

## Daily System Generation Summary on Thursday

Thursday, May 18, 2023

### Availability at Daily Maximum Demand Hour

|              |           |
|--------------|-----------|
| ST-Coal      | 0 MW      |
| ST-Gas       | 0 MW      |
| ST-Oil       | 0 MW      |
| Hydro        | 2,275 MW  |
| Distillate   | 0 MW      |
| Total TNB    | 2,275 MW  |
| Total IPP    | 18,375 MW |
| Total Co-Gen | 0 MW      |
| Total System | 22,895 MW |

### Generation Mix

| Type                    | MWh            | Percentage      |
|-------------------------|----------------|-----------------|
| Hydro                   | 24,029         | 5.97 %          |
| Gas                     | 27,876         | 6.93 %          |
| <b>Total TNB</b>        | <b>51,905</b>  | <b>12.90 %</b>  |
| ST-Coal                 | 243,448        | 60.48 %         |
| LSS                     | 5,962          | 1.48 %          |
| Gas                     | 98,669         | 24.51 %         |
| <b>Total IPP</b>        | <b>348,079</b> | <b>86.48 %</b>  |
| Co-Gen                  | 192            | 0.05 %          |
| <b>Total Co-Gen</b>     | <b>192</b>     | <b>0.05 %</b>   |
| <b>Total Generation</b> | <b>400,176</b> | <b>99.42 %</b>  |
| PLTG                    | -156           | -0.04 %         |
| HVDC                    | -2,164         | -0.54 %         |
| <b>Interconnection</b>  | <b>-2,320</b>  | <b>-0.58 %</b>  |
| <b>Net Energy</b>       | <b>402,496</b> | <b>100.00 %</b> |

### Maximum Demand Record

|                 |             |
|-----------------|-------------|
| Date: 5/11/2023 | 19,716 MW   |
| Date: 5/11/2023 | 416,902 MWH |

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

|                               |               |
|-------------------------------|---------------|
| Daily Maximum Demand Hour at: | 16:30:00 Hour |
| Total Set On Bus              | 19,975 MW     |
| TNB Generation                | 3,135 MW      |
| IPP Generation                | 15,480 MW     |
| Spinning Reserve              | 1,354 MW      |
| Maximum Demand                | 18,904 MW     |
| Net Energy                    | 402,496 MWH   |
| Load Factor                   | 88.71 %       |

### Fuel Cost

|               |                   |
|---------------|-------------------|
| Total Cost:   | 105,297,542.16 RM |
| Cost per Unit | 26.27 cents/kWH   |

### Average Spinning Reserve During Peak Hour

| Type         | MW           |
|--------------|--------------|
| GT           | 1,091        |
| Hydro        | 385          |
| Syncon       | 320          |
| Thermal      | 158          |
| <b>Total</b> | <b>1,954</b> |

| Time      | Weather | Temperature |
|-----------|---------|-------------|
| Afternoon | Hot     | 32          |
| Morning   | Sunny   | 28          |

### Gas Usage

| Station                   | (mmscfd)   |
|---------------------------|------------|
| GLGR                      | 45         |
| TJGS                      | 73         |
| <b>Total TNB</b>          | <b>119</b> |
| CBPS                      | 40         |
| EMPP                      | 272        |
| KLPP                      | 39         |
| NPRI                      | 131        |
| PCGP                      | 80         |
| PLPS                      | 42         |
| SGRI                      | 59         |
| SKSP                      | 3          |
| SPGP                      | 79         |
| <b>Total IPP</b>          | <b>745</b> |
| <b>Total Gas</b>          | <b>864</b> |
| <b>Total Gas Required</b> | <b>864</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 | 16712 | 16004 | 15418 | 14755 | 14311 | 14104 | 14286 | 14134 | 14634 | 16090 | 17050 | 17556 | 17564 | 17403 | 18232 | 18802 | 18886 | 18700 | 17476 | 17346 | 18520 | 18405 | 18004 | 17631 |

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Friday, June 2, 2023 3:04:33 PM

