

# FEED IN TARIFFS

## Agenda: 28 September 2010

**MICHAEL WARE**

BDO - Feed in Tariffs

**MELISSA MALINS**

BDO - Taxation

**PAUL MCCARTIE**

Investec Bank plc - Funding

**DOMINIC FITZPATRICK**

Taylor Wessing - Legal issues



**MICHAEL WARE, BDO**

**Feed in Tariffs**



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- Example solar project
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- Funding options
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# INTRODUCTION

## Context

- UK- climate change law 2008 - to cut emissions by 80 per cent (from 1990 levels) by 2050.
- UK - to source 15 per cent of the UK's energy needs from renewable sources by 2020 (from under 2 per cent in 2009).
- EU - committed to generate 20 per cent of energy from renewable sources, increase energy efficiency by 20 per cent and to reduce GHG emissions by 20 per cent, by 2020.
- FITs are a central part of the UK Governments strategy to meet the renewable energy target.



# SOLAR FACTS

Enough sunlight falls on the earth in one hour to meet world energy demands for a whole year

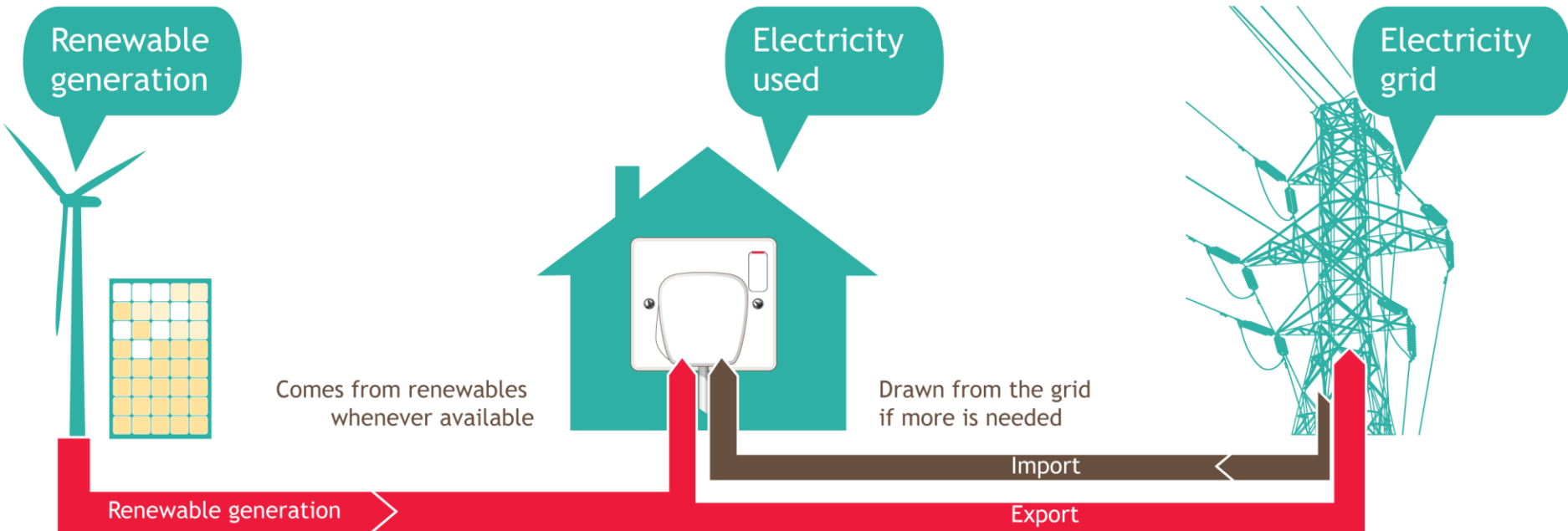
The sun gives 1.3kW of power per square metre

Mass of  $2 \times 10^{30}$  kilograms (330,000 times that of Earth)

# FEED IN TARIFFS

- Companies investing in qualifying renewable technologies will receive a return on their investment of between 8 per cent and 12 per cent.
- Micro-scale generation up to installation size of 5 mega watts.
- Includes:
  - solar PV and wind (roof/building mounted or stand alone)
  - hydro electricity
  - anaerobic digestion
  - (pilot) micro combined heat and power.
- FITs are available for 20 years (25 for solar) inflated at RPI.

