



Accelerating Renewable PPAs in South Korea:

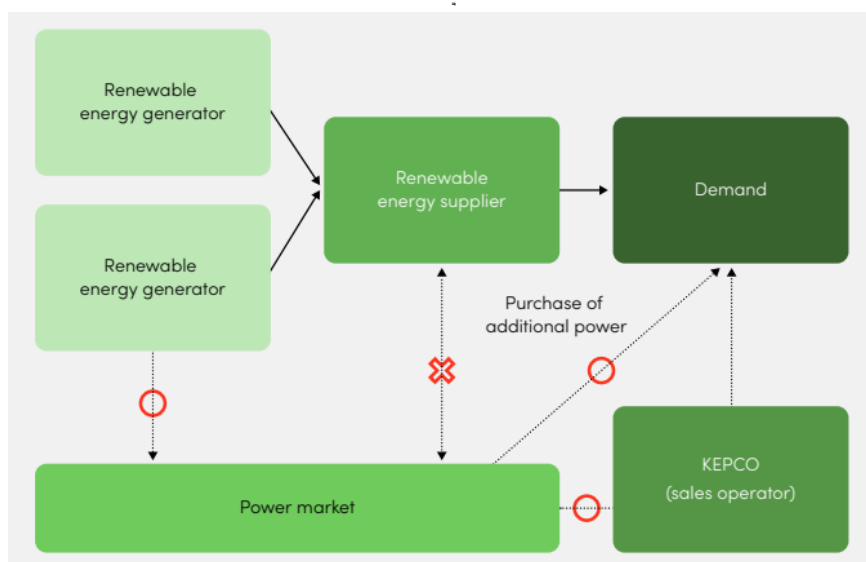
2025 Regulatory Updates and
Unresolved Challenges

- Power Purchase Agreement regulations have had several changes in the first half of 2025
- The changes improve on some aspects of flexibility and accessibility in the PPA system
- However, significant regulatory roadblocks in these categories still remain that hinder renewable PPA uptake

Power purchase agreements (PPAs) are an essential tool that have been used by companies and people all over the world to procure and support the expansion of renewable energy. Worldwide, 198 GW worth of solar and wind were contracted through corporate PPAs between 2008 and 2023ⁱ. In South Korea, 1.7 GW of renewable energy has been contracted through PPAs since 2021, and interest continues to grow. Since its introduction in 2021, South Korea's PPA scheme has continued to rapidly evolve. In February 2025, the Ministry of Trade, Industry, and Energy (MOTIE) released revisions to the "Notification related to the Direct Trade of Renewable Energy"ⁱⁱ. This notification deals with regulations and rules regarding purchasing renewable electricity through direct PPAs. Further changes have also been proposed since then, as well as updates to PPA contract market initiatives.

As the scheme continues to evolve, this issue brief serves as a source to track the current status and continued, or new challenges of the current PPA system.

[Figure 1] Direct PPA Systemⁱⁱⁱ



ⁱ BloombergNEF. 2024. *Corporate Clean Power Buying Grew 12% to New Record in 2023, According to BloombergNEF*. <https://about.bnef.com/insights/finance/corporate-clean-power-buying-grew-12-to-new-record-in-2023-according-to-bloombergnef/>

ⁱⁱ Formerly known as "Notification related to Direct Trade by Renewable Energy Supply Businesses."

ⁱⁱⁱ Park Hyeongon and Lee Siyoung. 2024. *South Korea's PPA System: Status and Opportunities for Renewable Energy Development*. <https://forourclimate.org/research/540>

▪ PPA Regulatory Updates

- **PPA contracts with ESS facilities**
- **Monthly settlement of charges**
- **Proposed removal of minimum generator capacity requirements for off-grid PPAs**
- **Trial PPA market for RE100 companies**

▪ PPA contracts with ESS facilities

One of the major revisions of the “Notification related to the Direct Trade of Renewable Energy” was the addition of renewable energy storage system (ESS) businesses as eligible entities to sign PPA contracts^{iv}. With this revision, ESS facilities connected to renewable energy can now play a similar role as renewable electricity supply businesses, facilitating PPA contracts between generators and consumers as a middleman, while also allowing the storage of electricity to be used at later times. A significant provision included in the new regulations is the reduction of the minimum capacity requirement for renewable energy generators to 500kW when signing off-grid ESS PPA contracts^v.

