QCELLS · RISK SCENARIOS

QCELLS Parcel 9 BESS Lease — Risk Scenarios

For Fano review

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The financial model in QCELLS_PARCEL9_FINANCIAL_MODEL_2026_05_13.md shows what the deal pays if everything goes well. This document walks through what happens if it doesn't. For each scenario I describe what the lease delivers under the current draft and how the eight critical amendments (detailed in QCELLS_PARCEL9_AUDIT_2026_05_13.md) change the outcome.

These are not hypothetical worst cases pulled from anxiety. They are documented patterns from the energy-lease research at ENERGY_LEASE_AUDIT_RESEARCH.md and from real cases including Vistra's Moss Landing fire (January 2025), the SDG&E Otay Mesa fire, and multiple developer bankruptcies in the 2024-2026 wave. The QCELLS draft is more exposed to most of these scenarios than the SunVest draft was because the QCELLS draft simply omits several protections (decommissioning bond, environmental insurance, assignment threshold) that the SunVest draft at least gestured at.

Scenario A: HQCA never exercises the option

The most common downside. HQCA spends the three-year option period studying interconnection capacity, financing, and permitting. They conclude the project doesn't pencil out, deliver no Option Notice, and the agreement automatically terminates at expiration of the Option Period per Section 2(b). You collect $30,000 in option payments ($7,500 + $10,000 + $12,500) and the parcel returns to your control with no equipment installed.

Under the current draft this works fine — option payments are non-refundable to Tenant under Section 2 and the agreement automatically terminates. The amendments don't change this scenario. This is a clean exit and the option payments compensate for the three-year exclusivity lock-in. The construction bonus ($25,000) is not paid because it triggers on Lease Commencement Date, which only occurs upon Option exercise.

Probability: meaningful. Industry observers report a substantial fraction of optioned projects never reach construction, particularly as interconnection queues lengthen and tax-credit markets shift. Monte Carlo simulation models this at 40% per path. This is the most likely outcome.

Scenario B: HQCA exercises but goes bankrupt during construction

HQCA exercises the option, begins construction, and during the construction year HQCA Energy Solutions, LLC files for bankruptcy or its parent withdraws financing. The property has partially-installed equipment, soil disturbance from grading, possibly poured foundations and trenched cabling for the BESS facility. HQCA's lender (Financing Party under Section 13) forecloses on the leasehold interest.

Under the current QCELLS draft, the consequences are bad — worse than under SunVest's equivalent scenario. There is no decommissioning bond at all (the draft simply omits the requirement). There is no Owner termination right for bankruptcy. The lender can either complete construction (unlikely if the project economics didn't work for HQCA) or assign the leasehold to a third party. Section 14(a) allows assignment to any entity in seven broad categories with no net-worth threshold whatsoever — easily a shell. If the shell company also fails, you have abandoned construction debris on your land and no funded path to remove it.

The Monte Carlo simulation models the unbonded-construction-bankruptcy cleanup cost at $250,000 falling fully on Landlord. This is the dominant left-tail contributor in early-deal-life scenarios.

Under the amendments, the consequences are much better. The decommissioning bond is posted before construction begins, in surety bond or letter-of-credit form (not corporate guarantee). The lender cure period is capped at 60 days total. If the lender fails to cure or assign to a qualified buyer, you can terminate (Owner termination amendment) and access the bond to fund cleanup. The assignment threshold is $50M net worth and 100 MW under management, which excludes shell companies.

Probability: smaller than Scenario A but real. The 2024-2026 period has seen a meaningful uptick in renewable-developer bankruptcies as interest rates rose and tax-credit markets shifted. HQCA's parent (Hanwha / Qcells) is a major Korean industrial conglomerate so the parent-level failure probability is low, but the SPV-level (HQCA Energy Solutions, LLC) failure probability is comparable to industry baseline (~3%) because Delaware sub-LLCs have no public balance sheet and can be wound down strategically.

Scenario C: Moss Landing-type fire after several years of operation

A thermal runaway event in the battery installation triggers a fire. Cells release fluorinated electrolyte and heavy metals. Firefighting water becomes contaminated and runs off into surrounding soil. Smoke deposits heavy metals over a one-mile radius (per the San Jose State University study of the January 2025 Vistra fire at Moss Landing, 55,000 pounds of heavy metals were deposited within one mile of the facility). EPA initiates a CERCLA cleanup.

This is the dominant catastrophic-loss scenario for QCELLS as-drafted. The Monte Carlo simulation finds that the single worst-observed path across 10,000 simulations was -$4,867,449 — driven by a deep-tail

fire severity draw combined with the no-environmental-insurance and mutual-fault-based-indemnification configuration of the as-drafted lease.

Under the current draft, the indemnification structure is mutual (Article 21) — each party indemnifies the other only for its own negligence or willful misconduct. Section 24(c) has a Landlord-to-Tenant indemnity for pre-existing contamination, but the reverse (Tenant-to-Landlord indemnity for new contamination caused by the Facility) requires proof of Tenant negligence under Article 21.

