भारत सरकार Government of India
विद्युत मंत्रालय Ministry of Power
उत्तर पूर्वी क्षेत्रीय विद्युत समिति
North Eastern Regional Power Committee
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सं/No. NERPC/MPR/2017/ दिनांक/Date: 20.11.2017

सेवा में,
To

संलग्नक सुचि के अनुसार
As per enclosed list.

विषय: उ.पू.क्षे.वि,.स. की **अप्रैल 2017** की मासिक प्रगति रिपोर्ट
Subject: Monthly Progress Report of NERPC for the month of **April 2017**.

महोदय**,**
Sir,

उत्तर पूर्वी क्षेत्रिय विद्युत समिति की **अप्रैल 2017** की मासिक प्रगति रिपोर्ट आपके अवलोकनार्थ हेतु हमारा वेबसाइट **www.nerpc.nic.in** में अपलोड की गई है ।

The Monthly Progress Report of the North Eastern Regional Power Committee for the month of April 2017 is uploaded in our office website **www.nerpc.nic.in** for your perusal.

भवदीय / Yours faithfully,

संलग्न : यथोपरि
Encl: as above

( एल. बी. मुआनथंग/ L. B. Muanthang )
अधीक्षण अभियंता / Superintending Engineer


# Progress Report for the month of April 2017

Government of India
Ministry of Power
North Eastern Regional Power Committee
Shillong

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# Brief highlights of North Eastern Regional Power System for the month of April 2017

- The maximum unrestricted demand during the month of April 2017 was 2258MW, which was 2236MW in the month of March 2017. The peak demand met in NER during the period under review was 2209MW, which was 2200 MW in the previous month.

- The energy requirement during the month of April 2017was 1220.62MU, which was 1212.53 MU in the month of March 2017. The energy availability in NER during the period under review was 1170.53MU, which was 1178.80MU in the previous month.

- The maximum, minimum & average system frequency were 50.26 (14-April-17), 49.66 (23-April-17)&49.99 Hz respectively. The maximum, minimum & average FVI were 0.089, 0.030& 0.044 respectively. The average FVI was less thanits previous month's figure of 0.065. (Refer Annex-II).

- Maximum export of power from NER to ER was 983 MW (on 01.04.17 at 15:15 Hrs) and that from ER to NER was 1233 MW (on 11.04.17 at 18:45 Hrs). The same Inter-Regional Exchanges of NER with NR and vice versa were597 MW (on 11.04.17 at 10:30Hrs.) and 724 MW (on 27.04.17 at 07:30 Hrs) respectively. Total net energy import during the month was 73.08MU (-7.92 MU from ER and 81 MU from NR).

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# Salient Features of North Eastern Regional Grid for April 2017

| | | | |
|---|---|---|---|
| 1 | New Unit/Transmission Line/Transformer commissioned during this month | 132kV New Umtru-Norbong (EPIP II) S/C | |
| 2 | Number of major grid disturbance during this month | 1 | |
| | | April-17 | March-16 |
| 3 | Installed Capacity of the Region (in MW) * | | |
| | (i) Grid | 3522.00 | 3477.00 |
| | (ii) Isolated | 124.00 | 124.00 |
| | Total (As on 31.03.2017) | 3646.00 | 3601.00 |
| 4 | Energy Generation in MU (Gross): | | |
| | Thermal/Gas | 769.77 | 1366.84 |
| | Hydel | 276.71 | 245.91 |
| | Solar | 0.50 | 0.60 |
| | Total | 1046.98 | 1613.09 |
| 5 | Demand in MW: | 2258 | 2479 |
| | Registered Peak Demand | 2209 | 2358 |
| | Peak Demand Met | 2.2 | 5.1 |
| | Shortage (%age) | | |
| 6 | Regional Energy (Gross) in MU: | | |
| | Energy Requirement | 1220.62 | 1115 |
| | Energy Availability | 1170.53 | 1024 |
| | Surplus (+)/Deficit(-) (%age) | -4.3 | -8.9 |
| 7 | Inter Regional Energy Exchange in MU: | | |
| | NER -----> ER | 151.52 | 11.25 |
| | ER ------> NER | 143.6 | 397.11 |
| | NER ------> NR | 115 | 11.70 |
| | NR --------> NER | 196 | 301.20 |
| | Net Import | 73.08 | 675.36 |
| 8 | Frequency Profile: | | |
| | Average Frequency (Hz) | 49.99 | 50.04 |
| | Average Frequency Variation Index | 0.044 | - |

*The installed capacity of NER as on 01.10.2016 as furnished by the constituents is : Grid = 3362.3MW and isolated is 109.51 MW. Total NER= 3471.81MW

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# Monthly Power Supply Position

1. Energy Generation In The Region For the Month of April 2017

*All figures in MU*

| Constituents | Hydro | | Coal/Oil fired | | Gas Based (OC/CC) | | Solar | | Total (Gen) | Total (Gen) |
|---|---|---|---|---|---|---|---|---|---|---|
| | Gross | Net | Gross | Net | Gross | Net | Gross | Net | Gross | Net |
| | A | B | C | D | E | F | G | H | I | J |
| State Sector : | | | | | | | | | | |
| Assam | 18.47 | | | | 93.38 | | | | 111.85 | |
| Meghalaya | 63.42 | | | | | | | | 63.42 | |
| Mizoram | 3.27 | | | | | | | | 3.27 | |
| Tripura | 2.92 | | | | 49.39 | | | | 52.31 | |
| Nagaland | 3.73 | | | | | | | | 3.73 | |
| Total (S. Sector) | 91.81 | | | | 142.77 | | 0 | | 234.58 | |
| | | | | | | | | | | |
| Central Sector : | | | | | | | | | | |
| NEEPCO: | | | | | | | | | | |
| Khd+Kop+Kop-II | 35.2 | | | | | | | | 35.2 | |
| Kathalguri (AGBPP) | | | | | 112.8 | | | | 112.8 | |
| RC Nagar | | | | | 57.5 | | | | 57.5 | |
| Doyang | 10.4 | | | | | | | | 10.4 | |
| Ranganadi | 65.2 | | | | | | | | 65.2 | |
| Monarchak | | | | | 57.7 | | 0.5 | | 58.2 | |
| NHPC: | | | | | | | | | | |
| Loktak | 74.1 | | | | | | | | 74.1 | |
| OTPC: | | | | | | | | | | |
| Pallatana Gas PP | | | | | 343.1 | | | | 343.1 | |
| NTPC: | | | | | | | | | | |
| BgTPP | | | 55.9 | | | | | | 55.9 | |
| Total (C. Sector) | 184.9 | | 55.9 | | 571.1 | | 0.5 | | 812.4 | |
| Total NER | 276.71 | | 55.9 | | 713.87 | | 0.5 | | 1046.98 | |

## 2. Requirement Vs Availability In The Region

| STATES | ENERGY requirement (MU) at 50 Hz | | | | POWER requirement (MW) at 50 Hz | | | |
|---|---|---|---|---|---|---|---|---|
| | *Availability & L/S at prevailing frequency* | | | | *Availability & L/S at prevailing frequency* | | | |
| | Requirement | Availability | Shortfall | % Shortfall | Requirement | Availability | Shortfall | % Shortfall |
| Ar. Pradesh | 62.14 | 61.27 | 0.87 | 1.4 | 133 | 129 | 4 | 2.9 |
| Assam | 647.3 | 606.67 | 40.63 | 6.7 | 1414 | 11399 | 15 | 1.0 |
| Manipur | 59.84 | 58.43 | 1.41 | 2.4 | 155 | 154 | 1 | 0.7 |
| Meghalaya | 123.5 | 123.47 | 0.03 | 0.0 | 291 | 291 | 0 | 0 |
| Mizoram | 42.06 | 41.32 | 0.74 | 1.8 | 86 | 85 | 1 | 1.1 |
| Nagaland | 60.32 | 59.39 | 0.93 | 1.6 | 121 | 120 | 1 | 0.8 |
| Tripura | 225.46 | 219.98 | 5.48 | 2.5 | 252 | 252 | 0 | 0 |
| REGION | 1220.62 | 1170.53 | 50.09 | 4.3 | 2258 | 2209 | 49 | 2.2 |

## 3. Estimation Of Peak Demand (In MW)

| Constituents | Peak Demand Met | Date | Freq (Hz) | Estimated Peak Demand at 50 Hz |
|---|---|---|---|---|
| Arunachal Pradesh | 129 | 30.04.17 | 50.05 | 133 |
| Assam | 1399 | 20.04.17 | 50.09 | 1414 |
| Manipur | 154 | 15.04.17 | 49.97 | 155 |
| Meghalaya | 292 | 12.04.17 | 50.10 | 291 |
| Mizoram | 85 | 01.04.17 | 50.01 | 86 |
| Nagaland | 120 | 08.04.17 | 50.00 | 121 |
| Tripura* | 252 | 12.04.17 | 50.07 | 252 |
| REGION | 2209 | 13.04.17 | 50.02 | 2258 |

