Romania Distributed Solar Platform Business Plan

Solar-as-a-Service • Rooftop aggregation • Energy sharing • Public assets • Financing platform

Purpose. This plan extracts the distributed-solar programme from Romania 2035 and tests it as a stand-alone commercial platform. The policy and the business reinforce each other, but they are deliberately separated here: government creates a clear, competitive and financeable market; a private company can then originate, aggregate, finance, install, operate and manage projects within that market without depending on permanent grants.

The central commercial proposition is simple: convert underused roofs and artificial surfaces into long-duration energy assets without requiring the property owner to fund the full upfront investment. The platform standardises site qualification, contracts, procurement, financing, metering, billing, operations and maintenance. It earns development, procurement and asset-management income and can selectively co-invest in project SPVs.

The model is strongest where electricity can be consumed or shared locally. Self-consumed/shared electricity replaces a higher retail cost than exported electricity earns in the wholesale market. The business therefore optimises roofs against real load, not maximum panel count. Storage is added only where it improves project economics, resilience or grid access.

Investment thesis at a glance

Item	Business case
Customer	Condominiums, SMEs, retail/office/industrial properties, public buildings and car parks
Offer	No/low-upfront-cost solar; long-term energy/service agreement; optional buyout
Core moat	Portfolio aggregation + standard contracts + finance + procurement + data + operating platform
Revenue	Development fees, procurement margin, recurring asset management/O&M, energy/PPA margin, selective equity returns
Illustrative project case	€700/kWp CAPEX; 1,200 kWh/kWp/year; 65% local allocation; DSCR ~1.41x at 75% debt, 10%/10y
Strategic fit	EU solar-building mandate, accelerated permitting, energy-sharing rights, EIB/InvestEU energy-efficiency financing

1. Executive summary

Romania has the ingredients for a large distributed-energy market but still treats too many rooftop projects as one-off installations. The commercial opportunity is to become the infrastructure layer between property owners, installers, banks, distribution operators and energy-market participants. Rather than competing as another installer, the company would own the customer journey and the bankable portfolio: identify sites, qualify roofs and grid access, model energy flows, run competitive procurement, arrange finance, execute standard contracts, supervise installation and manage the asset for 15-25 years.

This approach directly follows the Romania 2035 force-multiplier logic. One portfolio creates several revenue and value streams: lower electricity costs for the host, recurring contracted cash flow for investors, origination volume for banks, lower unit costs through procurement, predictable demand for installers and equipment suppliers, and a reusable dataset for underwriting future projects. Public money, if used at all, is reserved for credit enhancement, vulnerable households or enabling works that cannot be financed commercially.

EU law is moving in the same direction. The recast Energy Performance of Buildings Directive creates a staged solar deployment requirement for suitable buildings, while RED III shortens solar permitting and the amended Electricity Market Directive establishes a right to energy sharing and explicitly permits a third-party energy-sharing organiser. That is unusually close to the proposed commercial role: a professional entity can manage contracting, billing, metering, maintenance and the renewable asset, subject to Romania's implementing framework.

The business should launch asset-light. During the first 12-18 months, capital is better spent on origination, legal standardisation, engineering, software and financing partnerships than on owning every system. Once operating data establishes default, production and collection performance, the company can raise a dedicated infrastructure vehicle and retain minority equity in the highest-quality portfolios.

Base-case economics

Metric	Base case	Comment
Installed cost	€700/kWp	Working assumption; validate by tender
Annual yield	1,200 kWh/kWp	Location/roof-specific
Local/shared allocation	65%	Primary value driver
Local energy price	€0.14/kWh	Price paid to project / service tariff
Export realisation	€0.06/kWh	Conservative working assumption
O&M/insurance/admin	€14/kWp/year	Working assumption
Project EBITDA	€120.4/kWp/year	17.2% of CAPEX
Debt structure	75% debt, 10%, 10 years	Annual debt service €85.4/kWp
DSCR	1.41x	Above 1.30x target in base case

2. The problem and the market gap

The technical product - photovoltaic panels - is increasingly commoditised. The harder problem is transaction cost. A 50-250 kWp roof may require structural review, owner approvals, grid work, legal documentation, procurement, financing, metering, billing and long-term maintenance. Each item is manageable; together they make small distributed projects expensive to originate and difficult for institutional capital to finance one by one.