If EPA names Landlord as a Potentially Responsible Party under CERCLA (which can attach to property owners regardless of fault), you may face direct enforcement. Insurance is limited to $2M aggregate general liability with no environmental or pollution liability coverage at all. HQCA's insurance does not cover environmental remediation. Your defense costs in any EPA action come out of your own pocket unless you can recover from HQCA — and proof of negligence may be elusive.

The Monte Carlo models Landlord's PRP exposure as 30% of the fire severity draw under as-drafted, and as zero (defense costs only) under the fully-amended configuration.

Under the amendments, the consequences flow the other way. The one-way environmental indemnification clause forces HQCA to indemnify Landlord for all contamination including CERCLA, RCRA, and Illinois Environmental Protection Act liability, regardless of negligence. Defense costs are paid by HQCA upfront, not by reimbursement. Landlord selects its own counsel. Insurance includes a $5M minimum environmental and pollution liability policy with Landlord as automatic additional insured.

Probability: small per facility per year (EPRI tracks roughly one BESS failure per month industry-wide as of 2024-2025, with 0.3% of operating projects experiencing fires with safety concerns), but the consequences when it happens are severe enough that the amendment is non-negotiable. This single scenario is the empirical justification for the $4.87M worst-case in the simulation.

Scenario D: HQCA assigns to a shell company in year fifteen

Year-fifteen rent is approximately $68,000 (at 2.25% flat escalation from year-one $50,000). HQCA / Qcells sells the operating asset to a third-party LLC formed for the acquisition. Two years later, the LLC fails to make a rent payment. You investigate and discover the LLC has $5M in equity, has stopped responding to insurance certificate requests, and the parent company that nominally guarantees performance no longer has any operations.

Under the current QCELLS draft, Section 14(a) permits exactly this kind of assignment — with no net-worth threshold whatsoever. The seven assignment categories include "any entity engaged in a joint venture, partnership or similar arrangement with Tenant or any Affiliate Party" and "successor entity in a merger or acquisition transaction." A $1M shell qualifies as a joint-venture entity. The original HQCA entity is released from liability at assignment (no continuing-liability requirement in the current language).

You can terminate for non-payment after 30 days (Section 16), but at that point you are dealing with an empty LLC for cleanup. The decommissioning bond doesn't exist (it was never required), so even if you terminate, there is no funded path to remove the equipment. The Monte Carlo simulation models this as

full $600K cleanup cost falling on Landlord under the joint as-drafted (no bond + no assignment threshold) configuration.

Under the amendments, this scenario is meaningfully harder for HQCA to engineer. The assignment threshold of $50M net worth and 100 MW excludes shell companies. The original HQCA entity remains jointly and severally liable for five years post-assignment, so even if the assignee fails, you have recourse against HQCA itself for that period. Any assignee posts a new decommissioning bond at assignment, refreshing the financial assurance.

Probability: moderate over a 35-year term. Energy infrastructure is routinely sold and refinanced multiple times across its operating life; the question is not whether the asset gets transferred but whether the transferee has the resources to honor the lease.

Scenario E: Tax reclassification triggers larger increase than reimbursed

The McHenry County assessor reclassifies the parcel from agricultural or open-space to commercial/utility-use after construction completes. Annual property tax jumps from a few thousand dollars to nine to fifteen thousand dollars per year, depending on the assessment methodology and the BESS facility's footprint.

Under the current draft, Section 12(a) requires Tenant to pay "any increase in Taxes and Assessments accruing solely during the Term against the Premises to the extent resulting directly from the presence of the Facility on the Premises." Two restrictive words stack — "directly" AND "solely" — and either one alone is enough to argue partial reimbursement. If the assessor characterizes part of the increase as a market-driven reassessment or as a regional industrial-corridor effect unrelated to the BESS installation, HQCA can decline to reimburse that portion.

Additionally, Illinois imposes rollback taxes when agricultural property is converted to non-agricultural use — typically three to five years of recaptured back-taxes on conversion. The current draft is silent on rollback tax responsibility.

The Monte Carlo simulation models 30% of the tax delta as unreimbursed under as-drafted ($9,000/yr × 30% = $2,700 annual drag) — applied every year of operations, this contributes meaningfully to expected NPV reduction.

Under the amendments, "solely" and "directly" are deleted; "substantially as a result of, or contributed to by" replaces them. HQCA is explicitly responsible for any rollback taxes owed on conversion. The 30% drag goes to zero.

Probability: high. Property tax reclassification on energy-leased land is consistently identified as the number-one regret of landowners who signed solar and battery storage leases without proper reimbursement language. Documented cases include a retired farmer whose taxes jumped from approximately $4,000 to over $18,000 per year on a solar-leased parcel.

Scenario F: HQCA exercises but operates uneventfully for 35 years

Everything works. HQCA exercises the option, builds the BESS facility, operates without incident, exercises all three renewals, and at year 35 they remove the equipment, the bond covers the cleanup cost, and the parcel returns to your heirs in approximately the condition it left.