## 4. Estimation of Energy Requirement (In MU)

-

| Constituents | Generation | Energy Drawal from Grid | | Energy Availability | Actual Requirement |
|---|---|---|---|---|---|
| | | Schedule | Drawal | | |
| Arunachal Pradesh | 0 | 43.900 | 61.272 | 61.27 | 62.14 |
| Assam | 111.85 | 362.645 | 497.809 | 606.67 | 647.3 |
| Manipur | 0 | 69.798 | 58.434 | 58.43 | 59.84 |
| Meghalaya | 63.42 | 65.202 | 60.246 | 123.47 | 123.5 |
| Mizoram | 3.27 | 33.944 | 38.079 | 41.32 | 42.06 |
| Nagaland | 3.73 | 42.832 | 55.664 | 59.39 | 60.32 |
| Tripura | 52.31 | 120.997 | 56.501 | 219.98 | 225.46 |
| REGION | 234.58 | 739.319 | 828.004 | 1170.53 | 1220.62 |

*Tripura(excluding Bangladesh)

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# Station-Wise Energy Generated (MU) and Peak Generation (MW)

| S. No. | Power Stations/Units | Installed Capacity (MW) | Peak Generation (MW) | Energy Generation (MU) | |
|---|---|---|---|---|---|
| | | | | Apr-17 | Apr-16 |
| (i) STATE SECTOR : HYDRO | | | | | |
| ASSAM : HYDRO | | | | | |
| 1 | LANGPI U-1 | 50 | 50 | 8.07 | 3.20 |
| 2 | LANGPI U-2 | 50 | 50 | 10.40 | 10.05 |
| **TOTAL** | | **100** | **100** | **18.47** | **13.25** |
| MEGHALAYA : HYDRO | | | | | |
| 3 | UMIAM STAGE - 1 U-1 | 9 | 9 | 0.66 | 2.04 |
| 4 | UMIAM STAGE - 1 U-2 | 9 | 9 | 0.66 | 2.43 |
| 5 | UMIAM STAGE - 1 U-3 | 9 | 9 | 0.83 | 2.04 |
| 6 | UMIAM STAGE - 1 U-4 | 9 | 9 | 0.88 | 2.47 |
| 7 | UMIAM STAGE - 2 U-1 | 10 | 10 | 0.92 | 3.22 |
| 8 | UMIAM STAGE - 2 U-2 | 10 | 10 | 0.66 | 1.54 |
| 9 | UMIAM STAGE - 3 U-1 | 30 | 30 | 5.36 | 0 |
| 10 | UMIAM STAGE - 3 U-2 | 30 | 0 | 0 | 9.84 |
| 11 | UMIAM STAGE - 4 U-1 | 30 | 30 | 2.49 | 9.97 |
| 12 | UMIAM STAGE - 4 U-2 | 30 | 30 | 2.52 | 1.64 |
| 13 | UMTRU U-1 | 3 | 3 | 0.52 | |
| 14 | UMTRU U-2 | 3 | 0 | 0 | |
| 15 | UMTRU U-3 | 3 | 0 | 0 | |
| 16 | UMTRU U-4 | 3 | 0 | 0 | |
| 17 | MYNTDU-LESHKA U-1 | 42 | 42 | 12.93 | 3.42 |
| 18 | MYNTDU-LESHKA U-2 | 42 | 42 | 17.21 | 7.72 |
| 19 | MYNTDU-LESHKA U-3 | 42 | 42 | 17.40 | 15.34 |
| 20 | SONAPANI | 2 | 1 | 0.39 | 0.33 |
| **TOTAL** | | **316** | **276** | **63.42** | **62.00** |
| NAGALAND : HYDRO | | | | | |
| 21 | LIKIMRO - 1 | 8 | 8 | 2.03 | 0.41 |
| 22 | LIKIMRO - 2 | 8 | 0 | 0 | 0.01 |
| 23 | LIKIMRO - 3 | 8 | 8 | 1.70 | 0.50 |
| **TOTAL** | | **24** | **16** | **3.73** | **0.92** |
| MIZORAM : HYDRO | | | | | |
| 24 | SERLUI B U-1 | 4 | 6 | 1.57 | 1.77 |
| 25 | SERLUI B U-2 | 4 | 5 | 0.85 | 1.26 |
| 26 | SERLUI B U-3 | 4 | 4 | 0.85 | 0 |
| **TOTAL** | | **12** | **15** | **3.27** | **3.03** |
| TRIPURA : HYDRO | | | | | |
| 27 | GUMTI - 1 | 5 | 0 | 0 | 0 |
| 28 | GUMTI - 2 | 5 | 4 | 2.92 | 1.09 |

| | | | | | |
|---|---|---|---|---|---|
| 29 | GUMTI - 3 | 5 | 0 | 0 | 1.52 |
| **TOTAL** | | **15** | **4** | **2.92** | **2.61** |
| | | | | | |
| **TOTAL STATE (HYDRO) :** | | **467** | **411** | **91.81** | **81.81** |

| Sr. No. | Power Stations/Units | Installed Capacity (MW) | Peak Generation (MW) | Energy Generation (MU) | |
|---|---|---|---|---|---|
| | | | | Apr-17 | Apr-16 |
| (i) STATE SECTOR : THERMAL/GAS | | | | | |
| MIZORAM : THERMAL | | | | | |
| 1 | BAIRABI U-1 | 6 | 0 | 0 | 0 |
| 2 | BAIRABI U-2 | 6 | 0 | 0 | 0 |
| 3 | BAIRABI U-3 | 6 | 0 | 0 | 0 |
| 4 | BAIRABI U-4 | 6 | 0 | 0 | 0 |
| **TOTAL** | | **24** | **0** | **0** | **0** |
| TRIPURA : THERMAL | | | | | |
| 5 | BARAMURA - 1 | 5 | | | |
| 6 | BARAMURA - 2 | 5 | | | |
| 7 | BARAMURA - 3 | 6.5 | | | |
| 8 | BARAMURA - 4 | 21 | 22 | 8.60 | 8.94 |
| 9 | BARAMURA - 5 | 21 | 21 | 4.81 | 9.53 |
| 10 | ROKHIA - 1 | 8 | | | |
| 11 | ROKHIA - 2 | 8 | | | |
| 12 | ROKHIA - 3 | 8 | 0 | 0 | 0 |
| 13 | ROKHIA - 4 | 8 | 0 | 0 | 0 |
| 14 | ROKHIA - 5 | 8 | 0 | 0 | 0 |
| 15 | ROKHIA - 6 | 8 | 0 | 0 | 0 |
| 16 | ROKHIA - 7 | 21 | 21 | 12.88 | 14.37 |
| 17 | ROKHIA - 8 | 21 | 22 | 13.22 | 12.77 |
| 18 | ROKHIA - 9 | 21 | 22 | 9.88 | 13.67 |
| **TOTAL** | | **169.5** | **108** | **49.39** | **59.28** |
| MEGHALAYA PRIVATE : THERMAL(COAL) | | | | | |
| 19 | MPL | 53 | 0 | 0 | 0 |
| 20 | SHYAM CENTURY | 14 | 0 | 0 | 0 |
| **TOTAL** | | **67** | **0** | **0** | **0** |
| ASSAM : THERMAL | | | | | |
| 21 | LTPS - 1 | 15 | 0 | 0 | 0 |
| 22 | LTPS - 2 | 15 | 15 | 9.21 | 8.81 |
| 23 | LTPS - 3 | 15 | 16 | 9.38 | 6.64 |
| 24 | LTPS - 4 | 15 | 0 | 0.0 | 6.26 |
| 25 | LTPS - 5 | 20 | 22 | 6.41 | 11.99 |
| 26 | LTPS - 6 | 20 | 22 | 11.45 | 11.97 |
| 27 | LTPS - 7 | 20 | 20 | 13.12 | 11.34 |
| 28 | LTPS - 8 | 37 | 30 | 14.39 | 16.74 |
| 29 | NTPS - 1 | 20 | 0 | 0 | 3.24 |
| 30 | NTPS - 2 | 21 | 20 | 7.82 | 8.91 |
| 31 | NTPS - 3 | 21 | 21 | 10.45 | 7.51 |
| 32 | NTPS - 4 | 11 | 10 | 2.71 | 1.40 |
| 33 | NTPS - 5 | 24 | 22 | 4.10 | 4.09 |
| 34 | NTPS - 6 | 22 | 21 | 4.35 | 4.77 |

| | | | | | |
|---|---|---|---|---|---|
| 35 | DLF | 25 | 0 | 0 | 0 |
| **TOTAL** | | **301** | **219** | **93.38** | **104** |
| **TOTAL STATE (THERMAL/GAS) :** | | **561.5** | **327** | **142.77** | **163.28** |
| **TOTAL STATE GEN (HY+TH/GAS)** | | **1028.5** | **738** | **234.58** | **245.09** |