Condominiums add a second problem: the roof is common property while the electricity benefit is distributed among many consumers. Commercial and industrial buildings add tenant/landlord split incentives. Public buildings add procurement and public-asset constraints. The opportunity is therefore not merely EPC installation. It is standardisation and aggregation.

Romania's current prosumer framework already supports systems up to 400 kW per consumption point and ANRE places connection, certification, metering and data-transfer responsibilities with distribution operators. The commercial platform can use this existing infrastructure while the policy programme simplifies collective self-consumption and energy-sharing arrangements.

Target market sequence

Priority	Segment	Why	Typical size
1	SME / commercial rooftops	Fastest sales cycle; daytime load; straightforward credit	50-500 kWp
2	Condominium portfolios	Large social impact; aggregation moat; requires standard owner/energy-sharing contracts	40-200 kWp
3	Public buildings / car parks	Strong pipeline and EPBD pull; procurement/concession complexity	50 kWp-2 MWp
4	Industrial / logistics	Large roofs; strong economics; sophisticated counterparties	250 kWp-6 MW
5	Mixed energy communities	Solar + storage + EV charging + flexible load	Portfolio-dependent

3. Product: Solar-as-a-Service

The customer does not buy panels. The customer buys a defined economic result: a lower and more predictable cost of electricity, with the platform responsible for development, financing, installation, operation and lifecycle performance. The contract can be structured as a roof lease plus energy agreement, an energy-services contract, a private PPA where legally appropriate, or an energy-sharing arrangement under the Romanian implementation of EU rules.

- No or limited upfront capital from the host.
- Transparent discount or tariff formula versus the relevant electricity benchmark.
- 15-25 year operating term, with clear buyout windows and end-of-term transfer/removal.
- Roof integrity, waterproofing, access, insurance, liability and roof-replacement rules defined before construction.
- Remote monitoring, preventive maintenance, inverter replacement reserve and performance reporting.
- Optional storage only after an economic/grid study; no battery-by-default sales strategy.

4. Business model and corporate structure

The recommended structure separates the operating platform from project assets. A PlatformCo owns software, customer acquisition, engineering standards, procurement frameworks, contracts and asset-management capability. Each financed portfolio sits in a bankruptcy-remote SPV or fund vehicle. Banks lend to the SPV against contracted cash flows; infrastructure investors provide equity; PlatformCo earns fees and may retain a minority stake.

Party	Role	Economics
PlatformCo	Origination, underwriting, design standards, procurement, software, asset management	Development fee; procurement margin; recurring management/O&M
Project SPV	Owns solar/storage assets and contracts	Energy/service revenue; residual asset value
Bank / lender	Senior secured project or portfolio debt	Interest + fees
Equity investor	Funds project equity	Distributions / IRR
Host / association	Provides roof/site and consumes/shared energy	Lower energy cost; roof rent/revenue share where appropriate
Installer/EPC	Design/build under framework	EPC margin; warranty obligations
Supplier / aggregator	Market interface, balancing/export where required	Trading/supply fee

