



APRICUM

THE CLEANTECH ADVISORY.

Greencells

Project Green Bond – Valuation of Development Portfolio II

November 15, 2021

FINAL REPORT

Agenda.

Executive summary

Presentation of Greencells approach

Q&A with Greencells

Spain

Italy

Germany

The Netherlands

France

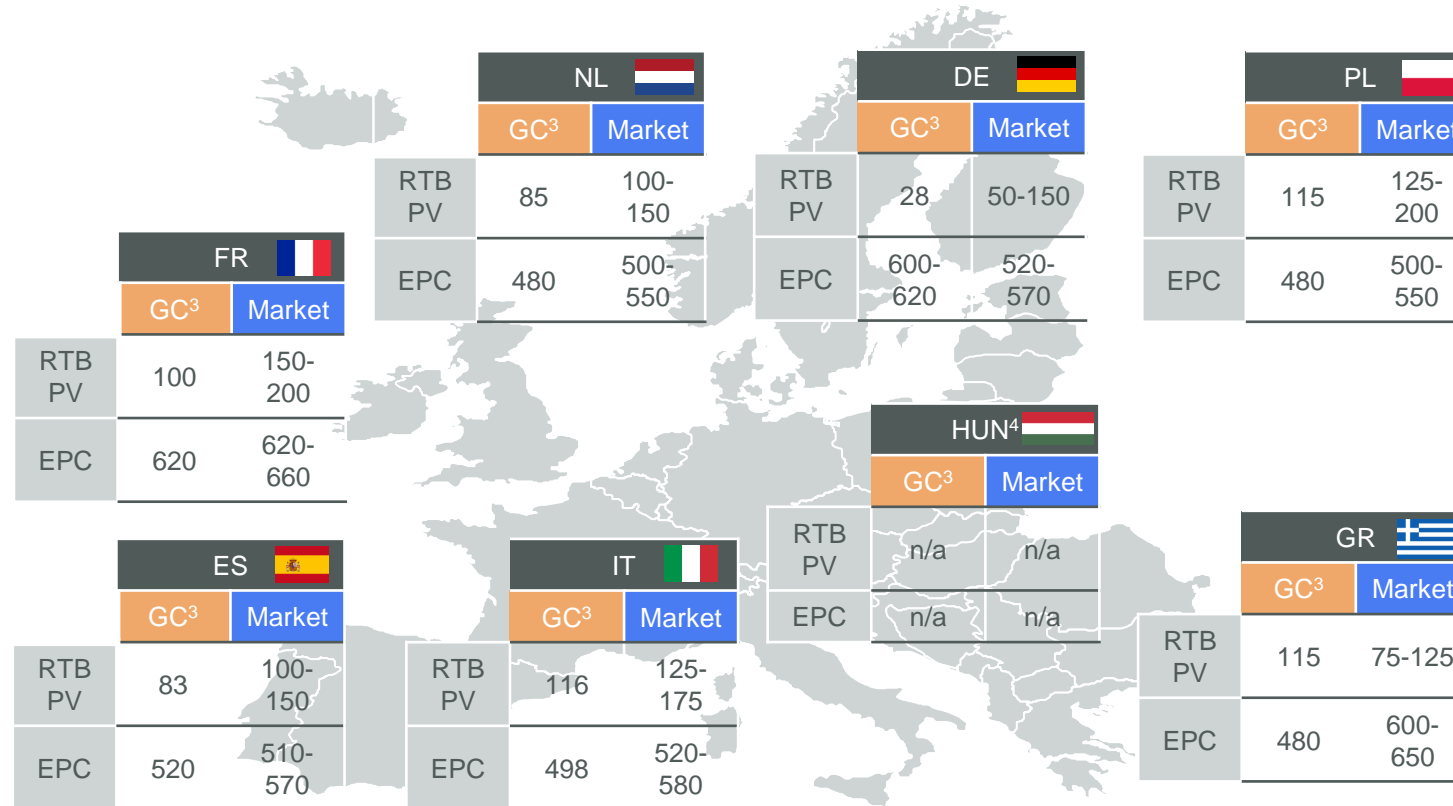
Poland

Greece

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 and administrative permits
 - (in some cases) secured tariff
- Market prices for PV project rights at RTB stage differ (i) from countries to countries and (ii) within countries, and so because of:
 - 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, and assuming that current increases in modules’, transportation and other EPC cost items are temporary and shall reverse in the next 6 to 12 months; however not coming back to pre-disruption levels because of (i) likely continuous pressure on module prices and (ii) strong demand for EPC services when disruption period will come to an end, putting therefore upward pressure on EPC margins; 3) “GC”: Greencells; 4) no Greencells assumptions available and no market data points available

The valuation of the PV development portfolio, including all elements, is estimated at a range of EUR 92 to 144M.

Collateral amount – Greencells vs. Market assumptions

Project	Country	Ownership	Lower Interval Limit (Market) [EUR]	Internal Limit (Greencells) [EUR]	Upper Interval Limit (Market) [EUR]
Poggio Imperiale II ¹		50%	36,155,000	35,644,525	48,825,000
Greentarraco 1 ²		70%	3,611,878	3,327,483	5,844,040
Greentarraco 2 ²		70%	3,611,878	3,328,771	5,844,040
Ensheim		100%	908,000	1,720,000	2,865,000
Neder Betuwe		100%	929,565	705,565	1,349,565
Hartungshof		100%	2,370,000	4,525,000	7,262,500
Le Mortier		100%	12,098,000	9,470,000	15,710,000
Walcz		100%	8,500,000	8,010,000	14,450,000
Nowy Korczyn		100%	12,250,000	11,375,000	22,875,000
Kilkis		100%	11,980,000	16,060,000	19,300,000
Total			92,414,321	94,166,344	144,325,145

Source: Apricum analysis, Greencells; 1) reflecting 50% ownership of the project rights and 100% ownership of EPC contract; 2) reflecting 70% ownership of the project rights and 100% ownership of the EPC contract

Agenda.

Executive summary

Presentation of Greencells approach

Q&A with Greencells

Spain

Italy

Germany

The Netherlands

France

Poland

Greece

Additional miscellaneous information (Development costs, EPC margin)

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

Greencells green bond principles



Green bond's security

- Greencells ("GC") issued in Q4 2020 a corporate green bond
- Greencells collateralized 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 amounts therefore 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 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 PV 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 10 solar PV projects have been included by Greencells in the green bond collateral, and so located in 7 countries: Spain, Italy, Germany, the Netherlands, France, Poland and Greece¹ • The assumptions taken by Greencells and the valuation results are compiled in a short-form Financial Model reviewed by Apricum 	

1) this report will also give preliminary information about Hungary

Agenda.

Executive summary

Presentation of Greencells approach

Q&A with Greencells

Spain

Italy

Germany

The Netherlands

France

Poland

Greece

Additional miscellaneous information (Development costs, EPC margin)

A few comments were raised to Greencells concerning the valuation methodology and assumptions, all of which were tackled.

