

Assumptions:

Pump is 85 percent efficient.
 Relationship of Amps to Nameplate Horsepower is: 1.26 to 1
 480 is voltage to electric motor
 30 pounds water pressure at well
 Wind Turbine needs to be 150 percent capacity of Kw needed.

GPM = Gallons per Minute
 TDH = Total Dynamic Head
 WHP = Water Horsepower
 BHP = Brake Horsepower

| Well Depth | GPM | TDH | WHP | BHP | Kw Power needed | TurbineKw Needed |
|------------|-----|-------|----------|----------|-----------------|------------------|
| 60 | 600 | 129.3 | 19.59091 | 23.04813 | 26.79483 | 40.19 |
| 80 | 600 | 149.3 | 22.62121 | 26.61319 | 30.93943 | 46.41 |
| 100 | 600 | 169.3 | 25.65152 | 30.17825 | 35.08403 | 52.63 |
| 120 | 600 | 189.3 | 28.68182 | 33.74332 | 39.22863 | 58.84 |
| 140 | 600 | 209.3 | 31.71212 | 37.30838 | 43.37323 | 65.06 |
| 160 | 600 | 229.3 | 34.74242 | 40.87344 | 47.51783 | 71.28 |
| 180 | 600 | 249.3 | 37.77273 | 44.4385 | 51.66243 | 77.49 |
| 200 | 600 | 269.3 | 40.80303 | 48.00357 | 55.80702 | 83.71 |
| 220 | 600 | 289.3 | 43.83333 | 51.56863 | 59.95162 | 89.93 |
| 240 | 600 | 309.3 | 46.86364 | 55.13369 | 64.09622 | 96.14 |
| 260 | 600 | 329.3 | 49.89394 | 58.69875 | 68.24082 | 102.36 |
| 280 | 600 | 349.3 | 52.92424 | 62.26381 | 72.38542 | 108.58 |
| 300 | 600 | 369.3 | 55.95455 | 65.82888 | 76.53002 | 114.80 |
| 320 | 600 | 389.3 | 58.98485 | 69.39394 | 80.67462 | 121.01 |
| 340 | 600 | 409.3 | 62.01515 | 72.959 | 84.81922 | 127.23 |
| 360 | 600 | 429.3 | 65.04545 | 76.52406 | 88.96382 | 133.45 |
| 380 | 600 | 449.3 | 68.07576 | 80.08913 | 93.10841 | 139.66 |
| 400 | 600 | 469.3 | 71.10606 | 83.65419 | 97.25301 | 145.88 |
| 420 | 600 | 489.3 | 74.13636 | 87.21925 | 101.3976 | 152.10 |
| 440 | 600 | 509.3 | 77.16667 | 90.78431 | 105.5422 | 158.31 |
| 460 | 600 | 529.3 | 80.19697 | 94.34938 | 109.6868 | 164.53 |
| 480 | 600 | 549.3 | 83.22727 | 97.91444 | 113.8314 | 170.75 |
| 500 | 600 | 569.3 | 86.25758 | 101.4795 | 117.976 | 176.96 |
| 520 | 600 | 589.3 | 89.28788 | 105.0446 | 122.1206 | 183.18 |
| 540 | 600 | 609.3 | 92.31818 | 108.6096 | 126.2652 | 189.40 |
| 560 | 600 | 629.3 | 95.34848 | 112.1747 | 130.4098 | 195.61 |
| 580 | 600 | 649.3 | 98.37879 | 115.7398 | 134.5544 | 201.83 |
| 600 | 600 | 669.3 | 101.4091 | 119.3048 | 138.699 | 208.05 |