# FEED IN TARIFFS



# FEED IN TARIFF LEVELS

Energy source	Scale	Generation tariff p/kWh	Duration (years)
AD	≤500kW	11.5	20
AD	>500kW	9.0	20
Hydro	≤15 kW	19.9	20
Hydro	>15 - 100kW	17.8	20
Hydro	>100kW - 2MW	11.0	20
Hydro	>2kW - 5MW	4.5	20
Micro-CHP	<2 kW	10.0	10
Solar PV	≤4 kW new	36.1	25
Solar PV	≤4 kW retrofit	41.3	25
Solar PV	>4-10kW	36.1	25
Solar PV	>10 - 100kW	31.4	25
Solar PV	>100kW - 5MW	29.3	25
Solar PV	Standalone	29.3	25
Wind	≤1.5kW	34.5	20
Wind	>1.5 - 15kW	26.7	20
Wind	>15 - 100kW	24.1	20
Wind	>100 - 500kW	18.8	20
Wind	>500kW - 1.5MW	9.4	20
Wind	>1.5MW - 5MW	4.5	20
Existing systems transferred from the RO		9.0	to 2027



# FEED IN TARIFFS

- Generation tariff of up to 41.3p for every kilowatt (kWh) of renewable energy you generate, linked to RPI for 25 years.
- Export tariff for every kWh of energy generated and exported to the national grid (3p per kWh).
- Savings on existing energy bills (6p-15p/kWh).



