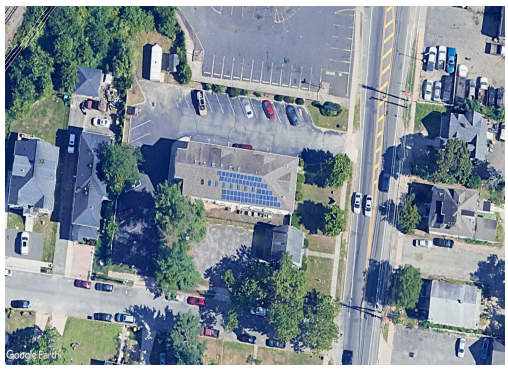
Equipment Damage Consultants, LLC

Case Study – Solar Like It's 2010, Most Unique Claim of 2024

Claim: The Insured, an administrative building owner who also was solar power system installer, experienced lightning damage to their own photovoltaic system (3 of the 4 "arrays" consisting of 60 total 175W solar panels each and a centralized 11.4 KW inverter system). The Insured's solar power service provider company produced a quote for replacement of the system at a cost of $128,875.00.



Challenge: Obtaining an objective evaluation of both the actually damaged infrastructure system components, as well as appropriate replacement quote pricing, which was significantly higher than the reported original installed cost of $78,750.00 in 2010.

Investigation: Equipment Damage Consultants (EDC) conducted a remote damage assessment, agreeing with the need for replacement of the system. However, our research revealed that overall cost of commercial photovoltaic systems was now 70% lower in cost (90% lower for solar panels of the same KW rating) than in 2010 (US National Renewal Energy Laboratory – NREL[1] and the solar industries own trade group Solar Energy Industries Association – SEIA[2]). Requested information later received on the proposal revealed that the replacement system would utilize, in total, 33.0 KW of microinverters with 74 - 450W panels. This was almost triple the size and capacity of the original system. Working with a photovoltaic equipment distributor and obtaining installation costing from a separate service provider, we were able to identify a replacement system based upon LKQ components (30 – 400W panels, 12 KW centralized invertor, disconnect switches, etc.).

Findings & Value: In analyzing the LKQ system costing and evaluating the Insured's service provider's proposed line-item numbers for additional expenses (e.g., engineering drawings, permitting, office labor costs, etc.) we determined an LKQ/RCV of $67,227.06 for the photovoltaic system replacement for this claim. This was $61,647.94 less than the amount claimed, due to the significant upgrades in capacity of the proposed system and the elimination or significant reduction of line-items not required as a result of the event (e.g., solar panel racking, additional electrical materials, etc.).

[1] NREL Website News – Documenting a Decade of Cost Declines for PV Systems. NREL Marks Ongoing Cost Reductions for Installed Photovoltaic Systems, While Also Establishing Benchmark of PV-Plus Storage Systems. February 10, 2021.
[2] SEIA Website Solar Industry Research Data – Growth in Solar is Led By Falling Industry Prices. 2024.

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