| S. No. | Power Stations/Units | Installed Capacity (MW) | Peak Generation (MW) | Energy Generation (MU) | |
|---|---|---|---|---|---|
| | | | | Apr-17 | Apr-16 |
| (ii) CENTRAL SECTOR : HYDRO | | | | | |
| 1 | KHANDONG - 1 | 25 | 25 | 2.1 | 0 |
| 2 | KHANDONG - 2 | 25 | 24 | 16.7 | 8.9 |
| 3 | KOPILI Stg - II | 25 | 25 | 16.4 | 8.7 |
| 4 | KOPILI - 1 | 50 | 0 | 0 | 0 |
| 5 | KOPILI - 2 | 50 | 0 | 0 | 0 |
| 6 | KOPILI - 3 | 50 | 0 | 0 | 0 |
| 7 | KOPILI - 4 | 50 | 0 | 0 | 0 |
| 8 | DOYANG - 1 | 25 | 17 | 4.9 | 0.3 |
| 9 | DOYANG - 2 | 25 | 17 | 0.1 | 0.8 |
| 10 | DOYANG - 3 | 25 | 17 | 5.4 | 0.0 |
| 11 | LOKTAK - 1 | 35 | 37 | 24.7 | 7.7 |
| 12 | LOKTAK - 2 | 35 | 37 | 24.6 | 8.7 |
| 13 | LOKTAK - 3 | 35 | 37 | 24.8 | 10.0 |
| 14 | RANGANADI - 1 | 135 | 110 | 32.4 | 40.6 |
| 15 | RANGANADI - 2 | 135 | 110 | 32.8 | 37.8 |
| 16 | RANGANADI - 3 | 135 | 0 | 0.0 | 40.5 |
| **TOTAL CS HYDRO :** | | **860** | **456** | **184.9** | **164.1** |
| (ii) CENTRAL SECTOR : THERMAL/GAS | | | | | |
| 1 | KATHALGURI - 1 | 34 | 31 | 17.9 | 19.7 |
| 2 | KATHALGURI - 2 | 34 | 30 | 14.0 | 19.9 |
| 3 | KATHALGURI - 3 | 34 | 0 | 0 | 20.1 |
| 4 | KATHALGURI - 4 | 34 | 32 | 15.3 | 20.1 |
| 5 | KATHALGURI - 5 | 34 | 32 | 11.9 | 6.2 |
| 6 | KATHALGURI - 6 | 34 | 32 | 21.5 | 21.1 |
| 7 | KATHALGURI - 7 | 30 | 26 | 12.5 | 16.9 |
| 8 | KATHALGURI - 8 | 30 | 24 | 5.8 | 18.0 |
| 9 | KATHALGURI - 9 | 30 | 27 | 13.8 | 10.4 |
| 10 | R.C. NAGAR - 1 | 21 | 22 | 6.4 | 14.2 |
| 11 | R.C. NAGAR - 2 | 21 | 23 | 10.7 | 12.3 |
| 12 | R.C. NAGAR - 3 | 21 | 22 | 11.0 | 10.3 |
| 13 | R.C. NAGAR - 4 | 21 | 22 | 10.7 | 8.8 |
| 14 | R.C. NAGAR - 5 | 23 | 25 | 6.7 | 13.2 |
| 15 | R.C. NAGAR - 6 | 23 | 25 | 11.9 | 7.3 |
| 16 | MONARCHAK SOLAR PV | 5 | 5 | 0.5 | 0.6 |
| 17 | MONARCHAK - GTG 1 | 66 | 65 | 41.5 | 10.6 |
| 18 | MONARCHAK - STG 1 | 34 | 36 | 16.2 | 0 |
| 19 | PALLATANA - GTG 1 | 232 | 227 | 92.5 | 157.8 |

| | | | | | |
|---|---|---|---|---|---|
| 20 | PALLATANA - STG 1 | 131 | 128 | 62.0 | 138.1 |
| 21 | PALLATANA - GTG 2 | 232 | 234 | 116.4 | 289.3 |
| 22 | PALLATANA - STG 2 | 131 | 128 | 72.2 | 255.1 |
| 23 | BgTPP - 1 | 250 | 255 | 55.9 | 145.0 |
| 24 | BgTPP - 2 | | | | |
| 25 | BgTPP - 3 | | | | |
| **TOTAL CS (THERMAL/GAS) :** | | **1505** | **1410** | **571.6** | **1203.9** |
| **TOTAL CS GEN (HY+TH/GAS)** | | **2365** | **1866** | **812.4** | **1368** |
| **TOTAL NER GEN (HY+TH/GAS)** | | **3393.5** | **2604** | **1046.98** | **1613.09** |

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# Plant Load Factor (PLF)

| PLANT LOAD FACTOR OF THE THERMAL/GAS STATIONS IN N.E.R. | | | | | |
|---|---|---|---|---|---|
| S. No. | Power Station | State/Constituent | Installed Capacity (MW) | Generation (in MU) | StationwisePLF(%) |
| 1 | LTPS* | AEGCL | 157.00 | 63.96 | 62.66 |
| 2 | NTPS* | AEGCL | 119.00 | 29.42 | 32.30 |
| 3 | Baramura | Tripura | 42.00 | 13.41 | 44.30 |
| 4 | Rokhia | Tripura | 95.00 | 35.98 | 79.33 |
| 5 | AGBPP | NEEPCO | 291.00 | 112.8 | 49.19 |
| 6 | AGTPP | NEEPCO | 84.00 | 57.5 | 58.99 |
| 7 | AGTPP-2 | NEEPCO | 46.00 | | |
| 8 | Monarchak | NEEPCO | 102.00 | 57.7 | 79.07 |
| 9 | Pallatana | OTPC | 727.00 | 343.2 | 65.10 |
| 10 | BgTPP | NTPC | 250.00 | 55.9 | 32.93 |

*LTPS -- Lakwa Thermal Power Station; *NTPS -- Namrup Thermal Power Station

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# Voltage Profile

1. Maximum and Minimum Voltage (KV) Of Important Substations

| S. No. | NAME of SUB-STATION | MAXIMUM (kV) | MINIMUM (kV) |
|---|---|---|---|
| 1 | MISA 400 kV | 428 | 391 |
| 2 | BALIPARA 400 kV | 425 | 388 |
| 3 | BONGAIGAON 400 kV | 420 | 384 |
| 4 | RANGANADI 400 kV | 419 | 382 |
| 5 | PALLATANA 400 kV | 422 | 390 |
| 6 | SILCHAR 400 kV | 421 | 383 |
| 7 | BISHWANATH CHARIALI 400 kV | 428 | 385 |
| 8 | AZARA 400 kV | 415 | 410 |
| 9 | BgTPP 400 kV | 428 | 392 |
| 10 | MISA 220 kV | 231 | 222 |
| 11 | SALAKATI 220 kV | 242 | 213 |
| 12 | AGBPP 220 kV | 236 | 232 |
| 13 | MOKOKCHUNG 220 kV | 239 | 223 |
| 14 | AIZAWL 132 kV | 140 | 118 |
| 15 | IMPHAL 132 kV | 141 | 124 |
| 16 | Byrnihat 400kV | 428 | 396 |
| 17 | Kahilipara 132kV | 144 | 128 |
| 18 | Nirjuli 132kV | 145 | 127 |

2. Voltage Range In KV as Percentage Of Time For The Block

| SUB-STATION | kV < 360 | 360 < kV < 380 | 380 < kV < 420 | kV > 420 |
|---|---|---|---|---|
| MISA | 0 | 0 | 92.50 | 7.50 |
| BALIPARA | 0 | 0 | 96.57 | 3.43 |
| BONGAIGAON | 0 | 0 | 99.96 | 0.05 |
| PALATANA | 0 | 0 | 95.18 | 4.82 |
| SILCHAR | 0 | 0 | 99.99 | 0.01 |
| Azara | 0 | 0 | 100.00 | 0.00 |
| BiswanathCharali | 0 | 0 | 21.93 | 78.07 |
| BgTPP | 0 | 0 | 0.00 | 100.00 |
| Byrnihat | 0 | 0 | 0.00 | 100.00 |

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# Inter-Regional Energy Exchange, Major Grid Disturbance and Meetings held by NERPC

1. Inter-Regional Energy Exchange

All Fig. in MU

| | |
|---|---|
| N E R to E R | 151.52 |
| E R to N E R | 143.6 |
| NET IMPORT FORM E R | -7.92 |
| NER to NR | 115 |
| NR to NER | 196 |
| NET IMPORT FROM N R | 81 |
| NET IMPORT | 73.08 |

2. Major Grid Disturbances:

400 kV Silchar - Azara line tripped at 18:42 Hrs on 28.04.17. NERLDC requested RTAMC to restore this line vide Code 817.400 kV Bongaigaon-Byrnihat line tripped at 18:58 Hrs on 28.04.17. 132 kV Nangalbibra-Nongstoin line, 132 kV Karong-Kohima line & 132 kV Lumshnong-Panchgram line kept open for system requirement).At 19:10 Hrs on 28th April'17, 400 kV Silchar - Byrnihat line & 220 kV Misa-Byrnihat I & II lines tripped. This led to overloading of 132 kV Haflong - Jiribam line, 132 kV Badarpur - Khleihriat line & 132 kV Dimapur - Imphal line and subsequently tripped on over current.

Outage Duration: 1:01hr.

Load Loss = 689 MW. Generation Loss =845MW.

Category :GD IV**.**

Due to tripping of these lines, Southern Part of NER was separated from rest of NER grid and subsequently collapsed due to load generation mismatch.

