

Daily System Generation Summary on Monday

Monday, January 09, 2017

Availability at Daily Maximum Demand Hour

| | |
|---------------------|------------------|
| ST-Coal | 0 MW |
| ST-Gas | 0 MW |
| ST-Oil | 0 MW |
| Gas | 3,074 MW |
| Hydro | 2,409 MW |
| Distillate | 0 MW |
| Total TNB | 5,483 MW |
| Total IPP | 14,828 MW |
| Total Co-Gen | 0 MW |
| Total System | 20,311 MW |

Generation Mix

| Type | MWh | Percentage |
|-------------------------|----------------|-----------------|
| Gas | 49,362 | 14.27 % |
| Hydro | 7,866 | 2.27 % |
| Total TNB | 57,228 | 16.55 % |
| ST-Coal | 183,258 | 52.99 % |
| Gas | 106,526 | 30.80 % |
| Total IPP | 289,784 | 83.79 % |
| Co-Gen | 508 | 0.15 % |
| Total Co-Gen | 508 | 0.15 % |
| Total Generation | 347,520 | 100.48 % |
| PLTG | 1,028 | 0.30 % |
| HVDC | 638 | 0.18 % |
| Interconnection | 1,666 | 0.48 % |
| Net Energy | 345,854 | 100.00 % |

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: | 15:30:00 Hour |
| Total Set On Bus | 18,647 MW |
| TNB Generation | 3,484 MW |
| IPP Generation | 13,345 MW |
| Spinning Reserve | 1,797 MW |
| Maximum Demand | 16,787 MW |
| Net Energy | 345,854 MWH |
| Load Factor | 85.84 % |

Fuel Cost

| | |
|---------------|------------------|
| Total Cost: | 58,345,296.05 RM |
| Cost per Unit | 17.18 cents/kWH |

Average Spinning Reserve During Peak Hour

| Type | MW |
|--------------|--------------|
| GT | 368 |
| Hydro | 296 |
| Syncon | 1,150 |
| Thermal | 175 |
| Total | 1,989 |

| Time | Weather | Temperature |
|-----------|---------|-------------|
| Afternoon | Hot | 33 |
| Morning | Sunny | 27 |

Gas Usage

| Station | (mmscfd) |
|------------------|------------|
| CBPS | 41 |
| GLGR | 54 |
| PAKA | 126 |
| PGPS | 51 |
| SRDG | 14 |
| TJGS | 108 |
| Total TNB | 395 |

| | |
|------------------|------------|
| CBPS | 56 |
| KLPP | 100 |
| MPSS | 51 |
| NPRI | 152 |
| PGLA | 112 |
| PKLG | 3 |
| PLPS | 94 |
| PTEK | 27 |
| SGRI | 169 |
| SKSP | 32 |
| Total IPP | 797 |

| | |
|---------------------------|--------------|
| Total Gas | 1,191 |
| Total Gas Required | 1,191 |

Alternate Fuel Usage

| Station | (mmscfd) |
|--------------|----------|
| Total | 0 |

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 | 13359 | 12683 | 12102 | 11808 | 11469 | 11401 | 11650 | 11810 | 12304 | 14196 | 15231 | 15951 | 15909 | 15727 | 16277 | 16743 | 16730 | 16385 | 15236 | 14931 | 16080 | 16109 | 15682 | 15191 |

Prepared By: Kannathason a/l Karupiah

Checked By: -Select Name-

Printed on: Tuesday, January 10, 2017 2:10:11 AM
(Gurcharan Singh)
Pengurus Besar Kanan
Jabatan Sistem Operasi

