



APRICUM

THE CLEANTECH ADVISORY.

Greencells

Project Green Bond – Valuation of Development Portfolio

November 11, 2020

Agenda.

Executive summary

Presentation of Greencells approach

A few comments on methodology

Spain

Italy

Germany

The Netherlands

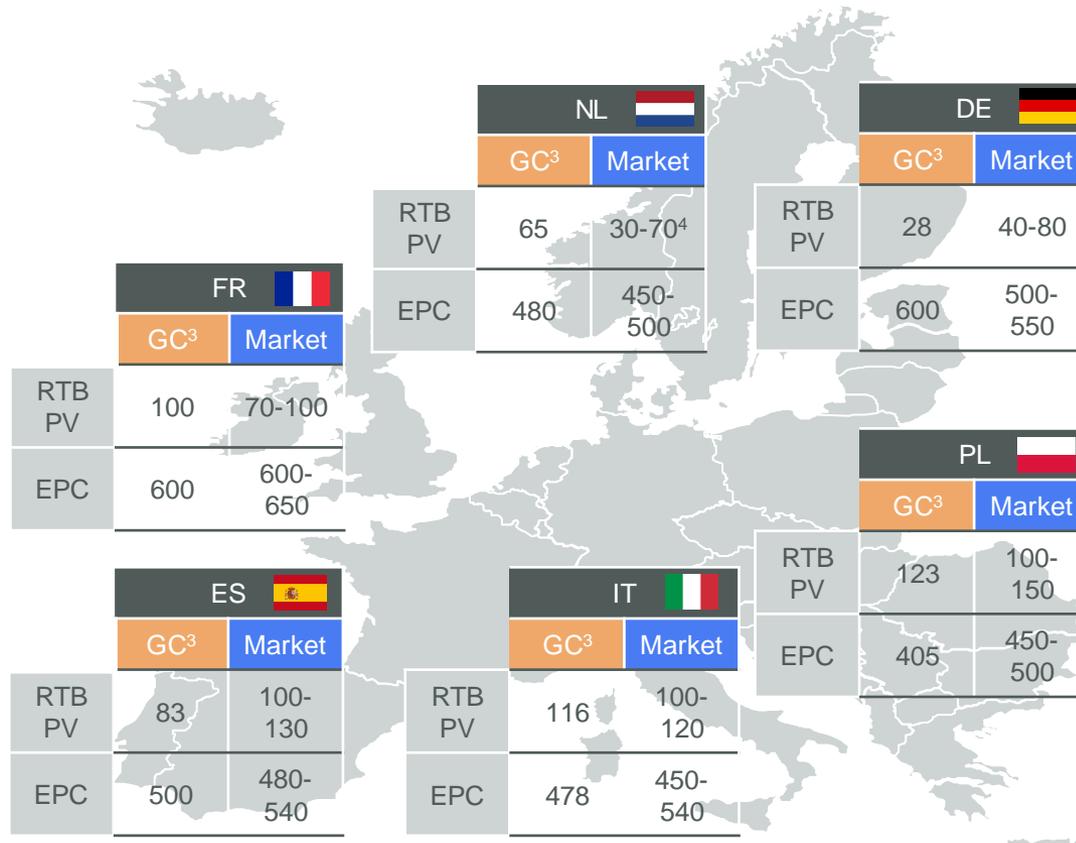
France

Poland (for information)

Additional miscellaneous information (Development costs, EPC margin)

Market prices for PV project rights at RTB¹ stage differs according to countries. EPC costs vary too.

RTB PV project rights and EPC costs², by country [in k EUR/MW multiples]



- “Ready-to-Build” PV projects are projects that have reached core development milestones, namely:
 - secured land (through lease)
 - access to grid
 - building permits
 - (in some cases) secured tariff
- Market prices for PV project rights at RTB stage differs from countries to countries, and are driven by:
 - Irradiation
 - Land & grid connection costs
 - Size and economy of scale
 - Revenues’ scheme
 - Capex & Opex
 - Supply & demand for PV project rights, and investors’ risk & reward appetite

1) RTB = “Ready-to-Build”; 2) Excluding grid connection costs; 3) “GC”: Greencells; 4) excluding PV projects with old SDE+ subsidies.

The valuation of the PV development portfolio, including all elements, is estimated at a range of EUR 35 to 49M.