(Ir. Shanmugam Thoppalan)  
Head  
Grid System Operator

# Daily MW Generation on Thursday

| 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 | 708   | 706   | 705   | 705   | 702   | 704   | 703  | 705  | 706  | 705  | 706  | 704  | 706  | 706  | 705  | 706  | 707  | 706  | 705  | 706   | 704   | 706   | 704   | 705   | 706   | 705   | 706   | 705   | 706   | 709   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |     |     |
| JMAH          | U002 | 706   | 705   | 700   | 705   | 704   | 702   | 705  | 706  | 706  | 702  | 705  | 702  | 705  | 707  | 699  | 655  | 673  | 709  | 705  | 698   | 708   | 706   | 705   | 705   | 706   | 701   | 704   | 701   | 705   | 705   | 706   | 708   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |     |     |
| JMHE          | U002 | 976   | 976   | 971   | 973   | 980   | 942   | 928  | 933  | 927  | 932  | 927  | 929  | 931  | 930  | 927  | 932  | 932  | 931  | 928  | 966   | 978   | 975   | 977   | 978   | 973   | 977   | 975   | 975   | 975   | 973   | 978   | 978   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |     |     |
| JMJG          | U001 | 675   | 671   | 671   | 670   | 676   | 671   | 671  | 673  | 677  | 667  | 662  | 666  | 666  | 667  | 667  | 667  | 668  | 672  | 662  | 666   | 668   | 666   | 666   | 671   | 669   | 666   | 679   | 673   | 669   | 666   | 674   | 666   | 668   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |     |     |
| JMJG          | U002 | 673   | 677   | 679   | 673   | 674   | 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     | 27    | 211   | 255   | 307   | 363   | 406   | 463   | 489   |       |       |       |       |       |       |       |       |       |       |     |     |     |
| JMJG          | U003 | 669   | 688   | 673   | 672   | 676   | 677   | 673  | 679  | 677  | 677  | 680  | 673  | 677  | 685  | 673  | 678  | 677  | 678  | 677  | 678   | 680   | 672   | 682   | 673   | 679   | 685   | 671   | 667   | 662   | 679   | 670   | 671   | 682   | 671   | 690   | 651   | 685   | 659   | 689   | 657   | 676   | 673   | 656   | 678   | 671   | 671   | 668   | 672   |       |     |     |     |
| JMJG          | U004 | 985   | 981   | 983   | 980   | 982   | 978   | 933  | 933  | 935  | 933  | 931  | 935  | 936  | 936  | 932  | 933  | 934  | 934  | 932  | 961   | 981   | 978   | 980   | 983   | 978   | 983   | 980   | 977   | 981   | 983   | 981   | 981   | 979   | 979   | 981   | 979   | 979   | 979   | 978   | 983   | 979   | 983   | 979   | 979   | 978   | 983   | 983   | 983   | 983   |     |     |     |
| JMJG          | U005 | 981   | 981   | 977   | 978   | 982   | 968   | 933  | 930  | 931  | 934  | 929  | 926  | 931  | 931  | 928  | 931  | 932  | 928  | 928  | 977   | 975   | 971   | 973   | 975   | 975   | 975   | 977   | 976   | 983   | 979   | 981   | 976   | 975   | 977   | 976   | 977   | 974   | 975   | 973   | 975   | 983   | 977   | 986   | 976   | 977   | 977   | 979   | 979   |       |     |     |     |
| PKLG          | U003 | 276   | 278   | 279   | 277   | 278   | 274   | 276  | 275  | 277  | 278  | 280  | 277  | 198  | 144  | 147  | 146  | 145  | 196  | 280  | 282   | 279   | 278   | 274   | 279   | 278   | 278   | 277   | 277   | 277   | 278   | 277   | 278   | 278   | 278   | 278   | 278   | 278   | 278   | 278   | 278   | 278   | 278   | 278   | 278   | 278   | 278   | 278   | 278   | 278   | 278 | 278 |     |
| PKLG          | U004 | 273   | 277   | 273   | 275   | 272   | 270   | 272  | 271  | 271  | 272  | 271  | 272  | 250  | 173  | 148  | 150  | 152  | 166  | 238  | 276   | 276   | 275   | 276   | 289   | 279   | 275   | 270   | 265   | 254   | 252   | 250   | 254   | 255   | 252   | 251   | 251   | 251   | 252   | 274   | 275   | 277   | 272   | 274   | 277   | 277   | 275   | 278   | 278   | 278   | 278 | 278 |     |