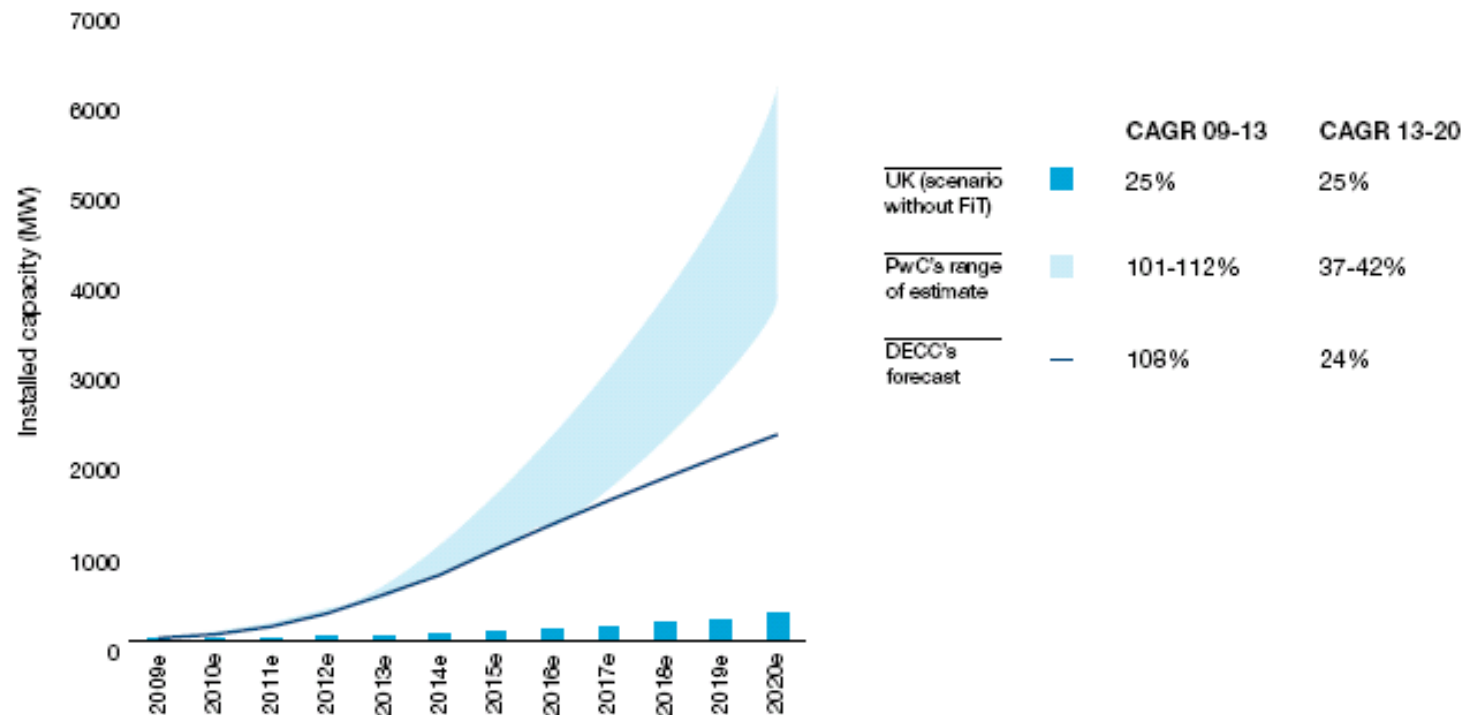
# FEED IN TARIFFS

## What has happened so far?

- Solar PV represents just 0.3 per cent of renewable energy in the UK today - at around 32MW (in 009) in total capacity.
- In July 2010 alone, 4.6MW fitted (OFGEM).
- Installed capacity could reach 1000 MW by 2015 and 5 GW by 2020.
- To date 11.8 MW of Solar PV have been fitted in 4,640 homes and 22 commercial properties (OFGEM).

# FEED IN TARIFFS

Forecast cumulative installed PV capacity in the UK (2009e-2020e)



Source: IEA, EPIA, Government Websites, Solarcentury, PwC Analysis

# POTENTIAL INCOME AND COSTS FOR AN EXAMPLE SOLAR FIT PROJECT

System size	100kw	200kw	500kw	1 MW	2 MW
Illustrative capital cost	£300k	£600k	£1.4m	£3m	£5.7m
Area of roof	715m <sup>2</sup>	1,400m <sup>2</sup>	3,500m <sup>2</sup>	7200m <sup>2</sup>	14,300m <sup>2</sup>
<b>Annual Income</b>					
FITs payments	£29,800	£55,700	£139,200	£278,500	£557,000
Value of 'free' electricity	£7,600	£10,700	£19,300	£28,500	£57,000
<b>Total</b>	<b>£37,400</b>	<b>£66,400</b>	<b>£158,500</b>	<b>£307,000</b>	<b>£614,000</b>



