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# Energy Investments & Finance

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## A Superior Return in Depressed Times

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- Equity IRR Up to 20%
- Initial Dividend Yield (Dependent upon % financed) 10%
- Revenues start within 65 days of Investment
- Returns do not depend on arbitrary exit value but on cash flows
- Investment per 1 MW Special Purpose Vehicle, EUR 2.55 million

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## Hassle-free, pre-packaged investment

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- Investment SPV established
- Legal and administrative services – outsourced
- All permits and authorisations – secured
- Power Purchase Agreement and Green Certificate Sales Mechanism – secured
- Land – secured
- Fixed Cost Construction and Equipment Contract – secured
- Guaranteed technical performance warranty/guarantee - secured by Lumen
- All risk insurance - secured
- Finance, 80% of Capital Expenditures, 15 year term, 8.5% interest rate – secured with bank
- Management of all cash flows by bank (Collects revenue from Electricity company, deducts operational expenses and debt service payments and deposits remaining available cash in Investor's account)

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## EU Regulatory Framework for Renewable Energy

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- It is EU Policy that by 2020 renewable energy represents 20% of all electricity generated in each member state .
- No renewable energy (wind, solar, biomass, geothermal) is economically viable without subsidies, feed in tariffs or green certificate legislation. This is also the case for conventional energy.
- Investment in renewable energy is speeding up throughout the EU
- Compared to surrounding countries Romania lags significantly behind in terms of investment in all forms of renewable energy.
- Romanian Renewable Energy Legislation has recently been adopted.

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## Solar PV in Romania – Today & Tomorrow

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Current investment in Solar

EUR 2m

Forecast next 5 yrs (150mw)

EUR 450 million

Projects with permits – 2010

35 projects toaling 44mw

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# Romanian Energy Market

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- Romanian energy legislation – Passed into Law on July 7 2010
  - Romania has a Green certificate regime in contrast to a Feed-in tariff.
  - A feed-in tariff approach has a direct impact on state budgets, which are under pressure.
  - Under this legislation, Solar energy benefits from a 50% increase in Green certificates (6/mWh), and an extension of validity to at least 2025.