3. Meetings Held by NERPC:

| Sr. No. | Meeting | Date | Venue |
|---|---|---|---|
| 1. | 131$^{th}$ OCC Meeting | 12.04.2017 | Guwahati |
| 2. | 26$^{th}$Metering Meeting | 12.04.2017 | Guwahati |

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# Status of Progress

1. Generating Projects in NER

| Progress of Thermal Power Generation Projects in NER | | | | | |
|---|---|---|---|---|---|
| Central Sector | | | | | |
| Sr. No. | Plant | Units | Capacity in MW | Commissioning Schedule | Remarks |
| 1 | Bongaingaon NTPC | 2nd | 2x250 | Jun-17 | • It is synchronised on 13.02.2017. |
| | | 3rd | | | • Boiler Drum Lifting Feb'13 & Boiler Hydro test Mar'14<br>• Next Milestone : Boiler Light Up Nov'16 |

| Progress of Hydro Power Generation Projects in NER | | | | | |
|---|---|---|---|---|---|
| Central Sector | | | | | |
| Sr. No. | Plant | Units | Capacity in MW | Commissioning Schedule | Remarks |
| 1 | Subhansiri Lower (Ar. Pradesh/NHPC) | 8 | 8x250 | Syn. Comm: 2016-18 | 1. Signing of MoU with State Government of Assam<br>2. Law & Order problem<br>3. Issue of Downstream Impact Assessment & demand for stoppage of works by anti-dam activists. Since 16.12.2011 work. |
| 2 | Kameng (Ar. P/NEEPCO) | 4 | 4x150 | Oct-17 | Work in Progress |
| 3 | Pare (Ar. P/NEEPCO) | 2 | 2x55 | July-17 | Work in Progress |
| 4 | Tuirial (Ar. P/NEEPCO) | 2 | 2x30 | Oct-17 | Work in Progress |
| 5 | Demwe Lower (Ar. P) | 6 | 5x342; 1x40 | 2016-17 | |
| | | | | | |
| State Sector | | | | | |
| 1 | New UmtruMeGPCL | 2 | 2x20 | 2014-15 | Slow progress of civil works. |
| 2 | Ganol SHP (MePGCL) | 3 | 3x7.5 | Oct-15 | LOI issued on 22nd Dec,2012. Work Order is being issued. |
| 3 | Lakroh MHP (MePGCL) | 1 | 1.5 | | Delayed due to rain. |

| | | | | | |
|---|---|---|---|---|---|
| 4 | Myntriang SHP stg1 | 2 | 2x3 | Dec-15 | |
| 5 | Myntriang SHP stg2 | 2 | 2x1.5 | Aug-14 | |

2. Transmission Lines In NER

| Progress of Transmission Lines in NER | | | | | |
|---|---|---|---|---|---|
| POWERGRID | | | | | |
| Sr. No. | Name of Lines | Total length in Km | Target Date | | Remarks |
| | | | Scheduled | Revised | |
| 1 | 400 kV Kameng-Balipara D/C | 144 | Aug-13 | Dec-17 | ATS slowed down to the extent possible to match with generation of Kameng. Gen. project. |
| 2 | 400 kV Lower Subansiri-BiswanathChariyali D/C I | 335 | Aug-13 | Mar-18 | Completion matching with Gen.(Sch. uncertain).Works Standstill on account of local disturbance/agitation against big dam. Generation schedule uncertain. |
| 3 | 400 kV Lower Subansiri-BiswanathChariyali D/C II | 348 | Aug-13 | Mar-18 | Completion matching with Gen.(Sch. uncertain).Works Standstill on account of local disturbance/agitation against big dam. Generation schedule uncertain. |
| 4 | 400 kV Silchar-Melriat(New) D/C (Charged at 132 kV) | 248 | Dec-12 | Feb-18 | Major portion of line in forest. severe ROW in vicinity of Aizawl town due to stiff resistance from influential local owner. Package re-awarded in Jun'16. |
| 5 | 400 kV D/C Jigmeling - Alipurduar TL | - | Jan-18 | Mar-18 | Work in Progress |
| 6 | 132 kV Aizawl (PG) - Zemabawk at Melriat (PG) | 30 | Dec-12 | Feb-18 | Package re-awarded in Jun'16. ROW problem. Work under progress. |
| 7 | LILO of 132 kV Zemabawk - W.Phaileng at Sihhmui | 5 | | Dec-13 | |
| 8 | 132 kV Pasighat-Roing S/C | 102 | Dec-12 | May-17 | Line completed. Awaiting state govt. (SLDC) clearance for commissioning. |
| 9 | 132 kV Tezu-Roing S/C | 73 | Apr-12 | May-17 | Line checking under progress. |
| 10 | 132 kV Tezu-Namsai S/C | 96 | Dec-12 | Feb-18 | Progress affected due to severe ROW Problem. |

| | | | | | |
|---|---|---|---|---|---|
| TSECL | | | | | |
| 11 | 132 kV Monarchak-Surajmani Nagar D/C | 50 | Jun-14 | Mar-17 | Work in Progress |
| 12 | 132 kV Surjyamani Nagar-Badarghat D/C | 6 | | Aug-16 | Fund proposed in World Bank. |
| 13 | 132 kV Surjyamani Nagar(TSECL)-Rokhia DC | 32.32 | Nov-14 | Mar-14 | 3.598 km line in forest land for which TSECL will supply for forest clearance. LOA issued. |
| 14 | 132 kV GamaiTilla - Dhalabil | 31 | | Sep-13 | ROW problems affected the work |
| 15 | 132 kV P K Bari - Kanchanpur | 47 | | Mar-15 | All works completed in non forest land. Stage I clearance received and compliance for conditions completed. |
| MePTCL | | | | | |
| 16 | 132 kV New Umtru-Norbong(EPIP II) S/C | 1 | | Mar-17 | i) Date of award of contract is 05.02.2016. (ii) Schedule date ofcompletion was 05.05.2016. (iii) The 132 kV line was completedon 11.11.2016 and commissioned on 25.03.2017. |
| MeECL | | | | | |
| 17 | LILO of 132 kV Mawlai-Cherrapunjee at Mawngap | 10 | | Jun-17 | Work held up due to ROW problem. The PHED,GOMe has complained and filed and FIR against Loc No. 3 to 8. Overall status is 90% completed. |
| 18 | LILO of 132 kV NEIGRIHMS - Khliehriat at Lad Nongkrem | 6 | | Nov-17 | Delay in supply of materials for line by the vendor. |
| 19 | LILO of 132 kV Rongkhon - Ampati at Praharinagar | 20 | | Sep-18 | Survey works for 132 kV LILO is completed. LOA for the LILO is yet to be awarded. |
| 20 | 132 kV Killing (Byrnihat) - EPIP I | 17 | Mar-12 | Jun-17 | Work 98% completed on 11.02.2016 except at the tapping point. |
| Mizoram | | | | | |
| 21 | 132 kV Melriat (New) - Sihhmui | 12 | Dec-12 | Feb-18 | Package re-awarded in Jun'16. Down stream line at Sihmui needs to be expedite. Work commenced. |
| AEGCL | | | | | |
| 22 | BTPS - Rangia D/C line | 326.374 | Mar-13 | June-17 | 1. Overall 89%completed.A. All normal foundation |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | completed. B. 5 nos. of Pile foundation completed. |
| 23 | LILO of one Ckt. of Samaguri - Sarusajai D/C line at Sonapur sub-station | 26.624 | Dec-13 | June-17 | Water logging &harvesting are reasons to be attributed for delaying. |
| 24 | Agia - Matia (Dudhnoi) S/C line on D/C tower | 23.5 | Nov-13 | | Test charged on 29.06.2016 |
| 25 | 132 kV DC Sonapur-Jagiroad Tr. Line. | 51.75 | Nov-13 | June-17 | Compensation/ROW Issue. |
| 26 | 132 kV DC Sonapur-Chandrapur Tr. Line | 28.438 | Nov-13 | June-17 | Railway X'ing/ ROW/ Compensation issue. |

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# Commercial Status

1. Entitlement, Schedule, Drawal and DSM Charges for the month of April 2017

| Name of states | Entitlement from ISGS in NER (in MU) | Entitlement from ISGS in ER (in MU) | Total Entitlement (in MU) | Scheduled energy against entitlement (in MU) | Schedule Drawal (for Dev A/c) (Ex-PP State) (in MU) | Actual Drawal from Grid (in MU) | Over Drawal (+) / Under Drawal (-) (in MU) | Dev Payable (-)/ Receivable (+) (including additional deviation) (Rs. In Cr) |
|---|---|---|---|---|---|---|---|---|
| Arunachal Pradesh | 41.64 | 3.33 | 44.98 | 43.90 | 55.44 | 61.27 | 5.83 | -1.08 |
| ASEB | 310.29 | 90.98 | 401.27 | 362.65 | 456.62 | 497.81 | 41.19 | -12.65 |
| Manipur | 77.22 | 0.00 | 77.22 | 69.80 | 61.33 | 58.43 | -2.89 | 0.08 |
| MeSEB | 78.41 | 0.00 | 78.41 | 65.20 | 68.78 | 60.25 | -8.53 | 1.40 |
| Mizoram | 32.81 | 2.44 | 35.25 | 33.94 | 32.75 | 38.08 | 5.33 | -1.12 |
| Nagaland | 37.50 | 7.35 | 44.85 | 42.83 | 50.48 | 55.66 | 5.18 | -1.29 |
| Tripura | 130.00 | 0.00 | 130.00 | 121.00 | 56.56 | 56.50 | -0.06 | -3.50 |
| PGCIL-HVDC | 0.71 | 0.00 | 0.71 | 0.34 | 0.34 | 0.59 | 0.25 | -0.06 |

(Source: PSP, NERPC)

* In addition to total entitlement, bilateral exchanges and purchase/sell through traders/exchange are covered in Annexure-III.