# FINANCE OPTIONS

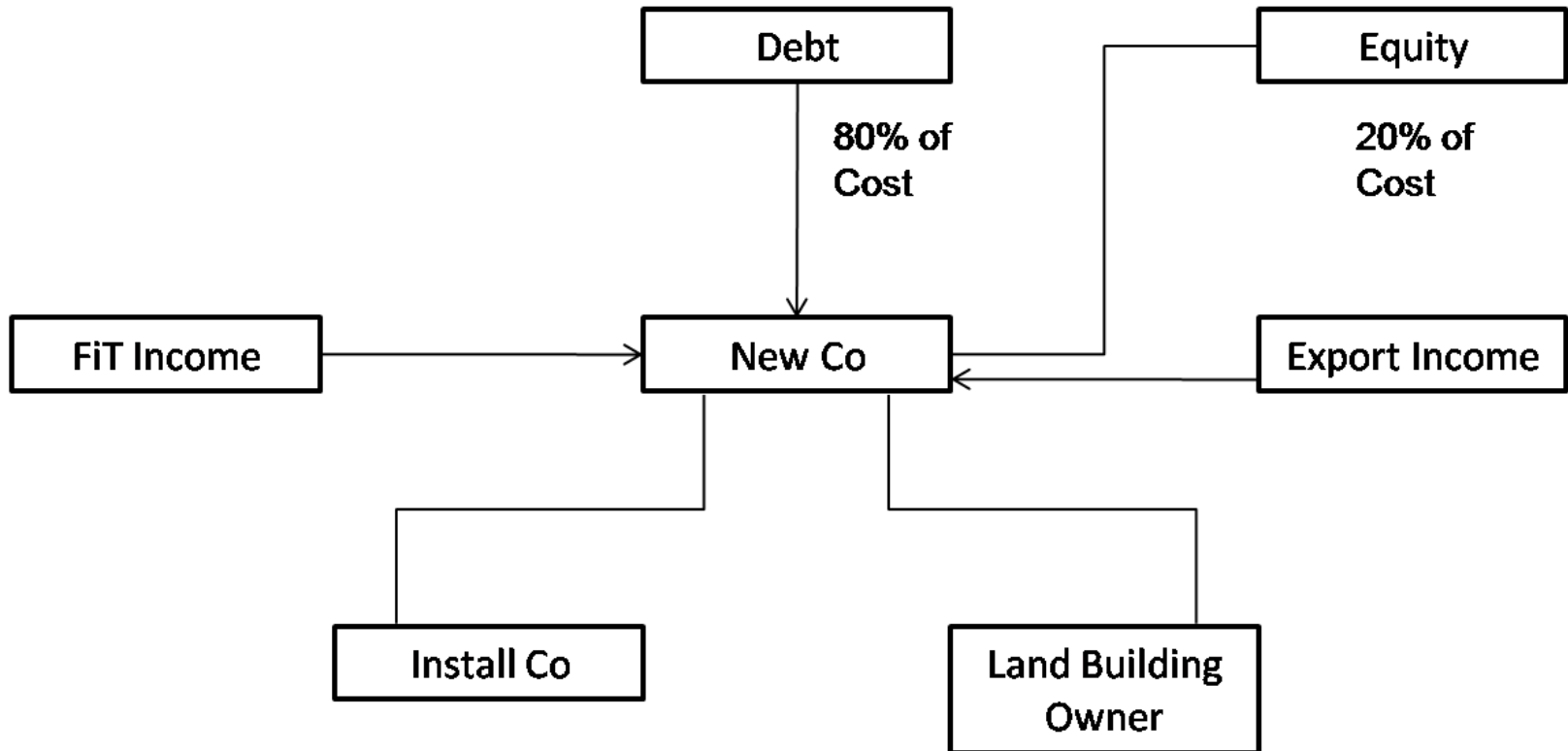
- Self fund.
- Senior debt.
- Mezzanine.

# FINANCING OPTIONS - SENIOR DEBT

## Typical terms and conditions

- Debt secured on the assets and FIT tariff.
- 75%-80% of project cost.
- Interest rate 6%-7%.
- Term of debt 10 -15 years.
- Likely to be minimum facility and drawdown size.
- Balance of project cost contributed as equity, owned 100%.
- Newco created for FIT income and electricity sales.