Collateral amount – Greencells vs. Market assumptions

Project	Country	Lower Interval Limit (Market) [EUR]	Internal Limit (Greencells) [EUR]	Upper Interval Limit (Market) [EUR]
Poggio Imperiale	IT	13.681.489	16.085.497	17.370.989
Greentarraco 1	ES	4.878.977	4.380.000	6.854.513
Greentarraco 2	ES	4.876.536	4.379.400	6.852.072
Landgraaf	NL	805.292	1.180.292	1.247.792
Raalte	NL	1.165.899	1.665.899	1.755.899
Hartungshof	DE	1.975.000	4.250.000	5.241.667
Le Mortier	FR	7.140.000	9.300.000	9.600.000
Total		34.523.192	41.241.088	48.922.931

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Greencells pledges part of its solar PV development portfolio to future green bond holders.

Greencells green bond principles



Green bond's security

- Greencells ("GC") intends to issue within Q4 2020 a corporate green bond
- Greencells will collateralize the green bond with:
 - 1 the pledge of its share in the PV projects under development and secured by GC
 - 2 the assignment of its profit rights under the EPC contracts for the same PV projects



Collateral amount

- The collateral will therefore amount to:

1 The value of the PV projects' shares assuming a future sale at RTB¹ stage



2 The EPC profit income of future EPC contracts already secured by Greencells

1) RTB = "Ready-to-Build"

The valuation of the collateralized PV development portfolio is based on market metrics.

PV development portfolio – valuation principles

	1 PV project shares	2 EPC income
Principle	<p>PV projects' shares are valued based on:</p> <ul style="list-style-type: none"> a the future sale of PV project rights at RTB stage, minus; - b the development costs to be incurred until future sale of the PV project rights 	<p>EPC profit income are valued based on:</p> <ul style="list-style-type: none"> a EPC contract price x b EPC margin
Methodology	<ul style="list-style-type: none"> a <ul style="list-style-type: none"> • PV project rights are estimated based on current market prices for RTB projects • RTB market prices are dependent to the country, business profile and other factors b <ul style="list-style-type: none"> • Development costs are estimated based on Greencell's development budgets and market standards for each country 	<ul style="list-style-type: none"> a <ul style="list-style-type: none"> • EPC contract prices are valued based on Greencells estimations and on market standards for each country b <ul style="list-style-type: none"> • EPC margins are valued based on Greencells estimations and on market standards for each country
Portfolio Assumptions	<ul style="list-style-type: none"> • A development portfolio of 8 solar PV projects have been included by Greencells in the green bond collateral, and so located in 5 countries: Spain, Italy, Germany, the Netherlands and France¹ • The assumptions taken by Greencells and the valuation methodology are compiled in a Financial Model reviewed by Apricum 	

1) This report will also give market indication about Poland, for information purposes.

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Additional miscellaneous information (Development costs, EPC margin)

A few comments were raised to Greencells concerning the valuation methodology, all of which resolved satisfactorily.

Comments on the methodology and the Financial Model utilized by Greencells (1/2)

Apricum's comments	Greencells's ("GC") responses	Apricum's opinion
The future net flows from the sale of RTB project rights, EPC profit income and development costs are not discounted back to year-end 2020	The valuation timeframe is short as future net cashflows are not occurring in more than 3 years	Noted
There are no realization probability discount being applied to the valuation of the PV projects still under development	If the development of a PV project included in the collateralized portfolio fails, Greencells undertakes to replace it	Noted
The sales of the "Ready-to-Build" projects are accounted for in the Financial Model at Commercial Operation Date	Receipt of the RTB sale proceeds once construction is completed has been assumed as a conservative scenario	Noted, and no longer relevant as no discounting is applied to cashflows
For Projects in Italy and in the Netherlands, 50% of Greencells Project's rights are already sold at early stage (i.e. Dec. 2020) as "buy-in fees", and the corresponding early revenue sales are included in the valuation amount of the collateralized portfolio	If these buy-in fee amounts are paid by Dec. 2020, GC will need to put forward a new PV project in the collateralized portfolio to replace these amounts. For these projects that have been sold early at 50%, future RTB sales' amounts will only be included for the remaining 50%.	Noted

A few comments were raised to Greencells concerning the valuation methodology, all of which resolved satisfactorily.

Comments on the methodology and the Financial Model utilized by Greencells (2/2)

Apricum's comments	Greencells's ("GC") responses	Apricum's opinion
<p>EPC prices' and margins' assumptions are set by GC as these PV projects are controlled by GC. There is a risk that any incoming investor who buys the Project at RTB stage could challenge downward the EPC prices & margins to make the Project the most "valuable" possible</p>	<p>This risk is acknowledged, but (i) GC's position remains more comfortable than if it had to tender the contract, (ii) GC's efficient PV component procurement strategy give a certain buffer on the EPC margin side compared to future assumptions taken by the buyers</p>	<p>Noted</p>
<p>Current EPC costs assumptions reflect current market trends for EPC contracts. There is a risk that a potential slight discount for future decrease in EPC prices (especially concerning PV plant components) could affect these PV projects that will start construction in one- or two-years' time</p>	<p>Decrease of prices for PV components such as modules will be slower than observed in the last 2-3 years. Also, ongoing innovation shall improve yield efficiency gains for the same land surface and therefore increase PV project value</p>	<p>Noted</p>
<p>No O&M business is factored in</p>	<p>It has been confirmed that the O&M business will not be included in the valuation</p>	<p>Noted, therefore Apricum will not comment on O&M</p>