| PKLG          | U005 | 466   | 465   | 466   | 466   | 465   | 468   | 466  | 467  | 467  | 464  | 472  | 465  | 405  | 302  | 269  | 271  | 269  | 290  | 379  | 463   | 468   | 472   | 467   | 465   | 466   | 466   | 465   | 467   | 468   | 458   | 470   | 466   | 466   | 468   | 464   | 467   | 470   | 468   | 459   | 465   | 466   | 470   | 469   | 465   | 464   | 466   | 463   | 467   | 467   | 467 | 467 |     |
| PKLG          | U006 | 358   | 357   | 358   | 358   | 358   | 358   | 358  | 360  | 357  | 358  | 359  | 359  | 359  | 358  | 360  | 360  | 357  | 357  | 359  | 357   | 358   | 358   | 358   | 358   | 359   | 359   | 358   | 360   | 358   | 358   | 358   | 358   | 356   | 359   | 358   | 358   | 358   | 358   | 358   | 358   | 358   | 358   | 358   | 358   | 358   | 358   | 358   | 358   | 358   | 358 | 358 | 358 |
| TBIN          | U001 | 698   | 698   | 697   | 700   | 697   | 697   | 696  | 704  | 699  | 705  | 696  | 700  | 695  | 700  | 696  | 649  | 681  | 696  | 694  | 699   | 696   | 694   | 694   | 698   | 692   | 697   | 696   | 696   | 697   | 696   | 696   | 698   | 696   | 697   | 699   | 697   | 699   | 697   | 696   | 696   | 694   | 701   | 699   | 694   | 697   | 699   | 699   | 699   | 696   | 699 |     |     |
| TBIN          | U002 | 700   | 698   | 698   | 700   | 698   | 695   | 702  | 697  | 699  | 699  | 700  | 701  | 702  | 700  | 697  | 650  | 672  | 700  | 698  | 698   | 698   | 698   | 700   | 699   | 689   | 700   | 698   | 699   | 700   | 699   | 700   | 699   | 700   | 699   | 702   | 696   | 696   | 702   | 699   | 697   | 696   | 701   | 698   | 699   | 700   | 697   | 698   | 700   | 700   | 700 |     |     |
| TBIN          | U003 | 699   | 697   | 693   | 694   | 697   | 694   | 693  | 694  | 699  | 698  | 694  | 694  | 698  | 697  | 693  | 649  | 665  | 700  | 700  | 696   | 694   | 690   | 693   | 696   | 695   | 695   | 694   | 698   | 694   | 694   | 695   | 694   | 697   | 697   | 696   | 694   | 696   | 694   | 696   | 694   | 694   | 693   | 695   | 694   | 693   | 698   | 696   | 693   | 693   | 693 |     |     |
| TBIN          | U004 | 980   | 982   | 981   | 982   | 984   | 979   | 932  | 931  | 933  | 934  | 934  | 932  | 933  | 931  | 931  | 930  | 932  | 934  | 931  | 981   | 985   | 983   | 984   | 981   | 982   | 979   | 985   | 983   | 982   | 981   | 984   | 984   | 984   | 981   | 982   | 983   | 983   | 981   | 981   | 984   | 984   | 985   | 982   | 985   | 982   | 982   | 980   | 985   | 984   | 984 |     |     |
| Total ST-Coal |      | 10823 | 10837 | 10804 | 10808 | 10825 | 10077 | 9941 | 9956 | 9964 | 9957 | 9945 | 9935 | 9792 | 9566 | 9469 | 9257 | 9367 | 9597 | 9814 | 10104 | 10147 | 10122 | 10133 | 10156 | 10135 | 10132 | 10139 | 10116 | 10111 | 10101 | 10124 | 10109 | 10114 | 10112 | 10135 | 10080 | 10120 | 10104 | 10146 | 10115 | 10181 | 10338 | 10376 | 10439 | 10497 | 10544 | 10595 | 10641 | 10641 |     |     |     |
| 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     | 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   |     |     |
| 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     | 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   |     |     |
| CBPS          | BLK2 | 361   | 363   | 362   | 200   | 201   | 201   | 201  | 201  | 201  | 201  | 201  | 202  | 201  | 202  | 201  | 201  | 202  | 202  | 201  | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201   | 201 | 201 |     |
| EMPP          | BLK1 | 711   | 710   | 696   | 681   | 580   | 595   | 526  | 474  | 410  | 412  | 406  | 393  | 424  | 415  | 394  | 401  | 537  | 506  | 497  | 464   | 547   | 622   | 427   | 501   | 404   | 514   | 516   | 711   | 701   | 704   | 702   | 709   | 696   | 710   | 701   | 705   | 684   | 703   | 711   | 699   | 695   | 706   | 709   | 708   | 685   | 694   | 653   | 546   | 546   |     |     |     |
| EMPP          | BLK2 | 711   | 710   | 681   | 680   | 582   | 595   | 530  | 472  | 411  | 410  | 406  | 393  | 428  | 413  | 393  | 400  | 545  | 512  | 499  | 460   | 547   | 624   | 710   | 711   | 687   | 521   | 509   | 711   | 698   | 707   | 708   | 709   | 695   | 710   | 698   | 703   | 684   | 709   | 711   | 701   | 702   | 707   | 711   | 708   | 684   | 709   | 704   | 709   | 704   | 709 |     |     |