▪ Monthly settlement of charges

Alongside the addition of ESS facilities, another change to the “Notification related to the Direct Trade of Renewable Energy” was the addition of the option to calculate usage charges as a monthly average settlement^{vii}. Originally, it was only possible to calculate use charges hourly^{viii}.

^{iv} Ministry of Trade, Industry, and Energy (Electricity Market Department). 2025 *Administrative Notice of Full Amendment (Draft) to the "Notification on Direct Electricity Transactions of Renewable Energy Electricity Supply Providers"*, Notice 2025-203. <https://www.motie.go.kr/kor/article/ATCLc01b2801b/70116/view>

^v Ministry of Trade, Industry, and Energy (Electricity Market Department). 2025. *Notification on the Direct Trade of Renewable Electricity*, Article 13-1. [https://www.law.go.kr/행정규칙/재생에너지전기의 직접전력거래 등에 관한 고시/\(2025-46,20250326\)](https://www.law.go.kr/행정규칙/재생에너지전기의 직접전력거래 등에 관한 고시/(2025-46,20250326))

^{vi} Ministry of Trade, Industry, and Energy (Electricity Market Department). 2025. *Administrative Notice of Full Amendment (Draft) to the "Notification on Direct Electricity Transactions of Renewable Energy Electricity Supply Providers"*, Notice 2025-203. <https://www.motie.go.kr/kor/article/ATCLc01b2801b/70116/view>

^{vii} The average power generation per hour is calculated by dividing the total renewable energy power generation in one month by the total number of hours in that month period.

^{viii} However, those who signed tri-lateral PPAs with KEPCO already had the option to calculate usage charges as a monthly average.

This change increases the flexibility of PPA contracts, which can draw more interest from potential PPA users. While the monthly average settlement allows PPA users to claim more of the renewable energy that was generated, it also reduces granular information that matches electricity use to when the renewable electricity was actually generated. This can reduce incentives for investments and demand use changes that accommodate the variability of wind and solar.

- **Proposed removal of minimum capacity requirements for on-site PPAs**

In April, a new revision to the Energy Law Enforcement Act was proposed that would remove minimum capacity requirements for renewable electricity generators when signing on-site PPAs^{ix}. As of July 22nd, the proposal passed the stage of approval in a cabinet meeting.^{xi} Currently, renewable electricity generators must have a minimum capacity of 1MW to be eligible to sign PPAs. This has restricted the potential for small and medium-sized generators and customers to participate in PPAs. The implementation of this proposal would be a significant step towards alleviating these restrictions.

- **Trial PPA market for RE100 companies**

A trial of a PPA brokerage market will take place in 2025 that aims to connect the current competitive bidding Renewable Portfolio Standard (RPS) market with the voluntary PPA market^{xii}. The RPS market is an auction run by Korea Energy Agency (KEA) for long-term contracts with renewable generators to procure supply to meet the RPS mandate. The aim of the PPA brokerage market is to open up more renewable energy capacity for PPAs; generators already participating in the competitive bidding market will have the option to agree to participate in the PPA brokerage market, meaning a portion of the RPS capacity will be allocated to PPAs. Some rules of the brokerage market were made more flexible after the first trial in 2023. It has been expanded to include solar renewable electricity generators with over 300kW capacity, previously a minimum of 1 MW, and eligible demand-side companies have been expanded to include those

^{ix} Ministry of Trade, Industry, and Energy (Electricity Market Department) 2025. *Legislative proposal for Electricity Business Act Enforcement Decree Partial Amendment (Draft)*, Notice 2025-324.

