

**GRID SYSTEM OPERATION SUMMARY (SABAH)**

|  | <b>FORECAST</b> | <b>ACTUAL</b> | <b>VARIANCE</b> |
|--|-----------------|---------------|-----------------|
| <b>Maximum Demand (30th APRIL' 2013)</b>           | 860 MW          | 832 MW        | -3.28%          |
| <b>Maximum Energy (30th APRIL' 2013)</b>           | 17.6 MW         | 16.4 GWh      | -6.82%          |
| <b>Maximum Demand (record high 27 MARCH' 2013)</b> | 860 MW          | 867 MW        | 0.77%           |

Prepared by:

Electricity Market Operations

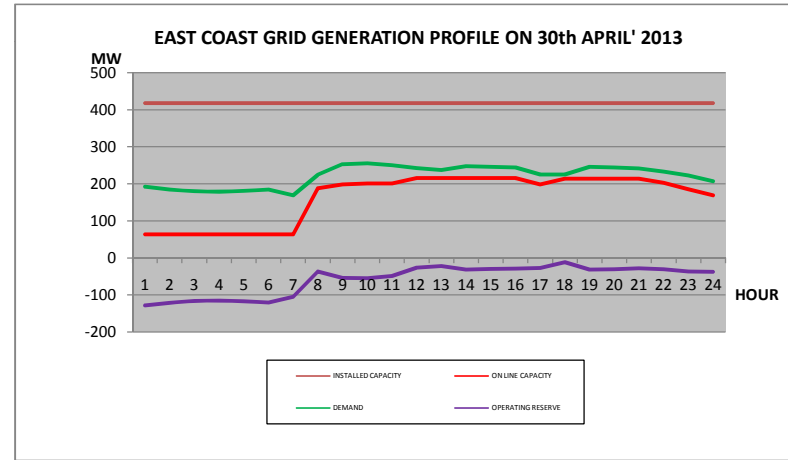
Electricity Supply & Market Regulations Dept.

Energy Commission Malaysia

08-May-13

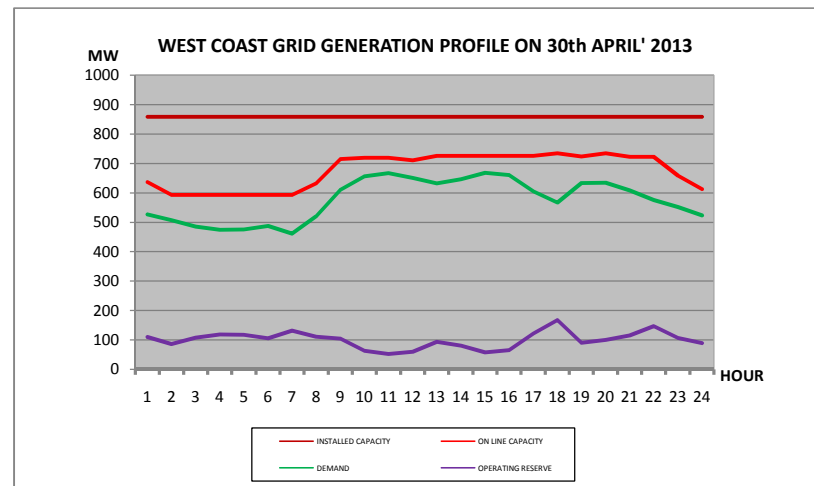
| EAST COAST GRID    |  |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |        |         |         |         |         |
|--------------------|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------|---------|---------|---------|
| INSTALLED CAPACITY |  | 417.9   | 417.9   | 417.9   | 417.9   | 417.9   | 417.9   | 417.9   | 417.9   | 417.9   | 417.9   | 417.9   | 417.9   | 417.9   | 417.9   | 417.9   | 417.9   | 417.9   | 417.9   | 417.9   | 417.9  | 417.9   | 417.9   | 417.9   |         |
| ON LINE CAPACITY   |  | 63      | 63      | 63      | 63      | 63      | 63      | 63      | 187     | 198     | 200     | 200     | 215     | 215     | 215     | 215     | 215     | 198     | 213     | 213     | 213    | 213     | 202     | 185     | 168     |
| DEMAND             |  | 191.75  | 184.52  | 179.64  | 178.41  | 180.51  | 184.37  | 168.64  | 224.25  | 252.45  | 255.16  | 249.56  | 241.87  | 237.39  | 247.37  | 245.43  | 244.07  | 225.23  | 225.09  | 245.26  | 244.16 | 241.43  | 233.05  | 221.88  | 206.32  |
| OPERATING RESERVE  |  | -128.75 | -121.52 | -116.64 | -115.41 | -117.51 | -121.37 | -105.64 | -37.25  | -54.45  | -55.16  | -49.56  | -26.87  | -22.39  | -32.37  | -30.43  | -29.07  | -27.23  | -12.09  | -32.26  | -31.16 | -28.43  | -31.05  | -36.88  | -38.32  |
| East Cost          |  | 11368.6 | 10897.8 | 10989.3 | 11314   | 11794.7 | 10815.7 | 11259.1 | 20667.1 | 22388.7 | 25264.3 | 25653.9 | 25843.2 | 26082.4 | 28511.2 | 25724.6 | 26516.5 | 24619.2 | 24496.1 | 26586.9 | 26396  | 25659.1 | 25132.6 | 23494.6 | 20599.1 |