2. Schedule for ISGS Generation for the month of April 2017

| ISGS | Schedule (MU) | Injection (MU) |
|---|---|---|
| LOKTAK HEP | 53.84 | 56.92 |
| KHANDONG HEP | 0 | 72.45 |
| KOPILI - I HEP | 71.48 | |
| KOPILI - II HEP | 18.31 | |
| DHEP | 15.92 | 0 |

| | | |
|---|---|---|
| RHEP | 9.65 | 10.22 |
| AGTCCPP | 100.49 | 109.42 |
| AGBPP | 63.76 | 64.51 |
| OTPC, PALLATANA | 328.67 | 327.99 |
| BgTPP | 53.93 | 51.71 |

Source: Final PSP for the month of April 2017.

3. Cumulative Wt. Average Share Allocation (%) (Up to this month) in CS Stations

| States | Kopili (200 MW) | Kopili-II (25 MW) | Khandong (50 MW) | RHEP (405 MW) | DHEP (75 MW) | AGBPP (291 MW) | AGTCCPP (130 MW) | BgTPP (250 MW) | OTPC (726.6 MW) | Loktak HEP (105 MW) |
|---|---|---|---|---|---|---|---|---|---|---|
| Arunachal Pradesh | 5.191 | 5.992 | 4.194 | 18.462 | 6.852 | 5.694 | 6.702 | 5.1325 | 3.0303 | 4.940 |
| Assam | 53.455 | 52.355 | 56.285 | 43.328 | 43.808 | 56.503 | 43.720 | 57.420 | 33.058 | 29.445 |
| Manipur | 7.395 | 6.945 | 6.555 | 8.373 | 7.865 | 8.105 | 8.225 | 7.505 | 5.7851 | 42.508 |
| Meghalaya | 17.395 | 13.675 | 16.905 | 11.505 | 11.455 | 11.815 | 12.633 | 10.980 | 10.882 | 0.000 |
| Mizoram | 4.610 | 6.040 | 3.940 | 5.700 | 5.250 | 5.410 | 6.0 | 5.415 | 3.0303 | 5.020 |
| Nagaland | 6.147 | 5.735 | 6.653 | 5.335 | 17.967 | 5.805 | 5.737 | 4.930 | 3.7190 | 6.435 |
| Tripura | 5.807 | 9.258 | 5.468 | 7.297 | 6.803 | 6.668 | 16.983 | 7.6175 | 26.9972 | 11.652 |
| TOTAL | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 98.995 | 86.5019 | 100.00 |

4. Share Allocation (%) in CS Stations from Eastern Region

| States | Farakka-I | Kahelgaon-I | Kahelgaon-II | Talcher | Farakka-III |
|---|---|---|---|---|---|
| Assam | 2.455737% | 2.104847% | 5.093479% | 2.095419% | 0.000000% |
| Meghalaya | 0.000000% | 0.000000% | 0.000000% | 0.000000% | 0.000000% |
| Nagaland | 0.429803% | 0.424446% | 0.000000% | 0.424823% | 0.000000% |
| Arunachal Pradesh | 0.191917% | 0.191747% | 0.000000% | 0.196898% | 0.000000% |
| Mizoram | 0.141736% | 0.141610% | 0.000000% | 0.141736% | 0.000000% |
| Assam (NVVN Coal Power) | 0.091912% | 0.091912% | 0.091912% | 0.091912% | 0.091912% |

5. Details of Fixed and Energy Charges of CS Stations for FY 2015-16

| Projects | Installed Capacity (MW) | Design Energy (GWh) | Annual Fixed Charge ( Crore) | Reference |
|---|---|---|---|---|
| KOPILI HEP | 200 | 1186.14 | 109.8446 | As per CERC order dated 13.01.2016 in petition No 46/GT/2015. |
| KOPILI - II | 25 | 86.30 | 13.2283 | As per CERC order dated 23.01.2012 in pet. No 298/2009 |

| | | | | |
|---|---|---|---|---|
| KHANDONG HEP | 50 | 277.61 | 40.3627 | As per CERC order dated 13.01.2016 in petition No 42/GT/2015. |
| RHEP | 405 | 1509.69 | 260.4693 | As per CERC order dated 05.01.2016 and corrigendum 07.03.2016 in petition No.40/GT/ 2015. |
| DHEP | 75 | 227.24 | 101.5605 | As per CERC order dated 13.01.2016 and corrigendum dtd. 07.03.16 in petition No 43/GT/ 2015. |
| AGBPP | 291 | NA | 296.5691 | As per CERC order dated 15.02.2016 in Pet. No 459/GT/ 2014& 41/GT/2015. Base Rate of energy Charge as per the CERC Order |
| AGTPP | 84 | NA | 71.7633 | As per CERC order dated 11.03.2011 in Pet.No299/2009,^Base Energy charge as per CERC order |
| LOKTAK HEP | 105 | 448.00 | 107.1660 | As per CERC order dated 22.10.2012 in RP No. 24/2011 in Pet.No 108/2010 |
| PALLATANA | 726.6 | NA | 763.9771 | As per CERC order dated 17.06.2015 in Pet. No 129/GT/2015 |
| BgTPP | 250 | NA | NA | |

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# Regional Transmission Account (RTA) for the month of April 2017

| Name of DIC | Demand/ Injection Zone | PoC Charges | Reliability Support Charges | HVDC Charges | Total |
|---|---|---|---|---|---|
| Arunachal Pradesh | Arunachal Pradesh | 33207957.88 | 4496855.29 | 1438268.08 | **39143081.24** |
| ASEB | Assam | 352964127.25 | 30879092.09 | 9876326.82 | **393719546.16** |
| Manipur | Manipur | 34412263.63 | 5399481.69 | 1726962.88 | **41538708.21** |
| MeECL | Meghalaya | 58757178.67 | 6998100.94 | 2238263.09 | **67993542.70** |
| Mizoram | Mizoram | 33551508.22 | 2935256.11 | 938808.32 | **37425572.65** |
| Nagaland | Nagaland | 27300327.52 | 3696873.58 | 1182403.02 | **32179604.11** |
| Tripura | Tripura | 28830703.94 | 8634811.54 | 2761746.38 | **40227261.85** |
| HVDC BNC | Assam | 721987.18 | 63163.10 | 20202.00 | **805352.28** |

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# Grid Disturbance Report

List of Important Grid Disturbances in N E Regional Grid during April 2017

1. At 12:33 Hrs on 09.04.17, 132 kV Dimapur (PG)-Doyang I & II lines tripped. It was restored at 13:01 hrs. Outage duration: 0:28 hrs. Load Loss: 56MW. Category- GD-I. Due to tripping of these elements, Nagaland system except Mokokchung area and Bokajan area of Assam were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch.

2. At 09:01 hrs on 22.04.17, 132 kV Agartala-AGTPP I and II, 132 kV Agartala-Rokhia I and II and 132 kV Monarchak-Rokhia lines tripped. Rokhia unit 7 and 8 and Monarchak unit also tripped due to heavy jerk in the grid.It was restored at 09:32 hrs. Outage duration: 0:31hrs. Load Loss: 45 MW, Generation Loss =121MW. Category- GD-I. Due to tripping of these elements, Rokhia plant was separated from rest of NER grid and subsequently collapsed due to load generation mismatch.

3. At 13:07 Hr on 25.04.2017, 400 kV Silchar-Palatana 2 line tripped.This led to the overloading of 132 kV AGTPP-Kumarghat line & 132 kV Agartala-Dhalabil line and subsequently tripped on over current.It was restored at 13:25 hrs. Outage duration: 0:18 hrs. Load Loss: 688MW, Generation Loss: 298MW. Category- GD-II. Due to tripping of these elements, Tripura, Bangladesh(South Comilla load), Palatana& AGTPP systems were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch. However there was no power interruption in PK Bari, Kamalpur, Ambassa, Baramura, Dharmanagar,Gamatilla&Dhalabil substations of Tripura system.

4. At 10:23 Hrs on 26.04.2017, 132 kV Khliehriat (PG)-Khliehriat (MePTCL) I & II lines,132 kV NEHU-Mustem line & 132 kV NEHU-NEIGRIHMS line tripped. It was restored at 10:49 hrs. Outage duration: 0:26 hrs. Load Loss: 40 MW, Generation Loss: 126 MW. Category- GD-I.Due to tripping of these elements, Khleihriat area was separated from rest of NER Grid and subsequently collapsed due to load generation mismatch.