<https://moleg.go.kr/lawinfo/makingInfo.mo?mid=a10104010000&lawSeq=82566&lawCd=0&lawType=TYPE5&pageCnt=10¤tPage=2&keyField=lmNm&keyWord=&stYdFmt=&edYdFmt=&lsClsCd=&cptOfiOrgCd=%EC%82%B0%EC%97%85%ED%86%B5%EC%83%81%EC%9E%90%EC%9B%90%EB%B6%80>

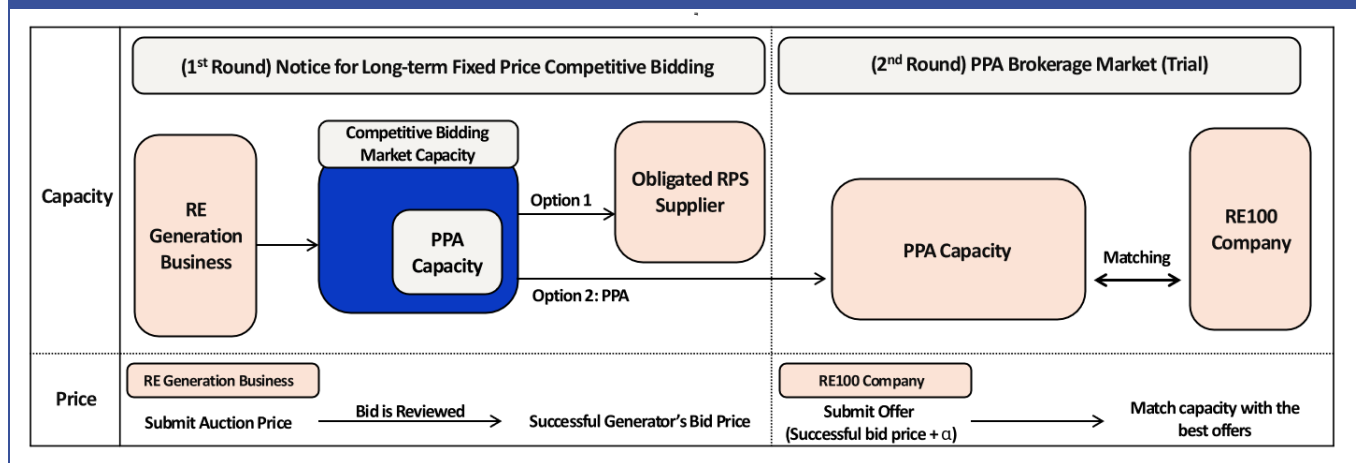
^x The regulations require that the electricity generated must not use the distribution or transmission grid networks. This means that projects cannot be connected to the grid.

^{xi} Bae, Moonsuk. Herald Corporation. 2025. *Small-scale renewable energy power generators can also supply electricity... RE100 industrial complex development gains momentum*. <https://biz.heraldcorp.com/article/10536801?ref=naver>

^{xii} Korea Energy Agency Center for New and Renewable Energy (RPS Office). 2025. *PPA brokerage marketplace with fixed-price competitive bidding*. <https://www.knrec.or.kr/biz/pds/notice/view.do?no=5424>

participating in the K-RE100 initiative. In this brokerage market operated by KEA, both generators and RE100 companies can bid their desired price, following which they will be matched based on the highest offers. Both direct and tri-lateral PPAs can be signed through this brokerage market.

[Figure 2] PPA Brokerage Market^{xiii}



PPA Regulatory Challenges

- **Accessibility**
 - Minimum capacity requirements
 - Opaque PPA grid + ancillary fee setting
- **Flexibility**
 - Restricted supplementary electricity procurement

The central challenges of the current PPA system can be largely described in two ways, accessibility and flexibility. Accessibility and flexibility are both essential components of a well-working PPA system that can accelerate renewable energy adoption. Accessibility means that a diverse range of stakeholders are able to participate in PPA contracts without overbearing conditions, while flexibility refers to the availability of a diverse range of options in PPA contracts that consumers can choose to match their individual contexts.