| Well Depth | GPM | TDH | WHP | BHP | Kw Power needed | TurbineKw Needed |
|------------|-----|-------|----------|----------|-----------------|------------------|
| 60 | 800 | 129.3 | 26.12121 | 30.73084 | 35.72644 | 53.59 |
| 80 | 800 | 149.3 | 30.16162 | 35.48425 | 41.25257 | 61.88 |
| 100 | 800 | 169.3 | 34.20202 | 40.23767 | 46.77871 | 70.17 |
| 120 | 800 | 189.3 | 38.24242 | 44.99109 | 52.30484 | 78.46 |
| 140 | 800 | 209.3 | 42.28283 | 49.7445 | 57.83097 | 86.75 |
| 160 | 800 | 229.3 | 46.32323 | 54.49792 | 63.3571 | 95.04 |
| 180 | 800 | 249.3 | 50.36364 | 59.25134 | 68.88323 | 103.32 |
| 200 | 800 | 269.3 | 54.40404 | 64.00475 | 74.40937 | 111.61 |
| 220 | 800 | 289.3 | 58.44444 | 68.75817 | 79.9355 | 119.90 |
| 240 | 800 | 309.3 | 62.48485 | 73.51159 | 85.46163 | 128.19 |
| 260 | 800 | 329.3 | 66.52525 | 78.265 | 90.98776 | 136.48 |
| 280 | 800 | 349.3 | 70.56566 | 83.01842 | 96.51389 | 144.77 |
| 300 | 800 | 369.3 | 74.60606 | 87.77184 | 102.04 | 153.06 |
| 320 | 800 | 389.3 | 78.64646 | 92.52525 | 107.5662 | 161.35 |
| 340 | 800 | 409.3 | 82.68687 | 97.27867 | 113.0923 | 169.64 |
| 360 | 800 | 429.3 | 86.72727 | 102.0321 | 118.6184 | 177.93 |
| 380 | 800 | 449.3 | 90.76768 | 106.7855 | 124.1446 | 186.22 |
| 400 | 800 | 469.3 | 94.80808 | 111.5389 | 129.6707 | 194.51 |
| 420 | 800 | 489.3 | 98.84848 | 116.2923 | 135.1968 | 202.80 |
| 440 | 800 | 509.3 | 102.8889 | 121.0458 | 140.7229 | 211.08 |
| 460 | 800 | 529.3 | 106.9293 | 125.7992 | 146.2491 | 219.37 |
| 480 | 800 | 549.3 | 110.9697 | 130.5526 | 151.7752 | 227.66 |
| 500 | 800 | 569.3 | 115.0101 | 135.306 | 157.3013 | 235.95 |
| 520 | 800 | 589.3 | 119.0505 | 140.0594 | 162.8275 | 244.24 |
| 540 | 800 | 609.3 | 123.0909 | 144.8128 | 168.3536 | 252.53 |
| 560 | 800 | 629.3 | 127.1313 | 149.5663 | 173.8797 | 260.82 |
| 580 | 800 | 649.3 | 131.1717 | 154.3197 | 179.4059 | 269.11 |
| 600 | 800 | 669.3 | 135.2121 | 159.0731 | 184.932 | 277.40 |