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

Apricum's comments (including from 2020, still valid today)	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 2021	The valuation timeframe is short as future net cashflows are not occurring in more than 20 months	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. GC has a secured PV pipeline of a size close to 1.92GW capacity (of which the collateralized projects are part)	Noted
What are the revenue assumptions for: The Polish projects? The German projects? The Dutch projects? The Greek projects? The French projects?	The Polish projects? => PPA The German projects?=> EEG, already secured The Dutch projects? => SDE++ The Greek projects? => PPA and merchant The French projects? => PPA	Noted

A few comments were raised to Greencells concerning the valuation methodology and assumptions, all of which were tackled.

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

Apricum's comments (including from 2020, still valid today)	Greencells's ("GC") responses	Apricum's opinion
<p>Current EPC costs have dramatically increased since a year ago due to increase in module, logistics', transportation and steel prices. What EPC prices are you now considering in your GC assumptions?</p>	<p>We do see equipment prices going back to a near normal state over the next 9 – 12 months [<i>note: when most of GC's projects in the security basket will start construction</i>], but with modules' prices, one cannot assume that these are going back to below 20 cents per Wp.</p> <p>All in all, we will see EPC and equipment prices coming back but not entirely to pre-crisis levels. However, in light of a multitude of projects getting to RTB status within the next months/year in Europe, we will see EPC prices going up because of such strong demand for these services</p> <p>In our own pipeline assumptions, we have so far remained with a conservative approach, assuming that EPC prices will be coming back to a lower level as compared to today, and so to be on the safe side concerning margin assumptions.</p>	<p>Noted.</p>

Agenda.

Executive summary

Presentation of Greencells approach

Q&A with Greencells

Spain

Italy

Germany

The Netherlands

France

Poland

Greece

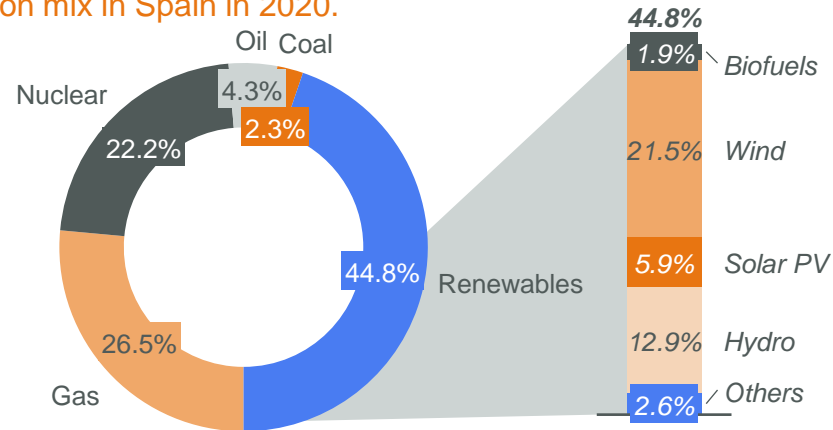
Additional miscellaneous information (Development costs, EPC margin)

Spain had a solar boom in 2019 and 2020 when past awarded projects connected to the grid, but the country pushes now for more.

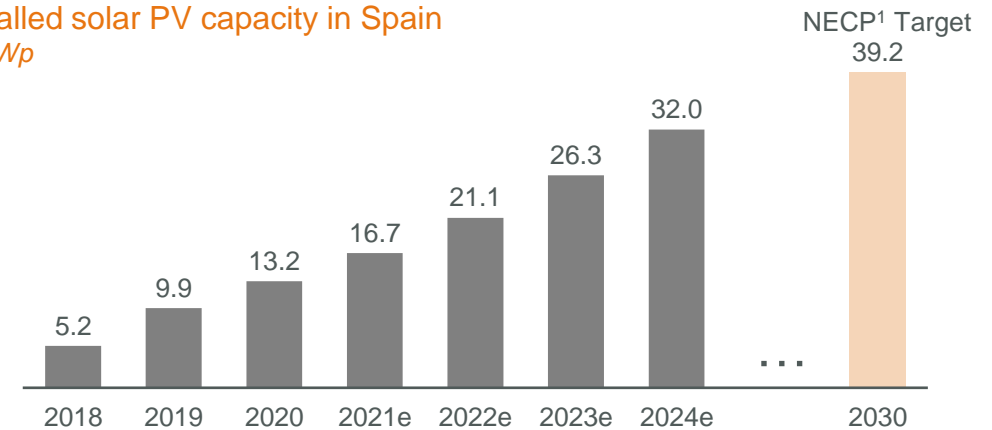


Spain - PV market overview

Generation mix in Spain in 2020.



Installed solar PV capacity in Spain in GWp



PV Market dynamics

- **Trend / New installations:** Close to 3.40GW installed capacity were added in 2020. In the first quarter of 2021, an additional 1.31GW has been installed. Also, solar PV projects secured 2.04GW (68%) of the 3GW capacity awarded in the January 2021 auctions
- **Drivers:**
 - In Spain, subsidized PV installations are driven by incentives and unsubsidized PV by attractive electricity prices and an active corporate PPA market²
 - Ease of deployment was enhanced through the enactment of a few regulations: a new remuneration framework for RE and hybridization of facilities was promoted by modifying RD³ 24/2013. RD 23/2020 introduces a streamlined and milestone-based process to reduce speculation on the limited availability of grid permits. RD 960/2020 introduces a new auction framework for a predictable renewable energy investment (incl. battery storage)
- **Barriers:** With the increasing growth of large-scale solar PV deployment, the challenge of available grid capacity will need to be addressed to meet the targets

Source: Apricum PV market model, IEA, Renewables (2020), SolarPower Europe (2020); 1) National Energy Climate Plan; 2) Power Purchase Agreement; 3) Royal Decree.

In Spain, Greencells assumptions are in the low end of the range for current PV project rights' market prices.



Assumptions' comparative analysis – Greencells vs. Market

Project	Size [MWp]	Project right Status	Construction begins	EPC price ¹ [kEUR/MW] Greencells	EPC price ¹ [kEUR/MW] Market	RTB value [kEUR/MW] Greencells	RTB value [kEUR/MW] Market
Greentaraco 1	48.4	Secured	4Q 2022	520	510-570	83	100-150
Greentaraco 2	48.4	Secured	4Q 2022	520		83	

Market drivers of RTB PV project rights prices

- Spain is a mature (including for corporate PPA) and fiercely competitive market, where strong appetite for available RTB projects and attractive irradiation have historically maintained RTB PV market prices on the high side compared to other European countries
- RTB prices have continued to increase since 2020 due to strong market fundamentals (i.e. high energy price, quality projects etc.) and new auction rules (i.e. favoring some projects)
- A few hurdles may theoretically limit projects' value going forward, because of dynamics such as future solar self-cannibalization impacting capture prices or the PPA market slowing drying out
- However, common market expectation is that prices will remain at high levels as financing conditions remain attractive, more experienced actors are ready to take merchant risk, general appetite for such asset class will continue favorably, and short-term projects' scarcity due to grid constraints will keep pressure up
- GC's current RTB prices assumptions at around 83k EUR/MW is at the low end of current market prices' range and can be considered as very reasonable

1) Excluding grid connection costs, and assuming that current increases in modules', transportation and other EPC cost items are temporary and shall reverse in the next 6 to 12 months; however not coming back to pre-disruption levels because of (i) likely continuous pressure on module prices and (ii) strong demand for EPC services when disruption period will come to an end, putting therefore upward pressure on margins

Agenda.