EAST COAST GRID OPERATION



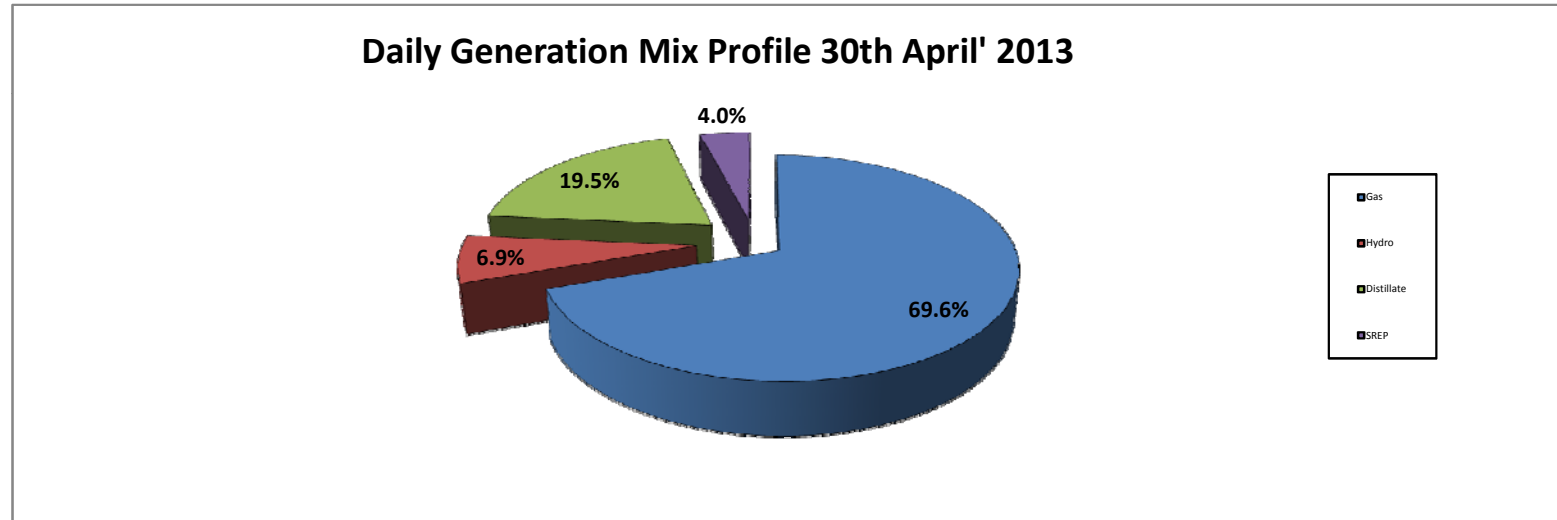
| WEST COAST GRID    |  |          |          |          |          |          |          |          |          |          |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|--------------------|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                    |  | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | <u>7</u> | <u>8</u> | <u>9</u> | <u>10</u> | <u>11</u> | <u>12</u> | <u>13</u> | <u>14</u> | <u>15</u> | <u>16</u> | <u>17</u> | <u>18</u> | <u>19</u> | <u>20</u> | <u>21</u> | <u>22</u> | <u>23</u> | <u>24</u> |
| INSTALLED CAPACITY |  | 858.5    | 858.5    | 858.5    | 858.5    | 858.5    | 858.5    | 858.5    | 858.5    | 858.5    | 858.5     | 858.5     | 858.5     | 858.5     | 858.5     | 858.5     | 858.5     | 858.5     | 858.5     | 858.5     | 858.5     | 858.5     | 858.5     | 858.5     | 858.5     |
| ON LINE CAPACITY   |  | 636.5    | 592.5    | 592.5    | 592.5    | 592.5    | 592.5    | 592.5    | 631.5    | 714.5    | 718.7     | 718.7     | 710.2     | 725.7     | 725.7     | 725.7     | 725.7     | 725.7     | 734.2     | 723.2     | 734.2     | 722.6     | 722.6     | 657.6     | 612       |
| DEMAND             |  | 526.7    | 506.7    | 484.7    | 474.4    | 475.3    | 487.3    | 461.1    | 520.3    | 610.3    | 655.75    | 666.65    | 650.55    | 632.35    | 645.75    | 667.85    | 660.35    | 604.35    | 566.75    | 633.35    | 634.55    | 607.8     | 575.8     | 551.2     | 523       |
| OPERATING RESERVE  |  | 109.8    | 85.8     | 107.8    | 118.1    | 117.2    | 105.2    | 131.4    | 111.2    | 104.2    | 62.95     | 52.05     | 59.65     | 93.35     | 79.95     | 57.85     | 65.35     | 121.35    | 167.45    | 89.85     | 99.65     | 114.8     | 146.8     | 106.4     | 89        |
| West Cost          |  | 37350.2  | 38482.9  | 37163.8  | 36474.6  | 36616.6  | 37213.6  | 35400.4  | 39590.1  | 47472.4  | 50314.4   | 51173.4   | 49425.8   | 49267     | 49800.2   | 51407.7   | 50902.2   | 47431.2   | 45177.1   | 49550.9   | 49535.8   | 47727.2   | 46428.6   | 43310.1   | 38939.9   |

