

KRONOS · LEVEL 1, PROJECT SHEET

Technical-Economic Analysis and Risk Factors

Agrivoltaic + BESS Project

SAMPLE CASE, Central Italy

Preliminary pipeline assessment, exogenous and endogenous risk factors

Agrivoltaic plant with single-axis tracker and integrated electrochemical storage · 8.60 MWp DC / 6,900 kW MV injection · BESS 9.0 MW · site in Central Italy, location and cadastral details confidential.

Project vehicle: dedicated SPV (name confidential)

Type	Agrivoltaic + BESS, single-axis bifacial tracker	Location	Central Italy, peri-urban valley floor (detail confidential)
Power	8.60 MWp DC · 6.90 MW AC · BESS 9.0 MW (~36 MWh)	Declared yield	1,650 kWh/kWp/year (client input)
Planned permit	Single Authorization, environmental screening not required	Land	SLR preliminary, 4,200 €/ha/year, 30 years
Connection	MV 20 kV, dedicated antenna from the area reference PS	Consideration	520,000 € + VAT (~92 €/kW incl. VAT) · demonstrative value

Report date: June 2026

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SUMMARY AND PRIORITY ATTENTION POINTS

Overall profile: MEDIUM. Technically sound project with land at market conditions. The risk profile is dominated by the connection, onerous, with a route of declared criticalities and an imminent deadline, and by the BESS withdrawal not covered by the STMG. Three actions are urgent in the coming weeks.

ITEM	ASSESSMENT	SUMMARY
Connection quote acceptance	● URGENT	45-working-day window closing soon. Non-acceptance = loss of the reservation on a saturated primary substation.
Connection / STMG	● HIGH	Dedicated MV antenna ~4.5 km, complex works, two stretches declared by the DSO presumably not feasible. Error on the quote object to correct.
BESS grid withdrawal	● HIGH	The quote governs injection only; withdrawal for grid charging is not covered. Without a withdrawal contract the BESS runs on PV charging only, impact on the hybrid business model.
STMG validity vs AU times	● MEDIUM	Reservation valid 210 working days against a regional AU of 12-18 months. Manageable by activating persistence checks in time (art. 33.5/33.6 TICA).
Land	● MEDIUM	Preliminary in private form not transcribed (not enforceable against third parties); deposits to pay; subdivisions to execute.
Permitting	● LOW	AU correct; agrivoltaic qualification (module height ≥ 2.1 m + certification $\geq 80\%$ GSP) to document explicitly.
Territorial / cumulative	● MEDIUM	Area sensitive to agrivoltaic with active local opposition in the wider area; recent hailstorm in the zone; adjacent existing PV.
Layout / technical	● LOW	Consistent layout; minor documentary inconsistencies (DC power, module model) and structure height to document.

1. Accept the connection quote by the deadline, paying the 30% down payment; request in parallel the correction of the object error and open the procedure for the BESS grid-withdrawal contract.
2. Launch the AU application by Q3 2026 to keep the services conference consistent with the STMG reservation validity; document the structure height (≥ 2.1 m) for the Law 4/2026 qualification and harmonize the DC power inconsistencies before filing.
3. Proceed with the notarial transcription of the preliminary: it unlocks the deposit, makes the contract enforceable against third parties and enables the transfer of the project at RtB.

1. Land

ASPECT	OUTCOME	NOTE
Contract form	● TO COMPLETE	Private deed not transcribed = not enforceable against third parties. Notarial transcription is the condition for the deposit and is essential for any project transfer (RtB).
Surface and parcels	● COMPLIANT	~15 ha; SLR 30 years; unilateral preliminary (final-deed obligation on the Owner only).
Rent (SLR)	● COMPLIANT	4,200 €/ha/year, updated annually at 100% ISTAT FOI from the second year. In line with the macro-area market.
Cadastral subdivisions	● TO COMPLETE	Needed for the partially-affected parcels, before the final deed, cost borne by the Developer.
Final deed	● ATTENTION	Not executable before autumn 2027; to represent in case of early exit.
Agricultural safeguard	● LOW	Agricultural usufruct and cultivation pre-emption in favour of the owner; organic land ≥3 years, functional to the agrivoltaic qualification (Law 4/2026).

2. Connection (STMG analysis)

- **Saturated point, antenna solution:** available capacity near zero on the reference PS. New delivery cabin connected as antenna, with ~4.5 km of buried AL 240 mm² cable + aerial stretch + new bay in the PS and MV switchboard rebuild.
- **Complex works (art. 10.1 TICA):** a significant share executable only by the DSO. Self-build does not remove the critical DSO path.
- **"Presumably not feasible" stretches:** the DSO flags two critical stretches and the crossing of a peri-urban context. Detailed design will require variants, easements and clearances.
- **Error on the object:** DSO error on the source, to correct together with acceptance, relevant for GAUDÌ, the operating regulation, CCI obligations and consistency with the AU application.
- **BESS withdrawal not covered:** the quote governs injection only. Without a separate withdrawal contract the BESS runs on PV charging only.
- **Potentially shared connection (art. 16.7 TICA):** obligation to identify a lead party within legal deadlines. If not identified: added risk and delays outside the developer's control.

