

## Daily System Generation Summary on Sunday

Sunday, October 23, 2016

### Availability at Daily Maximum Demand Hour

|                     |                  |
|---------------------|------------------|
| ST-Coal             | 0 MW             |
| ST-Gas              | 0 MW             |
| ST-Oil              | 0 MW             |
| Gas                 | 3,064 MW         |
| Hydro               | 2,022 MW         |
| Distillate          | 0 MW             |
| <b>Total TNB</b>    | <b>5,086 MW</b>  |
| <b>Total IPP</b>    | <b>13,823 MW</b> |
| <b>Total Co-Gen</b> | <b>60 MW</b>     |
| <b>Total System</b> | <b>19,533 MW</b> |

### Generation Mix

| Type                    | MWh            | Percentage      |
|-------------------------|----------------|-----------------|
| Gas                     | 43,764         | 14.27 %         |
| Hydro                   | 7,029          | 2.29 %          |
| <b>Total TNB</b>        | <b>50,793</b>  | <b>16.56 %</b>  |
| ST-Coal                 | 179,914        | 58.67 %         |
| Gas                     | 73,777         | 24.06 %         |
| <b>Total IPP</b>        | <b>253,691</b> | <b>82.72 %</b>  |
| Co-Gen                  | 1,173          | 0.38 %          |
| <b>Total Co-Gen</b>     | <b>1,173</b>   | <b>0.38 %</b>   |
| <b>Total Generation</b> | <b>305,657</b> | <b>99.67 %</b>  |
| PLTG                    | -316           | -0.10 %         |
| HVDC                    | -695           | -0.23 %         |
| <b>Interconnection</b>  | <b>-1,011</b>  | <b>-0.33 %</b>  |
| <b>Net Energy</b>       | <b>306,668</b> | <b>100.00 %</b> |

### Maximum Demand Record

|                 |             |
|-----------------|-------------|
| Date: 4/20/2016 | 17,788 MW   |
| Date: 4/20/2016 | 372,457 MWH |

### Set On Bus, TNB, IPP And MD

|                               |               |
|-------------------------------|---------------|
| Daily Maximum Demand Hour at: | 20:30:00 Hour |
| Total Set On Bus              | 15,869 MW     |
| TNB Generation                | 2,531 MW      |
| IPP Generation                | 11,815 MW     |
| Spinning Reserve              | 1,474 MW      |
| Maximum Demand                | 14,446 MW     |
| Net Energy                    | 306,668 MWH   |
| Load Factor                   | 88.45 %       |

### Fuel Cost

|               |                  |
|---------------|------------------|
| Total Cost:   | 40,630,630.15 RM |
| Cost per Unit | 13.61 cents/kWH  |

### Average Spinning Reserve During Peak Hour

| Type         | MW           |
|--------------|--------------|
| GT           | 341          |
| Hydro        | 178          |
| Syncon       | 1,030        |
| Thermal      | 160          |
| <b>Total</b> | <b>1,709</b> |

| Time      | Weather | Temperature |
|-----------|---------|-------------|
| Afternoon | Hot     | 30          |
| Morning   | Sunny   | 28          |

### Gas Usage

| Station                   | (mmscfd)   |
|---------------------------|------------|
| CBPS                      | 28         |
| PAKA                      | 46         |
| PGPS                      | 26         |
| TJGS                      | 213        |
| <b>Total TNB</b>          | <b>313</b> |
| KLPP                      | 94         |
| MPSS                      | 31         |
| NPRI                      | 148        |
| PLPS                      | 65         |
| PTEK                      | 5          |
| SGRI                      | 161        |
| SKSP                      | 47         |
| <b>Total IPP</b>          | <b>552</b> |
| <b>Total Gas</b>          | <b>865</b> |
| <b>Total Gas Required</b> | <b>865</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 | 13643 | 13025 | 12601 | 12247 | 11808 | 11695 | 11668 | 11305 | 10968 | 11621 | 12213 | 12778 | 12910 | 12861 | 13055 | 13248 | 13173 | 12877 | 12584 | 13434 | 14256 | 14330 | 14147 | 13859 |

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Printed on: Monday, October 24, 2016 8:19:39 AM  
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Jabatan Sistem Operasi