| EMPP          | BLK3 | 711   | 712   | 679   | 604   | 585   | 594   | 530  | 471  | 411  | 411  | 406  | 393  | 430  | 411  | 393  | 400  | 545  | 513  | 499  | 461   | 546   | 624   | 709   | 710   | 687   | 573   | 510   | 711   | 697   | 699   | 709   | 709   | 693   | 711   | 699   | 702   | 684   | 710   | 711   | 702   | 702   | 709   | 707   | 709   | 684   | 709   | 704   | 710   | 710   | 710 |     |     |
| GLGR          | GT01 | 67    | 67    | 66    | 65    | 66    | 65    | 67   | 66   | 65   | 67   | 66   | 65   | 67   | 67   | 65   | 66   | 65   | 67   | 67   | 65    | 67    | 66    | 67    | 65    | 65    | 66    | 66    | 67    | 64    | 66    | 65    | 65    | 66    | 65    | 65    | 64    | 66    | 66    | 67    | 90    | 97    | 63    | 65    | 65    | 64    | 64    | 65    | 65    | 65    |     |     |     |
| GLGR          | GT02 | 66    | 66    | 66    | 66    | 66    | 66    | 67   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 65   | 67   | 66   | 66    | 66    | 66    | 66    | 66    | 66    | 66    | 66    | 65    | 66    | 65    | 66    | 66    | 65    | 66    | 66    | 66    | 66    | 64    | 65    | 90    | 97    | 64    | 66    | 66    | 66    | 66    | 67    | 67    | 67    |     |     |     |
| GLGR          | ST1C | 71    | 71    | 71    | 71    | 71    | 71    | 71   | 71   | 71   | 71   | 71   | 71   | 71   | 71   | 71   | 70   | 71   | 70   | 70   | 70    | 70    | 69    | 70    | 71    | 70    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    | 71    |     |     |     |
| KLPP          | GT13 | 110   | 110   | 105   | 110   | 110   | 114   | 109  | 110  | 110  | 110  | 110  | 105  | 110  | 110  | 106  | 106  | 109  | 110  | 110  | 110   | 109   | 109   | 110   | 110   | 110   | 109   | 114   | 110   | 110   | 125   | 125   | 125   | 125   | 125   | 125   | 125   | 122   | 135   | 136   | 122   | 112   | 111   | 112   | 112   | 112   | 112   | 112   | 112   | 112   | 114 |     |     |
| KLPP          | GT15 | 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   |     |     |
| KLPP          | ST17 | 61    | 60    | 59    | 59    | 60    | 62    | 60   | 60   | 59   | 60   | 59   | 59   | 60   | 59   | 58   | 59   | 60   | 60   | 60   | 60    | 60    | 59    | 60    | 59    | 59    | 59    | 59    | 60    | 59    | 58    | 63    | 63    | 64    | 63    | 64    | 63    | 65    | 65    | 67    | 141   | 131   | 132   | 133   | 133   | 85    | 62    | 61    | 60    | 60    | 60  |     |     |
| NPRI          | BLK1 | 325   | 323   | 308   | 323   | 326   | 356   | 324  | 324  | 320  | 319  | 317  | 308  | 323  | 323  | 307  | 312  | 324  | 322  | 325  | 324   | 324   | 324   | 509   | 509   | 500   | 505   | 514   | 425   | 404   | 494   | 497   | 498   | 494   | 499   | 494   | 497   | 485   | 325   | 325   | 511   | 503   | 506   | 508   | 509   | 490   | 498   | 491   | 497   | 497   | 497 |     |     |
| NPRI          | BLK2 | 350   | 330   | 313   | 331   | 333   | 358   | 335  | 331  | 326  | 325  | 323  | 314  | 337  | 331  | 313  | 318  | 333  | 334  | 331  | 329   | 332   | 331   | 332   | 349   | 324   | 330   | 332   | 427   | 465   | 462   | 502   | 512   | 494   | 509   | 505   | 502   | 487   | 335   | 378   | 520   | 515   | 517   | 518   | 520   | 500   | 508   | 503   | 506   | 506   |     |     |     |
| PCGP          | PGRG | 604   | 605   | 569   | 601   | 601   | 614   | 604  |      |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |     |     |

### Daily MW Generation on Thursday

[illegible]

# Daily MW Generation on Thursday

| 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 |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KDLS    | LSS1 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 7    | 5    | 36   | 55   | 62   | 57   | 19   | 76   | 67   | 53 | 69 | 37 | 39 | 41 | 86 | 25 | 73 | 60 | 30 | 33 | 18 | 8 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 |