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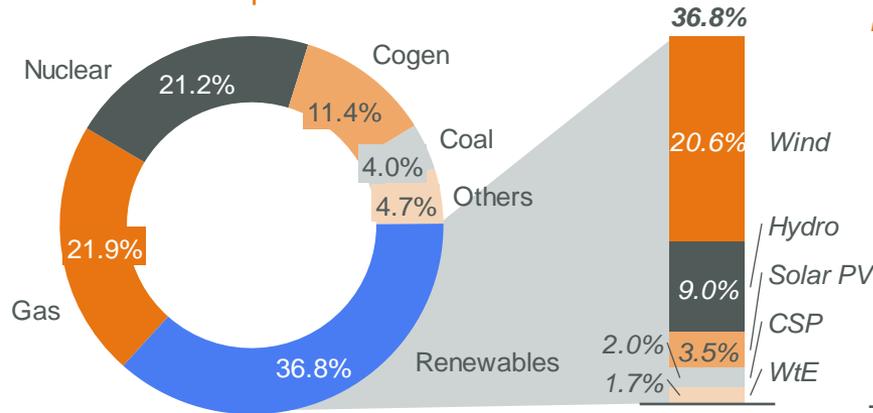
Additional miscellaneous information (Development costs, EPC margin)

Spain had a solar boom in 2019 when past awarded project connected to the grid, but the country pushes now for more.

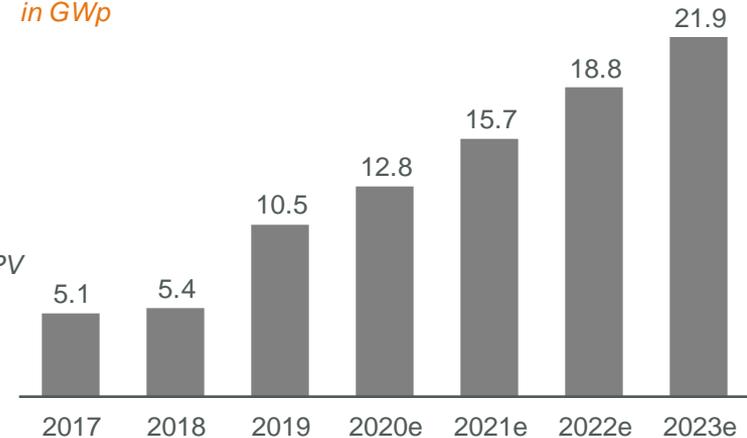
Spain - PV market overview



Generation mix in Spain in 2019



Installed solar PV capacity in Spain in GWp



PV Market dynamics

- Solar PV in Spain has significantly expanded in 2019 when installed capacity almost doubled, mostly coming from projects awarded in the 2017 government tenders
- Spanish government has recently passed a legislative package that will free up more grid capacity for future PV projects and incentivize developers to implement their Projects swifter
- New regulations tightening up the ability to withdraw bid bonds deposited for grid connection access will also aim at reducing speculation in the PV project rights' market

Source: REE, Apricum PV market model

In Spain, Greencells assumptions are in line with current market survey data, but there is uncertainty on the future.

Assumptions' comparative analysis – Greencells vs. Market



Project	Size [MW]	Project right Status	Construction begins	EPC price ¹	EPC price ¹	RTB value ²	RTB value ²
				[kEUR/MW] Greencells	[kEUR/MW] Market	[kEUR/MW] Greencells	[kEUR/MW] Market
Greentaraco 1	48.4	Secured	June 2022	500	480-540	83	100-130
Greentaraco 2	48.4	Secured	June 2022	500		83	

Market drivers of RTB PV project rights prices

- High irradiation and strong appetite for available RTB projects (sometimes limited due to grid connection constraints) have historically pushed RTB PV market prices on the high side compared to other European countries
- Year-end 2019 market prices have reached in some occurrences 150-200k EUR/MW level, but price have cooled down since March 2020 due to decrease of power prices (incl. for corp. PPA)
- However, new regulations that aim at freeing up capacity space and tighten rules to limit speculation may have a further downward impact on PV project rights prices in the short-term
- Also stronger than anticipated solar self-cannibalization due to strong renewable energy penetration, and resulting depression of future capture prices, may carry a downside risk for PV project rights' prices
- GC's current RTB prices assumptions at around 83k EUR/MW seem therefore reasonable