# FINANCING OPTIONS - SENIOR DEBT



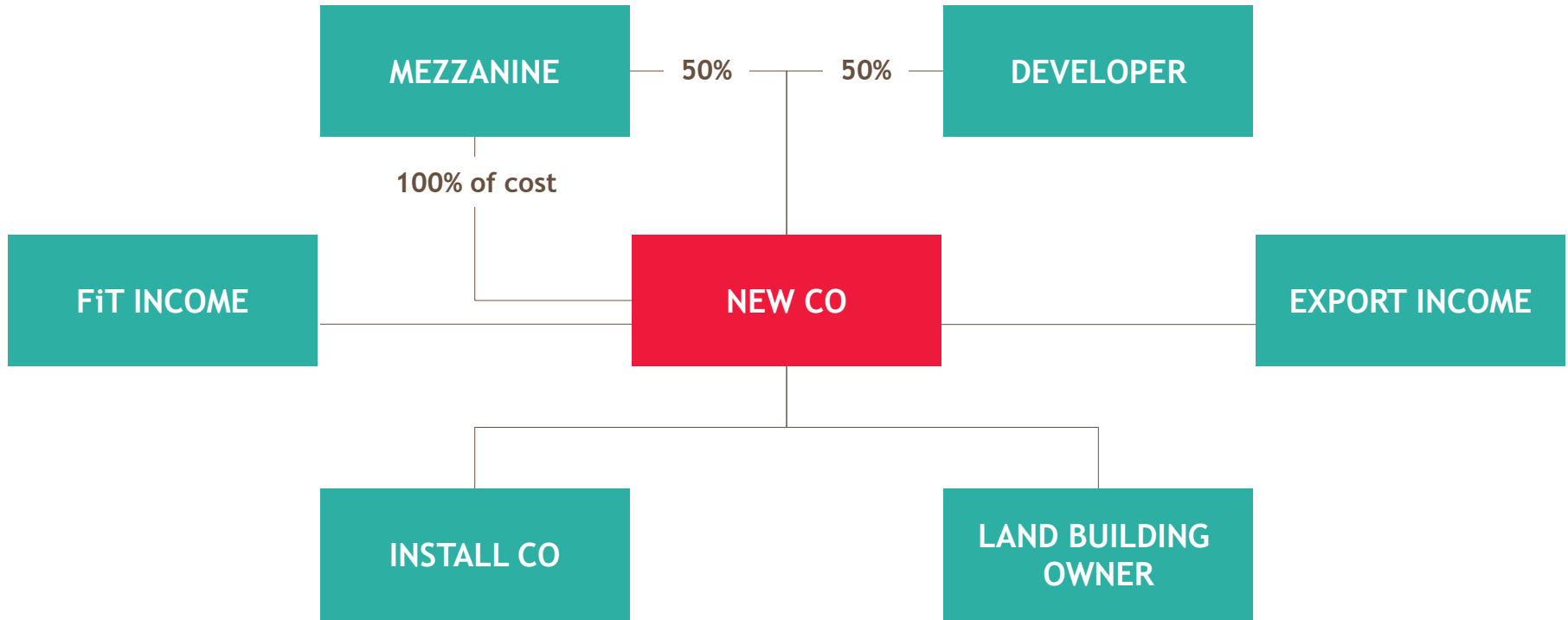


# FINANCING OPTIONS - MEZZANINE

## Typical terms and conditions

- Up to 100 per cent project costs.
- Interest rate 9 per cent, re-finance when operational into senior debt.
- Funder will require shareholding in SPV - 50 per cent.
- Site owner/developer take 50 per cent equity.
- Income from FIT and electricity sales to Newco.

# FINANCING OPTIONS - MEZZANINE





# SUMMARY

- Interested parties should act quickly to take full advantage of the tariff - due to be reduced for periods after April 2012.
- BDO has credentials in renewable energy, funding advisory, and project finance.



# MICHAEL WARE, BDO

Contact

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The background of the slide features a silhouette of several high-voltage power transmission towers and their associated power lines. The scene is set against a sky transitioning from a pale blue at the top to a warm orange and yellow at the bottom, suggesting a sunset or sunrise. The towers are arranged in a receding line, creating a sense of depth. The power lines are thin and dark, crisscrossing the sky.

**MELISSA MALINS, BDO**

**Taxation**



# TO BE COVERED

## 1

### Company using its own premises

- Company obtaining bank loan to acquire solar panelling.
- Company leasing solar panelling.

