

## GRID SYSTEM OPERATION SUMMARY (SABAH)

|   | FORECAST | ACTUAL   | VARIANCE |
|---|----------|----------|----------|
| Maximum Demand (7th MARCH' 2013)          | 810 MW   | 784 MW   | -3.20%   |
| Maximum Energy (7th MARCH' 2013)          | 16.8 MW  | 15.6 GWh | -7.14%   |
| Maximum Demand (record high 28 FEB' 2013) | 815 MW   | 834 MW   | 2.29%    |

Prepared by:

Electricity Market Operations

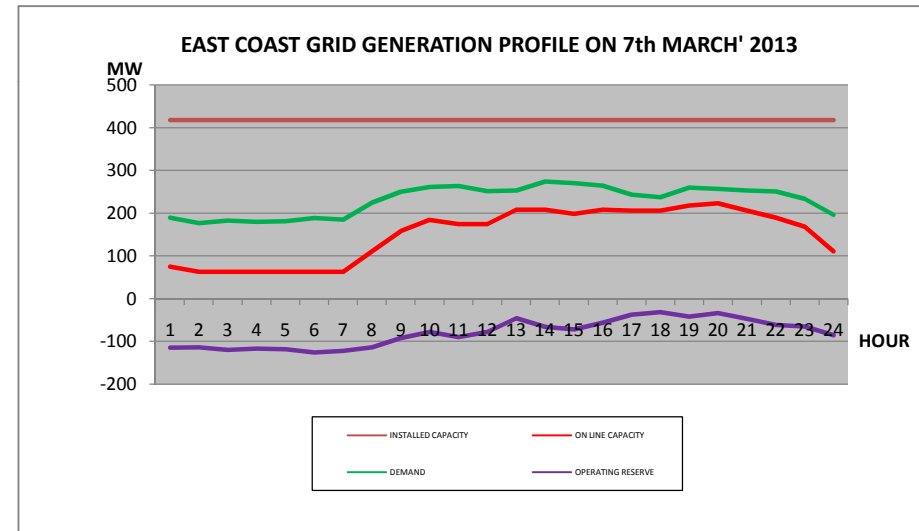
Electricity Supply & Market Regulations Dept.

