

Agency Name: eg DDOT

ENERGY SAVINGS FROM LED TRAFFIC SIGNALS (APPROXIMATION)

ENTER HERE
password: LED

| Signal Units | # units | Ann Saving/ Unit kwh/yr | Annual Savings kwh/yr |
|--------------------------|---------|----------------------------|--------------------------|
| Red | 15,600 | 669.702 | 10,447,351 |
| Green | 12,480 | 532.17 | 6,641,482 |
| Red Arrow | 200 | 1111.644 | 222,329 |
| Green Arrow | 4,680 | 121.764 | 569,856 |
| Pedestrian Walk | 9,360 | 50.808 | 475,563 |
| Pedestrian Stop | 9,360 | 425.736 | 3,984,889 |
| Total Units | 51,680 | | 22,341,469 |
| Average Savings per unit | | | 432 |

Source: EPA Energy Star Fact Calculator "Assumptions" worksheet.

CALCULATION OF AVOIDED NO_x EMISSIONS FROM EPA ENERGY STAR LED SIGNALS

| | | | | |
|---|---------------------------|------------------------------|--------------------------------|----------------|
| Total savings for this municipality (MWh) | 22,341 | | | |
| Ozone season days | 153 | | | |
| Estimated NO_x Avoided | Avoided lb/MWh | Avoided lb/period | Avoided tons/period | ton/day |
| PJM Ozone Season Rate | 1.7 | 15,921 | 7.9603 | 0.0520 |
| PJM Annual Rate | 3.2 | 71,493 | 35.7464 | 0.0979 |
| PJM (Allowance rate) Ozone Season | 1.5 | 14,048 | 7.0238 | 0.0192 |

Sources: EPA Energy Star LED savings and RSG Avoided Emissions Report (2007) for PJM Avoided Emission Rates

Agency Name: VDOT

ENERGY SAVINGS FROM LED TRAFFIC SIGNALS (APPROXIMATION)

ENTER HERE
password: LED

| Signal Units | # units | Ann Saving/ Unit kwh/yr | Annual Savings kwh/yr |
|--------------------------|---------|----------------------------|--------------------------|
| Red | 3,882 | 669.702 | 2,599,783 |
| Green | 3,239 | 532.17 | 1,723,699 |
| Red Arrow | 0 | 1111.644 | 0 |
| Green Arrow | 1,976 | 121.764 | 240,606 |
| Pedestrian Walk | 0 | 50.808 | 0 |
| Pedestrian Stop | 0 | 425.736 | 0 |
| Total Units | 9,097 | | 4,564,087 |
| Average Savings per unit | | | 502 |

Source: EPA Energy Star Fact Calculator "Assumptions" worksheet.

CALCULATION OF AVOIDED NO_x EMISSIONS FROM EPA ENERGY STAR LED SIGNALS

| | | | | |
|---|---------------------------|------------------------------|--------------------------------|----------------|
| Total savings for this municipality (MWh) | 4,564 | | | |
| Ozone season days | 153 | | | |
| Estimated NO_x Avoided | Avoided lb/MWh | Avoided lb/period | Avoided tons/period | ton/day |
| PJM Ozone Season Rate | 1.7 | 3,252 | 1.6262 | 0.0106 |
| PJM Annual Rate | 3.2 | 14,605 | 7.3025 | 0.0200 |
| PJM (Allowance rate) Ozone Season | 1.5 | 2,870 | 1.4349 | 0.0039 |

Sources: EPA Energy Star LED savings and RSG Avoided Emissions Report (2007) for PJM Avoided Emission Rates