| CHIKOTRA LIFT IRRIGATION SCHEME | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sr. No. | Name of Scheme / Description | Total Duty point Discharge in $m^3$/sec | No. of Pumps | Discharge Per Pump in m3/sec | No. of Stages of Pump | Duty Head (mtr) | Proposed Efficiency % | Column pipe/ Delivery pipe diameter in mm | H.P./ Pump | Per Motor KW |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | **A) BAMANE VILLAGE** | | | | | | | | | |
| 1 | River to Tank 1 i.e RM 1.1 | 0.042 | 2 | 0.021 | 2 | 73 | 62 | 125 | 33 | 30 |
| 2 | Tank 1 To Block 1 | 0.011 | 1 | 0.011 | 1 | 41 | 65 | 80 | 10 | 9.3 |
| 3 | Tank 1 to Tank 2 RM 1.2 i.e RM 1.2 | 0.019 | 1 | 0.019 | 2 | 84 | 65 | 110 | 33 | 30 |
| 4 | Tank 2 To Block 5 | 0.009 | 1 | 0.009 | 1 | 47 | 62 | 80 | 9 | 9.3 |
| 5 | River to Tank 3 i.e. RM 2 | 0.032 | 2 | 0.016 | 2 | 99 | 62 | 100 | 34 | 30 |
| 6 | Tank 3 To Block 7 | 0.009 | 1 | 0.009 | 2 | 54 | 60 | 80 | 12 | 11 |
| | **B) BELEWADI HUBALAGI VILLAGE** | | | | | | | | | |
| 1 | River to booster pump i.e. RM 1 A | 0.028 | 2 | 0.014 | 2 | 56 | 60 | 100 | 18 | 18.5 |
| 2 | Booster pump to tank 3 i.e. RM 1 B | 0.028 | 2 | 0.014 | 2 | 55 | 60 | 100 | 18 | 18.5 |
| 3 | Tank 3 to block 8 | 0.009 | 1 | 0.009 | 2 | 96 | 50 | 80 | 24 | 22 |
| 4 | Tank 3 to block 9 | 0.009 | 1 | 0.009 | 2 | 90 | 50 | 80 | 23 | 22 |
| 5 | Tank 3 to block 10 | 0.009 | 1 | 0.009 | 2 | 87 | 50 | 80 | 22 | 22 |
| 6 | River to booster pump i.e. RM 2 A | 0.034 | 2 | 0.017 | 2 | 56 | 64 | 100 | 20 | 18.5 |
| 7 | Booster pump to tank 4 i.e. RM 2 B | 0.034 | 2 | 0.017 | 2 | 70 | 62 | 100 | 25 | 22 |
| 8 | River to Tank 1 i.e. RM 3 | 0.022 | 1 | 0.022 | 1 | 27 | 70 | 125 | 12 | 11 |
| 9 | Tank 1 to block 1 | 0.011 | 1 | 0.011 | 2 | 78 | 55 | 80 | 21 | 18.5 |
| 10 | Tank 1 to block 2 | 0.011 | 1 | 0.011 | 2 | 67 | 55 | 80 | 17 | 15 |
| 11 | River to booster pump i.e. RM 4 AB | 0.042 | 2 | 0.021 | 2 | 64 | 65 | 125 | 33 | 30 |
| 12 | Booster pump to tank 2 i.e. RM 4CD | 0.042 | 2 | 0.021 | 2 | 60 | 65 | 125 | 24 | 22 |
| 13 | Tank 2 to block 11 | 0.009 | 1 | 0.009 | 1 | 45 | 60 | 80 | 9 | 9.3 |
| 14 | Tank 2 to block 12 | 0.009 | 1 | 0.009 | 1 | 51 | 60 | 80 | 11 | 11 |
| | **C) BELEWADI KALAMMA** | | | | | | | | | |
| 1 | River to booster pump i.e. RM 1 ABC | 0.069 | 2 | 0.0345 | 2 | 56 | 68 | 140 | 38 | 33.5 |