Executive summary

Presentation of Greencells approach

Q&A with Greencells

Spain

Italy

Germany

The Netherlands

France

Poland

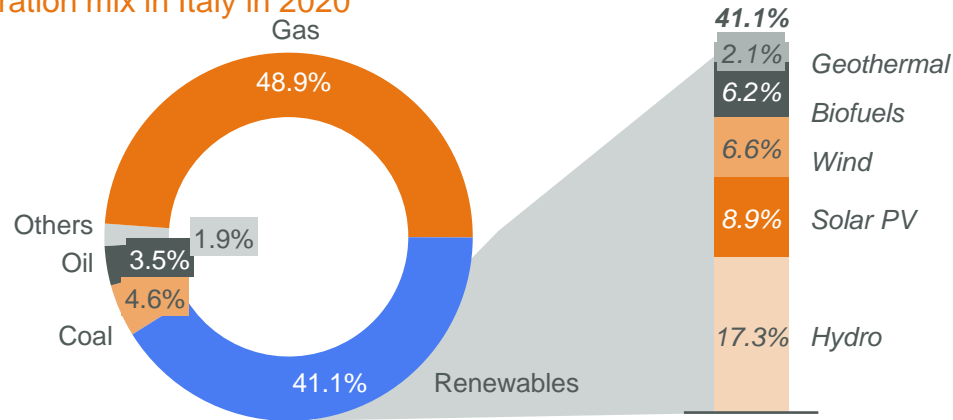
Greece

Additional miscellaneous information (Development costs, EPC margin)

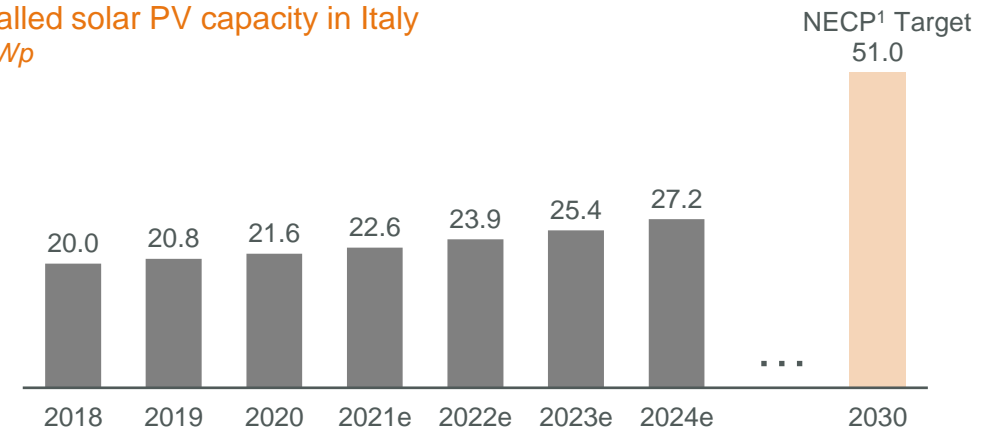
Italian authorities are committed to foster a significant increase of PV installations in the next 10 years, despite bottlenecks.

Italy - PV market overview

Generation mix in Italy in 2020



Installed solar PV capacity in Italy in GWp



PV Market dynamics

- **Trend / New installations:** a total of 625MW of new PV capacity was installed in 2020. An additional 152MW of solar PV capacity was connected to the grid as of March 2021
- **Drivers:**
 - The *simplification decrees*² (2020,21) would provide faster environmental & administrative clearances in selected agricultural sites and regions of national interest for utility-scale projects. A simplified EIA³ permitting procedure for plants greater than 10MW was also enacted
 - Growth of residential PV deployment is driven by the *super-bonus* program (110% tax rebate of the installation cost) and will extend until 2022
- **Barriers:** Solar PV market in 2020 is driven by residential PVs, as current regulations limit agricultural land usage for large-scale PV deployment. Many projects face development bottlenecks in obtaining environmental and regulatory clearances from relevant authorities

Source: Apricum PV market model, IEA, Renewables (2020), SolarPower Europe (2020); 1) National Energy Climate Plan; 2) Semplificazioni bis; 3) Environmental Impact Assessment

The market in Italy for RTB PV project rights remains illiquid but could pick up in the next year(s). GC's assumption is reasonable.

Assumptions' comparative analysis – Greencells vs. Market

Project	Size [MWp]	Project right Status	Construction begins	EPC price ¹ [kEUR/MW] Greencells	EPC price ¹ [kEUR/MW] Market	RTB value [kEUR/MW] Greencells	RTB value [kEUR/MW] Market
Poggio Imperiale II	350	Secured	1Q 2023	498	520-580	116	125-175

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 with very limited number of projects available for sale. RTB projects' transactions have even reached 150 to 200k EUR/MW levels
- Projects are scarce: timeline for bringing projects to RTB stage is long, COVID impacted the development of many RTB projects that were supposed come in the market in 2020-2021, and a lot of co-development partnerships have withdrawn projects from the RTB market
- Authorities recently introduced a national-level regulatory process which shall ease the development process for some projects, and the theoretical pipeline remains strong. Corporate PPA also remains a nascent product, but offtakers' appetite is there, which shall in the future contribute to back up business cases
- This potential future increase in offering shall not put downward pressure on RTB prices as Italy enjoys nevertheless robust fundamentals with significant investors' demand (and low IRR expectations), abundant irradiation across the country and high-power prices (among the highest power prices in Europe)
- GC's current RTB prices assumptions at 116k EUR/MW is at the low end of current market prices' range and can be considered as reasonable

1) Excluding grid connection costs and assuming that current increases in modules', transportation and other EPC cost items are temporary and shall reverse in the next 6 to 12 months; however not coming back to pre-disruption levels because of (i) likely continuous pressure on module prices and (ii) strong demand for EPC services when disruption period will come to an end, putting therefore upward pressure on contractors' margins

Agenda.