Energy Commission Malaysia

13-Mar-13

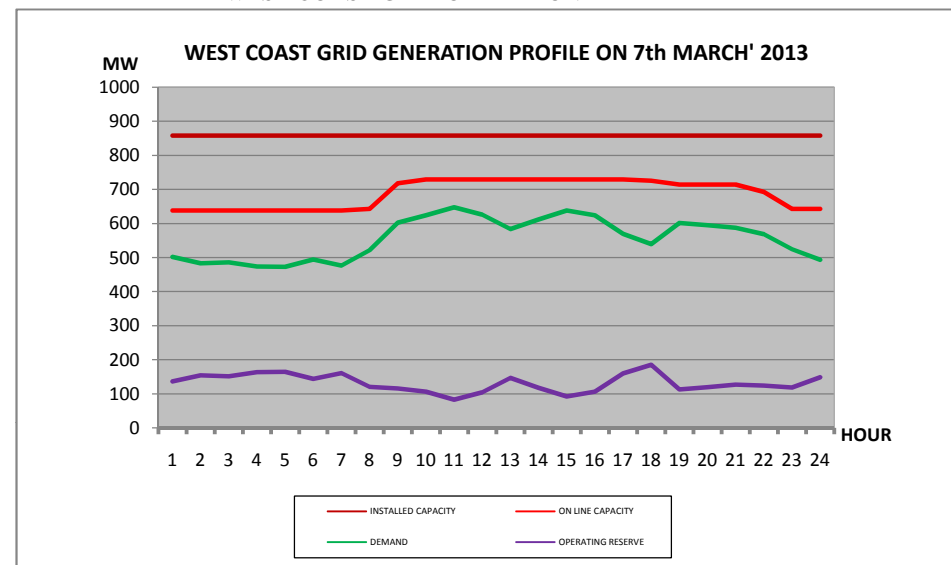
| <b>EAST COAST GRID</b>    |  |         |         |         |         |         |         |         |        |         |         |         |         |         |        |         |         |         |         |         |         |         |         |         |         |
|---------------------------|--|---------|---------|---------|---------|---------|---------|---------|--------|---------|---------|---------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>INSTALLED CAPACITY</b> |  | 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   |         |
| <b>ON LINE CAPACITY</b>   |  | 75      | 63      | 63      | 63      | 63      | 63      | 63      | 111    | 158.5   | 184.5   | 174.5   | 174.5   | 208.5   | 208.5  | 198.5   | 208.5   | 206.5   | 206.5   | 218.5   | 223.5   | 206.5   | 189.5   | 168.5   | 111     |
| <b>DEMAND</b>             |  | 189.13  | 176.58  | 182.8   | 179.37  | 181.22  | 188.53  | 184.71  | 224.8  | 249.93  | 261.72  | 263.65  | 251.75  | 253.42  | 274.13 | 270.24  | 264.23  | 243.34  | 237.47  | 260.18  | 257.03  | 253.16  | 250.77  | 233.35  | 196.36  |
| <b>OPERATING RESERVE</b>  |  | -114.13 | -113.58 | -119.8  | -116.37 | -118.22 | -125.53 | -121.71 | -113.8 | -91.43  | -77.22  | -89.15  | -77.25  | -44.92  | -65.63 | -71.74  | -55.73  | -36.84  | -30.97  | -41.68  | -33.53  | -46.66  | -61.27  | -64.85  | -85.36  |
| East Cost                 |  | 10410.3 | 9054.13 | 8269.05 | 8720.19 | 8694.18 | 8187.44 | 6952.33 | 13129  | 19085.3 | 21708.9 | 20877.5 | 20423.9 | 25283.7 | 26218  | 23270.7 | 25232.4 | 24181.6 | 23444.7 | 25119.5 | 25403.7 | 23647.6 | 21555.8 | 19693.4 | 12845.8 |