1) Excluding grid connection costs; 2) excluding replacement of the bid bond of 40 kEUR/MWp for grid access

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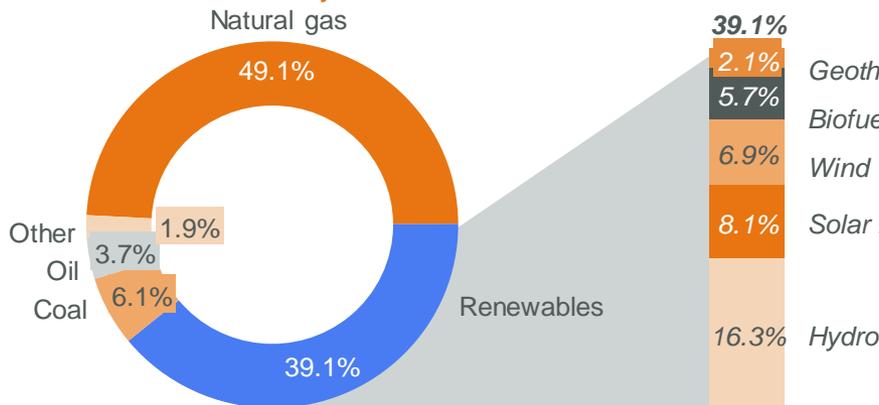
Additional miscellaneous information (Development costs, EPC margin)

Italian authorities are committed to foster a significant increase of PV installations in the next 10 years.

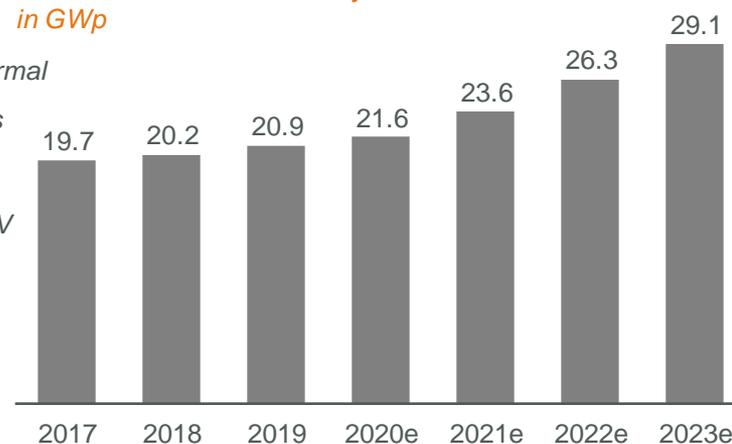
Italy – PV market overview



Generation mix in Italy in 2019



Installed solar PV in Italy in GWp



PV Market Dynamics

- After the removal of FITs scheme in 2014–2015, the Italian PV sector witnessed a period of dormancy with relatively low annual installation at an average of ~0.5 GW per year
- Recent regulatory updates introduced tender schemes that will support the market starting from 2020–2021 with expected annual installation of >2 GW per year (government's plan foresees 4.8 GW by 2021 - delayed by Covid-19). Additionally, the residential segment will be boosted by new subsidies allowing for 110% tax break
- Italy targets 50 GW of PV by 2030, meaning close to 2.5 GW of new installations each year for the next 10 years

Source: Apricum PV market model, IEA

The market in Italy for RTB PV project rights is still illiquid but is expected to stabilize within the next 1 to 2 years.

Assumptions' comparative analysis – Greencells vs. Market



Project	Size [MW]	Project right Status	Construction begins	EPC price ¹	EPC price	RTB value	RTB value
				[kEUR/MW] Greencells	[kEUR/MW] Market	[kEUR/MW] Greencells	[kEUR/MW] Market
Poggio Imperiale	157	Secured	June 2022	478	450-540	116	100-120

Market drivers of RTB PV project rights prices

- Market prices for PV project rights are mainly driven up by strong investors' appetite for PV plants combined, for the time being, with very limited number of projects available for sale. The market for PV project rights is indeed quite illiquid nowadays and recent RTB transactions have even reached 180-200k EUR/MW levels
- More RTB projects will come in the market in 2020-2021 and contribute to bring "inflated" prices down
- Italy enjoys nevertheless robust fundamentals with abundant irradiation across the country and high-power prices (among the highest power prices in Europe). Future power prices are expected to remain on the high side due to more inefficient thermal power plants combined with an expected (relatively) lower impact of solar PV self-cannibalization (compared to other South European peer markets). Risk however remains on daytime capture prices
- Development of a corporate PPA product market (very nascent until now) shall as well contribute to back up business cases, attract financing and push up financing leverage