5. At 12:51 Hr on 26.04.2017, 400 kV Silchar-Palatana 2 line tripped.This led to the overloading of 132 kV AGTPP-Kumarghat line & 132 kV Agartala-Dhalabil line and subsequently tripped on over current.It was restored at 13:14 hrs. Outage duration: 0:23 hrs. Load Loss: 148 MW, Generation Loss: 192 MW. Category- GD-II.Due to tripping of these elements, Tripura, Bangladesh(South Comilla load), Palatana& AGTPP systems were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch. However there was no power interruption in PK Bari, Kamalpur, Ambassa, Baramura, Dharmanagar,Gamatilla&Dhalabil substations of Tripura system.

# Annexures and Exhibits

Annexure - I

A-1

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# Major Reservoirs Level of The Month

| | FRL (mtr.) | MDDL (mtr.) | April 2017 | April 2016 |
|---|---|---|---|---|
| | | | Level in mtr/ft | Level in mtr/ft |
| KHANDONG | 719.3 | 704 | 719.5 | 713.3 |
| KOPILI | 609.5 | 592.83 | 609.4 | 599.4 |
| LOKTAK | 768.5 | 766.2 | 769.2 | 768.0 |
| BARAPANI | 3220 ft | 3150 ft | 3176.6 | 3207.6 |
| GUMTI | 93.55 | 83.6 | 90.2 | 91.8 |
| DOYANG | 333 | 306 | 324.5 | 313.0 |

Annexure - II

A-2

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# Frequency Analysis For The Month of April 2017

| Frequency | Freq. (in Hz.) | Date (D.M.Y) |
|---|---|---|
| 1. Maximum Frequency | 50.26 | 14.04.2017 |
| 2. Minimum Frequency | 49.66 | 23.04.2017 |
| 3. Monthly Average | 49.99 | |

Frequency in Hz as %age of Time for the Blocks

| f< 49.90 | 49.90< f < 50.05 | f > 50.05 |
|---|---|---|
| 9.02 | 74.20 | 16.78 |

Daily Frequency Variation Index (FVI):

| Date | FVI | Date | FVI |
|---|---|---|---|
| 01-04-2017 | 0.032 | 17-04-2017 | 0.053 |
| 02-04-2017 | 0.033 | 18-04-2017 | 0.050 |
| 03-04-2017 | 0.036 | 19-04-2017 | 0.042 |
| 04-04-2017 | 0.041 | 20-04-2017 | 0.043 |
| 05-04-2017 | 0.035 | 21-04-2017 | 0.042 |
| 06-04-2017 | 0.042 | 22-04-2017 | 0.040 |
| 07-04-2017 | 0.030 | 23-04-2017 | 0.031 |
| 08-04-2017 | 0.049 | 24-04-2017 | 0.040 |
| 09-04-2017 | 0.040 | 25-04-2017 | 0.053 |
| 10-04-2017 | 0.047 | 26-04-2017 | 0.053 |
| 11-04-2017 | 0.047 | 27-04-2017 | 0.089 |
| 12-04-2017 | 0.056 | 28-04-2017 | 0.072 |
| 13-04-2017 | 0.041 | 29-04-2017 | 0.046 |
| 14-04-2017 | 0.032 | 30-04-2017 | 0.038 |
| 15-04-2017 | 0.032 | | |
| 16-04-2017 | 0.033 | | |

Annexure - III

A-3

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## Consolidated Scheduled Bilateral Exchanges in NE Region during April 2017

| Name of Trader | Energy at NER periphery (in MWH) |
|---|---|
| APPCPL | 3980.00 |
| IEXL | 958.00 |
| MPPL | 3849.00 |
| NVVN | 852.90 |
| TPTL | 1017.50 |

Exhibit - I

B-1

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## Frequency Duration for April 2017

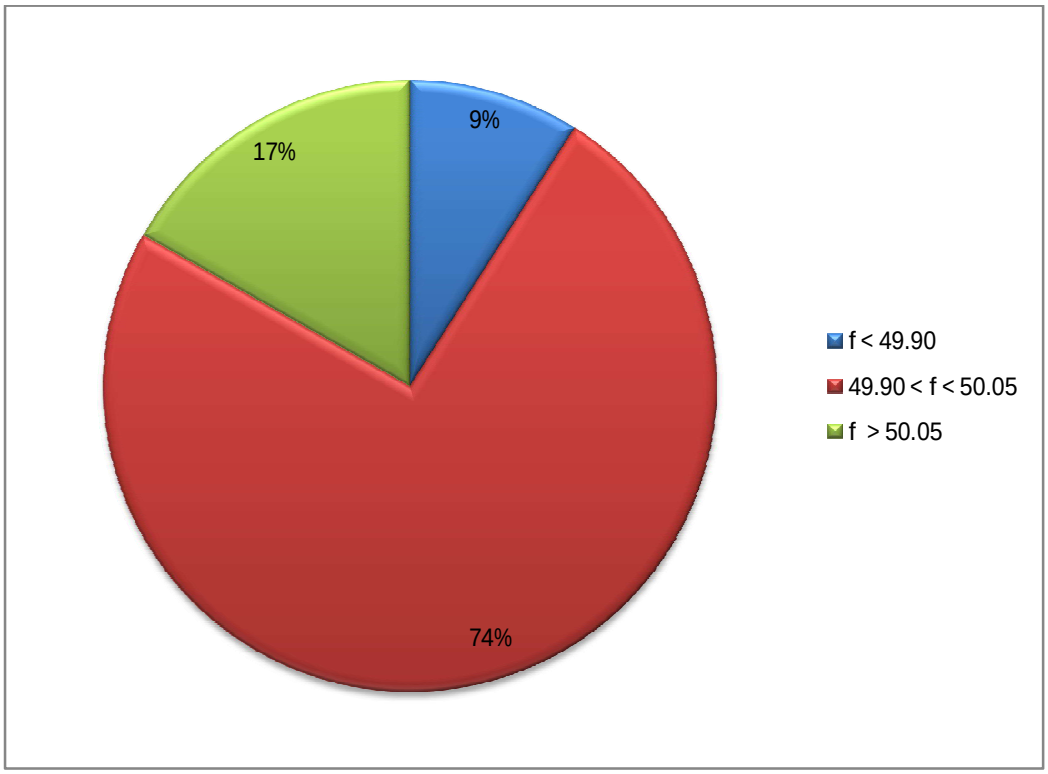

Exhibit - II

B- 2

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## FVI Characteristic for April 2017

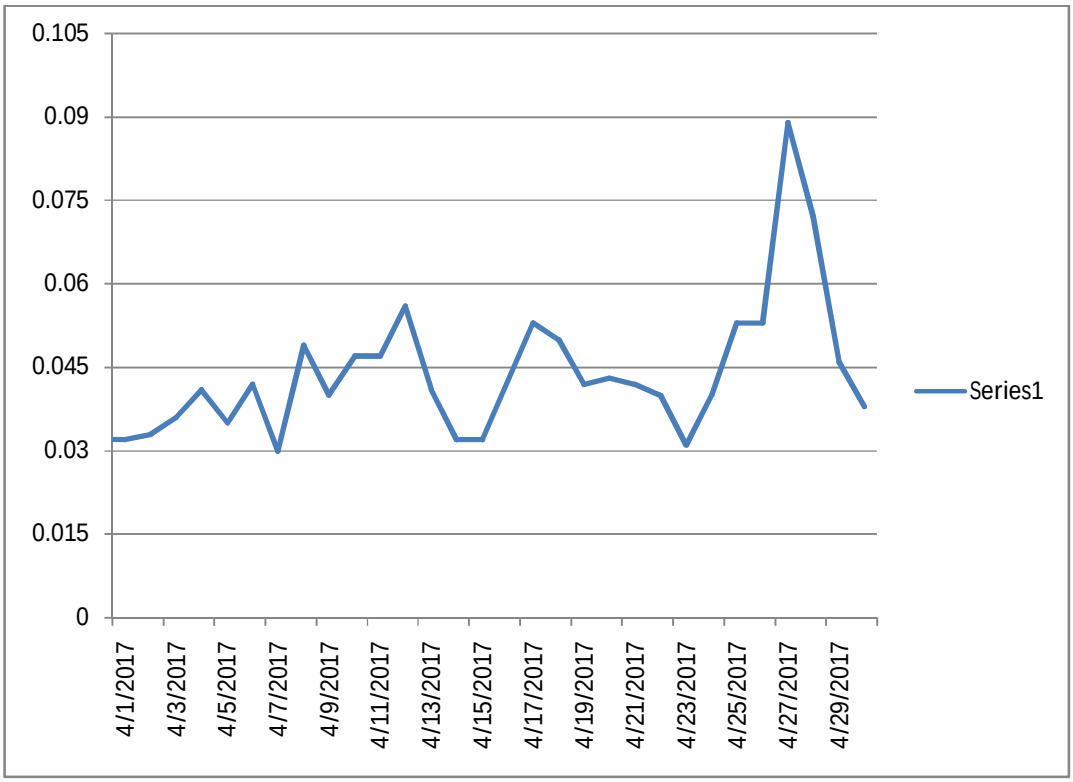

Exhibit -

B-3

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## Voltage Variation Range for April 2017