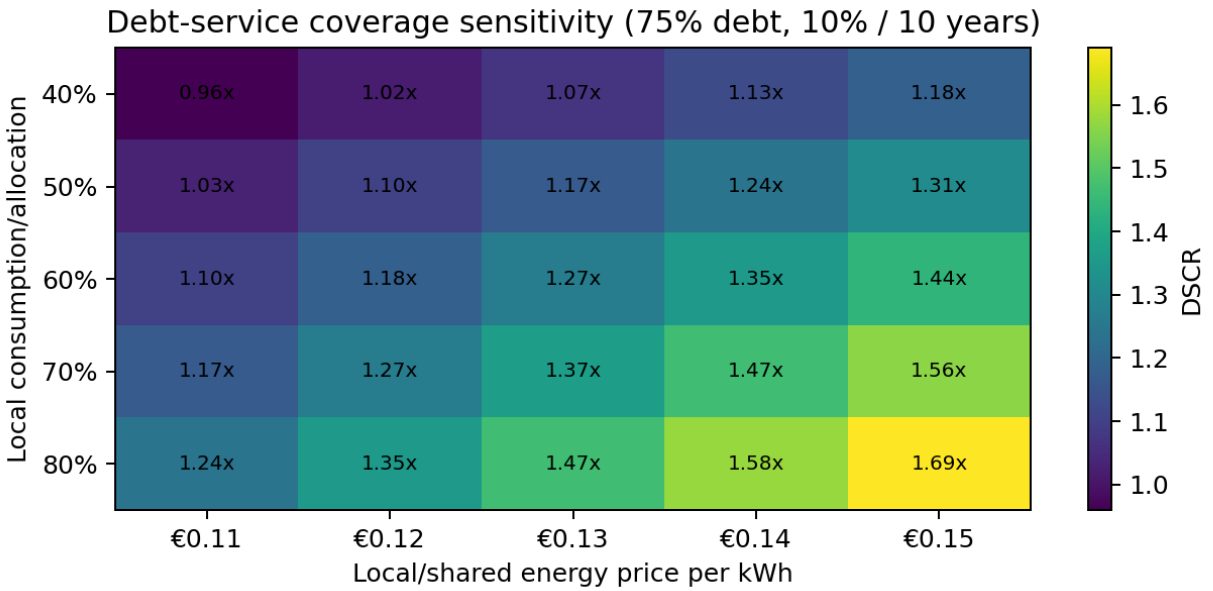
Platform revenue stack

- Development/origination fee: illustrative 3-5% of project CAPEX at financial close.
- Procurement/framework margin: illustrative 1-3%, disclosed and competitively benchmarked.
- Recurring asset-management fee: illustrative €8-15/kWp/year.
- O&M coordination / monitoring fee or margin.
- Energy margin where PlatformCo or an affiliated licensed/contracted entity is entitled to capture it.
- Minority equity co-investment in selected portfolios after operating data is proven.

5. Unit economics

In the working base case, one installed kWp costs €700. At 1,200 kWh/kWp/year, 65% local/shared allocation at €0.14/kWh and the balance exported at €0.06/kWh, annual gross project revenue is about €134.4/kWp. After €14/kWp of operating cost, EBITDA is approximately €120.4/kWp.

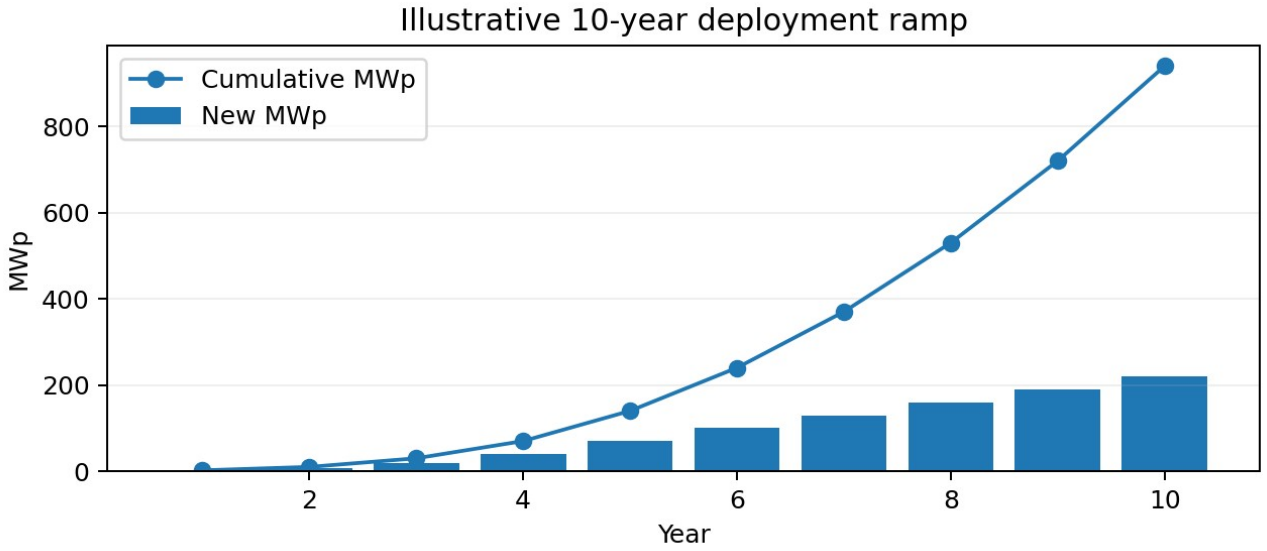
With 75% debt amortised over 10 years at 10%, annual debt service is approximately €85.4/kWp, producing a base DSCR of about 1.41x. This is not a promise of return; it demonstrates the key underwriting insight: project viability is driven primarily by local consumption/allocation, installed cost, financing cost and the contractual energy price.



