

**FAC 8132 ELECTRICAL POWER SWITCHING STATION**

FY22 SUC:            \$0.39 / KV

Source:                Calculated using R.S. Means CostWorks 2021 Qtr 3 component prices

FAC 8132 ELECTRICAL POWER SWITCHING STATION

Release 2021 Qtr 3

Zip Code Prefix 222

Type MR

UM KV

Design Life 45

Average Size 28252.0

SUC \$0.39

Adjusted Occurences are the occurrences remaining after subtracting Repair/Replacement Overlaps. Overlap reduction removes a repair when it occurs the same year as a replacement.

| Description  | Frequency | Qty Unit    | Total In-House | Total Incl OP | Design Life/Frequency | Occurrences in Design Life | Adjusted Occurrences | Life Cost   | Adjusted Cost  |             |
|--|-----------|-------------|----------------|---------------|-----------------------|----------------------------|----------------------|-------------|----------------|-------------|
| Replace double swing gates, 6' high, 20' opening                     | 5         | 2.00 Opng.  | \$2,366.31     | \$2,742.76    | 9.0000                | 9                          | 9                    | \$24,684.84 | \$24,684.84    |             |
| Repair switchgear 1200 A mainframe                                   | 5         | 4.00 Ea.    | \$7,618.15     | \$8,910.30    | 9.0000                | 9                          | 7                    | \$80,192.69 | \$62,372.09    |             |
| Maintenance and inspection switchgear, mainframe                     | 1         | 4.00 Ea.    | \$259.11       | \$324.62      | 45.0000               | 45                         | 45                   | \$14,608.10 | \$14,608.10    |             |
| Replace switchgear 1200 A mainframe                                  | 20        | 4.00 Ea.    | \$17,400.48    | \$20,901.91   | 2.2500                | 2                          | 2                    | \$41,803.81 | \$41,803.81    |             |
| Maintenance and repair of general wiring lightning protection system | 1         | 4.40 M.L.F. | \$425.58       | \$527.24      | 45.0000               | 45                         | 45                   | \$23,725.65 | \$23,725.65    |             |
| Replace lightning protection general wiring system                   | 25        | 4.40 M.L.F. | \$48,440.14    | \$57,622.36   | 1.8000                | 1                          | 1                    | \$57,622.36 | \$57,622.36    |             |
| Maintenance and repair contactors and relays                         | 3         | 8.00 Ea.    | \$2,026.43     | \$2,498.66    | 15.0000               | 15                         | 15                   | \$37,479.84 | \$37,479.84    |             |
| Replace fuse   | 25        | 8.00 Ea.    | \$3,305.31     | \$3,797.59    | 1.8000                | 1                          | 1                    | \$3,797.59  | \$3,797.59     |             |
| Maintenance and inspection contactors and relays                     | 0.5       | 8.00 Ea.    | \$162.07       | \$203.05      | 90.0000               | 90                         | 90                   | \$18,274.44 | \$18,274.44    |             |
| Replace contactor and relays   | 18        | 8.00 Ea.    | \$6,392.43     | \$7,538.47    | 2.5000                | 2                          | 2                    | \$15,076.93 | \$15,076.93    |             |
| Maintenance and repair lightning ground rod                          | 1         | 4.00 Ea.    | \$351.56       | \$439.15      | 45.0000               | 45                         | 44                   | \$19,761.69 | \$19,322.54    |             |
| Replace lightning ground rod   | 25        | 8.00 Ea.    | \$1,808.72     | \$2,242.32    | 1.8000                | 1                          | 1                    | \$2,242.32  | \$2,242.32     |             |
| Maintenance and repair rectifier, up to 600 V                        | 2         | 1.00 Ea.    | \$686.80       | \$818.18      | 22.5000               | 22                         | 22                   | \$17,999.97 | \$17,999.97    |             |
| Cable inspection overhead service, splice                            | 5         | 8.20 M.L.F. | \$363.17       | \$455.00      | 9.0000                | 9                          | 9                    | \$4,095.01  | \$4,095.01     |             |
| Minor chain link fence repairs, per 10 LF                            | 1         | 12.00 Ea.   | \$323.70       | \$398.20      | 45.0000               | 45                         | 45                   | \$17,918.91 | \$17,918.91    |             |
| Replace 400W H.P.S. lamp, pole-mounted fixture                       | 10        | 12.00 Ea.   | \$1,335.82     | \$1,592.50    | 4.5000                | 4                          | 4                    | \$6,369.99  | \$6,369.99     |             |
|  |           |             | \$93,265.78    | \$111,012.29  |                       |                            |                      | MR Subtotal | \$367,394.40   |             |
|  |           |             |                |               |                       |                            |                      |             | MR Per Year    | \$8,164.32  |
|  |           |             |                |               |                       |                            |                      |             | PM Total       | \$2,966.16  |
|  |           |             |                |               |                       |                            |                      |             | Subtotal       | \$11,130.48 |
|  |           |             |                |               |                       |                            |                      |             | Total Per Unit | \$0.39      |