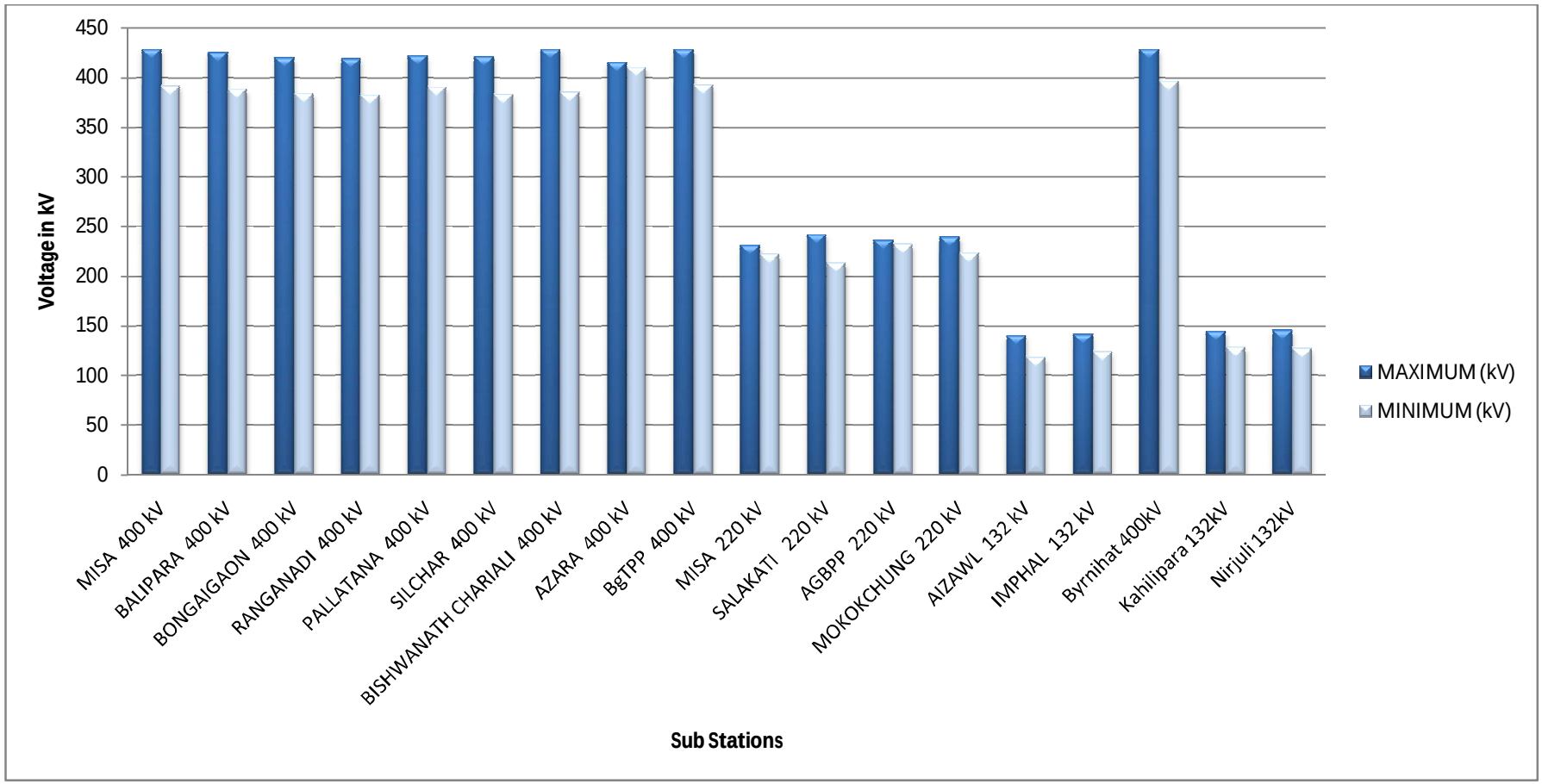

Exhibit - IV

B-4

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## Energy Profile for April 2017

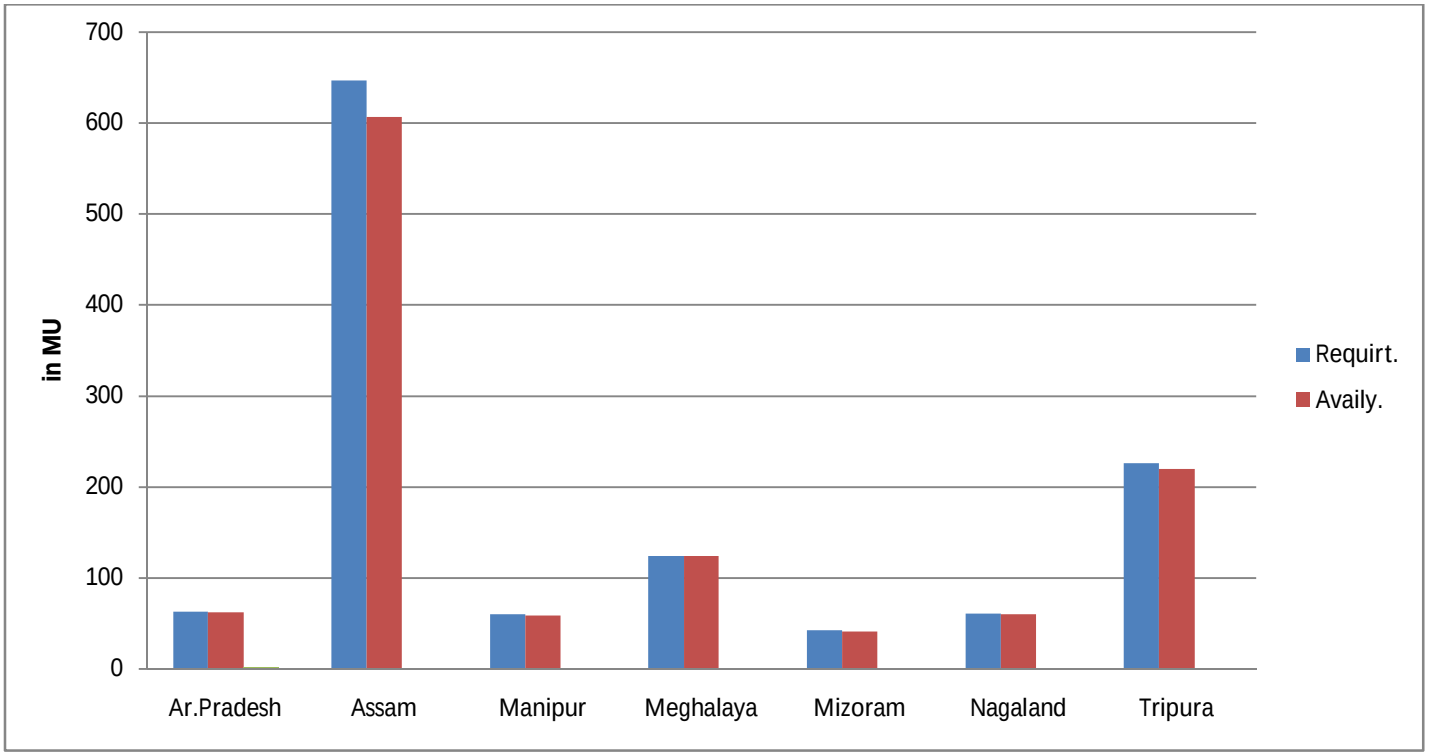

Exhibit -

B-5

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## Reservoir Profile for April 2017