| Well Depth | GPM | TDH | WHP | BHP | Kw Power needed | TurbineKw Needed |
|------------|-----|-------|----------|----------|-----------------|------------------|
| 60 | 850 | 129.3 | 27.75379 | 32.65152 | 37.95935 | 56.94 |
| 80 | 850 | 149.3 | 32.04672 | 37.70202 | 43.83086 | 65.75 |
| 100 | 850 | 169.3 | 36.33965 | 42.75253 | 49.70238 | 74.55 |
| 120 | 850 | 189.3 | 40.63258 | 47.80303 | 55.57389 | 83.36 |
| 140 | 850 | 209.3 | 44.92551 | 52.85354 | 61.44541 | 92.17 |
| 160 | 850 | 229.3 | 49.21843 | 57.90404 | 67.31692 | 100.98 |
| 180 | 850 | 249.3 | 53.51136 | 62.95455 | 73.18844 | 109.78 |
| 200 | 850 | 269.3 | 57.80429 | 68.00505 | 79.05995 | 118.59 |
| 220 | 850 | 289.3 | 62.09722 | 73.05556 | 84.93147 | 127.40 |
| 240 | 850 | 309.3 | 66.39015 | 78.10606 | 90.80298 | 136.20 |
| 260 | 850 | 329.3 | 70.68308 | 83.15657 | 96.6745 | 145.01 |
| 280 | 850 | 349.3 | 74.97601 | 88.20707 | 102.546 | 153.82 |
| 300 | 850 | 369.3 | 79.26894 | 93.25758 | 108.4175 | 162.63 |
| 320 | 850 | 389.3 | 83.56187 | 98.30808 | 114.289 | 171.43 |
| 340 | 850 | 409.3 | 87.8548 | 103.3586 | 120.1606 | 180.24 |
| 360 | 850 | 429.3 | 92.14773 | 108.4091 | 126.0321 | 189.05 |
| 380 | 850 | 449.3 | 96.44066 | 113.4596 | 131.9036 | 197.86 |
| 400 | 850 | 469.3 | 100.7336 | 118.5101 | 137.7751 | 206.66 |
| 420 | 850 | 489.3 | 105.0265 | 123.5606 | 143.6466 | 215.47 |
| 440 | 850 | 509.3 | 109.3194 | 128.6111 | 149.5181 | 224.28 |
| 460 | 850 | 529.3 | 113.6124 | 133.6616 | 155.3896 | 233.08 |
| 480 | 850 | 549.3 | 117.9053 | 138.7121 | 161.2612 | 241.89 |
| 500 | 850 | 569.3 | 122.1982 | 143.7626 | 167.1327 | 250.70 |
| 520 | 850 | 589.3 | 126.4912 | 148.8131 | 173.0042 | 259.51 |
| 540 | 850 | 609.3 | 130.7841 | 153.8636 | 178.8757 | 268.31 |
| 560 | 850 | 629.3 | 135.077 | 158.9141 | 184.7472 | 277.12 |
| 580 | 850 | 649.3 | 139.3699 | 163.9646 | 190.6187 | 285.93 |
| 600 | 850 | 669.3 | 143.6629 | 169.0152 | 196.4903 | 294.74 |

| Well Depth | GPM | TDH | WHP | BHP | Kw Power needed | TurbineKw Needed |
|------------|------|-------|----------|----------|-----------------|------------------|
| 60 | 1000 | 129.3 | 32.65152 | 38.41355 | 44.65805 | 66.99 |
| 80 | 1000 | 149.3 | 37.70202 | 44.35532 | 51.56572 | 77.35 |
| 100 | 1000 | 169.3 | 42.75253 | 50.29709 | 58.47338 | 87.71 |
| 120 | 1000 | 189.3 | 47.80303 | 56.23886 | 65.38105 | 98.07 |
| 140 | 1000 | 209.3 | 52.85354 | 62.18063 | 72.28871 | 108.43 |
| 160 | 1000 | 229.3 | 57.90404 | 68.1224 | 79.19638 | 118.79 |
| 180 | 1000 | 249.3 | 62.95455 | 74.06417 | 86.10404 | 129.16 |
| 200 | 1000 | 269.3 | 68.00505 | 80.00594 | 93.01171 | 139.52 |
| 220 | 1000 | 289.3 | 73.05556 | 85.94771 | 99.91937 | 149.88 |
| 240 | 1000 | 309.3 | 78.10606 | 91.88948 | 106.827 | 160.24 |
| 260 | 1000 | 329.3 | 83.15657 | 97.83125 | 113.7347 | 170.60 |
| 280 | 1000 | 349.3 | 88.20707 | 103.773 | 120.6424 | 180.96 |
| 300 | 1000 | 369.3 | 93.25758 | 109.7148 | 127.55 | 191.33 |
| 320 | 1000 | 389.3 | 98.30808 | 115.6566 | 134.4577 | 201.69 |
| 340 | 1000 | 409.3 | 103.3586 | 121.5983 | 141.3654 | 212.05 |
| 360 | 1000 | 429.3 | 108.4091 | 127.5401 | 148.273 | 222.41 |
| 380 | 1000 | 449.3 | 113.4596 | 133.4819 | 155.1807 | 232.77 |
| 400 | 1000 | 469.3 | 118.5101 | 139.4236 | 162.0884 | 243.13 |
| 420 | 1000 | 489.3 | 123.5606 | 145.3654 | 168.996 | 253.49 |
| 440 | 1000 | 509.3 | 128.6111 | 151.3072 | 175.9037 | 263.86 |
| 460 | 1000 | 529.3 | 133.6616 | 157.249 | 182.8114 | 274.22 |
| 480 | 1000 | 549.3 | 138.7121 | 163.1907 | 189.719 | 284.58 |
| 500 | 1000 | 569.3 | 143.7626 | 169.1325 | 196.6267 | 294.94 |
| 520 | 1000 | 589.3 | 148.8131 | 175.0743 | 203.5343 | 305.30 |
| 540 | 1000 | 609.3 | 153.8636 | 181.016 | 210.442 | 315.66 |
| 560 | 1000 | 629.3 | 158.9141 | 186.9578 | 217.3497 | 326.02 |
| 580 | 1000 | 649.3 | 163.9646 | 192.8996 | 224.2573 | 336.39 |
| 600 | 1000 | 669.3 | 169.0152 | 198.8414 | 231.165 | 346.75 |