## Daily MW Generation on Sunday

| 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  |
|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| TJGS             | GT2A | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   | 214   |
| TJGS             | GT2B | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   | 209   |
| TJGS             | ST2C | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   | 258   |
| Total CCGT-Gas   |      | 5636  | 5304  | 5088  | 4887  | 4623  | 4427  | 4448  | 4261  | 4109  | 4181  | 4011  | 3923  | 3957  | 3947  | 3673  | 3276  | 3387  | 3600  | 3918  | 4210  | 4386  | 4768  | 5029  | 5186  |
| PTEK             | GT1B | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| PTEK             | GT2B | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Total 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     |
| BSIA             | HY01 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| BSIA             | HY02 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| BSIA             | HY03 | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    | 11    |
| CEND             | HY01 | 10    | 10    | 10    | 10    | 10    | 10    | 9     | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 10    | 9     | 10    | 9     | 10    | 9     | 10    |
| CEND             | HY03 | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     |
| KNRG             | HY02 | 22    | 21    | 21    | 21    | 21    | 21    | 22    | 22    | 22    | 22    | 22    | 21    | 22    | 21    | 22    | 21    | 22    | 22    | 22    | 21    | 21    | 21    | 23    | 22    |
| KNYR             | HY01 | 90    | 94    | 95    | 94    | 63    | 61    | 62    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | -1    | -1    | -1    | -1    | -1    | -1    |
| KNYR             | HY02 | 79    | 94    | 96    | 78    | 75    | 62    | 63    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| KNYR             | HY03 | 98    | 96    | 99    | 98    | 96    | 96    | 14    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | 28    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| KNYR             | HY04 | 96    | 68    | 99    | 96    | 67    | 61    | 60    | 99    | 95    | 99    | 72    | 60    | 100   | 80    | 66    | 61    | 88    | 67    | 59    | 68    | 60    | 103   | 92    | 61    |
| LPIA             | HY01 | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    |
| MNOR             | HY01 | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |
| PCAU             | HY01 | -1    | -1    | -1    | -1    | 20    | -1    | -1    | -1    | -1    | -1    | -1    | 12    | 10    | 10    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |
| PCAU             | HY02 | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |
| PCAU             | HY03 | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | 18    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |
| SIHY             | HY01 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| SIHY             | HY02 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| SIHY             | HY03 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| SYPS             | HY01 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| SYPS             | HY02 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| SYPS             | HY03 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| SYPS             | HY04 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| TMGR             | HY01 | 32    | 36    | 36    | 35    | 32    | 31    | 32    | 35    | 35    | 35    | 35    | 35    | 35    | 35    | 35    | 35    | 35    | 35    | 35    | 35    | 35    | 35    | 35    | 35    |
| TMGR             | HY02 | -1    | -1    | -1    | 0     | 0     | 0     | 0     | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |
| TMGR             | HY03 | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |
| UJLI             | HY01 | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |
| UJLI             | HY02 | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    | -1    |
| UPIA             | HY01 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| UPIA             | HY02 | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 5     |
| Total Hydro      |      | 460   | 452   | 489   | 466   | 419   | 376   | 295   | 199   | 193   | 197   | 171   | 178   | 199   | 193   | 176   | 171   | 186   | 166   | 185   | 167   | 180   | 204   | 191   |       |
| 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     |
| PCUF             | CUFG | 31    | 31    | 30    | 32    | 32    | 31    | 30    | 32    | 30    | 31    | 31    | 32    | 33    | 33    | 33    | 32    | 33    | 31    | 32    | 31    | 30    | 30    | 28    | 29    |
| PCUF             | CUFK | 16    | 19    | 17    | 17    | 18    | 17    | 18    | 19    | 19    | 18    | 18    | 17    | 18    | 17    | 17    | 19    | 19    | 20    | 19    | 18    | 18    | 19    | 20    | 18    |
| Total Co-Gen     |      | 47    | 50    | 47    | 49    | 50    | 48    | 48    | 51    | 49    | 49    | 50    | 50    | 51    | 50    | 51    | 49    | 48    | 48    | 47    | 49    | 47    | 49    | 46    | 48    |
| Total Gen        |      | 13634 | 13207 | 12985 | 12792 | 12594 | 12323 | 12226 | 11911 | 11760 | 11840 | 11647 | 11575 | 11622 | 11618 | 11315 | 10833 | 10920 | 11248 | 11564 | 11864 | 12123 | 12534 | 12772 | 12894 |
| 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     |
| TIE-HVDC         |      | -28   | -28   | -28   | -28   | -29   | -29   | -29   | -29   | -29   | -29   | -29   | -29   | -29   | -29   | -29   | -29   | -29   | -29   | -29   | -29   | -29   | -29   | -29   | -29   |
| TIE-PLTG         |      | 19    | -44   | -12   | 21    | 22    | 20    | 9     | -36   | -19   | -23   | -19   | -9    | -17   | -19   | 39    | -29   | -19   | -23   | -28   | -50   | -61   | -61   | 23    |       |
| Interconnection  |      | -9    | -73   | -40   | -7    | -7    | -9    | -21   | -66   | -48   | -52   | -48   | -39   | -46   | -48   | 10    | -58   | -48   | -52   | -57   | -79   | -90   | -91   | -6    |       |
| System Total     |      | 13643 | 13280 | 13025 | 12799 | 12601 | 12332 | 12247 | 11977 | 11608 | 11892 | 11695 | 11614 | 11668 | 11666 | 11305 | 10891 | 10968 | 11300 | 11621 | 11943 | 12213 | 12625 | 12778 |       |