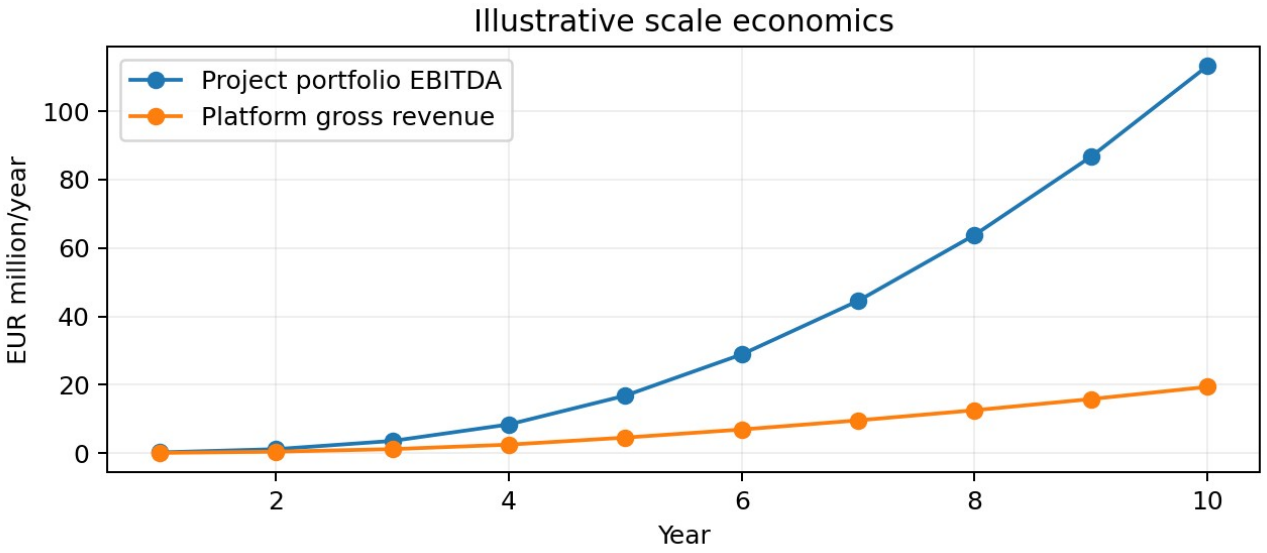
DSCR sensitivity: local use matters more than maximising export.

6. Portfolio strategy and scale

Small projects become institutional assets only when they are pooled. The platform should underwrite to a common data schema, standard technical specification and standard legal documents. Portfolios can then be financed by region, customer type or credit quality. This lowers diligence cost per site and creates diversification across weather, customer and equipment risk.



The ramp above is intentionally illustrative: 2 MWp in year one, 10 MWp cumulative by year two, 70 MWp by year four and 940 MWp by year ten. The purpose is to show what a portfolio company looks like at scale, not to forecast Romanian market share.



Illustrative 10-year deployment

7. Go-to-market

The first commercial advantage should be distribution rather than advertising. The platform should sign channel agreements with property managers, condominium administrators, chambers/business associations, banks, developers, logistics/retail property owners and municipalities. Each partner contributes a pipeline; the platform supplies a standard qualification and finance process.

Customer funnel

Stage	Data / action	Output
1. Lead	Address, roof ownership, annual electricity use, tariff, load profile	Automated preliminary score
2. Qualification	Roof/GIS, structural age, shading, grid point, legal owner	Go / investigate / reject
3. Indicative offer	System size, expected generation, local-use ratio, savings, term	Standard term sheet
4. Diligence	Structural, electrical, legal, credit, grid	Investment committee pack
5. Tender / procurement	Framework EPC and equipment competition	Fixed/controlled CAPEX
6. Finance close	Debt/equity/SPV documentation	Notice to proceed
7. Operate	Metering, billing, O&M, performance	Recurring revenue

8. Technology and data platform

Software is not the business by itself, but it is what makes thousands of small assets behave like one portfolio. The platform should maintain a digital twin of every site: roof geometry, equipment, grid connection, contracts, meter identifiers, generation, consumption allocation, invoices, maintenance events, warranties and lender reporting.