## 2

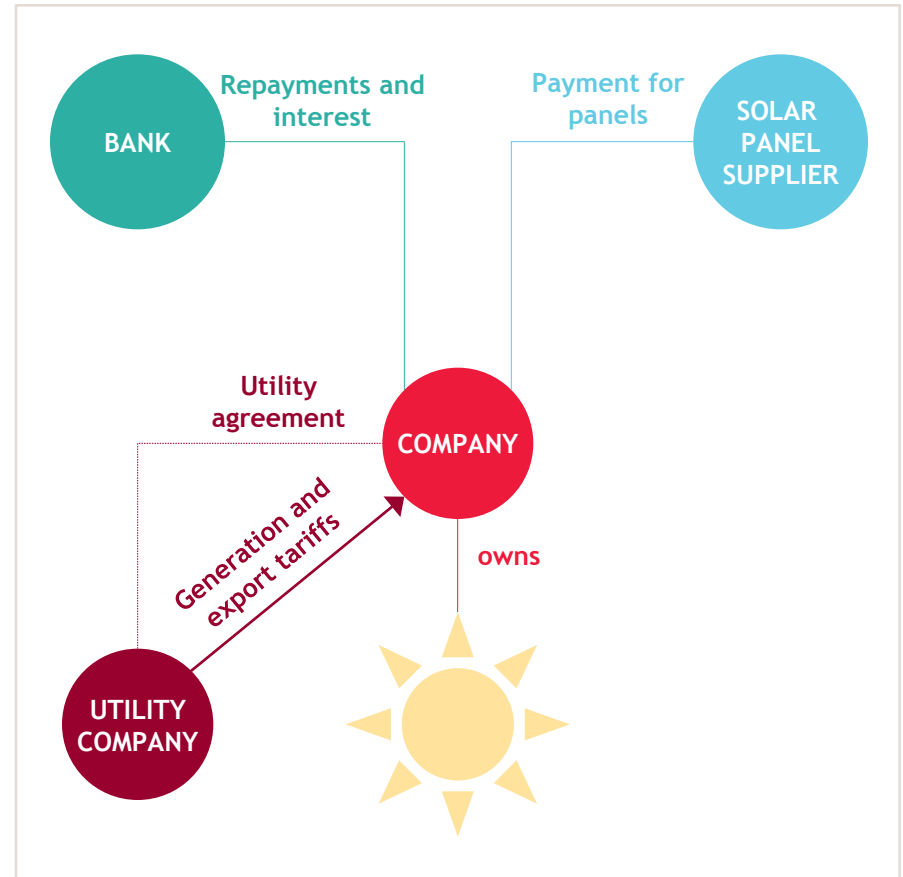
### Company setting up a business

- Considerations.
- Fund vehicles.

# COMPANY USING OWN PREMISES

## Bank loan for outright purchase

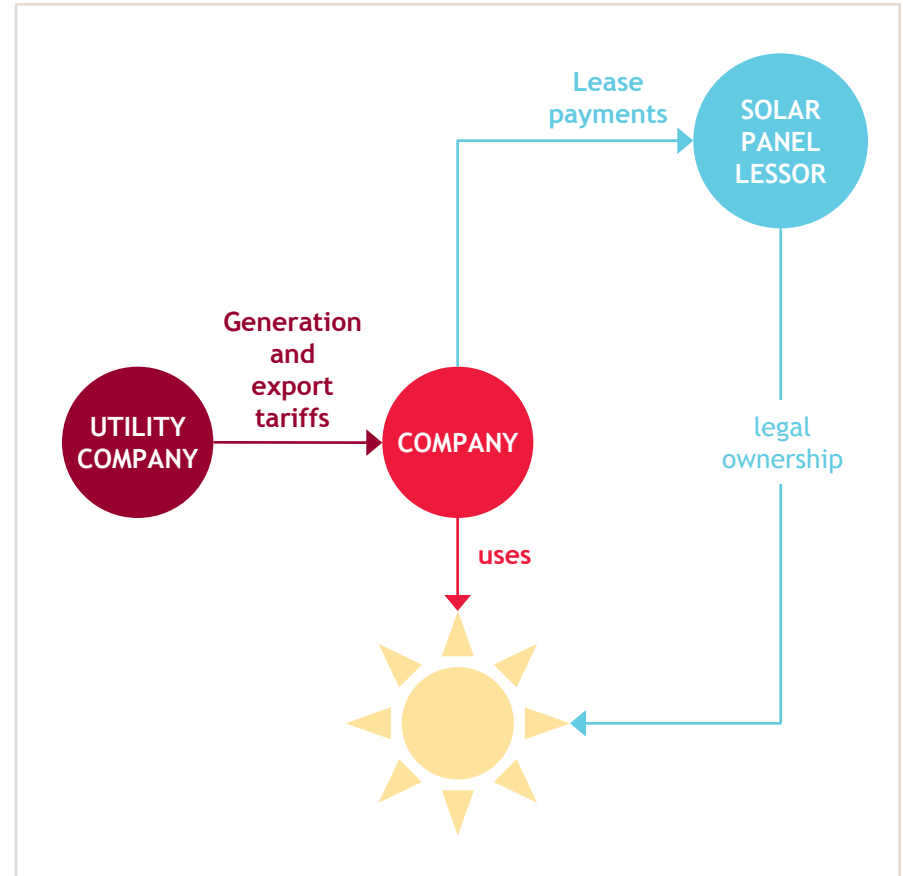
- FIT payments:
  - taxable for a company.
- Capital allowances:
  - availability
  - rate.
- Interest:
  - deductibility.
- VAT:
  - recovery of input VAT on panel
  - output VAT on FIT.