FAC 8132 ELECTRICAL POWER SWITCHING STATIONSUC \$0.39

Release 2021 Qtr 3UM KV

Zip Code Prefix 222Design Life 45

Type PMAverage Size 28252.0

| Description                                     | Qty   | Labor Hours | Bare Mat | Bare Labor | Bare Equip | Bare Total | Total In-House | Total Incl OP |
|---|-------|-------------|----------|------------|------------|------------|----------------|---------------|
| Circuit breaker, high voltage oil, annualized   | 12.00 | 10.26       | \$1.48   | \$677.54   | \$0.00     | \$679.03   | \$882.44       | \$1,085.93    |
| Switch, selector, high voltage, oil, annualized | 4.00  | 1.80        | \$0.49   | \$118.10   | \$0.00     | \$118.60   | \$154.08       | \$189.59      |
| Switch, automatic transfer, annualized          | 2.00  | 10.63       | \$30.31  | \$704.48   | \$0.00     | \$734.79   | \$949.17       | \$1,165.06    |
| Light, emergency, hardwired system, annualized  | 1.00  | 0.25        | \$7.73   | \$14.76    | \$0.00     | \$22.50    | \$27.70        | \$33.29       |
| Light, emergency, dry cell, annually            | 4.00  | 0.74        | \$169.08 | \$43.72    | \$0.00     | \$212.80   | \$242.83       | \$281.31      |
| Power stablizer, annualized                     | 1.00  | 0.62        | \$9.28   | \$36.78    | \$0.00     | \$46.06    | \$58.02        | \$70.44       |
| Manual swing gate, annually                     | 1.00  | 0.87        | \$5.63   | \$42.07    | \$0.00     | \$47.71    | \$60.89        | \$74.36       |
| Manual slide gate, annually                     | 1.00  | 0.76        | \$5.63   | \$36.98    | \$0.00     | \$42.61    | \$54.26        | \$66.20       |
|   |       |             |          |            |            | \$1,904.08 | \$2,429.38     | \$2,966.16    |

# **FAC 8132 ELECTRICAL POWER SWITCHING STATION**

## **Modeled Component List**

### **CostWorks Release 2021 Qtr 3**

#### D50 Electrical

|                             |            |
|-----------------------------|------------|
| Switchgear, Mainframe       | 4.0 Ea.    |
| Lightning Protection System | 4.4 M.L.F. |
| Lightning Ground Rod        | 8.0 Ea.    |

#### G40 Site Electrical Utilities

|                               |          |
|-------------------------------|----------|
| Pole-Mounted Lamp 400W H.P.S. | 12.0 Ea. |
|-------------------------------|----------|

FAC 8132 ELECTRICAL POWER SWITCHING STATION  
Sustainment by Year  
CostWorks Release 2021 Qtr 3