**Daily MW Generation on Sunday**

| 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 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |   |   |   |   |   |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|---|---|---|---|
| SRev ST-Coal    |      | 167  | 225  | 157  | 128  | 73   | 93   | 320  | 355  | 346  | 383  | 380  | 372  | 380  | 369  | 380  | 461  | 498  | 364  | 385  | 360  | 290  | 183  | 192  | 196  | 190  | 195  | 188  | 188  | 192  | 155  | 154  | 155  | 153  | 162  | 159  | 139  | 156  | 168  | 142  | 169  | 133  | 120  | 128  | 110  | 126  | 125  | 116  | 123  |   |   |   |   |   |
| 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    | 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 | 0 |   |   |
| SRev CCGT-Gas   |      | 653  | 562  | 778  | 826  | 941  | 623  | 602  | 789  | 941  | 869  | 1039 | 1127 | 1093 | 1103 | 1377 | 1774 | 1663 | 1450 | 1132 | 840  | 664  | 435  | 314  | 305  | 361  | 393  | 418  | 501  | 337  | 367  | 255  | 334  | 300  | 386  | 549  | 794  | 1036 | 1112 | 535  | 265  | 220  | 179  | 231  | 231  | 414  | 313  | 528  | 148  |   |   |   |   |   |
| SRev ST-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    | 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 | 0 | 0 | 0 |
| SRev Co-Gen     |      | 13   | 10   | 13   | 11   | 10   | 12   | 12   | 9    | 11   | 11   | 11   | 10   | 10   | 9    | 10   | 9    | 11   | 12   | 12   | 13   | 11   | 13   | 11   | 14   | 12   | 13   | 11   | 14   | 11   | 14   | 10   | 13   | 11   | 11   | 10   | 11   | 11   | 10   | 11   | 11   | 10   | 13   | 12   | 10   | 9    | 10   | 0    | 0    | 0 | 0 | 0 | 0 | 0 |
| Syncon          |      | 999  | 999  | 999  | 913  | 762  | 913  | 913  | 1014 | 1100 | 1100 | 1100 | 949  | 1100 | 949  | 949  | 949  | 1100 | 1100 | 999  | 1100 | 949  | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 949  | 848  | 848  | 848  | 999  | 999  | 848  | 999  | 999  | 848  | 0 | 0 |   |   |   |
| Hydro           |      | 137  | 145  | 108  | 132  | 330  | 222  | 303  | 98   | 103  | 99   | 125  | 269  | 97   | 254  | 271  | 276  | 110  | 130  | 212  | 129  | 267  | 92   | 105  | 136  | 129  | 132  | 131  | 131  | 135  | 136  | 136  | 270  | 138  | 137  | 146  | 149  | 150  | 162  | 301  | 283  | 259  | 239  | 271  | 272  | 234  | 101  | 98   | 219  | 0 | 0 |   |   |   |
| S.Reserve Total |      | 1969 | 1941 | 2055 | 2010 | 2116 | 1863 | 2150 | 2265 | 2501 | 2462 | 2635 | 2727 | 2680 | 2684 | 2967 | 3469 | 3382 | 3854 | 2738 | 2438 | 2179 | 1821 | 1723 | 1749 | 1793 | 1831 | 1850 | 1931 | 1778 | 1770 | 1658 | 1719 | 1705 | 1796 | 1968 | 2192 | 2455 | 2553 | 1938 | 1671 | 1549 | 1474 | 1720 | 1704 | 1628 | 1600 | 1750 | 1348 | 0 | 0 |   |   |   |