| 2 | Booster pump to tank 1 i.e. RM 1 DEF | 0.069 | 2 | 0.0345 | 1 | 41 | 70 | 140 | 27 | 26 |
| 3 | Tank 1 to booster pump i.e. RM 1.1 AB | 0.047 | 1 | 0.047 | 2 | 58 | 70 | 180 | 52 | 48.5 |
| 4 | Booster pump to tank 4 i.e. RM 1.1 CD | 0.047 | 1 | 0.047 | 2 | 53 | 70 | 180 | 48 | 45 |
| 5 | Tank 4 to block 7 | 0.009 | 1 | 0.009 | 1 | 27 | 52 | 80 | 7 | 7.5 |
| 6 | Tank 4 to block 9 | 0.009 | 1 | 0.009 | 1 | 27 | 52 | 80 | 7 | 7.5 |
| 7 | River to Tank 2 i.e. RM 2.1 | 0.011 | 1 | 0.011 | 2 | 76 | 55 | 100 | 21 | 18.5 |
| 8 | Tank 2 to block 3 | 0.011 | 1 | 0.011 | 1 | 37 | 52 | 80 | 11 | 11 |
| 9 | River to booster pump i.e. RM 3 A | 0.022 | 1 | 0.022 | 2 | 67 | 65 | 125 | 31 | 30 |
| 10 | booster pump to tank 5 i.e. RM 3 B | 0.022 | 1 | 0.022 | 1 | 51 | 68 | 125 | 22 | 22 |
| | **D) BEGAWADE** | | | | | | | | | |
| 1 | Dam to main tank i.e. RM 1 AB | 0.134 | 2 | 0.067 | 2 | 20 To 70 | | 200 | 120 | 120 |
| 2 | Main tank to Tank 1 i.e. RM 1.1 | 0.022 | 2 | 0.011 | 3 | 120 | 58 | 125 | 31 | 30 |
| 3 | Tank 1 to Block 4 | 0.011 | 1 | 0.011 | 2 | 52 | 60 | 80 | 13 | 15 |
| 4 | Tank 1 to Block 5 | 0.011 | 1 | 0.011 | 1 | 43 | 65 | 80 | 10 | 9.3 |
| 5 | Main tank to Tank 2 i.e. RM 2.1 | 0.05 | 2 | 0.025 | 2 | 91 | 65 | 125 | 47 | 45 |
| 6 | Tank 2 to Tank 3 i.e. RM 3.1 | 0.011 | 1 | 0.011 | 2 | 73 | 70 | 100 | 16 | 15 |
| 7 | Main tank to Tank 4 i.e. RM 4.1 | 0.062 | 2 | 0.031 | 2 | 83 | 71 | 140 | 49 | 45 |
| 8 | Tank 4 to Tank 5 i.e. RM 5.1 | 0.022 | 1 | 0.022 | 2 | 78 | 65 | 125 | 36 | 33.5 |
| 9 | Tank 4 to Tank 6 i.e. RM 6.1 | 0.02 | 1 | 0.02 | 2 | 74 | 65 | 115 | 31 | 30 |
| 10 | Tank 6 to Tank 7 i.e. RM 7.1 | 0.009 | 1 | 0.009 | 1 | 36 | 52 | 80 | 9 | 9.3 |
| | **E) TAMNAKWADA** | | | | | | | | | |
| 1 | Station A RM1 | 0.137 | 2 | 0.0685 | 2 | 86 | 62 | 125 | 120 | 90 |
| 2 | Station A RM2 | 0.149 | 2 | 0.0745 | 2 | 81 | 62 | 125 | 120 | 90 |
| 3 | Station B to zone 1 | 0.119 | 2 | 0.0595 | 1 | 35 | 62 | 125 | 45 | 35 |
| 4 | Station B to zone 2 | 0.022 | 2 | 0.011 | 1 | 47 | 62 | 125 | 15 | 12 |
| 5 | Station C to zone 3 | 0.055 | 2 | 0.0275 | 3 | 126 | 62 | 125 | 90 | 68 |
| 6 | Station C to zone 4 | 0.092 | 2 | 0.046 | 1 | 46 | 62 | 125 | 45 | 35 |

Note : All Pump -motor sets are proposed with Maximum sync. RPM 3000 & supply voltage for all schemes is 0.415 Kv.