1) Excluding grid connection costs

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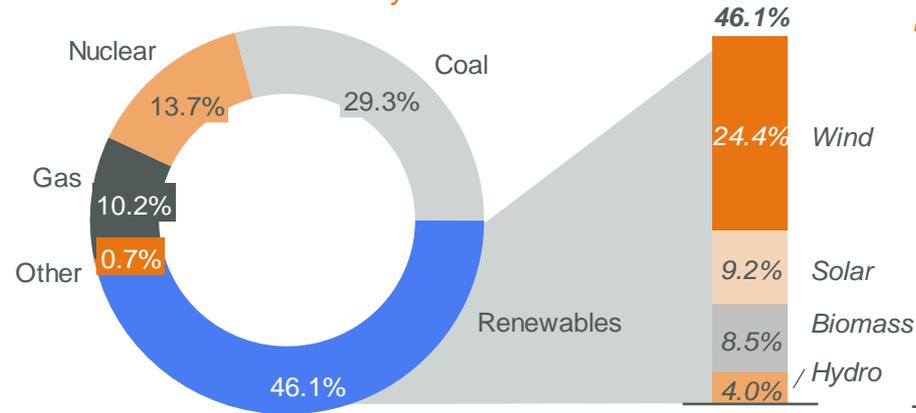
Additional miscellaneous information (Development costs, EPC margin)

Germany has removed the cap for solar installations eligible for subsidies and relieved the market for future growth.

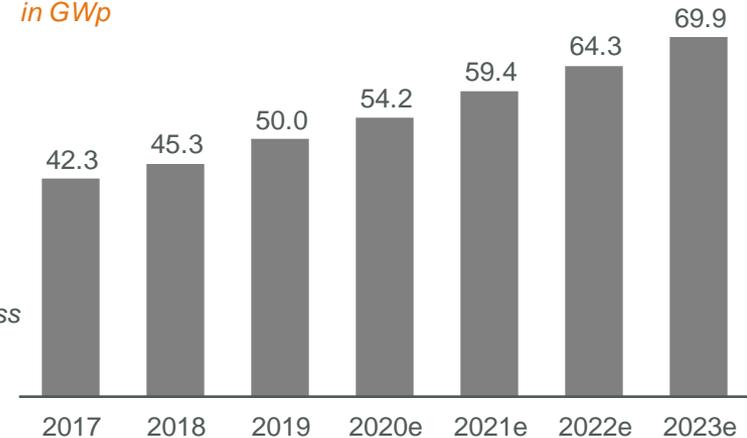
Germany - PV market overview



Generation mix in Germany in 2019



Installed solar PV in Germany in GWp



PV Market Dynamics

- Three main drivers for PV growth are FIT for <100 kW systems, FIP for 100-750 kW systems and quarterly competitive capacity auctions tenders for utility-scale projects
- Federal government has recently lifted the 52 GW cap for solar PV installation in 2020, and the country's new Germany's Renewable Energy Act (EEG) targets close to 100 GW solar PV capacity by 2030. Numerous stakeholders in the PV industry are even pushing for higher targets

Source: Fraunhofer ISE, Apricum PV market model

German RTB PV project rights' market prices are low compared to EU peers, but PV market prospects are good

Assumptions' comparative analysis – Greencells vs. Market



Project	Size [MW]	Project right Status	Construction begins	EPC price ¹	EPC price	RTB value	RTB value
				[kEUR/MW] Greencells	[kEUR/MW] Market	[kEUR/MW] Greencells	[kEUR/MW] Market
Hartungshof	25	Secured	August 2021	600	500-550	28	40-80

Market drivers of RTB PV project rights prices

- Market prices for PV project rights are close to half of Southern European values, and so because of significantly lower irradiation (almost two times less) and higher land lease and construction costs due to relative space scarcity
- Also, the very recent EEG decision to target 100 GW of solar PV capacity by 2030 may lead to potential solar PV self-cannablization, and limit future power price upside. PV project rights' prices may be further impacted
- However, market fundamentals and investors' appetite shall remain robust thanks to the continuous organization of auctions for PV support schemes, enabling higher financing leverage and stable revenues' case, and thanks to the expectations that power market prices (for corporate PPAs) will remain attractive due to (i) rising power demand coming from other sectors such as e-mobility or hydrogen and (ii) phasing out of coal and nuclear power plants
- The RTB price assumption of 28k EUR/MW for GC's PV project is on the low side compared to market. This might be partly explained by the high EPC costs of 600k EUR/MW and EPC margin of 25% assumed by Greencells