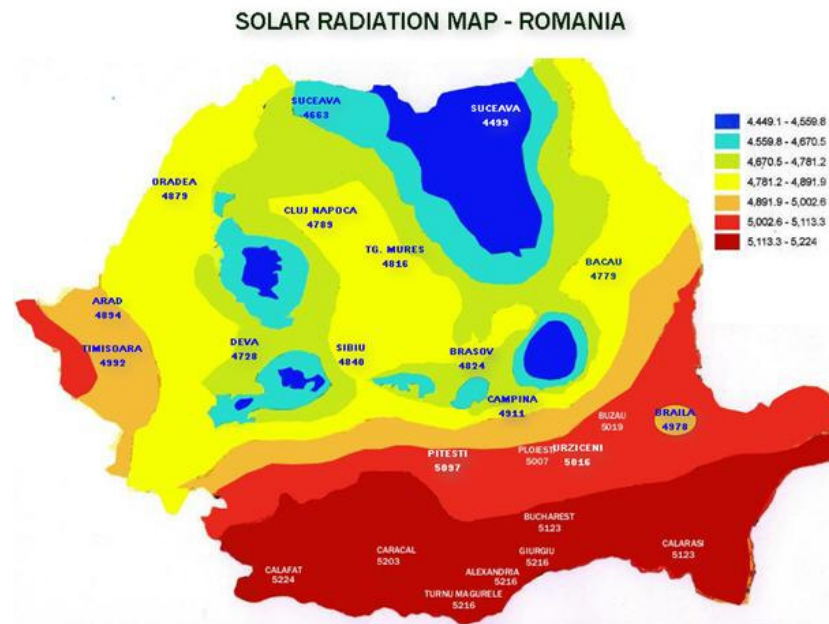
# European Energy Regulation



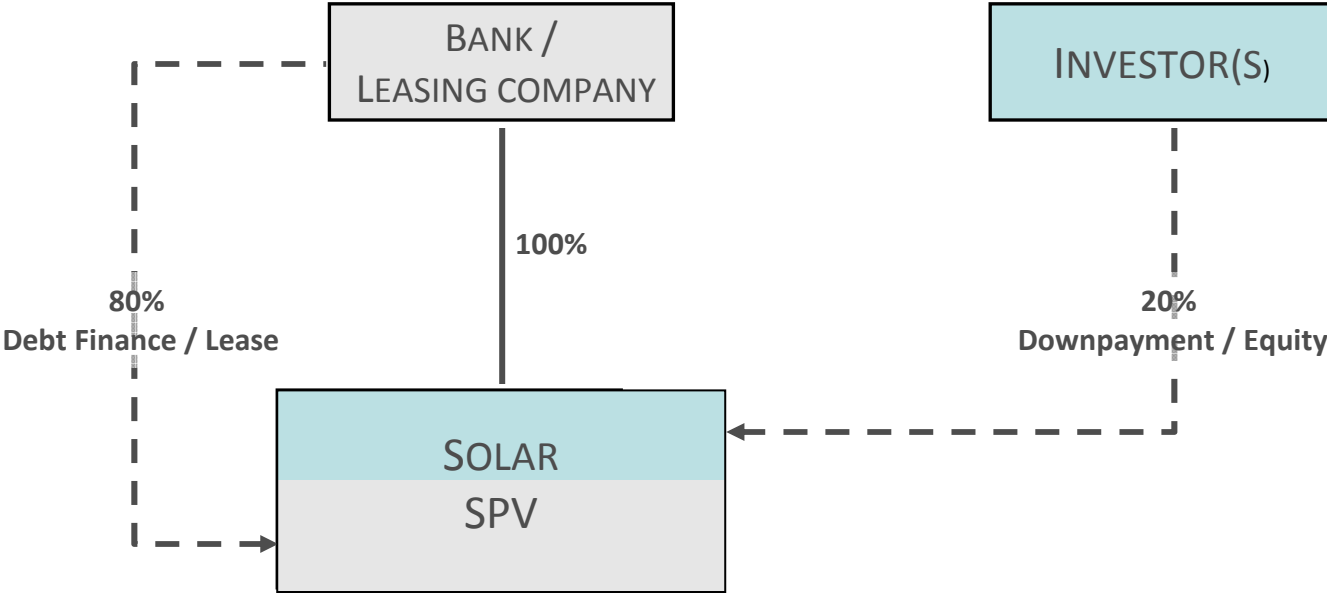
Source: European Commission, Member State Renewable Energy Fact Sheets

# The best location for Solar Parks in Romania?

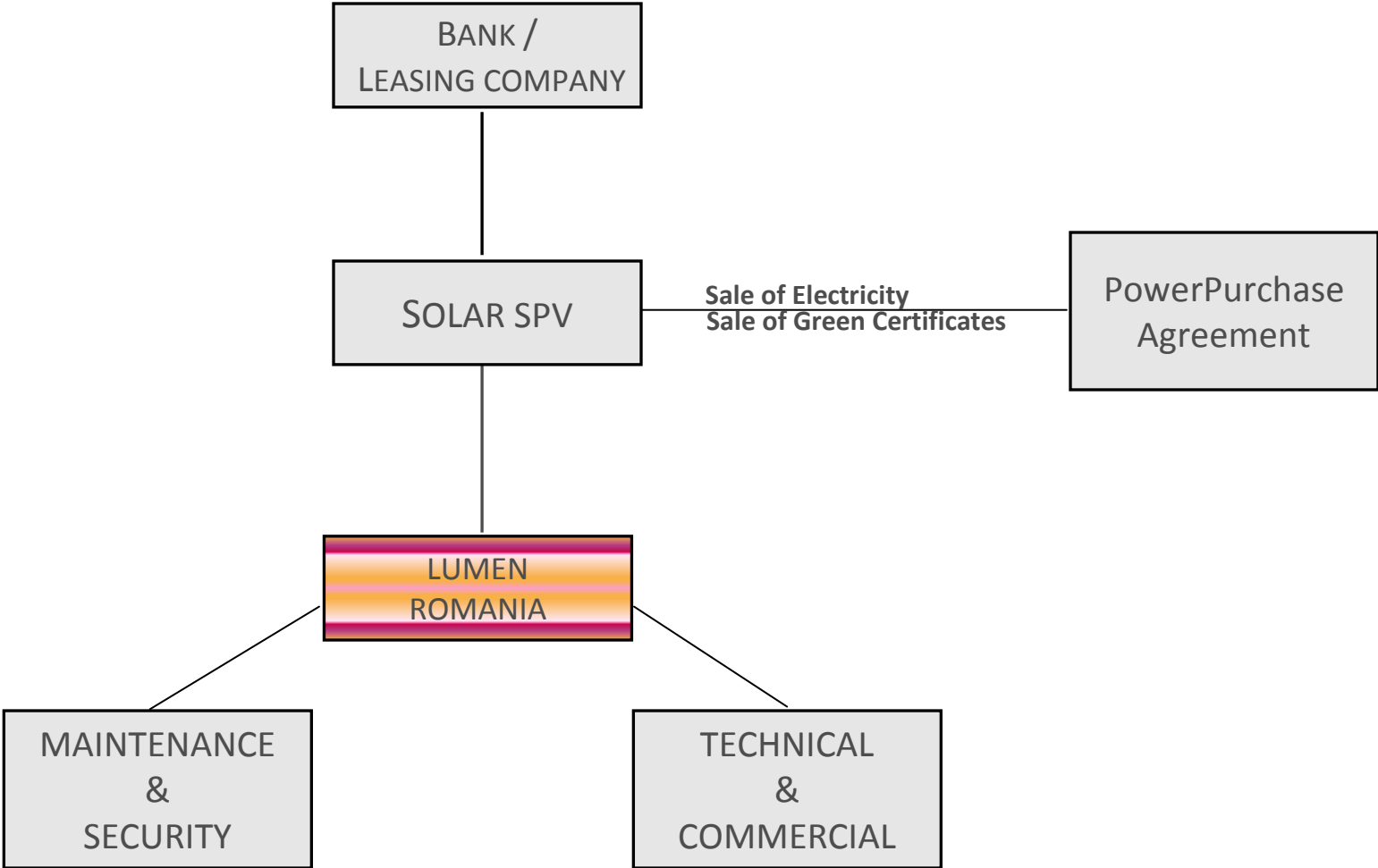
- High radiation – southern Romania – higher radiation, higher production
- Low electricity transport costs (Transelectrica)
- Close to medium/high voltage network
- In areas where there is enough spare grid transport capacity