ECONOMIC FRAMEWORK AND DEADLINES

ITEM	AMOUNT / DEADLINE	NOTE
Connection consideration	520,000 € + VAT (634,400 € incl. VAT)	~92 €/kW incl. VAT · demonstrative value
30% down payment on acceptance	190,320 € incl. VAT	To pay by the quote deadline
70% balance	444,080 € incl. VAT	On works completion (not due if self-build)
Acceptance deadline	45 working days → expiring	CRITICAL: few working days left
STMG validity	210 working days from acceptance	Art. 33.5/33.6 TICA for persistence check beyond the term
DSO works execution	~395 working days (~18 months)	Net of permitting suspensions

3. Permitting

- **Agrivoltaic qualification (Law 4/2026, RES Consolidated Act):** raised trackers, minimum height 2.1 m, certified agronomic plan, ≥80% GSP retained. Organic land and agricultural usufruct already contracted are favourable elements.
- **Suitable areas:** regional transposition ongoing. If the parcels fell within a suitable area, the PAS window would open. Otherwise, proceed with AU without waiting.

CRITICAL SEQUENCE

EVENT	DEADLINE	CONDITION THAT HOLDS THE TARGET
STMG acceptance deadline	Expiring soon (45 working days)	CRITICAL, in parallel: object correction + BESS withdrawal procedure opening
AU application	By Q3 2026	Conditions the grid window; slipping beyond Q3 reduces the buffer on the STMG deadline
STMG reservation validity	~210 working days from acceptance	Persistence checks (art. 33.5/33.6 TICA) to activate early

EVENT	DEADLINE	CONDITION THAT HOLDS THE TARGET
Services Conference (AU)	Estimate 12-18 months from application	Depends on SUAP load and any public inquiry
RtB target	H1 2028	Holds only respecting the sequence above

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SIMILE

4. Exogenous risk factors and context

- **Social MEDIUM:** in a nearby municipality (~10-12 km) local anti-agrivoltaic opposition is active, backed by a council motion. The base is mobilizable also on nearby projects. No opposition documented on the specific site.
- **Hail HIGH:** last season an exceptional hailstorm caused damage to PV plants in nearby municipalities. Implications: modules to verify against IEC 61215 class III test (≥ 35 mm); anti-hail stow systems; All Risks policy with hail clause from the STMG.
- **Hydrogeological / PAI-PGRA:** peri-urban fluvial valley-floor site. Verify the parcels do not fall in band A or B. To include in the AU application and the hydraulic compatibility report.
- **Landscape and constraints LOW-MEDIUM:** no direct landscape constraint documented (verify distance from the protected watercourse); high local sensitivity due to the area debate.
- **Grid, PS saturation:** the PS is at the capacity limit; the antenna solution isolates the plant from competition but does not remove route risks. Area upgrades (2030+) are incompatible with the schedule.

CUMULATIVE IMPACT (SUMMARY ASSESSMENT)

PLANT / PROJECT	ESTIMATED DISTANCE	RELEVANCE FOR CUMULATIVE
Adjacent existing PV ("restricted area" to layout)	< 0.3 km	HIGH, direct co-visibility; to census in the AU visual-impact framework with cadastral precision
PV / agrivoltaic in peri-urban area (from orthophotos)	0.5-2 km	MEDIUM, diffuse presence of small and medium plants; verify on GAUDI for size and power
Relevant plant in the wider area (in AU process)	~10-12 km	LOW for intervisibility, HIGH for social sensitivity and grid: same perception basin

5. Layout and technical notes

PARAMETER	VALUE FROM DOCUMENTS	ASSESSMENT
Available / fenced area	~13.3 ha / ~14.4 ha	Consistent with the contracted surface
DC density / GCR	≈ 0.58 MWp/ha · GCR ~0.37	Physiological for agrivoltaic with tracker
Pitch / free space	~6.5 m pitch · ~4.1 m free	Compatible with standard farm machinery
Modules	Bifacial Tier-1 · ~14 per string	Verify hail resistance (IEC 61215 class III, ≥35 mm)
Structure height	Not documented	TO DOCUMENT: min. 2.1 m for cultivation (Law 4/2026)
DC/AC ratio	≈ 1.25	Physiological; contained clipping for single-axis tracker
BESS	9.0 MW active, battery area, PCS and containers	~4 h size (est. ~36 MWh); layout present but not detailed
DC power INCONSISTENCY	Discrepancy between pipeline, layout and STMG	Documentary inconsistency to harmonize before the AU

6. Economic assessment (LCD model)

The LCD model (Land · Connection · Development) compares the sum of the three cost items with the target disposal value at RtB, derived from ReNow proprietary market benchmarks. Metric, weights, capitalization formulas and benchmark bands are not reproduced in this document.

ITEM	VALUE	READING
Land (SLR NPV)	● ● <i>proprietary</i>	SLR NPV (rent × duration, proprietary capitalization) ÷ MWp DC.
Connection	● ● <i>proprietary</i>	Net-VAT STMG consideration ÷ MWp DC. Mid-band of the agrivoltaic benchmark.
Land + Connection	● ● ● <i>benchmark</i>	Positioning vs the proprietary agrivoltaic benchmark.

ITEM	VALUE	READING
Target value at RtB	... model	Derived from the ReNow agrivoltaic model (yield, energy prices, IRR by buyer type).
Residual development margin at RtB	... proprietary	Optimistic and prudential scenarios computed by the proprietary engine.

Reading: the project falls within the macro-area target values; the connection cost erodes the margin but Land is well positioned. Three protection levers: (i) freeze the connection consideration avoiding costly route variants; (ii) monetize the hybrid, the BESS on the same POD is the main M&A negotiating upside once the withdrawal contract is resolved; (iii) document the advanced agrivoltaic qualification, which lowers the buyer's perceived permitting risk.

End of project analysis

Economic values are illustrative and fictitious (demonstrative case); the LCD model, weights and market benchmarks are ReNow proprietary and not reproduced. KRONOS · Level 1 methodology (project sheet).