1) Excluding grid connection costs

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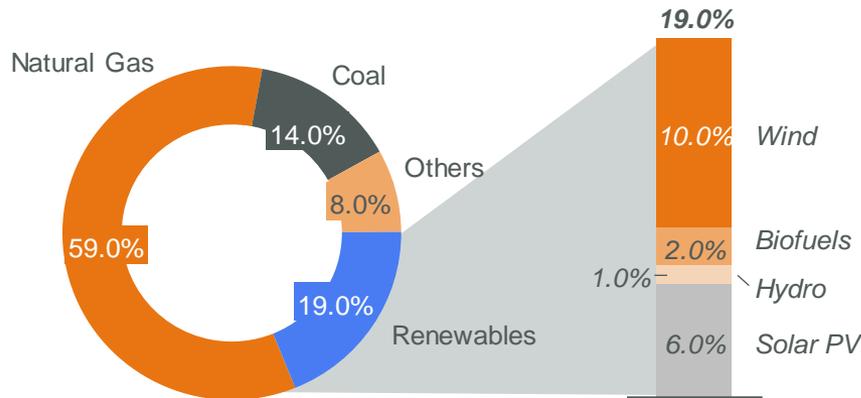
Poland (for information)

Additional miscellaneous information (Development costs, EPC margin)

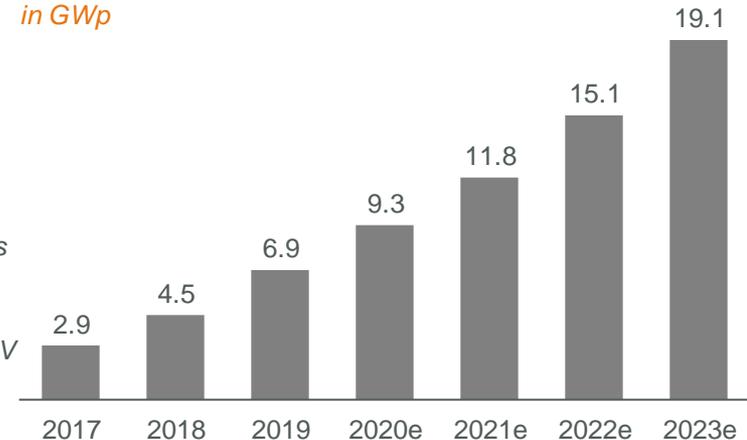
Solar PV capacity growth in the Netherlands was limited until authorities introduced subsidy programs.

Netherlands – PV market overview

Generation mix in the Netherlands in 2019



Installed solar PV in the Netherlands in GWp



PV Market Dynamics

- The Netherlands' operational PV capacity stood at around 6.72 GW by the end of 2019, representing 20% of the country's installed capacity, and representing an increase of close to +50% compared to 2018
- Country's solar PV capacity is expected to reach 19 GW by 2023
- The SDE+ subsidy program¹ for large-scale renewable energy projects have been the main driver for such growth since it was introduced in 2017, and is expected to remain so for the future under the amended SDE++ program
- In early 2020 alone, authorities have allocated EUR 4bn of SDE+ subsidies to nearly 3,340 MW of PV projects

Source: IRENA, Apricum PV market model; 1) support premium

Prices for RTB PV project rights are heavily dependent on the SDE subsidy program the project belongs to.

Assumptions' comparative analysis – Greencells vs. Market

Project	Size [MW]	Project right Status	Construction begins	EPC price [kEUR/MW]	EPC price [kEUR/MW]	RTB value [kEUR/MW]	RTB value [kEUR/MW]
				Greencells	Market	Greencells	Market
Landgraaf	15	Secured	July 2021	480		65	
Raalte	20	Secured	Sept. 2021	480	450-500	65	30-70 ²
Voerendaal	8	Secured	October 2021	480		65	

Market drivers of RTB PV project rights prices

- Relatively lower irradiation than in Germany and significantly higher land lease costs bring PV project rights market price towards a lower range. Economic and technical requirements imposed by host municipalities have also contributed to render PV projects potentially “costly”, limiting therefore PV project rights’ prices
- These constraints are compensated by the SDE+ support premium subsidy that underpins projects’ revenue cases and provides with a stable competitive scheme (corporate PPAs and merchant exposure are almost inexistant)
- PV projects benefiting from the “old” SDE+ subsidy program of 2017/2018 could carry RTB value of close to 100k EUR/MW. These prices have therefore been decreasing as SDE+ subsidies were also being cut. An updated SDE++ subsidy program to be enacted in the coming auction rounds may even further impact RTB market prices
- Investors’ appetite for PV projects in the Netherlands remain however fundamentally strong and can, among others, give comfort on the RTB PV project rights’ assumptions taken by Greencells