| CHIKOTRA LIFT IRRIGATION SCHEME | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sr. No. | Name of Scheme / Description | Total Duty point Discharge in $m^3$/sec | No. of Pumps | Discharge Per Pump in m3/sec | No. of Stages of Pump | Max. sync. RPM | Dia. Of Rising Main (mm) | Duty Head (mtr) | Column pipe/ Delivery pipe diameter in mm | Delivery pipe thickness in mm | H.P.of Pump | Per Motor KW | Supply Voltage |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | **A) BAMANE VILLAGE** | | | | | | | | | | | | |
| 1 | River to Tank 1 i.e RM 1.1 | 0.042 | 2 | 0.021 | 2 | 3000 | 165 | 73 | 125 | | 33 | 30 | |
| 2 | Tank 1 To Block 1 | 0.011 | 1 | 0.011 | 1 | 3000 | | 41 | 80 | | 10 | 9.3 | |
| 3 | Tank 1 to Tank 2 RM 1.2 i.e RM 1.2 | 0.019 | 1 | 0.019 | 2 | 3000 | 110 | 84 | 110 | | 33 | 30 | |
| 4 | Tank 2 To Block 5 | 0.009 | 1 | 0.009 | 1 | 3000 | | 47 | 80 | | 9 | 9.3 | |
| 5 | River to Tank 3 i.e. RM 2 | 0.032 | 2 | 0.016 | 2 | 3000 | 150 | 99 | 100 | | 34 | 30 | |
| 6 | Tank 3 To Block 7 | 0.009 | 1 | 0.009 | 2 | 3000 | | 54 | 80 | | 12 | 11 | |
| | **B) BELEWADI HUBALAGI VILLAGE** | | | | | | | | | | | | |
| 1 | River to booster pump i.e. RM 1 A | 0.028 | 2 | 0.014 | 2 | 3000 | 140 | 56 | 100 | | 18 | 18.5 | |
| 2 | Booster pump to tank 3 i.e. RM 1 B | 0.028 | 2 | 0.014 | 2 | 3000 | 140 | 55 | 100 | | 18 | 18.5 | |
| 3 | Tank 3 to block 8 | 0.009 | 1 | 0.009 | 2 | 3000 | | 96 | 80 | | 24 | 22 | |
| 4 | Tank 3 to block 9 | 0.009 | 1 | 0.009 | 2 | 3000 | | 90 | 80 | | 23 | 22 | |
| 5 | Tank 3 to block 10 | 0.009 | 1 | 0.009 | 2 | 3000 | | 87 | 80 | | 22 | 22 | |
| 6 | River to booster pump i.e. RM 2 A | 0.034 | 2 | 0.017 | 2 | 3000 | 150 | 56 | 100 | | 20 | 18.5 | |
| 7 | booster pump to tank 4 i.e. RM 2 B | 0.034 | 2 | 0.017 | 2 | 3000 | 150 | 70 | 100 | | 25 | 22 | |
| 8 | River to Tank 1 i.e. RM 3 | 0.022 | 1 | 0.022 | 1 | 3000 | 120 | 27 | 125 | | 12 | 11 | |
| 9 | Tank 1 to block 1 | 0.011 | 1 | 0.011 | 2 | 3000 | | 78 | 80 | | 21 | 18.5 | |
| 10 | Tank 1 to block 2 | 0.011 | 1 | 0.011 | 2 | 3000 | | 67 | 80 | | 17 | 15 | |
| 11 | River to booster pump i.e. RM 4 AB | 0.042 | 2 | 0.021 | 2 | 3000 | 165 | 64 | 125 | | 33 | 30 | |
| 12 | booster pump to tank 2 i.e. RM 4CD | 0.042 | 2 | 0.021 | 2 | 3000 | 165 | 60 | 125 | | 24 | 22 | |
| 13 | Tank 2 to block 11 | 0.009 | 1 | 0.009 | 1 | 3000 | | 45 | 80 | | 9 | 9.3 | |
| 14 | Tank 2 to block 12 | 0.009 | 1 | 0.009 | 1 | 3000 | | 51 | 80 | | 11 | 11 | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C) BELEWADI KALAMMA** | | | | | | | | | | | | | |