Executive summary

Presentation of Greencells approach

Q&A with Greencells

Spain

Italy

Germany

The Netherlands

France

Poland

Greece

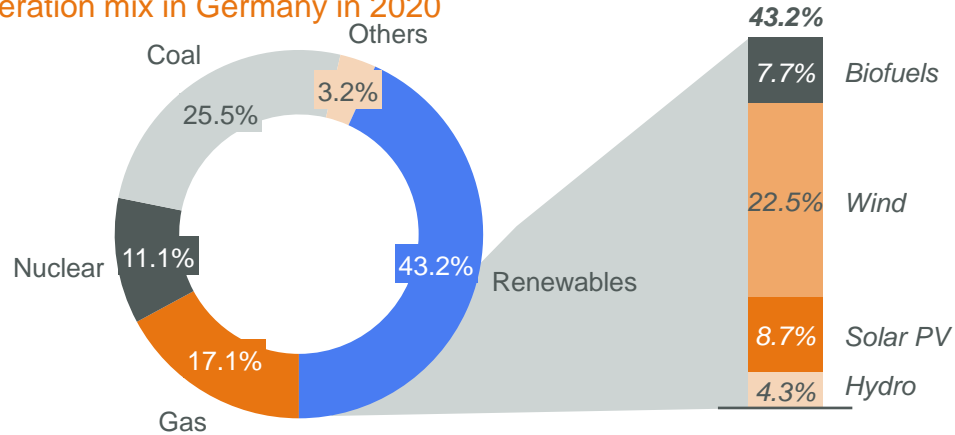
Additional miscellaneous information (Development costs, EPC margin)

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

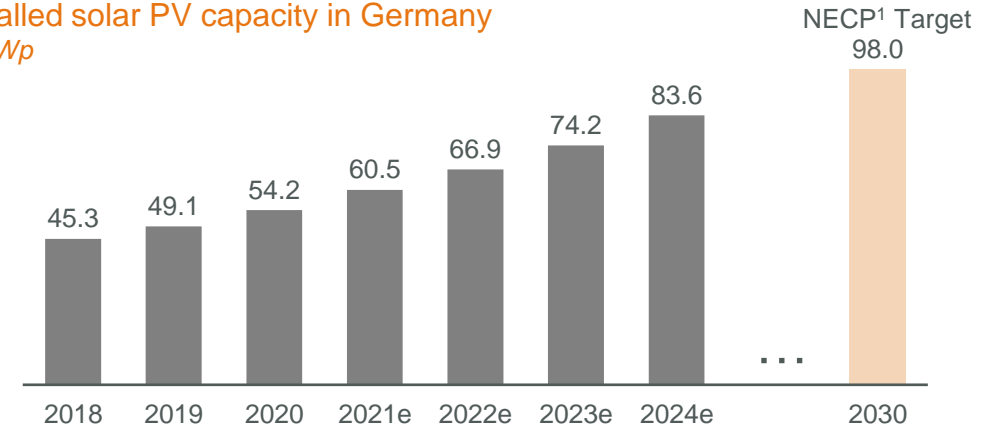
Germany - PV market overview



Generation mix in Germany in 2020



Installed solar PV capacity in Germany in GWp



PV Market dynamics

- **Trend / New installations:** Nearly 4.90GW of PV capacity was commissioned in 2020. An additional 3.2GW was installed as of July 2021
- **Drivers:**
 - High electricity prices, EV adoption & exemption of EEG² levy for PVs (self-consumption < 30kW, prev. 10kW) are the drivers of residential PVs
 - Federal government lifted the 52GW cap for solar PV installation in 2020, targeting close to 100GW solar PV capacity by 2030. Another driver for utility-scale PV deployment includes the increase of annual auction capacity from 600MW to 1.9 to 2.8GW level
- **Barriers:** As per the new EEG², FIT incentive applies only to PV systems under 300kW (prev. limit of 750 kW). Greater than 300 kW can choose either a 50% FIT incentive (with self-consumption) or a tender scheme (no self consumption) This EEG regulation impacts investment appetite from C&I players

Source: Apricum PV market model, IEA, PV Magazine (2020), Renewables (2020), SolarPower Europe (2020); 1) National Energy Climate Plan; 2) Erneuerbare-Energien-Gesetz

Market prices for RTB project rights have witnessed a strong increase on the back of important IRR yield compression.

Assumptions' comparative analysis – Greencells vs. Market



Project	Size [MWp]	Project right Status	Construction begins	EPC price ¹ [kEUR/MW] Greencells	EPC price ¹ [kEUR/MW] Market	RTB value ² [kEUR/MW] Greencells	RTB value ² [kEUR/MW] Market
Hartungshof	25	Secured	3Q 2022	620	520-570	28	50-150
Ensheim	10	Secured	4Q 2022	600		28	

Market drivers of RTB PV project rights prices

- Prices in Germany have skyrocketed to almost 150k EUR/MW in certain cases, pushed up by an abundance of capital and a strong investors' appetite (especially local), driving IRR expectations very low for such yield-guaranteed class of assets
- Market fundamentals and investors' appetite will remain robust thanks to the continuous organization of auctions for PV support schemes, enabling stable revenues' cases, 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
- However, market prices for PV project rights used to be half of Southern European values, and so because of significantly lower irradiation (almost two times less) and higher land lease and grid connection costs due to space scarcity. Also, the EEG decision to target 100GW 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
- Hence a downward trend or a slight correction of the current very high prices shall be expected in the foreseeable future (shall investors' appetite stabilizes)
- The RTB price assumption of 28k EUR/MW for GC's PV project is therefore on the very 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) *Idem to footnote 1 in slide 16*

Agenda.

Executive summary

Presentation of Greencells approach

Q&A with Greencells

Spain

Italy

Germany

The Netherlands

France

Poland

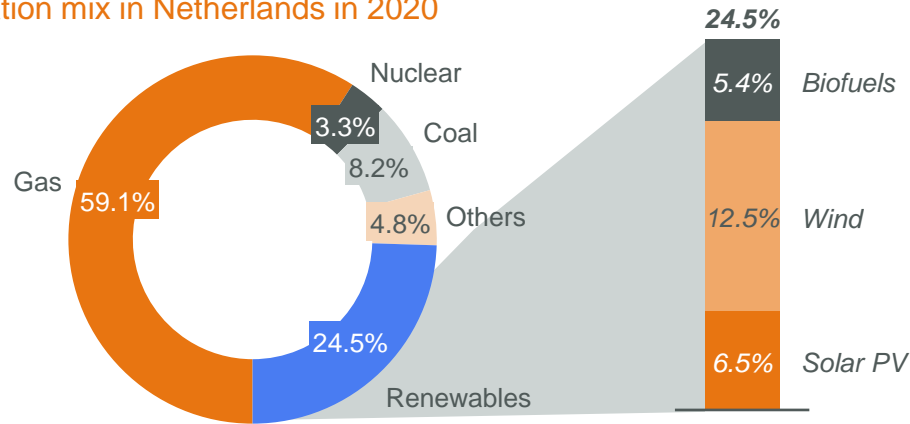
Greece

Additional miscellaneous information (Development costs, EPC margin)