^{xiii} Korea Energy Agency. 2025. Translated by Solutions For Our Climate.

Accessibility

▪ Minimum capacity requirements

Current PPA regulations require renewable electricity generators to have a minimum capacity of 1 MW to be eligible to sign PPAs^{xiv}. Although a revision is being considered that would remove this requirement for on-site PPAs, off-site PPAs would still be restricted. Due to this requirement, small and medium-sized businesses would find it difficult or impossible to sign on-grid PPAs. This also restricts the ability of smaller scale renewable energy generators to sign PPAs and benefit from the stable financing that PPA contracts offer. Combined with the issue of siting and distancing regulations which heavily restrict available land space for large-scale solar generation in South Korea^{xv}, the potential for solar generation is greatly diminished.

▪ Opaque PPA grid + ancillary fee setting

Concerns have been raised over the opaque process of setting and charging the grid use and ancillary fees for PPA users due to previous cases of unfair overcharging of fees. In 2023, Korea Electric Power Corporation (KEPCO) introduced a separate electricity tariff system for PPA users^{xvi}, under this system PPA users would be charged a basic fee for KEPCO-provided supplementary electricity that was 1.5 times more expensive than the fee for non-PPA users. The basic fee was also charged twice, once for the PPA contract electricity and once for the non-PPA electricity. This system was indefinitely postponed after backlash from the Korea Chamber of Commerce and Industry and the corporate community^{xvii}. This serves as an example of how PPA users are singled out, and concerns remain over whether PPA users are actually being charged fairly for both grid usage fees and ancillary fees, as information on the material basis for setting the fees and how grid costs are accounted is not shared publicly. This makes it more difficult for PPA users to predict the cost of their electricity over the long-term and can deter users from signing PPAs.

^{xiv} Ministry of Trade, Industry, and Energy (Electricity Market Department), *Notification on the Direct Trade of Renewable Electricity*, Article 4-1. (2025), [https://www.law.go.kr/행정규칙/재생에너지전기의 직접전력거래 등에 관한 고시/\(2025-46,20250326\)](https://www.law.go.kr/행정규칙/재생에너지전기의 직접전력거래 등에 관한 고시/(2025-46,20250326))

^{xv} Jaebin Choi, Solutions For Our Climate. 2025. *Solar Stolen by Passive Administration: Unjustified Distancing Regulations*. <https://forourclimate.org/ko/research/575>

^{xvi} Lee Jeonghun, TodayEnergy. 2023. *KEPCO controversially introduces separate charge for direct PPA*. <https://www.todayenergy.kr/news/articleView.html?idxno=256901>

^{xvii} Choi Ho, Byeon Sanggeun, ETNews. 2023. *KEPCO to indefinitely suspend introduction of 'direct PPA' price plan... to review complementary plans amid industry backlash*. <https://www.etnews.com/20230710000172>

Flexibility

▪ Procurement of supplementary electricity

Most PPA users are unable to procure 100% of their electricity consumption through PPAs. As a result, they must also purchase “supplementary electricity” from another source. In South Korea, supplementary electricity can be procured through one of two ways: through KEPCO or the wholesale electricity market^{xviii}. Until now, companies have only purchased supplementary electricity through KEPCO due to high wholesale market prices. Although interest in the wholesale market is increasing as the industrial electricity tariffs rise, direct purchase from the wholesale electricity market still has not occurred among PPA users because of price volatility and regulations that make participation overly difficult. This includes regulations such as a minimum 3-year contract period, long contract processing times, and a rule that requires PPA users to have a minimum of 10% of their electricity procured through PPAs to be eligible to purchase supplemental electricity from the wholesale market^{xix}. This leaves companies with only one realistic option, purchasing from KEPCO. PPA users have no choice but to accept the price KEPCO charges for their supplementary electricity, which greatly reduces the flexibility of PPA contracts for them.