1) Excluding grid connection costs; 2) excluding PV projects under development with old SDE+ subsidies (i.e. 2017-2018 auctions)

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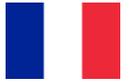
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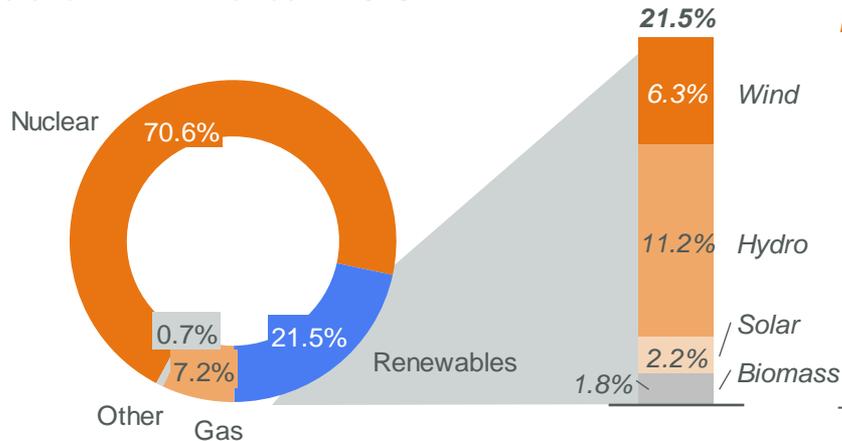
Additional miscellaneous information (Development costs, EPC margin)

France remains a nuclear energy dominated country, where PV has slowly grown until now.

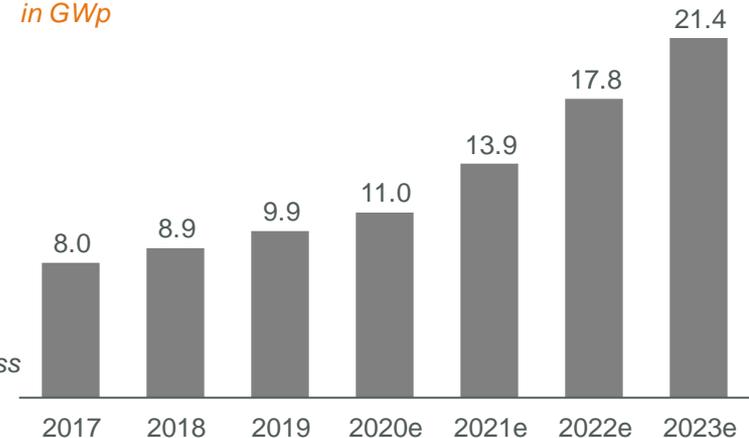
France - PV market overview



Generation mix in France in 2019



Installed solar PV in France in GWp



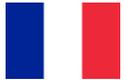
PV market dynamics

- Recent PV capacity additions have been going on at a slower pace than for European peers i.e. less than 800 MW a year, and make France potentially falling short from the authorities' targets to reach total installed capacity of 20 GW by 2023 and of 35-44 GW by 2028
- French Energy Regulation Commission "CRE" have been tendering out, since 2016, PV capacity for utility scale and C&I projects benefiting from premium support schemes. A multi-annual energy plan published in April 2020 foresees 2.9 GW of PV capacity tenders taking place annually from 2021 until 2024 to accelerate capacity growth

Source: RTE, Ministry of Ecological Transition, Apricum PV market model

Prices for RTB PV project rights are heavily dependent on the SDE subsidy program the project belongs to.

Assumptions' comparative analysis – Greencells vs. Market



Project	Size [MW]	Project right Status	Construction begins	EPC price [kEUR/MW]	EPC price [kEUR/MW]	RTB value [kEUR/MW]	RTB value [kEUR/MW]
				Greencells	Market	Greencells	Market
Le Mortier	60	Secured	May 2023	600	600-650	100	70-100

Market drivers of RTB PV project rights prices

- Local PV market is characterized by mid range irradiation (in the European context) and land lease & EPC costs on the high side as opposed to other European markets.
- These are compensated by the attractiveness of the CRE support mechanism that back up projects' revenues.
- Growth perspective and the authorities' commitment to regularly roll over the support mechanism have attracted local & international market players towards the French market, contributing to maintain attractive RTB PV project values as of today (from a seller's point of view)
- However, recent Governmental decisions pertaining to the potential scrap of historical subsidized tariff and to the increase of transmission fees payable to the system operator are threatening the economic equilibrium of existing projects and have introduced regulatory uncertainty in the market. This may prompt an increase of the risk premium required by incoming investors