# COMPANY USING OWN PREMISES

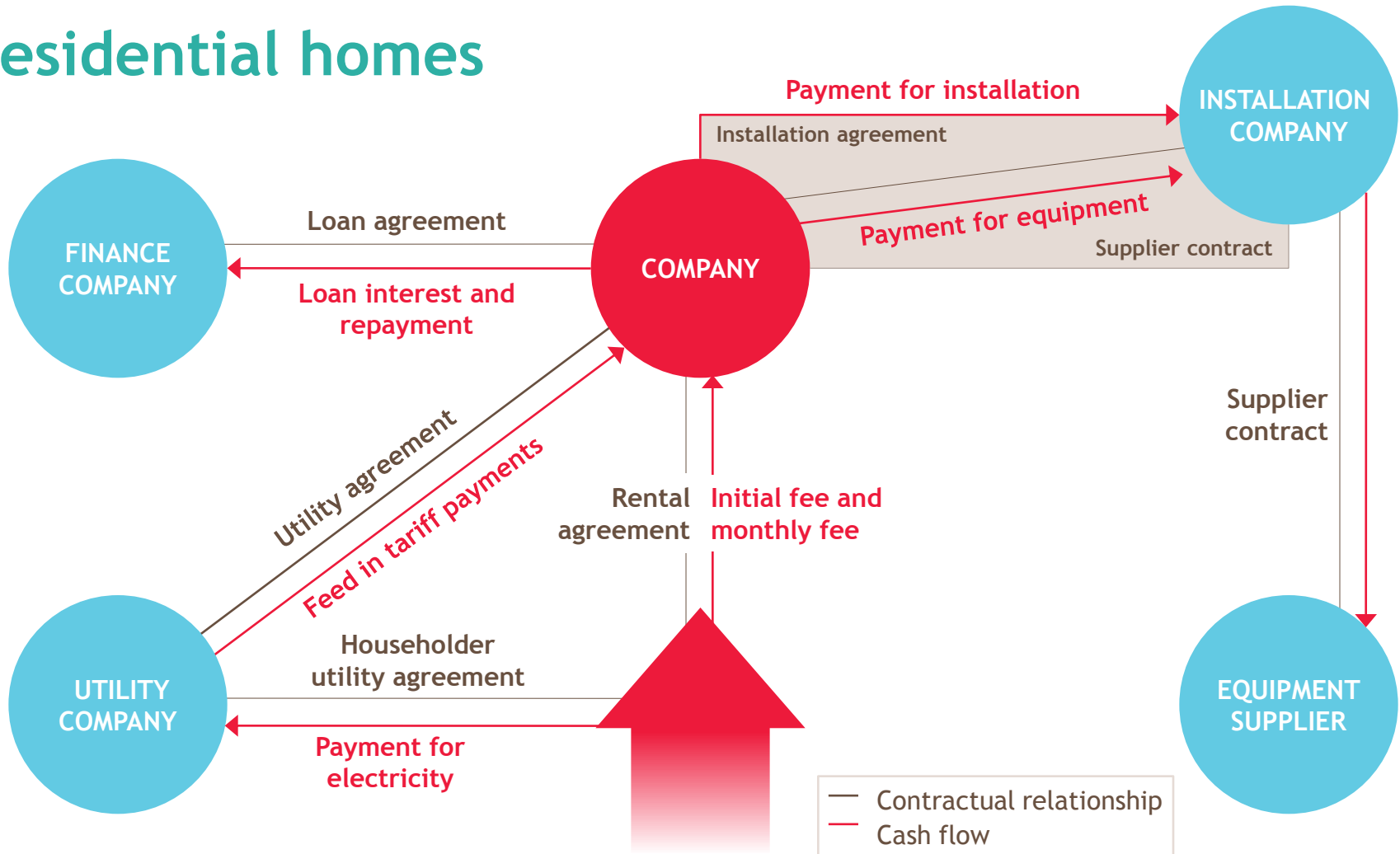
## Leasing panels

- Type of lease.
- FIT payments:
  - taxable for a company.
- Capital allowances:
  - availability - long funding lease rules
  - Rate.
- Lease payments:
  - Deductibility.
- VAT:
  - recovery of input VAT on panel
  - output VAT on FIT.