Under both the current draft and the amendments, this scenario plays out — but with one important difference. Under the current draft, there is no bond, so the equipment-removal obligation at end-of-term is unfunded. Section 20 says Tenant "shall commence to decommission, dismantle and remove the Facility...and restore the Premises to its original condition" — but without a bond, the only enforcement mechanism is a breach-of-contract action against HQCA, which by year 35 may be a different entity than the one that signed the lease.

In the best case (parent guarantee still in place, HQCA still in business), the lease pays approximately $2,605,775 nominal across the operating term plus $30K option + $25K construction bonus = $2,660,775 total. After tax, present value at 5% discount, this is roughly $590K-$700K to your descendants in today's dollars, accumulated across 35 years.

Under the amendments, this scenario plays out the same, but the bond is in place — so even if HQCA is gone at end-of-term, the cleanup is funded.

Probability: moderate. Industry data on battery storage longevity is still maturing; some projects will reach 35 years with re-investment in cell replacement, others will be retired earlier. The Monte Carlo finds only 5.2% of paths reach the full 35-year term — most exit earlier via R2 or R3 non-renewal.

Scenario G: HQCA builds a larger project than contemplated, paying same flat rent

The QCELLS draft pays flat $50,000/year regardless of project size. If HQCA's interconnection study concludes the substation can accept 8 MW or 10 MW BESS capacity, they may build at the higher size — and Landlord receives no upward adjustment.

This is the inverse-asymmetry scenario from SunVest. SunVest pays $75K base + $15K/MW above 5 MW, so a 10 MW SunVest project pays $150K/year. A 10 MW QCELLS project pays $50K/year — one-third of SunVest's rate on identical capacity.

The Monte Carlo does not model this scenario because the contract does not pay variably with size. But it is worth noting: if HQCA builds at higher than the implicitly-contemplated size, Landlord captures none of the upside. Inserting a per-MW premium structure in the amendment letter is listed as a smaller item rather than a critical one because Qcells is unlikely to accept a variable-rent structure mid-negotiation,

but if they do accept it, the expected NPV uplift is meaningful.

Recommended amendment language (in the smaller items list): "Insert a per-MW premium structure parallel to the SunVest model: $50,000 base for the first 5 MW + $10,000 per MW for capacity above 5 MW, applied at Commercial Operation Date and adjusted at any subsequent capacity Alteration."

Probability of meaningful upside: low conditional. If accepted by Qcells, the expected NPV uplift is approximately $50K-$120K depending on the realized project size distribution.

What the amendment letter is actually buying you

The amendments cost you nothing. Qcells's legal team has seen all of these requests in dozens of leases; most will be accepted with minimal pushback. They might counter on a few items (typically the assignment threshold and the bond magnitude) but the negotiation is usually a 5-to-10-day cycle ending in a redline that captures most of what you asked for.

What the amendments buy you is protection against scenarios B, C, D, and E — which collectively represent the realistic downside risk over a 25-to-35-year term. Without the amendments you are taking HQCA's word that none of these scenarios will happen, and accepting financial exposure if they do. With the amendments you transfer the risk back to HQCA, which is where it belongs.

The cost of NOT amending the draft is asymmetric. If everything goes well (Scenario F), you've paid nothing for protections you didn't need. If anything goes wrong (B through E), you save somewhere between $50,000 (a tax-reimbursement gap) and $5M+ (a CERCLA action) depending on which scenario hits. The Monte Carlo simulation confirms this: the as-drafted worst case is -$4.87M; the amended worst case is +$28K.

This is straightforward expected-value math. The amendments dominate the un-amended draft in every realistic scenario except the one where everything works perfectly — and even there, they cost nothing.

What you can't amend

Some risks are not in the lease. The parcel could appreciate substantially over 25 years and the lease becomes a below-market deal — the amendments don't change that, you accepted long-dated rent in exchange for current cash. HQCA's parent (Hanwha / Qcells) could be acquired by a different operator with different practices — the amendments require qualified successors but can't prevent quality drift over decades. Federal energy policy could shift in ways that change the economics of battery storage — outside everyone's control.

The amendments are about transferring risk that should be HQCA's, not eliminating risk that comes with any long-dated lease. The deal makes sense at $1.3M-$2.66M nominal revenue across 25-35 years if and only if you've adequately controlled the downside scenarios that the amendments address.

Cross-reference: QCELLS_PARCEL9_AUDIT_2026_05_13.md for the clause-by-clause analysis, QCELLS_PARCEL9_FINANCIAL_MODEL_2026_05_13.md for the dollar projections, QCELLS_PARCEL9_MONTE_CARLO_REPORT_2026_05_13.md for the probabilistic simulation, QCELLS_AMENDMENT_REQUEST_DRAFT_2026_05_13.md for the actual amendment language to send Qcells, and ENERGY_LEASE_AUDIT_RESEARCH.md for the underlying research framework with documented case citations.