WEST COAST GRID OPERATION



**Generation Mix Profile for 30th April 2013**

|            |            |
|------------|------------|
| Gas        | 11,549 MWh |
| Hydro      | 1,141 MWh  |
| Distillate | 3,228 MWh  |
| SREP       | 669 MWh    |



|              | DISTILLATE          | GAS                  | HYDRO               | BIOMASS           |
|--------------|---------------------|----------------------|---------------------|-------------------|
| SESB         | 1,629.25 MWh        | 1,644.10 MWh         | 1,083.00 MWh        | - MWh             |
| IPP          | 1,599.00 MWh        | 9,905.10 MWh         | 57.60 MWh           | - MWh             |
| SREP         | - MWh               | - MWh                | MWh                 | 668.80 MWh        |
| <b>TOTAL</b> | <b>3,228.25 MWh</b> | <b>11,549.20 MWh</b> | <b>1,140.60 MWh</b> | <b>668.80 MWh</b> |

|                | DISTILLATE  | GAS         | HYDRO       | BIOMASS     |
|----------------|-------------|-------------|-------------|-------------|
| SESB           | 10%         | 10%         | 7%          | 0%          |
| IPP            | 10%         | 60%         | 0%          | 0%          |
| SREP           | 0%          | 0%          | 0%          | 4%          |
| <b>TOTAL</b>   | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> |
| <b>TOTALLY</b> | 16,586.85   |             |             |             |

|              |      |
|--------------|------|
| DIST (IPP)   | 10%  |
| DIST (SESB)  | 10%  |
| SREP         | 4%   |
| GAS (SESB)   | 10%  |
| GAS (IPP)    | 60%  |
| HYDRO (SESB) | 7%   |
| HYDRO (IPP)  | 0%   |
| total        | 100% |