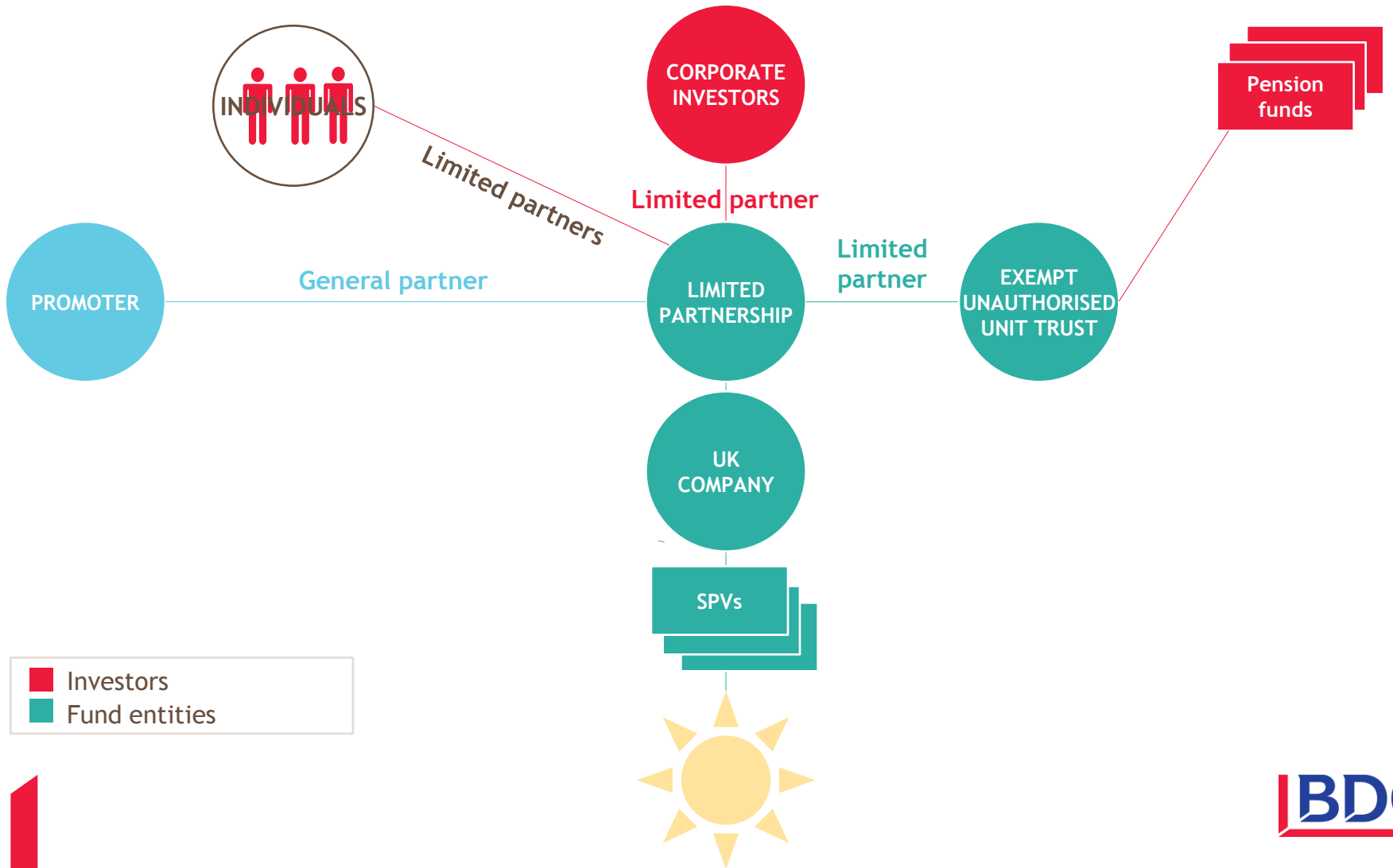
# RUNNING A BUSINESS


## Residential homes



# RUNNING A BUSINESS

## Fund structure





Give thought up front to the tax implications of any proposal as this may have a significant impact on the investment appraisal decision.



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