# Finance Structure



# Operational Structure



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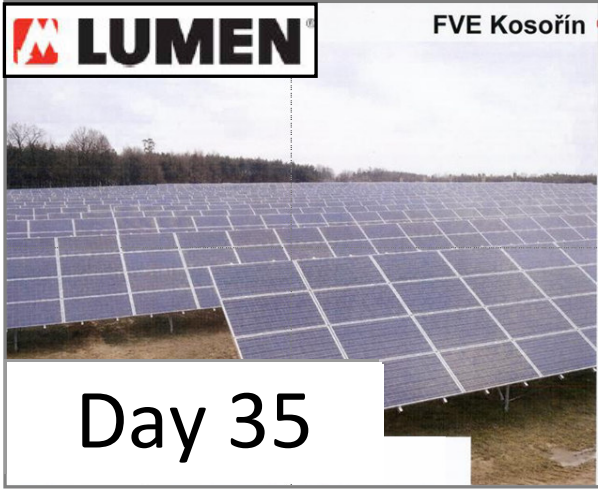
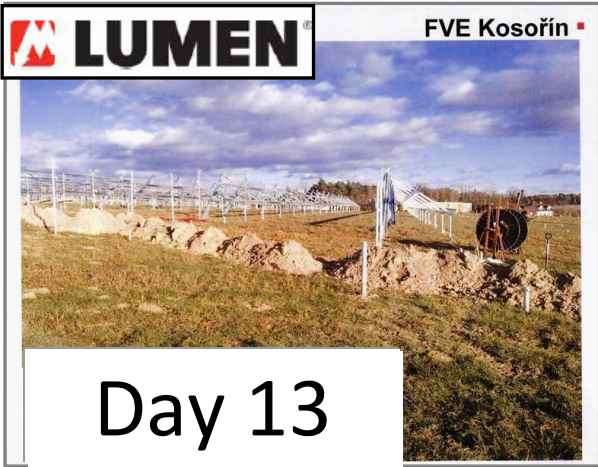
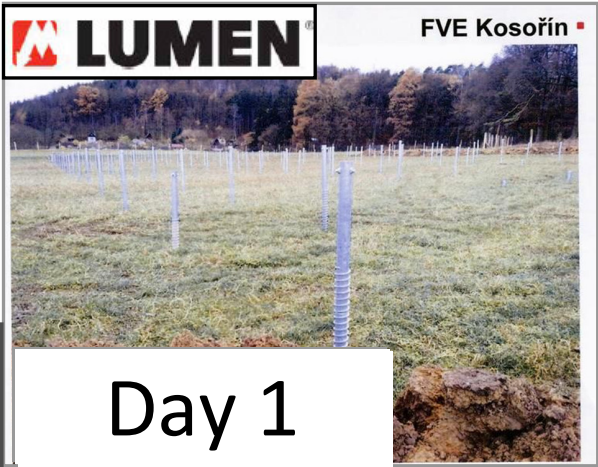
# Operational Expenditures

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1. Maintenance and Security
2. Technical
  - Remote monitoring of Panel / Inverter performance
  - Remote monitoring of Energy production
3. Commercial

# Construction timescale - Lumen developed Solar park in Czech Rep.

1.9 mw  
7 040 panels  
Construction Completed in 35 days



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## Capital Expenditures

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1. Land
2. Perimeter fencing and security systems
3. Solar Panels
4. Inverters-inverter housing
5. Transformer / link to grid
6. Permits, authorisations, legal
7. Developer fees

no reliance on EU subsidies



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## Lender's Security

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- Ownership of SPV, permits & assets until financing has been repaid
- First claim on long term Power Purchase Agreement with energy company and green certificates
- All revenues pass through the bank, deducting for operational expenditures and debt service with the balance transferred to the investor account.
- Quality client (Electricity purchaser)
- Revenues start within 65 days of commencement of construction