EAST COAST GRID OPERATION



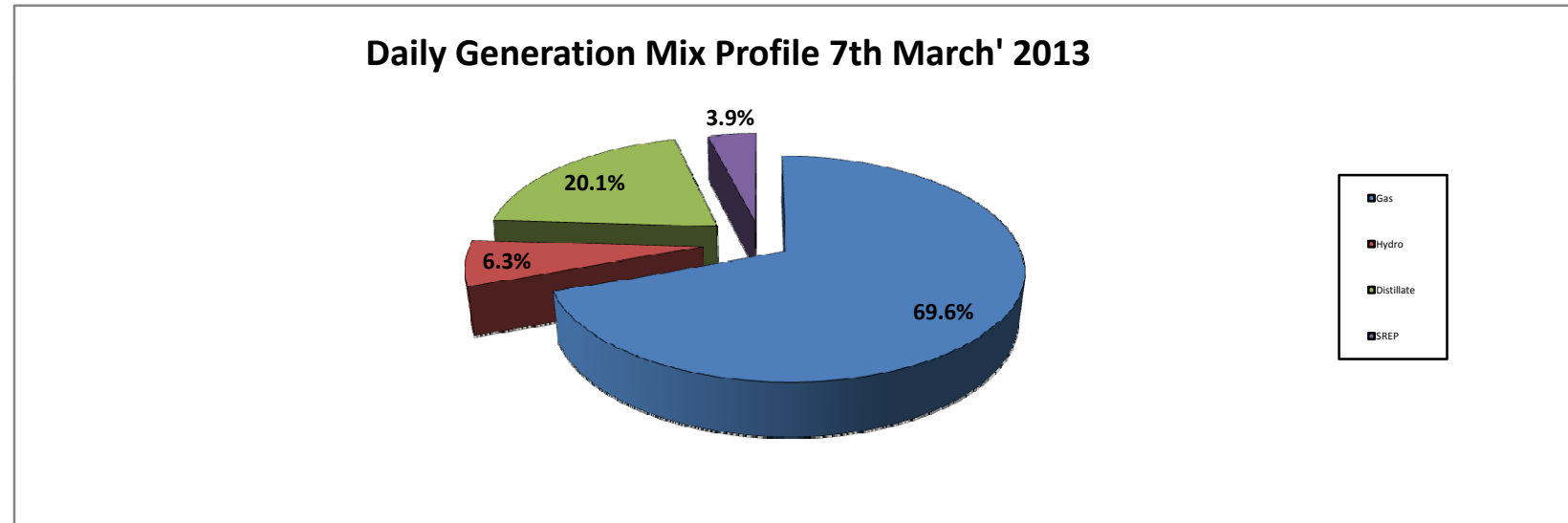
| <b>WEST COAST GRID</b>    |  |          |          |          |          |          |          |          |          |          |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|---------------------------|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                           |  | <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> |
| <b>INSTALLED CAPACITY</b> |  | 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     |
| <b>ON LINE CAPACITY</b>   |  | 638      | 638      | 638      | 638      | 638      | 638      | 638      | 642.5    | 718.1    | 729.7     | 729.7     | 729.7     | 729.7     | 729.7     | 729.7     | 729.7     | 729.7     | 725.5     | 714.5     | 714.5     | 714.5     | 692.5     | 642.5     | 642.5     |
| <b>DEMAND</b>             |  | 502      | 483.3    | 486.5    | 474.2    | 473      | 494.4    | 477.2    | 521.8    | 602.55   | 623.95    | 647.25    | 625.45    | 583.15    | 611.95    | 637.85    | 623.65    | 569.45    | 539.9     | 601.8     | 594.7     | 587.7     | 568.3     | 524.2     | 493.9     |
| <b>OPERATING RESERVE</b>  |  | 136      | 154.7    | 151.5    | 163.8    | 165      | 143.6    | 160.8    | 120.7    | 115.55   | 105.75    | 82.45     | 104.25    | 146.55    | 117.75    | 91.85     | 106.05    | 160.25    | 185.6     | 112.7     | 119.8     | 126.8     | 124.2     | 118.3     | 148.6     |
| West Cost                 |  | 39186.5  | 38028.6  | 38275.1  | 37933.9  | 38325.4  | 39082.6  | 37841.8  | 41094.3  | 49459.4  | 51978.9   | 53401.5   | 51606.8   | 49064.2   | 50711.9   | 53003.2   | 51758.5   | 48703.8   | 46216.1   | 49523.5   | 49050     | 48276.9   | 46295     | 41083.1   | 39260.7   |

WEST COAST GRID OPERATION



**Generation Mix Profile for 7th March 2013**

|            |            |
|------------|------------|
| Gas        | 11,169 MWh |
| Hydro      | 1,014 MWh  |
| Distillate | 3,233 MWh  |
| SREP       | 630 MWh    |



|              | DISTILLATE          | GAS                  | HYDRO               | BIOMASS           |
|--------------|---------------------|----------------------|---------------------|-------------------|
| SESB         | 1,577.35 MWh        | 1,463.50 MWh         | 990.00 MWh          | - MWh             |
| IPP          | 1,655.50 MWh        | 9,705.20 MWh         | 24.00 MWh           | - MWh             |
| SREP         | - MWh               | - MWh                | MWh                 | 629.60 MWh        |
| <b>TOTAL</b> | <b>3,232.85 MWh</b> | <b>11,168.70 MWh</b> | <b>1,014.00 MWh</b> | <b>629.60 MWh</b> |

|                | DISTILLATE  | GAS         | HYDRO       | BIOMASS     |
|----------------|-------------|-------------|-------------|-------------|
| SESB           | 10%         | 9%          | 6%          | 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> | 16,045.15   |             |             |             |

|              |      |
|--------------|------|
| DIST (IPP)   | 10%  |
| DIST (SESB)  | 10%  |
| SREP         | 4%   |
| GAS (SESB)   | 9%   |
| GAS (IPP)    | 60%  |
| HYDRO (SESB) | 6%   |
| HYDRO (IPP)  | 0%   |
| total        | 100% |

