

**SOLAR POWER PROJECTS – A REGULATORY STEP IN THE RIGHT DIRECTION**  
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## **INTRODUCTION**

At a time when many people have begun to question the seriousness of the Indonesian Government's commitment to renewable energy, a new regulation offers some hope that, at least in the case of solar power, progress is actually being made.

The new regulation sets out a tolerably clear path for private sector participation in the development and exploitation of solar power which, most importantly, includes a tariff schedule that is regarded as being commercially reasonable by prospective private sector participants.

Although much more is required to ensure the ultimate success of Indonesia's nascent solar power industry, a satisfactory regulatory and tariff regime is an important step in the right direction.

In this article, the writer will review the main provisions of the new solar power regulation before endeavoring to assess to what extent the same may help to "kick start" the local solar power industry.

## **BACKGROUND**

Indonesia's 2014 National Energy Policy ("**NEP 2014**") highlights the importance of Indonesia achieving energy independence and energy security, by 2050, on the basis of an optimal energy mix that seeks to balance the country's traditional reliance upon fossil fuels, as the primary energy source, with a greater emphasis, going forward, on various sources of new and renewable energy including solar power.

NEP 2014 sets ambitious targets for achieving the optimal energy mix, with new and renewable energy sources (including solar power) originally slated to contribute at least 23% of Indonesia's total required energy by 2025 and at least 31% of Indonesia's total required energy by 2025.

Notwithstanding the existence of NEP 2014 and the Government's repeatedly avowed support for new and renewable energy, very little progress has been made, to date, in reducing the country's dependence on fossil fuels. The heavily promoted and ongoing 35,000 MW expansion of Indonesia's electricity generating capacity ("**EGC Expansion Program**") only envisages some 2,906 MW or 8.1% of this additional electricity generating capacity coming from new and renewal energy sources including solar power.

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<sup>1</sup> Bill Sullivan, Senior Foreign Counsel with Christian Teo & Partners (in association with Stephenson Harwood LLP).

<sup>2</sup> Bill Sullivan is the author of "*Mining Law & Regulatory Practice in Indonesia – A Primary Reference Source*" (Wiley, New York & Singapore 2013), the first internationally published, comprehensive book on Indonesia's 2009 Mining Law and its implementing regulations.

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A recent reduction, to 19.6%, in the 2025 target for the contribution of new and renewable energy sources to Indonesia's energy needs, as well as a substantial cut in the 2016 budget of the Directorate of New & Renewable Energy (“**DGoNRE**”), have all raised concerns about where Indonesia is really going in terms of developing new and renewable energy sources.

Various reasons, both good and bad, can be put forward for this lack of progress in realizing any meaningful rebalancing of Indonesia's energy mix towards a greater reliance upon new and renewable energy sources. Two of the reasons, however, are undoubtedly the lack of (i) a comprehensive and workable regulatory framework for the development of new and renewable energy sources and (ii) sufficient economic incentives, in the form of commercially reasonable tariffs, for private sector participation in the development of new and renewable energy sources. In this regard, NEP 2014 is long on rhetoric, as to the need for a rebalancing of the optimal energy mix and how this rebalancing might be achieved. At the same time, though, NEP 2014 is very short on detail as to what the private sector must do in order to be able to (i) develop new and renewable energy sources and (ii) then sell the resulting electricity to PLN, as the State electricity company, at a price that will ensure a reasonable rate of return on the investment required for such development.

The above described general problems for the renewable energy sector have, undoubtedly, been much exacerbated, in the case of solar power, by the fact that a 2013 regulation, re the purchase of solar power generated electricity by the state electricity company (“**PLN**”) (“**2013 SP Regulation**”), was struck down by the Supreme Court, in 2014, on the grounds that it was inconsistent with Law No. 30 of 2007 re Energy, Law No. 30 of 2009 re Electricity and Law No. 3 of 2014 re Industry, all of which require the maximum use of local goods and services (*i.e.*, “**Local Content**” or “**TKDN**”) (“**TKDN Requirement**”). The challenge to the 2013 SP Regulation was brought by the Indonesian Association of Solar Panel Manufacturers (“**APAMSI**”) which was concerned that, in not sufficiently emphasizing the TKDN Requirement, the 2013 SP Regulation would discourage the use of locally manufactured solar panels and otherwise place, at a competitive disadvantage, developers of solar power projects which wanted to or were forced, by financial and technology constraints, to utilize locally manufactured solar panels.