Daily MW Generation on Monday

| 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 | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|
| JMAH | U001 | 687 | 688 | 688 | 688 | 691 | 688 | 688 | 689 | 687 | 688 | 689 | 688 | 688 | 689 | 688 | 689 | 688 | 689 | 688 | 689 | 688 | 689 | 688 | 689 | |
| JMAH | U002 | 691 | 693 | 692 | 692 | 695 | 694 | 694 | 694 | 697 | 694 | 694 | 692 | 697 | 693 | 694 | 694 | 691 | 691 | 695 | 696 | 699 | 692 | 696 | 693 | |
| JMJC | U001 | 677 | 681 | 673 | 674 | 672 | 676 | 674 | 672 | 673 | 673 | 675 | 672 | 674 | 673 | 675 | 679 | 685 | 685 | 676 | 686 | 679 | 687 | 676 | 676 | |
| JMJC | U002 | 673 | 675 | 680 | 673 | 674 | 676 | 677 | 677 | 673 | 676 | 673 | 676 | 677 | 677 | 678 | 676 | 676 | 677 | 675 | 677 | 674 | 673 | 677 | 677 | |
| JMJC | U003 | 674 | 685 | 675 | 673 | 668 | 668 | 678 | 668 | 670 | 671 | 673 | 669 | 672 | 668 | 672 | 668 | 672 | 666 | 673 | 678 | 671 | 668 | 671 | 668 | |
| JMJC | U004 | 854 | 827 | 805 | 803 | 800 | 754 | 752 | 753 | 754 | 754 | 755 | 754 | 754 | 755 | 753 | 755 | 752 | 876 | 954 | 954 | 953 | 952 | 952 | 953 | |
| PKLG | U004 | 173 | 151 | 151 | 151 | 151 | 153 | 151 | 153 | 151 | 153 | 151 | 152 | 152 | 153 | 151 | 210 | 276 | 280 | 282 | 281 | 280 | 281 | 278 | 276 | |
| PKLG | U005 | 390 | 311 | 264 | 271 | 267 | 267 | 267 | 271 | 271 | 267 | 267 | 267 | 267 | 267 | 321 | 406 | 467 | 466 | 466 | 470 | 470 | 470 | 470 | 466 | |
| PKLG | U006 | 466 | 466 | 466 | 470 | 469 | 469 | 466 | 466 | 470 | 466 | 466 | 470 | 470 | 470 | 466 | 469 | 469 | 469 | 466 | 469 | 467 | 470 | 470 | 470 | |
| TBIN | U001 | 689 | 687 | 688 | 687 | 691 | 688 | 689 | 689 | 689 | 689 | 689 | 689 | 689 | 689 | 689 | 689 | 689 | 689 | 689 | 689 | 689 | 689 | 689 | 689 | |
| TBIN | U002 | 689 | 690 | 690 | 691 | 689 | 693 | 690 | 688 | 692 | 691 | 692 | 689 | 689 | 691 | 692 | 686 | 691 | 693 | 689 | 689 | 687 | 689 | 690 | 688 | |
| TBIN | U004 | 851 | 801 | 801 | 803 | 803 | 751 | 752 | 752 | 752 | 753 | 751 | 751 | 752 | 751 | 801 | 850 | 854 | 858 | 953 | 950 | 950 | 950 | 951 | 952 | |
| Total ST-Coal | | 7514 | 7335 | 7273 | 7276 | 7270 | 7177 | 7178 | 7174 | 7181 | 7169 | 7177 | 7172 | 7185 | 7174 | 7180 | 7177 | 7298 | 7477 | 7604 | 7752 | 7614 | 7907 | 7901 | 7904 | |
| Total ST-Oil | | 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 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 | |
| CBPS | GT1A | 0 | 0 | 0 | 0 | 0 | 28 | 28 | 23 | 33 | 32 | 33 | 33 | 33 | 67 | 72 | 72 | 77 | 81 | 97 | 97 | 96 | 96 | 95 | 95 | |
| CBPS | GT1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 9 | 18 | 71 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | |
| CBPS | ST1C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 24 | 30 | 32 | 37 | 100 | 101 | 102 | 101 | 101 | 101 | |
| CBPS | BLK2 | 377 | 377 | 377 | 375 | 367 | 373 | 373 | 375 | 370 | 371 | 373 | 370 | 373 | 377 | 373 | 377 | 376 | 379 | 372 | 371 | 373 | 371 | 368 | 369 | |
| GLGR | GT01 | 95 | 93 | 93 | 93 | 94 | 67 | 69 | 68 | 67 | 67 | 69 | 68 | 67 | 69 | 70 | 109 | 109 | 108 | 104 | 102 | 104 | 104 | 102 | 103 | |
| GLGR | GT02 | 94 | 93 | 93 | 94 | 93 | 67 | 69 | 69 | 68 | 68 | 68 | 68 | 68 | 68 | 110 | 108 | 109 | 104 | 104 | 104 | 103 | 103 | 103 | 103 | |
| GLGR | ST1C | 88 | 88 | 87 | 87 | 88 | 72 | 71 | 71 | 70 | 70 | 71 | 70 | 71 | 71 | 71 | 92 | 98 | 98 | 94 | 93 | 94 | 95 | 94 | 95 | |