| Well Depth | GPM | TDH | WHP | BHP | Kw Power needed | TurbineKw Needed |
|------------|------|-------|----------|----------|-----------------|------------------|
| 60 | 1200 | 129.3 | 39.18182 | 46.09626 | 53.58966 | 80.38 |
| 80 | 1200 | 149.3 | 45.24242 | 53.22638 | 61.87886 | 92.82 |
| 100 | 1200 | 169.3 | 51.30303 | 60.35651 | 70.16806 | 105.25 |
| 120 | 1200 | 189.3 | 57.36364 | 67.48663 | 78.45726 | 117.69 |
| 140 | 1200 | 209.3 | 63.42424 | 74.61676 | 86.74646 | 130.12 |
| 160 | 1200 | 229.3 | 69.48485 | 81.74688 | 95.03565 | 142.55 |
| 180 | 1200 | 249.3 | 75.54545 | 88.87701 | 103.3249 | 154.99 |
| 200 | 1200 | 269.3 | 81.60606 | 96.00713 | 111.614 | 167.42 |
| 220 | 1200 | 289.3 | 87.66667 | 103.1373 | 119.9032 | 179.85 |
| 240 | 1200 | 309.3 | 93.72727 | 110.2674 | 128.1924 | 192.29 |
| 260 | 1200 | 329.3 | 99.78788 | 117.3975 | 136.4816 | 204.72 |
| 280 | 1200 | 349.3 | 105.8485 | 124.5276 | 144.7708 | 217.16 |
| 300 | 1200 | 369.3 | 111.9091 | 131.6578 | 153.06 | 229.59 |
| 320 | 1200 | 389.3 | 117.9697 | 138.7879 | 161.3492 | 242.02 |
| 340 | 1200 | 409.3 | 124.0303 | 145.918 | 169.6384 | 254.46 |
| 360 | 1200 | 429.3 | 130.0909 | 153.0481 | 177.9276 | 266.89 |
| 380 | 1200 | 449.3 | 136.1515 | 160.1783 | 186.2168 | 279.33 |
| 400 | 1200 | 469.3 | 142.2121 | 167.3084 | 194.506 | 291.76 |
| 420 | 1200 | 489.3 | 148.2727 | 174.4385 | 202.7952 | 304.19 |
| 440 | 1200 | 509.3 | 154.3333 | 181.5686 | 211.0844 | 316.63 |
| 460 | 1200 | 529.3 | 160.3939 | 188.6988 | 219.3736 | 329.06 |
| 480 | 1200 | 549.3 | 166.4545 | 195.8289 | 227.6628 | 341.49 |
| 500 | 1200 | 569.3 | 172.5152 | 202.959 | 235.952 | 353.93 |
| 520 | 1200 | 589.3 | 178.5758 | 210.0891 | 244.2412 | 366.36 |
| 540 | 1200 | 609.3 | 184.6364 | 217.2193 | 252.5304 | 378.80 |
| 560 | 1200 | 629.3 | 190.697 | 224.3494 | 260.8196 | 391.23 |
| 580 | 1200 | 649.3 | 196.7576 | 231.4795 | 269.1088 | 403.66 |
| 600 | 1200 | 669.3 | 202.8182 | 238.6096 | 277.398 | 416.10 |