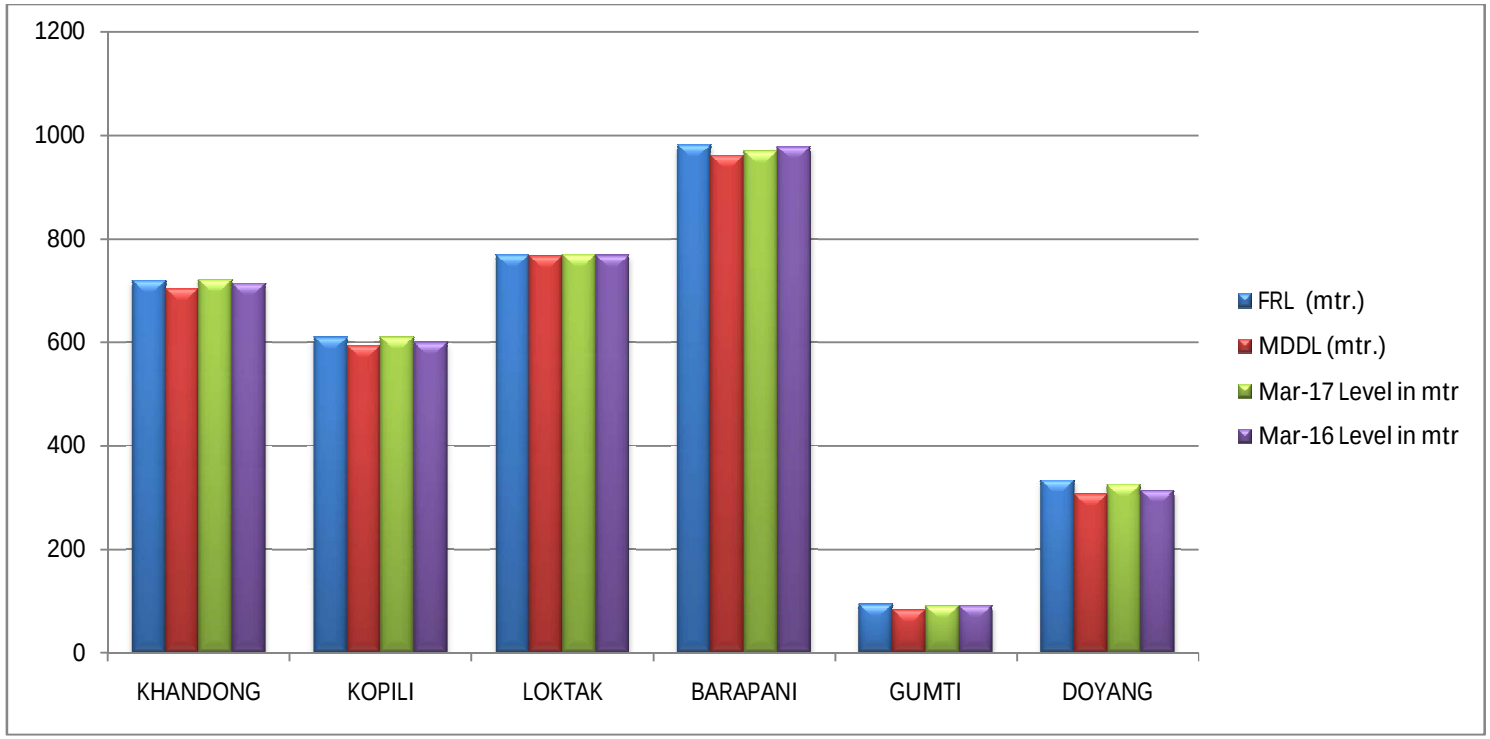

Exhibit - '

B-6

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## Station-wise Plant Load Factor for April 2017

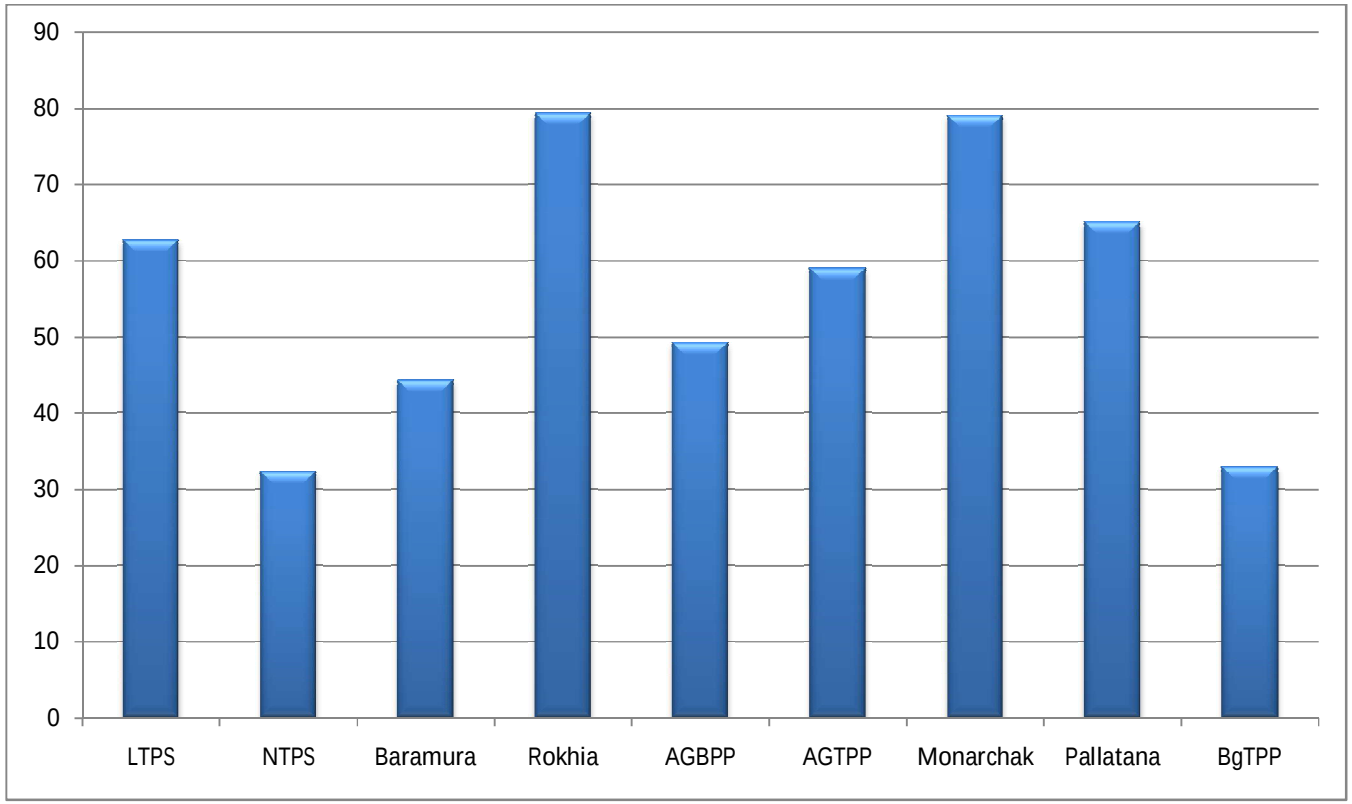

Exhibit - \

B-7

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## Collective Transaction through IEX Power Exchange April 2017

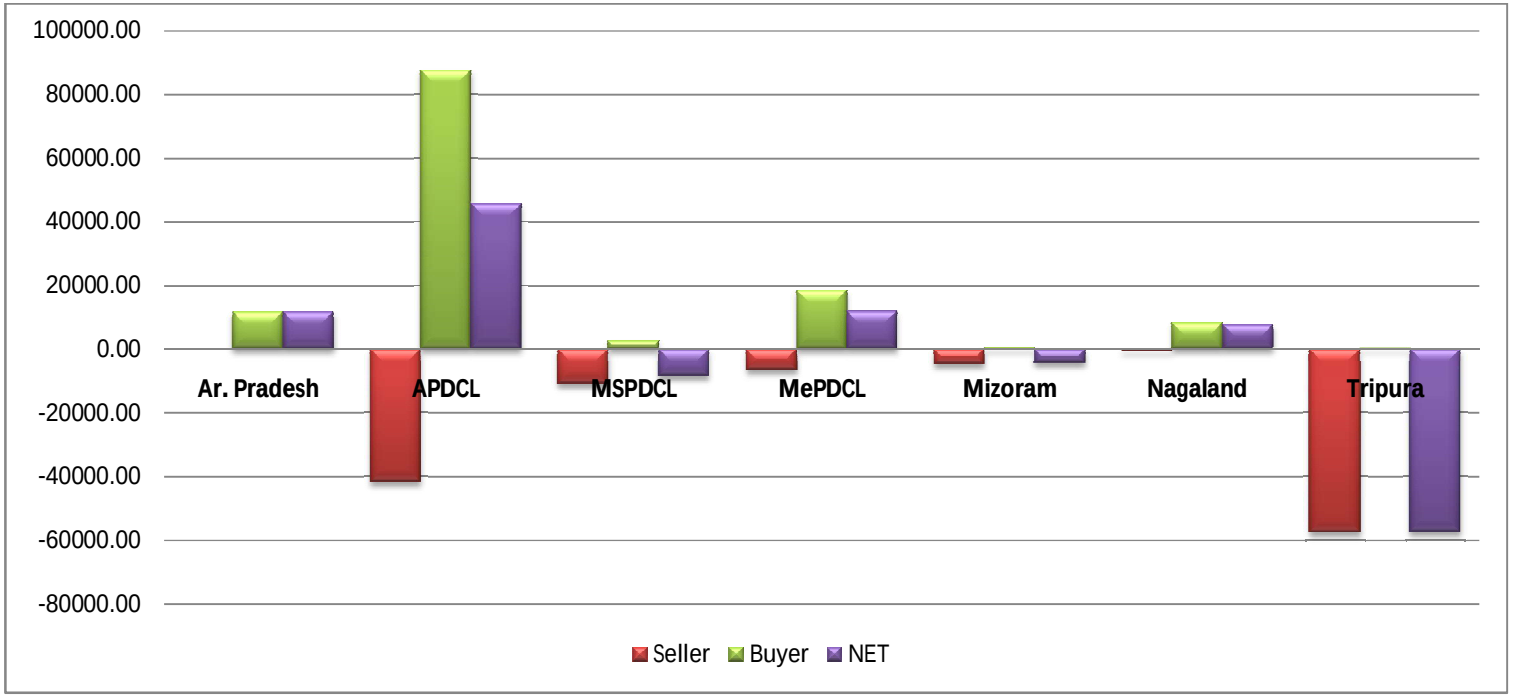

Exhibit - V

B-8

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## Consolidated SEB in NE Region for the month of April 2017