▪ PPA Regulatory Recommendations

- **Accessibility**
 - **Removing minimum capacity requirements for all PPA types**
 - **Disclosing PPA grid use fee + ancillary fee information**
- **Flexibility**
 - **Expanding scope of supplementary electricity providers**

^{xviii} Ministry of Trade, Industry, and Energy (Electricity Market Department). 2025. *Notification on the Direct Trade of Renewable Electricity*, Article 6-1, 15-1. [https://www.law.go.kr/행정규칙/재생에너지전기의 직접전력거래 등에 관한 고시/\(2025-46,20250326\)](https://www.law.go.kr/행정규칙/재생에너지전기의 직접전력거래 등에 관한 고시/(2025-46,20250326))

^{xix} Seo Ilwon, The Chosun Daily. 2025. *LG Chem also applies for direct power purchase... "too complicated a process"*. <https://biz.chosun.com/industry/company/2025/04/20/OK5CCCL7TVGYLHYGXP3G7TTIA/>

^{xx} Ministry of Trade, Industry, and Energy (Electricity Market Department). 2025. *Notification on the Direct Trade of Renewable Electricity*, Article 6-2, 15-2. [https://www.law.go.kr/행정규칙/재생에너지전기의 직접전력거래 등에 관한 고시/\(2025-46,20250326\)](https://www.law.go.kr/행정규칙/재생에너지전기의 직접전력거래 등에 관한 고시/(2025-46,20250326))

- **Removing all minimum capacity requirements**

To take full advantage of distributed renewable capacity in South Korea, regulations prohibiting PPA contracts with renewable energy generators smaller than 1 MW in capacity should be removed. The removal of this requirement for on-site PPAs is a step in the right direction, but further action to include on-grid PPAs is essential. The electricity authorities are already aware that lowering the limit is a feasible step, as it was proposed to reduce the minimum capacity requirement for solar generation facilities to 300 kW in the KEA managed RPS PPA brokerage market^{xxi}. Unlocking access to smaller scale renewable energy projects can open more access to renewable energy for not only large companies, but also small and medium enterprises. This is particularly important in light of the extreme restrictions on siting for renewable energy generators.

- **Disclosing grid use fee and ancillary fee information**

Transparency in rate setting for grid use and ancillary fees is essential to ensure a fair and just power system, particularly in the context of the power grid being monopolized by one company. KEPCO owns major fossil fuel assets and is incentivized to promote policies that hinder renewable energy PPAs such as charging higher fees. Users have no choice but to pay the fees set and charged by the grid owner. Grid and power system costs, both investment and maintenance, should be reported transparently so that all users can understand the basis of how the rates are set. A high degree of transparency is essential to ensure fees are perceived as fair and accepted^{xxii}. Disclosure of associated costs and rate calculation methods helps the public ensure that they are being charged fairly and reasonably for use of the grid.

- **Expanding scope of supplementary electricity providers**

To increase flexibility for PPA users, expanding the scope of entities that can provide supplementary electricity could play a significant role. Under the Distributed Energy Act which came into effect in 2024, it will be possible for distributed energy businesses to act as electricity

^{xxi} Kim Jinwoo, The Electric Times. 2025. *Second round of bid-linked PPA pilot restarts with capacity relief and contract flexibility*. <https://www.electimes.com/news/articleView.html?idxno=353993>

^{xxii} Jahn, Andreas, Lenck, Thorsten, Agora Energiewende. 2019. *Grid fees in 2019: Time for reform*. <https://www.agora-energiawende.de/publikationen/netzentgelte-2019-zeit-fuer-reformen>

retailers in the designated areas^{xxiii}. Expanding this to the whole country would be the next best step. Renewable electricity supply businesses, which currently act as brokers between renewable energy generators and direct PPA consumers, are uniquely positioned to take on the role of providing supplementary supply^{xxiv}. These businesses have the capacity to manage data and settle payments for electricity generators and users, simplifying workloads for both the users and the market operator. While at the same time increasing transparency and flexibility in the power system overall^{xxv}. For these intermediaries to be eligible to act as supplementary supply businesses, amendments to the Electric Utility Act need to be made. More detailed recommendations on regulation revision can be found in the report “South Korea's PPA System: Status and Opportunities for Renewable Energy Development”.

