PSA Listing

PS12M Magnolia Power Project Adopted Budget FY 18-19 Budget

| PSA ITEMS | PSA Vendor Name | PSA Amount | PSA Purpose | PSA Fund | PSA Cost Ctr | PSA Account- Subaccount | PSA Regulatory |
|------------|--------------------|------------|---|----------|--------------|----------------------------|----------------|
| Item # 222 | ESC Engineering | 15,000 | Arc Flash Mitigation Support - to support implementation of recommendations from Arc Flash Study | 483 | PS12M | 62085_0000 | 54800 |
| Item # 223 | RKI Engineering | 27,000 | Zero Liquid Discharge System (ZLD) and Programmable Logic Controller (PLC) programming and troubleshooting support | 483 | PS12M | 62085_0000 | 54850 |
| Item # 224 | TBD | 68,250 | NERC reliability standards (best practice) | 483 | PS12M | 62085_0000 | 54800 |
| Item # 225 | TBD | 45,000 | Provide protection relay engineering services for the test shop to support the MPP relay maintenance requirements | 483 | PS12M | 62085_0000 | 55300 |
| Item # 226 | TBD | 8,500 | Carbon Monoxide (CO) and Selective Catalytic Reduction (SCR) catalyst annual testing to accurately predict remaining catalyst life and the associated maintenance and replacement schedule | 483 | PS12M | 62085_0000 | 54800 |
| Item # 227 | TBD | 37,375 | Air emissions testing services to meet environmental requirements for annual testing of MPP, as required by the South Coast Air Management District | 483 | PS12M | 62085_0000 | 54900 |
| Item # 228 | TBD | 50,000 | Engineering Computer Aided Design (CAD) support to properly capture documentation of power plant process changes (red-lined drawings) | 483 | PS12M | 62085_0000 | 54900 |
| Item # 229 | TBD | 60,000 | Power plant systems support | 483 | PS12M | 62085_0000 | 55600 |
| Item # 230 | TBD | 100,000 | To provide temporary continuity in the essential power plant controls engineering function, until the new Controls Engineering position is filled | 483 | PS12M | 62085_0000 | 54800 |
| Item # 231 | TBD | 100,000 | Engineering support for unplanned plant maintenance issues, such as equipment malfunctions and failures, integration of regulatory or insurance safety audit findings and recommendations, and to address other reliability issues to be identified | 483 | PS12M | 62085_0000 | 54800 |
| Item # 232 | TBD | 45,000 | To represent MPP's interests regarding So. Cal Gas Curtailments | 483 | PS12M | 62085_0000 | 54800 |
| Item # 233 | Trimark Associates | 5,000 | To meet generation reporting requirements for Western Renewable Energy Generation Information System (WREGIS) | 483 | PS12M | 62085_0000 | 54800 |
| Item # 234 | OATI | 36,000 | Services and support for wholesale energy transaction management | 483 | PS12M | 62316_0000 | 55600 |
| Item # 235 | OSIsoft | 9,200 | Plant Data Historian Software (PI) license | 483 | PS12M | 62316_0000 | 55600 |
| Item # 236 | TBD | 400,000 | Water treatment chemicals, as needed to maintain process chemistry in the Zero Liquid Discharge System (ZLD) | 483 | PS12M | 62380_0000 | 54850 |
| Item # 237 | TBD | 160,000 | Boiler and cooling tower chemicals, as needed to maintain water chemistry in MPP within acceptable operating limits | 483 | PS12M | 62381_0000 | 54800 |
| Item # 238 | TBD | 10,500 | MPP-specific environmental training | 483 | PS12M | 62775_0000 | 54900 |
| Item # 239 | TBD | 17,200 | Operations training on Martech and MPP-specific equipment | 483 | PS12M | 62775_0000 | 54800 |
| Item # 240 | RKI Engineering | 25,000 | Human Machine Interface (HMI), Programmable Logic Controller (PLC), and Continuous Emissions Monitoring System (CEMS) support | 483 | PS12M | 63240_0000 | 54800 |
| Item # 241 | TBD | 15,000 | Daily verification of Continuous Emissions Monitoring System (CEMS) data | 483 | PS12M | 63240_0000 | 54800 |
| Item # 242 | TBD | 100,000 | Provide environmental compliance support for MPP storm water, air quality, and waste management activities | 483 | PS12M | 63240_0000 | 54800 |
| Item # 243 | TBD | 15,000 | Greenhouse gas emissions report verification services | 483 | PS12M | 63240_0000 | 54800 |

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|------------|-----------------|--------------|---|----------|--------------|----------------------------|----------------|
| Item # 244 | TBD | 75,000 | Environmental regulatory compliance and permitting support | 483 | PS12M | 63240_0000 | 54800 |
| Item # 245 | TBD | 50,000 | Legal support for environmental compliance | 483 | PS12M | 63240_0000 | 54800 |
| Item # 246 | PureTec | 287,275 | Demineralized water production | 483 | PS12M | 63295_0000 | 54800 |
| Item # 247 | TBD | 50,000 | Professional consultations to address reliability requirements and process improvements within the Zero Liquid Discharge System (ZLD) | 483 | PS12M | 70070_0000 | 99929 |
| Item # 248 | TBD | 75,000 | Plant engineering support for capital improvement projects | 483 | PS12M | 70070_0000 | 99929 |
| Item # 249 | TBD | 100,000 | Identify and implement software, hardware, or operational measures as needed to optimize operations. Project includes a \$100k PSA | 483 | PS12M | 70070_0000 | 99929 |
| Totals | | \$ 1,986,300 | | | | | |

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