- GIS/roof screening and public-surface registry ingestion.
- Energy-bill and interval-data ingestion where authorised.
- Automated sizing and tariff comparison.
- Workflow for owner approvals, documents and e-signatures.
- Tender comparison and equipment traceability.
- Metering/allocation/billing interfaces.
- Portfolio performance, covenant and DSCR monitoring.
- Open API for banks, distribution operators and public programmes where lawful.

9. Legal and regulatory architecture

The commercial model is viable only if contracts and metering follow the Romanian implementation of EU electricity-market rules. The plan therefore distinguishes what already exists from what the Romania 2035 policy programme would improve. A private business should not underwrite revenue that depends on a future law until that law is in force.

Layer	Business-plan treatment
Existing Romanian support	Law 123/2012 prosumer framework; ANRE connection/certification/metering rules; Law 196/2018 condominium framework; Law 372/2005 building energy performance; Law 50/1991 construction/permitting.
EU mandate / tailwind	Directive 2024/1275 Article 10 solar deployment in suitable buildings; RED III Article 16d accelerated solar permitting; Electricity Directive Article 15a energy-sharing right and third-party organiser.
Policy change sought	Simpler collective energy sharing; standard third-party organiser model; standard roof/use contract; clear metering/allocation; streamlined owner approvals while protecting property rights; public-surface registry and competitive concessions.
Commercial rule	No project assumes zero network charges or exemption from cost-reflective tariffs. Underwrite only enacted tariffs, taxes and allocation rules.
State-aid rule	Public guarantees/grants used only under compliant schemes; commercial projects must stand on market economics.

EU implementation and legal conditions

Building solar follows EPBD categories, feasibility and deadlines, without an immediate universal roof mandate. Energy sharing uses Romanian rules actually applicable, with metering and transparent tariffs. Owner consent, structural and fire safety, warranties, network costs and recycling are contractual conditions; vulnerable users receive targeted support rather than a general commercial grant.

The EPBD transposition deadline was 29 May 2026 and the final national building renovation plan is due by 31 December 2026. Neither deadline proves that a particular Romanian project can be financed or approved. Legal diligence confirms the applicable national provisions, building category and solar deadline, exemptions, owner approvals, grid terms and procurement procedure before investment.

Public-domain roofs remain protected public property: the authority grants only rights permitted by law and uses the appropriate competitive procedure. The platform assumes no automatic national concession or privileged access. Tax, supply or energy-sharing authorisations and consumer rights are verified for the actual contractual model.

Connected devices and software undergo CRA, NIS2 and data-protection scope checks. RRF references concern existing assets and closure, not future grants. The simplified economics remain illustrative and exclude costs expressly listed in Appendix B; financial close requires a full after-tax model, network and balancing costs, replacement reserves and downside cases.

10. Funding and capital stack

The programme should be designed to attract capital rather than wait for grants. The EIB Group is already scaling energy-efficiency and clean-energy financing, including an EU-wide SME energy-efficiency initiative and InvestEU-backed instruments. Romania also has regional financial instruments combining preferential loans and grants for building efficiency and renewables. These are evidence that the financing architecture is feasible, but the company should build a bankable product that survives without any single programme.

Capital	Indicative share	Source	Principle
Senior debt	50-75%	Banks / EIB-intermediated facilities / green lending	First claim on project cash flow
Equity	25-50%	Infrastructure fund, family office, utility, strategic	Residual return

		investor	
Public risk sharing	0-20% of risk, not CAPEX	InvestEU / eligible national or EU instrument	Guarantee / first-loss where available
Grant	0% commercial base case	Vulnerable customers, roof rehabilitation, public enabling works	Targeted only
Host contribution	0-25% optional	Association/company/public owner	Improves tariff / shortens term

11. Procurement and supply-chain strategy

The platform's purchasing alliance is both a margin opportunity and a risk-control tool. Demand is aggregated only after the project pipeline is real. Multi-year frameworks should preserve competition between modules, inverters, structures, EPCs and O&M providers. Procurement criteria should include total lifecycle cost, warranty bankability, cybersecurity for connected devices, delivery performance, repairability, recycling and EU-compliant resilience criteria - not nationality quotas.