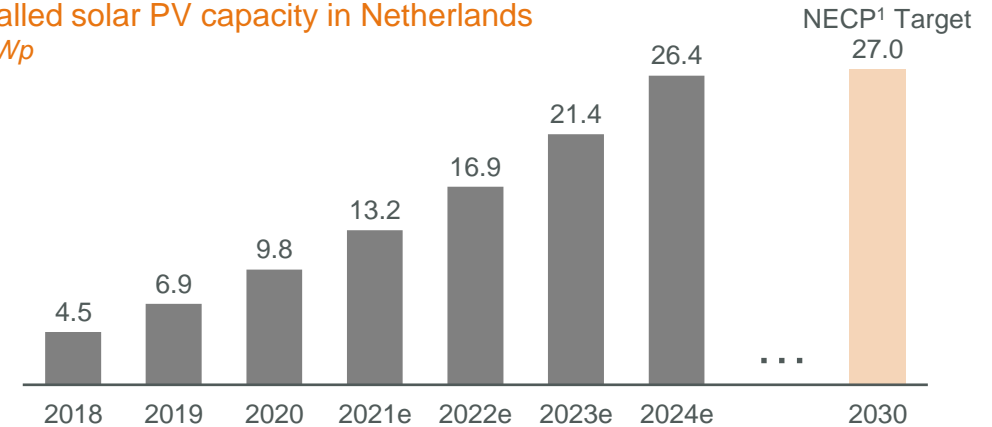
The Netherlands rolls out the new SDE++ program that prioritizes a broader set of low carbon technologies.

The Netherlands - PV market overview

Generation mix in Netherlands in 2020



Installed solar PV capacity in Netherlands in GWp



PV Market dynamics

- **Trend / New installations:** In comparison to 2019, a significant increase of solar power (2.12%) in the electricity mix of 2020. Nearly 2.93GW of PV capacity was installed in 2020, of which 1.8GW belonged to C&I installations. A cumulative capacity of 10GW was installed as of January 2021
- **Drivers:**
 - Besides high electricity prices, Netherland's PV market is driven by government incentive programs. Residential PV deployment is driven by the *net metering scheme*. New FIT rates will be introduced in 2024, which will be reduced by 9% p.a. compared to the existing rate and phase out after 2030
 - For utility-scale projects, the SDE²⁺⁺ superseded the SDE+ program in 2021. Under the SDE++, funding is based on tons of CO₂ emissions avoided instead of energy generated as in SDE+. Solar and low carbon tech. are the biggest beneficiaries of EUR 5.0bn subsidy in the fall SDE++ 2020 round
- **Barriers:** Grid access for utility-scale PV projects, especially in grid congested regions, will be the main hurdle to the deployment of more PV

Source: Apricum PV market model, IEA, PV Magazine(2021), Renewables (2020), SolarPower Europe (2020); 1) National Energy Climate Plan; 2) Stimulerend Duurzame Energieproductie.

Prices for RTB PV project rights have also reached unprecedented levels, reflecting a heated investors' market.

Assumptions' comparative analysis – Greencells vs. Market

Project	Size [MWp]	Project right Status	Construction begins	EPC price ¹ [kEUR/MW] Greencells	EPC price ¹ [kEUR/MW] Market	RTB value ² [kEUR/MW] Greencells	RTB value ² [kEUR/MW] Market
Neder Betuwe	7	Secured	4Q 2022	480	500-550	65	100-150

Market drivers of RTB PV project rights prices

- As for Germany, market prices for PV project rights have also dramatically increased because of similar dynamics: abundance of capital combined with investors' strong demand and yield compression leading to a surge of assets' prices
- The SDE subsidy program, now based on the updated SDE++ tariff, remains the core driver behind investors' appetite, which, combined with a certain scarcity of available RTB projects (due, in part, to grid congestion issues), contributes to the inflated prices
- However, irradiation is even lower than in Germany and land lease and construction costs are relatively higher. The average size of projects is small, preventing therefore economy of scale and leading to a gradual disinterest of investors focusing on volume
- Hence a downward trend or correction of the current very high prices shall be expected in the foreseeable future to more "sensible" level, even if a complete drop is not expected due to the market fundamentals already mentioned i.e. SDE support scheme and general appetite for Dutch PV assets
- GC's current RTB price assumption at 65k EUR/MW can therefore be considered as reasonable, and in any event close to "pre-inflated" prices, which provides with a certain comfort in case markets were to cool down

1) Excluding grid connection costs and assuming that current increases in modules', transportation and other EPC cost items are temporary and shall reverse in the next 6 to 12 months; however not coming back to pre-disruption levels because of (i) likely continuous pressure on module prices and (ii) strong demand for EPC services when disruption period will come to an end, putting therefore pressure on margins

Agenda.

Executive summary

Presentation of Greencells approach

Q&A with Greencells

Spain

Italy

Germany

The Netherlands

France

Poland

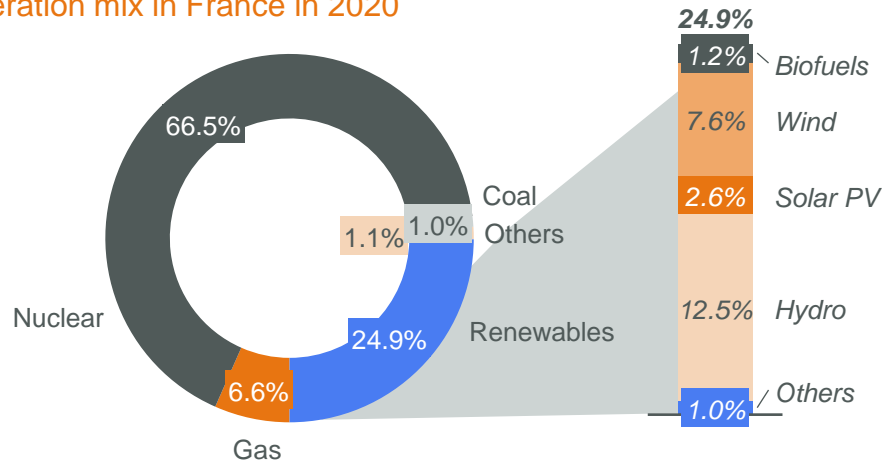
Greece

Additional miscellaneous information (Development costs, EPC margin)

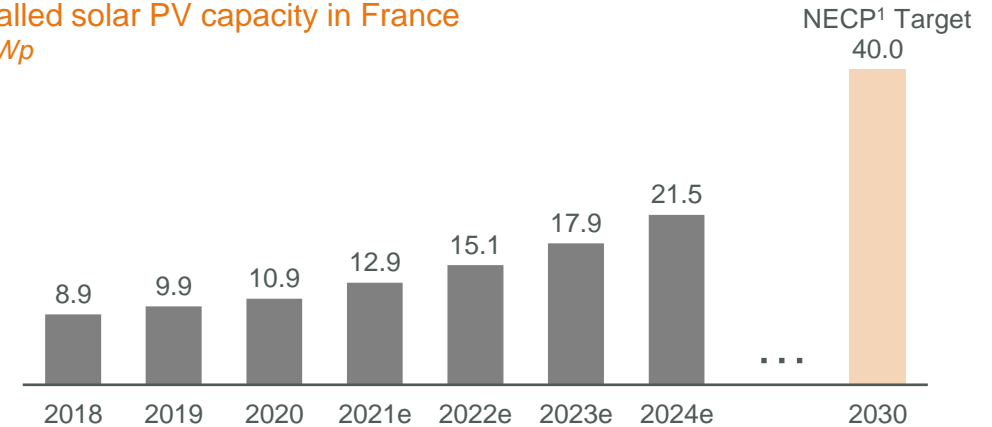
France's PV market rests at a turning point, with a visible auction schedule and new regulation aiming at accelerating PV expansion.