| KLPP | GT13 | 140 | 139 | 141 | 141 | 141 | 91 | 75 | 74 | 70 | 70 | 73 | 70 | 75 | 73 | 74 | 78 | 78 | 136 | 134 | 140 | 140 | 140 | 141 | 140 | |
| KLPP | GT14 | 137 | 137 | 56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 61 | 61 | 61 | 158 | 158 | 162 | 162 | 162 | 162 | 162 | |
| KLPP | GT15 | 157 | 153 | 156 | 156 | 155 | 149 | 81 | 81 | 79 | 79 | 79 | 79 | 80 | 79 | 82 | 86 | 150 | 154 | 154 | 154 | 155 | 155 | 155 | 155 | |
| KLPP | ST17 | 212 | 212 | 186 | 138 | 136 | 120 | 92 | 92 | 90 | 90 | 89 | 89 | 92 | 92 | 99 | 99 | 131 | 195 | 211 | 211 | 211 | 211 | 211 | 211 | |
| MPSS | GT01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 26 | 100 | 104 | 104 | 103 | 103 | 103 | 103 | 103 | |
| MPSS | GT02 | 107 | 107 | 108 | 108 | 108 | 107 | 108 | 92 | 92 | 92 | 93 | 90 | 92 | 89 | 90 | 93 | 94 | 90 | 100 | 107 | 107 | 106 | 106 | 106 | |
| MPSS | ST01 | 51 | 51 | 51 | 51 | 51 | 51 | 40 | 39 | 40 | 39 | 39 | 39 | 38 | 37 | 38 | 39 | 39 | 83 | 113 | 113 | 113 | 113 | 113 | 113 | |
| NPRI | BLK1 | 502 | 505 | 522 | 446 | 431 | 475 | 454 | 428 | 420 | 448 | 443 | 497 | 412 | 371 | 340 | 455 | 467 | 512 | 531 | 521 | 525 | 525 | 515 | 513 | |
| NPRI | BLK2 | 508 | 509 | 527 | 445 | 428 | 478 | 455 | 457 | 427 | 428 | 450 | 445 | 498 | 411 | 374 | 343 | 459 | 470 | 517 | 518 | 523 | 526 | 528 | 516 | |
| PAKA | GT1A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 66 | 64 | 66 | 66 | 66 | 66 | 67 | 66 | 66 | 67 | 66 | 67 | 66 | 67 | 66 | |
| PAKA | GT1B | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55 | 65 | 65 | 65 | 64 | 90 | |
| PAKA | ST1C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 36 | 35 | 34 | 34 | 34 | 75 | 81 | 81 | |
| PAKA | GT2A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 59 | 60 | 55 | 65 | 85 | 85 | 85 | 84 | 84 |
| PAKA | GT2B | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 60 | 60 | 59 | 59 | 60 | 60 | 61 | 59 | 60 | 65 | 63 | 63 | 89 | 89 | 89 | |
| PAKA | ST2C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 5 | 30 | 38 | 38 | 64 | 88 | 87 | 88 | |
| PAKA | GT3A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 65 | 60 | 65 | 64 | 65 | 65 | 65 | 64 | 66 | 66 | 60 | 66 | 66 | 66 | 66 | |
| PAKA | GT3B | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 59 | 65 | 85 | 87 | 87 | 87 | 87 | 87 | |
| PAKA | ST3C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 5 | 37 | 37 | 88 | 90 | 91 | 90 | 90 | |
| PAKA | GT4A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 | 75 | 78 | 77 | 80 | 79 | 80 | 80 | 80 | 80 | 80 | 80 | 93 | 92 | 93 | 92 | |
| PAKA | GT4B | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 60 | 60 | 59 | 60 | 80 | 80 | 79 | 79 | |
| PAKA | ST4C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 32 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | |
| PGLA | GT11 | 233 | 228 | 230 | 225 | 186 | 225 | 215 | 227 | 176 | 194 | 160 | 224 | 232 | 170 | 155 | 157 | 167 | 228 | 153 | 192 | 227 | 230 | 230 | 231 | |
| PGLA | GT12 | 226 | 223 | 224 | 224 | 186 | 223 | 215 | 226 | 176 | 193 | 161 | 222 | 228 | 189 | 153 | 156 | 167 | 227 | 153 | 190 | 221 | 225 | 225 | 225 | |
| PGLA | ST10 | 253 | 249 | 249 | 249 | 230 | 252 | 248 | 236 | 221 | 231 | 207 | 238 | 250 | 215 | 194 | 194 | 195 | 247 | 193 | 209 | 243 | 250 | 253 | 252 | |
| PGFS | GT3A | 95 | 94 | 94 | 94 | 77 | 73 | 72 | 77 | 77 | 76 | 76 | 76 | 76 | 77 | 77 | 78 | 95 | 94 | 95 | 94 | 95 | 94 | 95 | 94 | |