- At least two qualified suppliers per critical equipment category.
- No single inverter/module vendor concentration above a board-approved threshold.
- Framework pricing resets against market indices and volume bands.
- Serial-level equipment traceability and warranty database.
- EPC retention/performance security and commissioning acceptance.
- Spare-inverter strategy for large portfolios.

12. Public buildings as a commercial segment

Public roofs can become a significant pipeline because EU building rules create a staged solar obligation where technically, economically and functionally feasible. The preferred business model is not automatically public CAPEX. A public owner can competitively procure an energy-service/concession structure in which a private operator finances the asset and the public body receives cheaper electricity and/or site revenue, subject to Romanian procurement, public-property and state-aid law.

A national Public Solar Surface Registry would dramatically reduce origination cost by publishing basic suitability data. For a private platform, this turns public-sector business development from thousands of cold approaches into a structured pipeline that can be bid competitively.

13. Condominium model

Condominiums are the most strategically valuable and operationally difficult segment. The platform must solve four issues before scale: valid owner approval, long-term roof rights, allocation of energy/economic benefit, and protection of the building against roof/waterproofing risk. A standard contract package should include roof lease/use rights, access, insurance, structural responsibility, waterproofing, metering, tariff formula, buyout, roof replacement, default, insolvency, transfer and end-of-term treatment.

The sales proposition should be framed around household economics rather than environmental messaging: no large upfront payment, a defined discount or annual benefit, professional maintenance, and a clear exit/buyout mechanism. Where a roof requires rehabilitation, the project can combine solar with a separately financed roof/efficiency package only when the combined cash flow remains bankable.

14. Risk register

Risk	Failure mode	Mitigation	Priority
Regulatory	Energy-sharing implementation delayed or changed	Launch first in C&I/self-consumption; no speculative revenue; modular contracts	High
Grid	Connection constraints / curtailment	Pre-screen grid; maximise behind-meter use; storage only where economic	High
Credit	Host/customer default	Portfolio diversification; deposits/security; insurer/guarantee where economic	Medium
Roof	Structural or waterproofing failure	Independent survey; exclusions; insurance; reserve	High
Power price	Retail/export spread compresses	Discount-to-benchmark contracts; conservative export price	Medium
Interest rate	Debt cost reduces DSCR	Rate lock/hedge; lower leverage; reprice tariff; capex procurement	High
Equipment	Failure/vendor insolvency	Bankable vendors; diversification; spares; warranty reserve	Medium
Execution	Installer quality / schedule	Framework EPCs; QA gates; retention; commissioning tests	Medium
Political	Grant programmes distort market pricing	Focus on non-grantable/commercial segments; bid only when economics survive	Medium
Reputation	Complex contracts perceived as predatory	Plain-language disclosures; cooling-off/approval governance; transparent savings	High

15. Governance and investment discipline

- Investment committee approves every portfolio against a published underwriting policy.
- Minimum base DSCR target: 1.30x; downside case should remain above lender covenant.
- No project approved solely because a grant is expected.
- No revenue booked from unenacted energy-sharing rules.
- Customer savings and platform margin shown separately in every proposal.
- Related-party EPC or equipment transactions independently benchmarked.
- Quarterly cohort reporting: yield, availability, local-use ratio, collections, DSCR, O&M cost and complaints.

16. 100-day launch plan

Period	Commercial milestones
Days 1-30	Incorporate PlatformCo; legal opinions; standard term sheets; 3 EPC frameworks; 2 bank discussions; data model
Days 31-60	Screen 300-500 roofs; select 30 detailed candidates; complete 10 technical studies; sign first channel partners
Days 61-100	Secure 2-5 MWp pilot pipeline; tender EPC; close first financing term sheet; launch customer portal; begin construction on first sites
Month 6	First operating cohort; publish actual CAPEX/yield/connection cycle; revise underwriting
Month 12	10-20 MWp contracted/operating target range; portfolio refinancing discussion; institutional equity process if metrics support it

17. Five-year management case

The table below is not a forecast. It is a management case to size people, financing and systems. It assumes the deployment ramp shown earlier and a largely asset-light PlatformCo. Project SPVs carry the generation assets and debt; PlatformCo records development/procurement/management income and only the equity interests it chooses to retain.