France - PV market overview

Generation mix in France in 2020



Installed solar PV capacity in France in GWp



PV Market dynamics

- **Trend / New installations:** 973MW of PV capacity was added in the year 2020. But an additional 1.4 GW of PV capacity was installed as of June in 2021 alone, driven mainly by utility-scale projects. CRE auctions are set to a regular every 6-month schedule
- **Drivers:**
 - Recent policy development – New warehouses, supermarkets, and parking canopies are obligated to install PV systems. Utility-scale deployments can avail tax cuts. France is revising its rooftop auction scheme to attract more subscriptions as the program suffered undersubscriptions in 2018 & 2019
- **Barriers:** Under the art. 225 of the Finance act (2021), FIT will be reduced for large-scale utility projects (> 250kW) commissioned before 2010. Despite lobbying by the solar industry, the bill passed the legal due diligence and the decree with the new tariffs was expected to come into force in October 2021. Other challenges include access to land for PV deployment and grid connection challenges

Source: Apricum PV market model, IEA, PV Magazine(2021), Renewables (2020), SolarPower Europe (2020); 1) National Energy Climate Plan.

The future value of GC's unsubsidized project may face some risks, but PPA market may pick up soon and the auction option remains.

Assumptions' comparative analysis – Greencells vs. Market

Project	Size [MWp]	Project right Status	Construction begins	EPC price ¹ [kEUR/MW] Greencells	EPC price ¹ [kEUR/MW] Market	RTB value [kEUR/MW] Greencells	RTB value [kEUR/MW] Market
Le Mortier	60	Secured	2Q 2023	620	620-660	100	150-200

Market drivers of RTB PV project rights prices

- Similarly, the general investment climate (i.e. abundance of capital looking for stable-yield assets), the relative scarcity of projects and the attractiveness of the CRE support mechanism that back up projects' revenues have prompted fierce competition among industrial players and financial investors and contributed to push significantly up market prices for RTB PV project rights
- In general though, 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. PPA market is still very nascent
- Growth perspective and the authorities' commitment to regularly roll over the support mechanism shall keep attracting market players towards the French market, and shall contribute to maintain attractive RTB PV project values, even though a market correction could be expected from the current very high levels
- GC's project is said not to benefit from the CRE tariff and to instead remain un-subsidized. As project's value in France is underpinned by access to the CRE tariff and that the PPA market remains nascent, this calls into question the ability to reach the considered market price level of 100k EUR/MW assumed by GC, which still reflects the high end of the previous non-inflated prices' range. However, PPA market may be maturing in the meantime until GC's project starts construction in 2023. Also, participating into the auction and securing a CRE tariff could remain an option

1) Excluding grid connection costs and assuming that current increases in EPC cost items are temporary and shall reverse in the next 6 to 12 months; however not coming back to pre-disruption levels because of (i) likely continuous pressure on module prices and (ii) strong demand for EPC services when disruption period will come to an end, putting therefore pressure on margins

Agenda.

Executive summary

Presentation of Greencells approach

Q&A with Greencells

Spain

Italy

Germany

The Netherlands

France

Poland

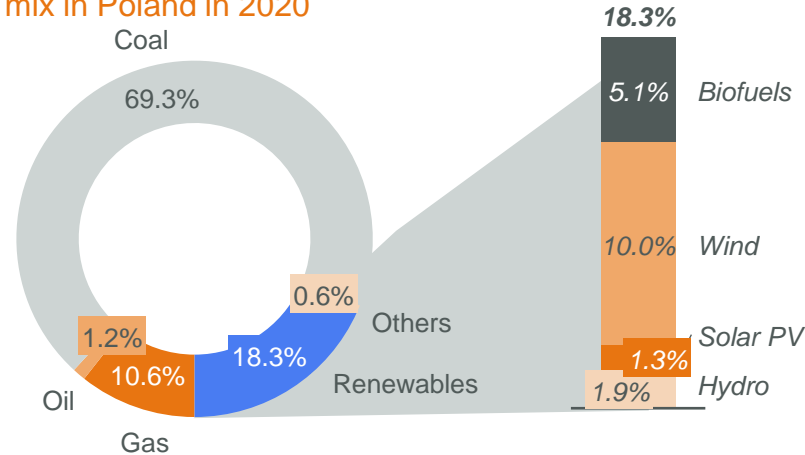
Greece

Additional miscellaneous information (Development costs, EPC margin)

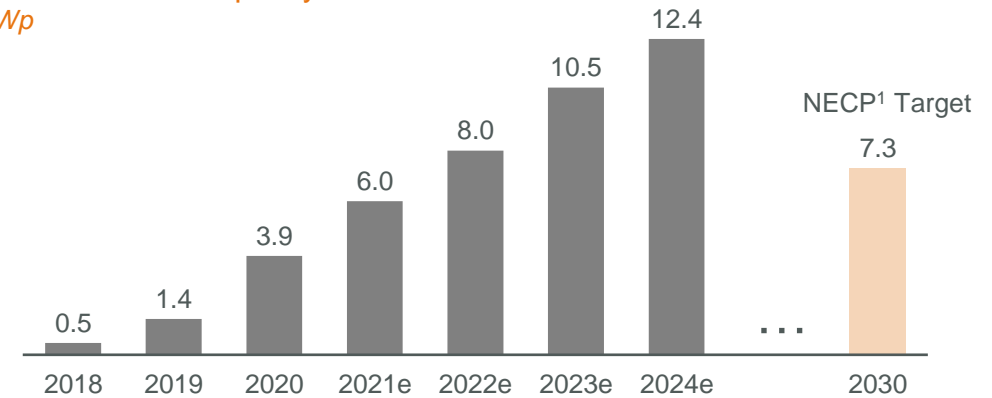
The dramatic rise of Poland's PV market is bolstered by regulations that make it the dominant force in renewable auction schemes.