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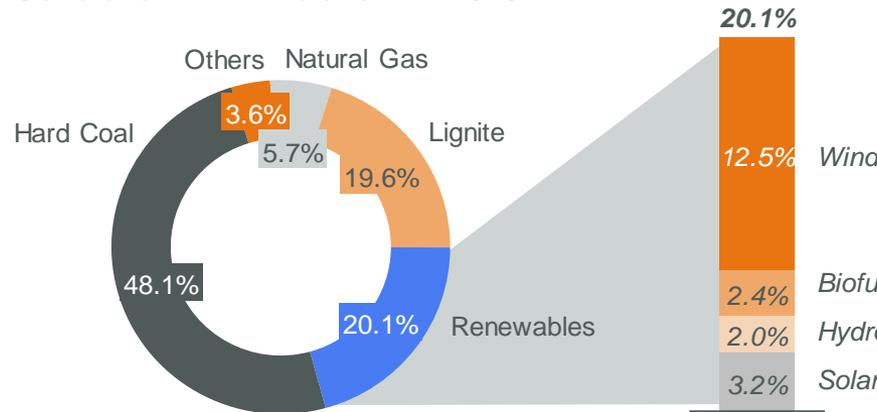
Poland (for information)

Additional miscellaneous information (Development costs, EPC margin)

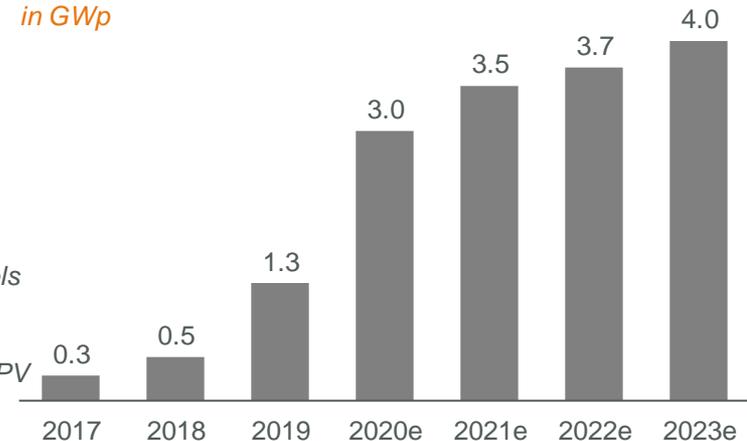
PV development in Poland has been dramatically increasing in the last 2 years thanks to support schemes

Poland – PV market overview

Generation mix in Poland in 2019



Installed solar PV in Poland in GWp



PV market dynamics

- Solar PV, under-developed until year-end 2018, significantly increased in 2019 and in 10M 2020 with the addition of +1.0 GW and +1.3 GW installed capacity, respectively, to reach 2.7 GW end of September
- Such recent growth in PV was mostly driven by recent RE auctions based on a “Certificates for Difference (CfD)” support scheme with a 15-year guaranteed price. 1.5 GW shall be auctioned by end of this year
- Policy makers targets 7.8 GW of solar PV capacity by 2030, but that figure may be reached earlier

Source: Agencja Rynku Energii SA, Apricum PV market model

RTB PV project rights' prices in Poland are supported by attractive market dynamics on the revenue and cost sides.

Assumptions' comparative analysis – Greencells vs. Market (for information)

Project	Size [MW]	Project right Status	Construction begins	EPC price [kEUR/MW]	EPC price [kEUR/MW]	RTB value [kEUR/MW]	RTB value [kEUR/MW]
				Greencells	Market	Greencells	Market
<i>Przykona</i>	<i>244</i>	<i>In negotiation</i>	<i>April 2021</i>	<i>405</i>	<i>450-500</i>	<i>123</i>	<i>100-150</i>

Market drivers of RTB PV project rights prices

- Appetite from investors and developers for the Polish utility-scale PV market has gained much momentum over the last 2 years thanks to the authorities' commitment to regularly roll over PV capacity auctions offering clear revenues' support schemes, and thanks to relatively attractive land and capex costs
- RTB PV project rights' market prices have therefore recently ballooned to above 100k EUR/MW values

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Development Costs and EPC margin assumptions are broadly in line with market feedbacks

Additional information - Development costs and EPC margin

Development costs

- Greencells assumptions for development costs in Germany, the Netherlands, Italy and Spain are broadly in line with market feedbacks. No material deviations have been identified.

EPC margin

- EPC margin assumptions of 10% assumed by Greencells is in the upper level of the EPC margin range (i.e. 8 to 10%) observed in the market.¹

1) With the exception of the German PV project where the EPC margin has been reported at 25%. Please see section about “Germany” above