Year	New	Cumulative	Project CAPEX	Platform gross revenue	Portfolio generation	Portfolio EBITDA
1	2 MWp	2 MWp	€1.4m	€0.11m	2.4 GWh	€0.24m
2	8 MWp	10 MWp	€5.6m	€0.46m	12.0 GWh	€1.20m
3	20 MWp	30 MWp	€14.0m	€1.21m	36.0 GWh	€3.61m
4	40 MWp	70 MWp	€28.0m	€2.52m	84.0 GWh	€8.43m
5	70 MWp	140 MWp	€49.0m	€4.58m	168.0 GWh	€16.86m

A serious equity raise should therefore finance the operating platform, development working capital and selective project co-investment - not the entire solar CAPEX. At scale, dedicated project vehicles or an infrastructure fund should finance assets separately. This protects PlatformCo from becoming balance-sheet constrained.

18. Strategic options for an investor/founder

Model	Advantage	Disadvantage	View
Asset-light developer/manager	Lowest capital need; fast scale	Lower long-term asset upside	Recommended launch
Integrated IPP	Own majority of systems	Capital intensive; slower growth	Phase 2 after data
Bank/utility JV	Cheap capital and customer reach	Lower control; partner concentration	Attractive after pilot
Infrastructure fund manager	Scalable institutional model	Regulatory/management complexity	Long-term destination
Installer-led	Fast execution capability	Commodity margins; weak financing moat	Not preferred as core identity

19. Why this can become a defensible business

Panels are not the moat. The moat is a continuously improving underwriting and operating system built from thousands of roofs: which building types pass structural review, which distribution areas connect quickly, which load profiles produce the best savings, which contract clauses cause owner friction, which installers perform, which equipment fails, and which portfolios banks price most aggressively. Each completed project makes the next project cheaper to originate and easier to finance.

That creates a private-sector version of the Romania 2035 multiplier: more sites create better procurement; better procurement lowers CAPEX; lower CAPEX improves DSCR; stronger DSCR attracts cheaper debt; cheaper debt makes more sites viable; more operating sites improve the dataset; the dataset reduces underwriting cost and risk. If executed well, the company stops being a solar installer and becomes a distributed-energy infrastructure platform.

20. Investment decision

Proceed, but as a staged business. The commercial thesis is credible enough to justify a 2-5 MWp pilot and the creation of a standardised platform. Do not begin by raising capital for hundreds of megawatts or by assuming future Romanian energy-sharing rules. Prove four numbers first: installed CAPEX, local-use/allocation rate, all-in connection cycle, and realised collections/DSCR. If the first operating cohorts consistently clear the underwriting threshold, scale through portfolio debt and institutional equity.

The strongest near-term entry is commercial/SME rooftops with daytime demand, while condominium and public-building pipelines are developed in parallel. As Romanian energy-sharing implementation matures, the condominium portfolio becomes a differentiated growth engine. Public roofs become a second institutional pipeline as the EPBD solar timetable advances.

Appendix A - Source and legal basis

Source	Use in this business plan
Romania 2035 master programme	Acoperiș Solar fără Avans; distributed financing; Public Solar Surface Registry; Solar Buyers Alliance; legal implementation cards.
ANRE	Current prosumer guidance, connection/certification/metering responsibilities and 2026 regulatory materials.
Directive (EU) 2024/1275	Article 10 - solar energy in buildings and staged deployment requirements.
Directive (EU) 2023/2413 (RED III)	Article 16d - accelerated permitting for solar equipment.
Directive (EU) 2019/944, consolidated	Article 15a - right to energy sharing and third-party energy-sharing organiser.
European Investment Bank / EIF	2026 clean-energy, SME energy-efficiency and InvestEU financing initiatives; Romanian multiregional investment platform.
Market benchmarks	Romanian commercial rooftop quotations used only to sanity-check the €700/kWp working CAPEX; all investment decisions require competitive tenders.

Appendix B - Financial-model cautions

All prices, yields, financing terms, tariff assumptions, fees and deployment volumes in this document are illustrative management assumptions. They are intended to test business-model viability, not to solicit investment or promise returns. Each site requires technical, legal, tax, grid, insurance and credit diligence. Energy-sharing revenue must be modelled under the Romanian rules actually in force at financial close. VAT, corporate tax, depreciation, balancing costs, network tariffs and supplier/aggregator charges are not fully modelled in the simplified unit economics above.