Poland - PV market overview

Generation mix in Poland in 2020



Installed solar PV capacity in Poland in GWp



PV Market dynamics

- **Trend / New installations:** 2.5GW of PV capacity was commissioned in 2020 and already 2.3GW capacity installed as of June 2021. This significant growth is driven by utility-scale projects
- **Drivers:**
 - Besides residential, commercial and energy communities can participate in the net metering scheme thanks to an amendment of the RES² act. Utility scale PV deployment is driven by auctions and procurement exercises. In 2021, solar PV projects won most of the RE auctions. This preeminence of solar bids and contracts can be attributed, among others, to a distance-related constraining regulation limiting the development of wind farms
- **Barriers:** PPA market remains nascent, especially as banks require at least 15-year contract, which offtakers are unwilling to take. Ability of the grid to cope with significant growth of renewable energy could also be an impediment

Source: Apricum PV market model, IEA, PV Magazine (2021), Renewables (2020), SolarPower Europe (2020); 1) National Energy Climate Plan 2) Renewable Energy Systems.

Current RTB market prices are underpinned by access to auction tariff. GC keeps the future option to contract a more valuable PPA².

Assumptions' comparative analysis – Greencells vs. Market

Project	Size [MWp]	Project right Status	Construction begins	EPC price ¹ [kEUR/MW] Greencells	EPC price ¹ [kEUR/MW] Market	RTB value [kEUR/MW] Greencells	RTB value [kEUR/MW] Market
Walcz	70	Secured	3Q or 4Q 2022	480	500-550	115	125-200
Nowy Korczyn	125	Secured	3Q or 4Q 2022	480		115	

Market drivers of RTB PV project rights prices

- Investors' appetite for utility-scale PV projects has gained momentum over the last 3 years thanks to the authorities' commitment to regularly roll over RE auctions offering clear revenues' support schemes, to the availability of large-scale projects helping capturing volume growth and to attractive land costs
- As such, the market has matured, with more experienced local developers offering quality projects and investors' expected IRR compressing into single-digits. Grid bottleneck is becoming a key issue, increasing the scarcity of available RTB projects and therefore pushing prices up
- RTB PV project rights' market prices have therefore reached heated values, above 150k EUR/MW, and even 200k EUR/MW
- Going forward, grid related issues shall participate to projects' attrition and investors' demand will still be there, keeping high-level prices. On the other hand, the attractiveness of the CfD scheme may decrease, which replacement by a still nascent PPA market is not yet in sight. The latter can offer opportunities, including via cross border schemes, but as said, it remains under-developed and faces the lack of risk appetite from the financing market
- GC is said to keep the options open, until a decision is taken at RTB stage, between either remaining an un-subsidized project and contracting a potentially more valuable PPA (which market is expected to pick up in the foreseeable future) or applying for the auction tariff . As project's value in Poland is currently underpinned by access to the auction tariff (i.e. the CfD) and that the PPA market remains at early stage, the revenue strategy and project's value may have to be closely monitored as the project gets closer to RTB

1) Idem to footnote 1 page 25; 2) "a more valuable PPA": a secured revenue scheme via a LT PPA enabling the project to attract financing and a higher IRR than with the auction revenue scheme

Agenda.

Executive summary

Presentation of Greencells approach

Q&A with Greencells

Spain

Italy

Germany

The Netherlands

France

Poland

Greece

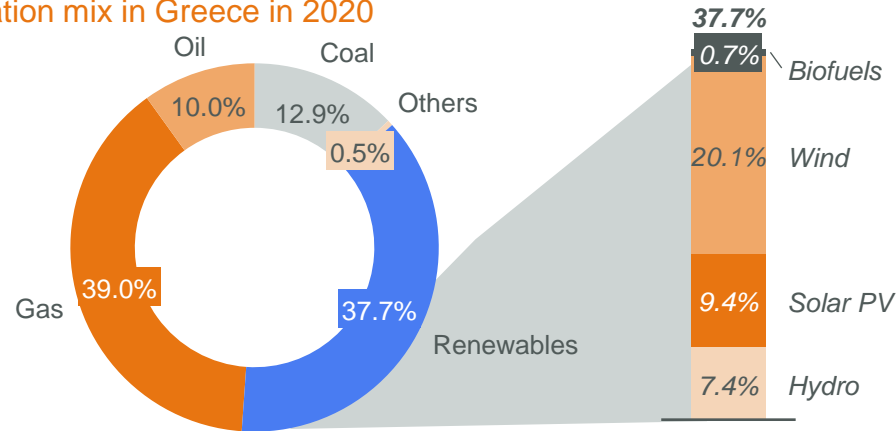
Additional miscellaneous information (Development costs, EPC margin)

Greece has great renewable energy potential, which is being gradually exploited by facilitating regulations.

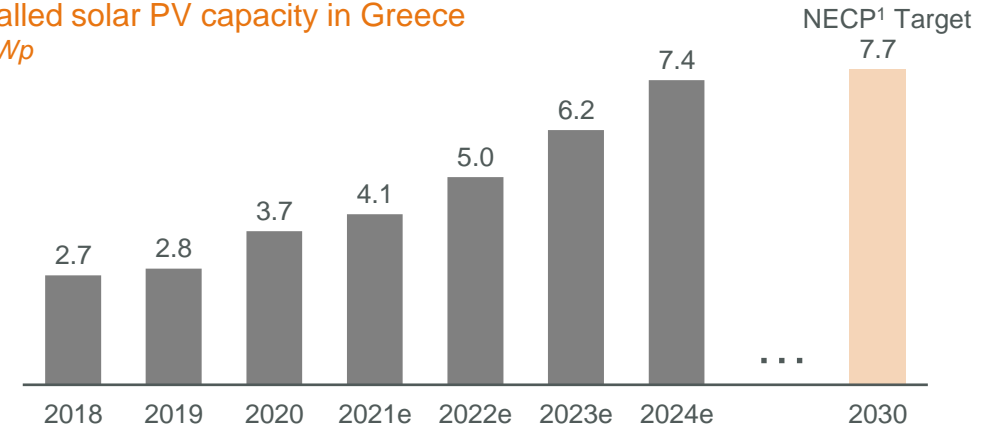


Greece - PV market overview

Generation mix in Greece in 2020



Installed solar PV capacity in Greece in GWp



PV Market dynamics

- **Trend / New installations:** Despite an additional installed capacity of 913MW in 2020, many projects await approvals for grid connection. 350MW of PV capacity was awarded in the last May 2021 auction; and three more auctions are planned until 2024 for 2.1 GW of wind & solar capacity
- **Drivers:**
 - Digitalization of tender process through the licensing reforms of 2020. Investors can obtain a *license certificate* online in 20 days (prev. six months). The second round of reforms is expected in 2021 to include all licensing activities under one digital platform
 - Remuneration policy changes (2021): FIT is limited to utility-scale projects of up to 500kW. Larger utility-scale projects benefit from a premium tariff awarded through auctions. This policy has accelerated PV deployment of projects under 500kW capacity (market currently driven by FIT over FIP)
- **Barriers:** New tax is being planned on RES² producer's revenues. Due to structural challenges, wholesale electricity prices are the lowest in the world and thus, prosumer PV deployment under the *residential net metering* scheme is limited

Source: IEA, PV Magazine (2021), PV Magazine(2021), Renewables (2020), SolarPower Europe (2020); 1) National Energy Climate Plan; 2) Renewable energy system.

