

Technical Due Diligence for €430M refinancing of a solar and wind portfolio

Case study of JP Energie Environnement
with 3E Advisory Services



Project overview



Project name	Daiquiri portfolio
Location	France
Transaction type	Refinancing
Number of assets	44
3E's scope of work	Full technical due diligence

Asset Owner	JPee
Asset type	Solar & wind
Total capacity	427.8 MW
Transaction value	€430M



Context

When JP Energie Environnement (JPee) launched the refinancing of its Daiquiri portfolio in 2025, the objective was to consolidate its financial structure while creating room for new ambitions in diversification, international development and external growth.

The transaction, worth €430 million and supported by a syndicate of major French lenders including Bpifrance, CIC, Société Générale and Crédit Agricole Transitions & Energies, covered 44 renewable assets distributed across France, combining long-operating sites, recently commissioned projects and even a wind farm still under construction.

To support this strategic milestone, JPee appointed 3E as Independent Technical Advisor for the entire refinancing process. Our mandate consisted in delivering complete technical due diligence that would give lenders an accurate, independent and bankable understanding of the portfolio's condition, risks and long-term performance.

The challenge



A complex multi-technology energy portfolio requiring comprehensive technical due diligence

The Daiquiri portfolio represents one of the most heterogeneous and extensive fleets in operation refinanced in France in recent years. It includes 25 photovoltaic plants, ground-mounted, rooftop and carport systems and 19 wind farms, totaling 427.8 MW.

Technologies span a wide range of manufacturers, generations and warranty regimes. Asset maturity varies significantly, from plants with over five years of operational history to sites commissioned only months earlier. One project, the Clermont-en-Argonne wind farm, is still in the construction phase.

This diversity required a rigorous, harmonised and deeply contextualised approach.

Lenders expected a fully independent view of the portfolio's technical risks, lifetime prospects, energy production potential and contractual robustness.

The solution



Independent Technical Advisory ensuring renewable energy asset bankability

Multidisciplinary technical due diligence

3E deployed a multidisciplinary team to assess every dimension of the portfolio. The work combined detailed document analysis with field inspections covering more than half of the total capacity. The aim was not only to confirm the condition and performance of each asset, but also to anticipate how they would behave over the next 20 to 30 years.



Technology review

The technology review examined all PV modules, inverters and wind turbine models in operation. For each technology, we evaluated manufacturer histories, certifications and warranty structures. This allowed lenders to understand which assets have strong long-term security and where attention may be needed, for example in cases where industry visibility for older PV suppliers has decreased.



Long-term asset durability evaluation & lifetime extension strategy

Lifetime evaluations focused on the feasibility of extending operating horizons. For PV, we established replacement strategies and cost projections ensuring performance up to 30 years. For wind farms, we determined that 25-year operation was achievable with targeted maintenance and replacement plans. These findings were crucial to validating the assumptions built into the refinancing financial model.



The solution



Independent Technical Advisory ensuring renewable energy asset bankability



Operational performance and risk analysis

Operational analysis drew from SCADA data, O&M records and performance logs. Across most assets, performance aligned with expectations, although some sites required closer monitoring. We documented factors such as curtailments due to negative pricing or grid constraints, clarifying which impacts were compensated financially and which reflected operational realities. Where performance deviations existed, such as module degradation rates above theoretical expectations, we provided recommendations and follow-up actions.



P50/90 energy yield assessments

A major component of the due diligence was the long-term energy yield assessment. We prepared independent P50 and P90 estimates for each asset and for the portfolio as a whole. The resulting yield assessment was reliable, transparent and aligned with lenders' risk frameworks. Importantly, we quantified the portfolio effect, which resulted in a 2.04% gain on the P90 over ten years, a key element in reducing risk perception for the lenders.



On-site inspections and risk assessment

Finally, our engineers visited a representative sample of both PV and wind assets, 94 MWc of solar and 125 MW of wind capacity. These inspections allowed us to validate design implementation, identify minor non-conformities and confirm the overall strong state of the assets. We also reviewed the annual turbine inspection reports produced by a third party, integrating those findings into our risk assessment. No major issues threatening the long-term viability of the assets were identified.

The results



Independent technical advisory for bankable renewable energy projects

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€430M refinancing successfully completed

The refinancing was successfully completed, with JPee publicly highlighting the transaction as a testament to the confidence of its financial partners and the strength of its business model. By providing a clear, independent and deeply technical understanding of the Daiquiri portfolio, 3E played a central role in enabling this outcome.

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Reducing risk and building lender confidence

Our work reduced uncertainty for lenders across all core dimensions energy production, asset durability, operational robustness and contractual security. It gave financial institutions the assurance that risks were well understood, manageable and transparently communicated.

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Enabling JPee's growth & ambitions

It also strengthened JPee's position by validating the quality of its assets, the efficiency of its operations and the solidity of its development and maintenance practices.

For JPee, the refinancing opens a new chapter. As their CEO Xavier Nass stated below, it provides the means to accelerate their contribution to the energy transition and pursue new ambitions.

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This refinancing demonstrates the confidence of our partners and the resilience of our business model. It provides us with the resources to accelerate our contribution to the energy transition while paving the way for new ambitions.

We extend our gratitude to 3E for the rigor and excellence of their technical assessment, which played a decisive role in securing the support of our financial partners.

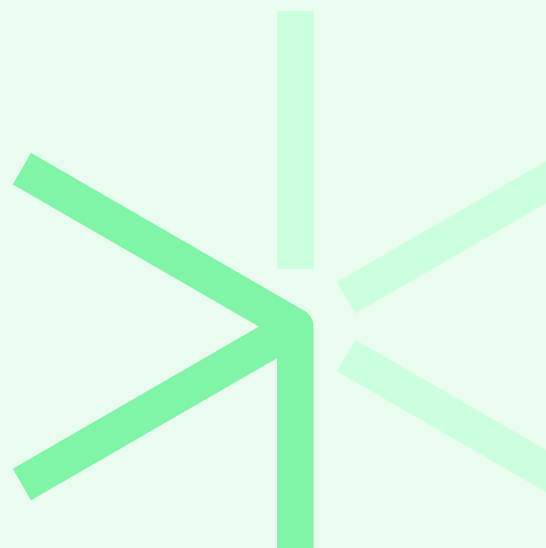
Xavier Nass

CEO, JP Energie Environnement

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Independent expertise as a capital enabler

For 3E, it demonstrates once again the value of rigorous, independent technical expertise in unlocking capital for renewable energy.



About 3E



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3E is a market-leading SaaS and advisory company for the renewable energy sector

Our team of over 180 experts works with developers, asset managers, operators, investors, public entities, EPC contractors and IPPs. Our job is to enable them to make informed decisions across the full lifecycle of their projects – whether that's solar, wind, green energy or energy storage.

Based on our 25+ years of global experience, we provide both digital solutions and expert advisory services, which is unique in the sector.

Our SynaptiQ platform offers a comprehensive suite of SaaS solutions that optimises the development and operations of renewable assets.

In parallel, our advisory team delivers technical, engineering and strategic advice to ensure bankable projects.

Powered by collaborations with universities and industry pioneers, we drive innovation and deliver the industry's most advanced energy intelligence solutions.



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