| 1 | River to booster pump i.e. RM 1 ABC | 0.069 | 2 | 0.0345 | 2 | 3000 | 210 | 56 | 140 | | 38 | 33.5 | |
| 2 | booster pump to tank 1 i.e. RM 1 DEF | 0.069 | 2 | 0.0345 | 1 | 3000 | 210 | 41 | 140 | | 27 | 26 | |
| 3 | tank 1 to booster pump i.e. RM 1.1 AB | 0.047 | 1 | 0.047 | 2 | 3000 | 175 | 58 | 180 | | 52 | 48.5 | |
| 4 | booster pump to tank 4 i.e. RM 1.1 CD | 0.047 | 1 | 0.047 | 2 | 3000 | 175 | 53 | 180 | | 48 | 45 | |
| 5 | Tank 4 to block 7 | 0.009 | 1 | 0.009 | 1 | 3000 | | 27 | 80 | | 7 | 7.5 | |
| 6 | Tank 4 to block 9 | 0.009 | 1 | 0.009 | 1 | 3000 | | 27 | 80 | | 7 | 7.5 | |
| 7 | River to Tank 2 i.e. RM 2.1 | 0.011 | 1 | 0.011 | 2 | 3000 | 100 | 76 | 100 | | 21 | 18.5 | |
| 8 | Tank 2 to block 3 | 0.011 | 1 | 0.011 | 1 | 3000 | | 37 | 80 | | 11 | 11 | |
| 9 | River to booster pump i.e. RM 3 A | 0.022 | 1 | 0.022 | 2 | 3000 | 120 | 67 | 125 | | 31 | 30 | |
| 10 | booster pump to tank 5 i.e. RM 3 B | 0.022 | 1 | 0.022 | 1 | 3000 | 120 | 51 | 125 | | 22 | 22 | |
| | | | | | | | | | | | | | |
| **D) BEGAWADE** | | | | | | | | | | | | | |
| 1 | Dam to main tank i.e. RM 1 AB | 0.134 | 2 | 0.067 | 2 | 3000 | 300 | 20 To 70 | | | 120 | 120 | |
| 2 | Main tank to Tank 1 i.e. RM 1.1 | 0.022 | 2 | 0.011 | 3 | 3000 | 120 | 120 | 125 | | 31 | 30 | |
| 3 | Tank 1 to Block 4 | 0.011 | 1 | 0.011 | 2 | 3000 | | 52 | 80 | | 13 | 15 | |
| 4 | Tank 1 to Block 5 | 0.011 | 1 | 0.011 | 1 | 3000 | | 43 | 80 | | 10 | 9.3 | |
| 5 | Main tank to Tank 2 i.e. RM 2.1 | 0.05 | 2 | 0.025 | 2 | 3000 | 180 | 91 | 125 | | 47 | 45 | |
| 6 | Tank 2 to Tank 3 i.e. RM 3.1 | 0.011 | 1 | 0.011 | 2 | 3000 | 100 | 73 | 100 | | 16 | 15 | |
| 7 | Main tank to Tank 4 i.e. RM 4.1 | 0.062 | 2 | 0.031 | 2 | 3000 | 200 | 83 | 140 | | 49 | 45 | |
| 8 | Tank 4 to Tank 5 i.e. RM 5.1 | 0.022 | 1 | 0.022 | 2 | 3000 | 120 | 78 | 125 | | 36 | 33.5 | |
| 9 | Tank 4 to Tank 6 i.e. RM 6.1 | 0.02 | 1 | 0.02 | 2 | 3000 | 115 | 74 | 115 | | 31 | 30 | |
| 10 | Tank 6 to Tank 7 i.e. RM 7.1 | 0.009 | 1 | 0.009 | 1 | 3000 | 100 | 36 | 80 | | 9 | 9.3 | |
| | | | | | | | | | | | | | |
| **E) TAMNAKWADA** | | | | | | | | | | | | | |
| 1 | Station A RM1 | 0.137 | 2 | 0.0685 | 2 | 1500 | | 86 | | | 120 | 90 | |
| 2 | Station A RM2 | 0.149 | 2 | 0.0745 | 2 | 1500 | | 81 | | | 120 | 90 | |
| 3 | Station B to zone 1 | 0.119 | 2 | 0.0595 | 1 | 1500 | | 35 | | | | 35 | |
| 4 | Station B to zone 2 | 0.022 | 2 | 0.011 | 1 | 1500 | | 47 | | | | | |
| 5 | Station C to zone 3 | 0.055 | 2 | 0.0275 | 3 | 1500 | | 126 | | | | 68 | |
| 6 | Station C to zone 4 | 0.092 | 2 | 0.046 | 1 | 1500 | | 46 | | | | | |