:00 | 09:00 | 10:00 | 11:00 | 12:00 | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19:00 | 20:00 | 21:00 | 22:00 | 23:00 |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| System Total | 14066 | 13480 | 13116 | 12687 | 12393 | 12304 | 12706 | 12721 | 13186 | 14914 | 15819 | 16535 | 16516 | 16199 | 16870 | 17155 | 17262 | 16869 | 15860 | 15837 | 16409 | 16276 | 15641 | 15060 |





# Daily MW Generation on Wednesday

| Station          | Unit | 0000  | 0100  | 0200  | 0300  | 0400  | 0500  | 0600  | 0700  | 0800  | 0900  | 1000  | 1100  | 1200  | 1300  | 1400  | 1500  | 1600  | 1700  | 1800  | 1900  | 2000  | 2100  | 2200  | 2300  |       |
|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| UPIA             | HY01 | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 5     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |       |
| UPIA             | HY02 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 6     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 6     | 7     | 6     | 6     | 6     |       |
| Total Hydro      |      | 155   | 257   | 146   | 147   | 146   | 169   | 147   | 146   | 145   | 146   | 163   | 146   | 147   | 147   | 151   | 196   | 198   | 197   | 211   | 357   | 586   | 494   | 314   | 269   | 358   |
| Total Distillate |      | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |       |
| BDLS             | LSS1 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 1     | 4     | 8     | 12    | 15    | 18    | 16    | 16    | 27    | 28    | 20    | 16    | 17    |
| CHLS             | LSS1 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 3     | 7     | 12    | 20    | 18    | 15    | 21    | 38    | 36    | 38    | 29    | 26    | 46    |
| GBLS             | LSS1 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 6     | 11    | 11    | 11    | 34    | 34    | 34    | 44    | 38    | 23    | 23    | 44    | 41    |
| GNLS             | LSS1 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 6     | 9     | 21    | 28    | 33    | 39    | 43    | 39    | 30    | 36    | 36    | 44    | 50    |
| JSLS             | LSS1 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 3     | 5     | 13    | 23    | 25    | 23    | 26    | 49    | 48    | 49    | 49    | 45    | 39    |
| KKLS             | LSS1 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 1     | 4     | 9     | 22    | 24    | 38    | 23    | 34    | 43    | 37    | 43    | 44    | 38    |
| MCLS             | LSS1 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 2     | 9     | 17    | 27    | 23    | 17    | 30    | 45    | 44    | 36    | 44    | 40    | 28    |
| SPLS             | LSS1 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 3     | 9     | 16    | 22    | 31    | 36    | 27    | 31    | 31    | 26    | 37    | 58    | 58    |
| SSLS             | LSS1 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 1     | 4     | 14    | 8     | 20    | 32    | 28    | 27    | 32    | 27    | 29    | 41    | 33    |
| Total LSS        |      | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 11    | 46    | 96    | 156   | 193   | 225   | 241   | 294   | 335   | 314   | 325   | 332   | 342   |
| PCUF             | CUFG | 22    | 23    | 22    | 23    | 23    | 23    | 22    | 23    | 22    | 24    | 23    | 23    | 21    | 22    | 23    | 22    | 22    | 21    | 21    | 19    | 19    | 18    | 18    | 18    | 18    |
| PCUF             | CUFK | 40    | 30    | 31    | 31    | 30    | 32    | 31    | 32    | 31    | 32    | 30    | 31    | 31    | 30    | 31    | 31    | 32    | 30    | 34    | 31    | 31    | 30    | 32    | 33    | 31    |
| Total Co-Gen     |      | 62    | 53    | 53    | 54    | 53    | 55    | 53    | 55    | 53    | 55    | 54    | 54    | 51    | 53    | 53    | 53    | 53    | 51    | 55    | 50    | 50    | 48    | 50    | 51    | 49    |
| Total Gen        |      | 14118 | 13740 | 13449 | 13310 | 13118 | 12873 | 12675 | 12543 | 12408 | 12376 | 12304 | 12351 | 12671 | 12941 | 12784 | 12757 | 13195 | 14322 | 14897 | 15546 | 15832 | 16259 | 16573 | 16821 | 16516 |
| TIE-EGAT         |      | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| TIE-HVDC         |      | 30    | 30    | 30    | 30    | 30    | 30    | 30    | 30    | 30    | 30    | 30    | 30    | 30    | 30    | 30    | 30    | 30    | 30    | 30    | 31    | 31    | 31    | 31    | 31    | 31    |
| TIE-PLTG         |      | 22    | -83   | -61   | -72   | -28   | -56   | -42   | -44   | -16   | -43   | -30   | -65   | -66   | -42   | 33    | 19    | -21   | -19   | -47   | -47   | -17   | -1    | 7     | -18   | -31   |
| Interconnection  |      | 52    | -53   | -31   | -41   | 2     | -25   | -12   | -14   | 15    | -13   | 0     | -35   | -35   | -11   | 63    | 49    | 9     | 11    | -17   | -17   | 13    | 29    | 38    | 13    | 0     |
| System Total     |      | 14066 | 13793 | 13480 | 13351 | 13116 | 12898 | 12687 | 12557 | 12393 | 12389 | 12304 | 12386 | 12706 | 12952 | 12721 | 12708 | 13186 | 14311 | 14914 | 15563 | 15819 | 16230 | 16535 | 16808 | 16516 |
| SRev ST-Coal     |      | 225   | 485   | 366   | 496   | 505   | 499   | 490   | 514   | 506   | 513   | 501   | 499   | 510   | 503   | 505   | 523   | 598   | 490   | 305   | 259   | 256   | 350   | 243   | 230   | 236   |
| SRev OCGT-Gas    |      | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| SRev CCGT-Gas    |      | 1045  | 782   | 731   | 672   | 857   | 1129  | 1306  | 1424  | 1565  | 1591  | 1693  | 1632  | 1301  | 1038  | 1183  | 1280  | 1127  | 961   | 1200  | 740   | 715   | 612   | 419   | 377   | 563   |
| SRev ST-Gas      |      | 37    | 37    | 37    | 37    | 38    | 38    | 38    | 38    | 37    | 37    | 37    | 37    | 37    | 37    | 38    | 38    | 37    | 37    | 37    | 39    | 31    | 7     | 4     | 4     | 8     |
| SRev LSS         |      | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| SRev Co-Gen      |      | 3     | 12    | 12    | 11    | 12    | 10    | 12    | 10    | 12    | 10    | 13    | 10    | 11    | 11    | 14    | 12    | 12    | 12    | 12    | 14    | 10    | 15    | 15    | 17    | 15    |
| Syncon           |      | 1203  | 1102  | 1203  | 1203  | 1203  | 1052  | 1203  | 1203  | 1203  | 1203  | 1052  | 1203  | 1203  | 1203  | 1203  | 1052  | 915   | 741   | 928   | 1014  | 964   | 762   | 575   | 489   | 764   |
| Hydro            |      | 266   | 265   | 275   | 274   | 275   | 403   | 274   | 275   | 276   | 275   | 409   | 275   | 274   | 274   | 407   | 274   | 270   | 275   | 273   | 274   | 411   | 402   | 547   | 452   | 346   |
| S.Reserve Total  |      | 2779  | 2683  | 2624  | 2693  | 2890  | 3131  | 3323  | 3464  | 3599  | 3629  | 3705  | 3656  | 3336  | 3066  | 3217  | 3312  | 3251  | 2973  | 3032  | 2526  | 2491  | 2446  | 1993  | 1914  | 2202  |