Daily MW Generation on Monday

| 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 |
|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| TMGR | 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 |
| TMGR | 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 |
| TMGR | HY03 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 0 | 0 |
| TMGR | HY04 | 32 | 34 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 34 | 35 | 33 | 33 | 40 | 42 | 39 | 30 | 39 | 38 | 41 | 39 | 37 | 37 | 34 |
| 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 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Total Hydro | | 165 | 168 | 180 | 189 | 167 | 188 | 169 | 166 | 166 | 168 | 171 | 168 | 179 | 189 | 168 | 181 | 186 | 378 | 220 | 432 | 430 | 496 | 565 | 578 |
| 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 | CUFK | 38 | 21 | 20 | 21 | 20 | 22 | 21 | 22 | 19 | 20 | 20 | 21 | 21 | 21 | 22 | 21 | 22 | 21 | 22 | 19 | 21 | 21 | 21 | 21 |
| Total Co-Gen | | 38 | 21 | 20 | 21 | 20 | 22 | 21 | 22 | 19 | 20 | 20 | 21 | 21 | 21 | 22 | 21 | 22 | 21 | 22 | 19 | 21 | 21 | 21 | 21 |
| Total Gen | | 13343 | 12883 | 12704 | 12385 | 12195 | 12037 | 11834 | 11718 | 11529 | 11354 | 11462 | 11578 | 11757 | 11969 | 11873 | 11910 | 12318 | 13623 | 14244 | 14837 | 15275 | 15691 | 16004 | |
| 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 | | -30 | -30 | -30 | 31 | 30 | 30 | 30 | 31 | 31 | 30 | 30 | 30 | 30 | 31 | 31 | 31 | 30 | 30 | 30 | 30 | 30 | 31 | 31 | 31 |
| TIE-PLTG | | 14 | 11 | 50 | 32 | 23 | 61 | -5 | 72 | 29 | 77 | 31 | 73 | 77 | 52 | 33 | 6 | -17 | 90 | 17 | 2 | 13 | 13 | 23 | |
| Interconnection | | -16 | -19 | 21 | 63 | 53 | 91 | 26 | 103 | 60 | 108 | 61 | 103 | 107 | 82 | 63 | 36 | 14 | 121 | 48 | 32 | 44 | 44 | 53 | |
| System Total | | 13359 | 12902 | 12883 | 12322 | 12102 | 11946 | 11809 | 11615 | 11469 | 11446 | 11401 | 11475 | 11650 | 11887 | 11810 | 11874 | 12304 | 13502 | 14196 | 14805 | 15231 | 15647 | 15951 | |
| SRev ST-Coal | | 155 | 233 | 248 | 252 | 254 | 349 | 346 | 354 | 349 | 355 | 349 | 356 | 344 | 351 | 346 | 347 | 340 | 288 | 171 | 254 | 229 | 178 | 184 | |
| 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 |
| SRev CCGT-Gas | | 540 | 598 | 376 | 555 | 687 | 831 | 1019 | 1126 | 1323 | 1630 | 1734 | 1610 | 1456 | 1294 | 1375 | 1444 | 1266 | 1118 | 565 | 652 | 539 | 398 | 491 | |
| 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 |
| SRev Co-Gen | | -18 | -1 | 0 | -1 | 0 | 0 | -2 | -1 | -2 | 1 | 0 | 0 | -1 | -1 | -1 | 0 | -1 | -1 | -2 | -1 | -2 | -1 | 0 | |
| Syncon | | 1288 | 1288 | 1288 | 1137 | 1288 | 1288 | 1439 | 1439 | 1439 | 1439 | 1439 | 1439 | 1288 | 1439 | 1439 | 1439 | 1187 | 874 | 687 | 687 | 1126 | 1025 | 1025 | |
| Hydro | | 128 | 125 | 113 | 255 | 126 | 255 | 123 | 126 | 126 | 124 | 121 | 124 | 113 | 254 | 124 | 111 | 105 | 165 | 172 | 110 | 112 | 273 | 331 | |
| S.Reserve Total | | 2093 | 2240 | 2025 | 2198 | 2355 | 2723 | 2924 | 3044 | 3235 | 3540 | 3643 | 3529 | 3351 | 3186 | 3283 | 3341 | 3250 | 2858 | 2446 | 2164 | 2318 | 2036 | 1876 | |