▪ Conclusion

Through the action of CSOs, corporations, and the government, improvements to the PPA system continue to come every year. The introduction of ESS PPAs, inclusion of monthly average use settlements, reduction of minimum generator capacity requirements, and introduction of the trial PPA brokerage market are all welcome advancements. However, significant challenges remain with PPA regulations that continue to work as barriers against the growth of renewable energy PPA adoption.

Actions must be taken to address these barriers. Minimum generation capacity requirements must be completely removed, costs and calculation methods behind PPA grid use and ancillary fees must be disclosed, and the scope of business eligible to supply supplementary electricity must be expanded. By taking these actions, we can make South Korea's PPA system more accessible and flexible for users, thereby encouraging rapid procurement and deployment of renewable energy to meet decarbonization and climate goals.

^{xxiii} Ministry of Trade, Industry, and Energy (New Industry and Distributed Energy Department). 2024. *Distributed Energy Enabling Special Act*, Article 43. <https://www.law.go.kr/법령/분산에너지 활성화 특별법>

^{xxiv} Park Hyeongon and Lee Siyoung. 2024. *South Korea's PPA System: Status and Opportunities for Renewable Energy Development*. <https://forourclimate.org/research/540>

^{xxv} Ibid. As renewable energy electricity supply businesses also assume the role of intermediary businesses, they become capable of managing individual renewable energy generation businesses. This setup promotes more transparent and simplified regulations and operations in the power market because renewable energy electricity supply businesses handle the purchase of shortage power and sales of surplus power arising from direct PPAs through the market”

° References

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- ⁱⁱ Ministry of Trade, Industry, and Energy (Electricity Market Department). 2025. *Administrative Notice of Full Amendment (Draft) to the "Notification on Direct Electricity Transactions of Renewable Energy Electricity Supply Providers"*, Notice 2025-203. <https://www.motie.go.kr/kor/article/ATCLc01b2801b/70116/view>
- ⁱⁱⁱ Ministry of Trade, Industry, and Energy (Electricity Market Department). 2025. *Notification on the Direct Trade of Renewable Electricity*. [https://www.law.go.kr/행정규칙/재생에너지전기의 직접전력거래 등에 관한 고시/\(2025-46,20250326\)](https://www.law.go.kr/행정규칙/재생에너지전기의 직접전력거래 등에 관한 고시/(2025-46,20250326))
- ^{iv} Ministry of Trade, Industry, and Energy (Electricity Market Department). 2025. *Legislative proposal for Electricity Business Act Enforcement Decree Partial Amendment (Draft)*, Notice 2025-324. <https://moleg.go.kr/lawinfo/makingInfo.mo?mid=a10104010000&lawSeq=82566&lawCd=0&lawType=TYPE5&pageCnt=10¤tPage=2&keyField=lmNm&keyWord=&stYdFmt=&edYdFmt=&lsClsCd=&cptOfiOrgCd=%EC%82%B0%EC%97%85%ED%86%B5%EC%83%81%EC%9E%90%EC%9B%90%EB%B6%80>
- ^v Korea Energy Agency Center for New and Renewable Energy (RPS Office). 2025. *PPA brokerage marketplace with fixed-price competitive bidding*. <https://www.knrec.or.kr/biz/pds/notice/view.do?no=5424>
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- ^{xi} Kim Jinwoo. 2025. The Electric Times. *Second round of bid-linked PPA pilot restarts with capacity relief and contract flexibility*. <https://www.electimes.com/news/articleView.html?idxno=353993>
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Solutions for Our Climate(SFOC) is an independent policy research and advocacy group that aims to make emissions trajectories across Asia compatible with the Paris Agreement 1.5°C warming target.