Current RTB market prices are underpinned by access to auction tariff. GC keeps the future option to contract a more valuable PPA².



Assumptions' comparative analysis – Greencells vs. Market

Project	Size [MWp]	Project right Status	Construction begins	EPC price ¹ [kEUR/MW] Greencells	EPC price ¹ [kEUR/MW] Market	RTB value [kEUR/MW] Greencells	RTB value [kEUR/MW] Market
Kilikis	120	Secured	1Q or 2Q 2023	480	600-650	115	75-125

Market drivers of RTB PV project rights prices

- Greece is an early market for RTB projects' trading, but has experienced lately the growth of a substantial development pipeline that yet to be marketed
- It is in principle a very attractive market for potential investors thanks to high irradiation, favorable fiscal regime for PV component and equipment and an auction-based revenues' support scheme backing up long term business plan
- On the other hand, economy of scale is limited and construction costs relatively high due to topography and a very fragmented projects' landscape. Utility scale projects are of a small size on average and must deal with a mountainous country where also grid connection is a challenge. There is no PPA market yet
- Prices for RTB PV projects are at 75 to 125k EUR/MW levels, which are not expected to decrease as investors face a scarcity of well-developed available RTB projects and grid connection issues
- GC is said to keep the options open, until a decision is taken at RTB stage, between either remaining an un-subsidized project and contracting a potentially more valuable PPA (which market is expected to pick up in the foreseeable future) or applying for the auction tariff . As project's value in Greece is currently underpinned by access to the auction tariff and that the PPA market remains at early stage, the revenue strategy and project's value may have to be closely monitored as the project gets closer to RTB

1) Idem to footnote 1 page 25; 2) "a more valuable PPA": a secured revenue scheme via a LT PPA enabling the project to attract financing and a higher IRR than with the auction revenue scheme

Agenda.

Executive summary

Presentation of Greencells approach

Q&A with Greencells

Spain

Italy

Germany

The Netherlands

France

Poland

Greece

Additional miscellaneous information (Development costs, EPC margin)

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 the considered markets 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



APRICUM

THE CLEANTECH ADVISORY.

Apricum GmbH
Spittelmarkt 12 | 10117 Berlin | Germany

T. +49.30.308 77 62 - 0 | F. +49.30.308 77 62 - 25
info@apricum-group.com

www.apricum-group.com

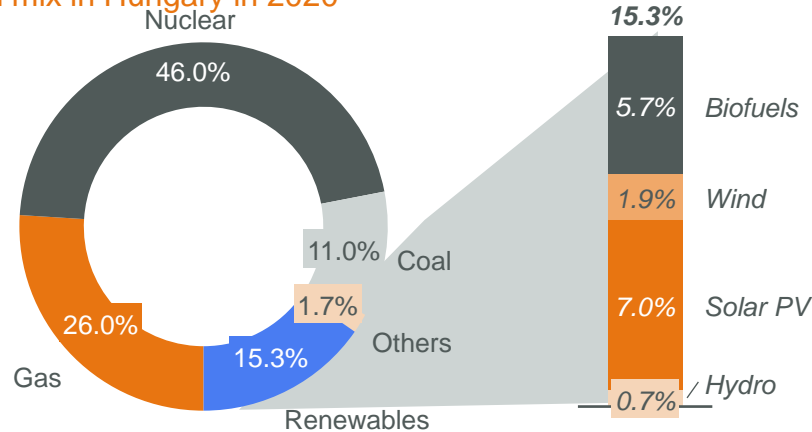
Appendix.

Hungary (preliminary information on sector)

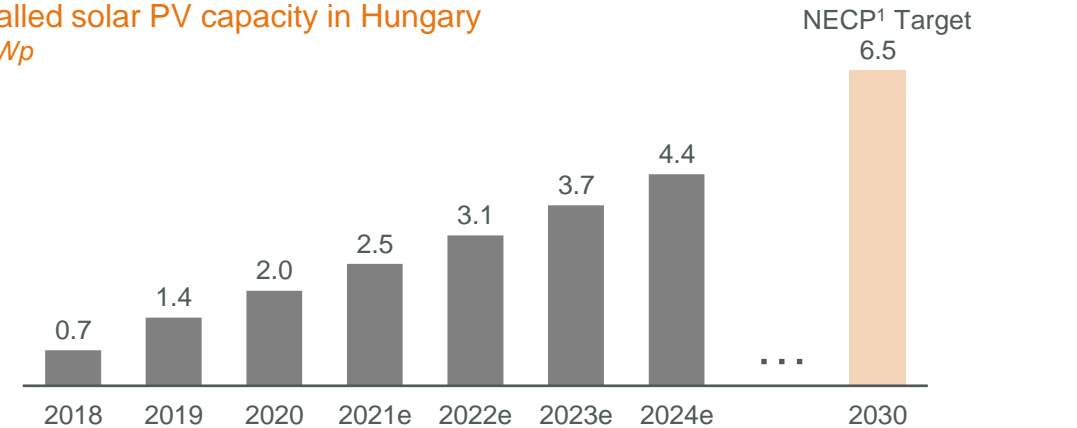
Hungary presents a nascent market driven by the subsidy programs for installations up to 50 MW.

Hungary - PV market overview

Generation mix in Hungary in 2020



Installed solar PV capacity in Hungary in GWp



PV Market dynamics

- **Trend / New installations:** In comparison to 2019, modest increase of solar (2.63%) in the generation mix of 2020. 553MW capacity was installed in 2020.
- **Incentives:**
 - Utility scale projects (300kW to 1MW and greater than MW) are driven by the METAR-KÁT auction scheme (launched in 2018) and have a feed-in premium for 15 yrs. Maximum individual project capacity for foreign participation in the auction scheme was increased from 20MW to 50MW
 - FIT incentives under the METAR-KÁT program drive the Residential PV (under 500kW) installations.
- **Barriers:** With the phase-out of the *net metering scheme* in 2024, residential PV installation is set to decline. Currently, the PPA market for utility scale installations not supported by the auctions is unlucrative as the legal framework in renewable energy production entails an extra tax (at the rate of 31%) also known as the *Robin Hood tax*

Source: Apricum PV market model, IRENA, IEA, SolarPower Europe (2020), PV Magazine (2021), SolarPower Europe (2020); 1) National Energy Climate Plan

Hungary is still a very early-stage market, and no valuable data could be obtained at this stage.

Assumptions' comparative analysis – Greencells vs. Market

Project	Size [MWp]	Project right Status	Construction begins	EPC price ¹ [kEUR/MW] Greencells	EPC price ¹ [kEUR/MW] Market	RTB value ² [kEUR/MW] Greencells	RTB value ² [kEUR/MW] Market
<i>No Hungarian project in CG's development portfolio</i>							

Market drivers of RTB PV project rights prices

- No data point on Hungary could be retrieved