

MAPPING THE TRUE COST OF O&M AND ASSET MANAGEMENT FOR UTILITY SCALE SOLAR

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Price Pressure: Solar O&M Contracts Dropped 58% in 2018

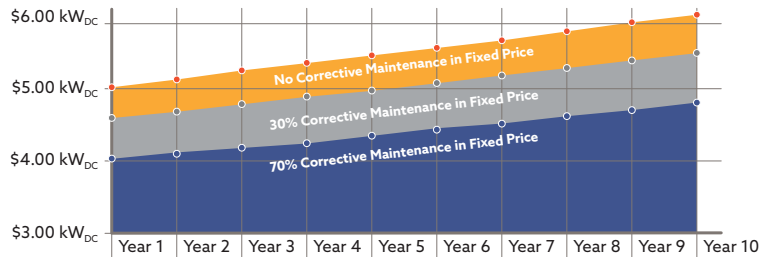
Utility-scale solar operations and maintenance has seen a decrease in pricing. According to Wood Mackenzie Power and Renewables, "Pricing pressure continues as prices have dropped by approximately 58% in 2018 compared to just a few years ago."

Corrective Maintenance Often Cut to Reduce Overall Contract Price

To meet market pricing pressures, one major scope item often removed or decreased in a service contract is included corrective maintenance. Asset owners have accepted this reduction in scope, resulting in lower annual O&M fees. In aggregate, this reduction in scope increases the risk for the asset owner and results in more costly corrective maintenance overall.

True Cost of Solar O&M can be 28% Higher than Planned or Budgeted

True Cost of O&M • 100MW Solar Site



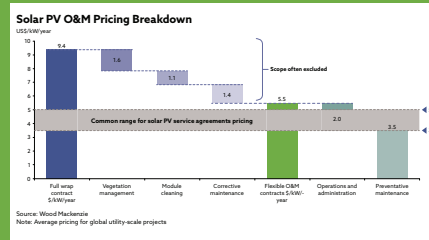
Asset owners can end up paying 22-28% more than planned if their original contract leaves out corrective maintenance.³

2 GW Portfolio Analyzed

Two Industry Analyses Point to Cost-Cutting in Upfront Contracts Leads to Greater Expenses Later

Origis Services analyzed the number of hours spent on corrective work for a 2 GW portfolio and how much that work cost. Data from the Services portfolio was combined with industry standard pricing models.¹

Wood Mackenzie Global Solar PV Operations & Maintenance 2020 Report



The lower cost of current O&M contracts is often "erroneous," said Wood Mackenzie, because those contracts often drop necessary maintenance work in favor of cheaper top-line figures.²

Resources



- 1 kWh Analytics, Solar Risk Assessment Report 2020 <https://www.kwhanalytics.com/blog-archive/solar-risk-assessment-2020-quantitative-insights-from-the-industry-experts>
- 2 Greentech Media, June 17, 2020. Solar O&M Shortcuts Lead to Higher Costs Later, Experts Say <https://www.greentechmedia.com/articles/read/solar-om-shortcuts-lead-to-higher-costs-later-per-new-report>
- 3 Origis Services, True Cost of Solar O&M can be 28% Higher Than Planned or Budgeted, <http://origisservices.com/true-cost-of-solar-om-can-be-28-higher-than-planned-or-budgeted/>

Including 70% Corrective Maintenance into Annual Service Fee is the Most Effective Way to Reduce Overall O&M Costs

By including a strategic level of corrective maintenance hours into the annual service fee, the O&M provider can more accurately predict staffing needs for the plant.

Dedicated, on-site staff can service most corrective maintenance tasks in tandem with preventative scope and other needs of the site.

Representative hourly charges for corrective maintenance based on type used for analysis:

Pre-Paid Hourly Rate	Hourly Rate	Out in Town +15%
\$60.00	\$100.00	\$172.50
Use or Lose	Negotiated	Market



Delivering the Clean Energy Promise

Working with our clients, we're delivering on the promise of profitable, clean energy. Transparent operating information is key to realizing the promise of solar and energy storage assets. Thus, our commitment is from contract to performance, clients will always know where their project stands.

Company Description

Origis Services delivers the promise of clean energy with operations and maintenance (O&M) and asset management services for solar and energy storage across North America. The team manages a diverse utility scale and distributed generation portfolio with experienced solar professionals backed by a state-of-the-art NERC CIP Compliant Remote Operations Center (ROC) located at its headquarters in Austin, Texas.



Remote Operations Center (ROC)

Origis Services built and operates a new state-of-the-art Remote Operations Center (ROC) supporting 24/7 continuous monitoring, in-house performance engineering, and proactive service. Engineered from the ground up to today's service standards, the Origis facility is 10,000 square feet of technology prowess, housing 70 personnel to support 500 field technicians.