The Minister of Energy & Mineral Resources (“**MoEMR**”) has now issued Regulation No. 19 of 2016, dated 28 June 2016, re Purchase of Solar Power Generated Electricity by PLN (“**MoEMRR 19/2016**”). MoEMRR 19/2016 seeks to (i) overcome the Supreme Court's objections to the 2013 SP Regulation and (ii) otherwise provide would-be private sector developers of solar power projects with both the regulatory certainty and a commercially reasonable tariff structure they need in order for them to be both able and willing to develop solar power projects and sell the resulting electricity to PLN.

## COMMENTARY

### 1. Overview of MoEMRR 19/2016

- 1.1 **Role of PLN:** PLN is appointed by MoEMR to purchase solar power generated electricity (“**Solar Power**”) from facilities (“**SP Generators**”) developed and managed by directly appointed private sector developers (“**SP Developers**”) (i) pursuant to power purchase agreements (“**PPAs**”) and (ii) at previously agreed feed-in tariffs (“**SP Tariffs**”) (MoEMRR 19/2016 Article 2).
- 1.2 **Local Content Requirement and Standards Compliance:** In developing [and operating] SP Generators, SP Developers are obliged to (i) prioritize the use of Local Content and (ii)

comply with international, national or other standards as specified by PLN (MoEMRR 19/2016 Articles 3 and 4).

- 1.3 **Power Purchase Tariffs and Capacity Quotas:** SP Tariffs and Solar Power generating capacity quotas (“**SP Capacity Quotas**”) are to be set by the Ministry of Energy & Mineral Resources (“**ESDM**”) (i) on a regional basis, (ii) having regard to PLN’s electricity distribution network constraints and (iii) assuming a minimum aggregate SP Capacity Quota for all regions of 5,000 MW (MoEMRR 19/2016 Article 5(1) and (2)).

The SP Capacity Quotas are to be offered to SP Developers, in stages, as part of an intended rolling program of increasing the contribution of Solar Power to Indonesia’s optimal energy mix (“**SP Development Program**”) (MoEMRR 19/2016 Article 5(2)).

MoEMRR 19/2016 specifies the SP Capacity Quotas and SP Tariffs (expressed in US cents per kwh), on a region by region basis, for the first stage of the SP Development Program. These SP Capacity Quotas and SP Tariffs are set out in the Appendix to this article.

The SP Tariffs are (i) inclusive of PLN network connection costs, (ii) non-negotiable, (iii) not subject to escalation and (iv) applicable as and from the agreed Commercial Operation Date for each SP Generator (“**COD**”) (MoEMRR 19/2016 Article 6(1)).

PLN is obliged to pay for all Solar Power delivered to its network (i) in Indonesian Rupiah and (ii) using, as the basis of conversion, the Jakarta Interbank Spot Dollar Rate on the date specified in the relevant PPA (MoEMRR 19/2016 Article 6(2)).

PPAs are valid for twenty years from COD and extendable thereafter (MoEMRR 19/2016 Article 7).

- 1.4 **Process for Registration of Approved Solar Power Developers:** Would-be SP Developers are to be vetted, approved and registered (i) by DGoNRE, (ii) in stages, (iii) through an on-line process and (iv) following a public announcement not less than one month prior to the opening of the vetting, approval and registration process (MoEMRR 19/2016 Articles 8 and 9).

Would-be SP Developers have seven days to lodge, with DGoNRE, the pre-qualification documents comprising (i) corporate profile, (ii) evidence of financial capability, (iii) corporate establishment documents, (iv) Indonesian tax registration number, (v) BKPM In-Principle License for participating foreign investors and (vi) details of experience (if any) in the development of SP Generators (MoEMRR 19/2016 Article 10).

Each DGoNRE vetted, approved and registered SP Developer (“**Pre-Qualified SP Developer**”) will (i) be notified on-line and (ii) receive a username and password to be used for identification purposes as and when it applies for a SP Capacity Quota, in a particular region, during the rollout of the SP Development Program (MoEMRR 19/2016 Article 12).

- 1.5 **Offering of Capacity Quotas:** As and when DGoNRE is ready to offer Solar Power development opportunities, the process will be as follows:

- (a) DGoNRE will, not later than four months prior to a Capacity Quota availability announcement (“**CQA Announcement**”), publish an online Capacity Quota Regional Allocation Plan setting out the additional Solar Power capacity, in MWs,

for the various regions to be covered by the next stage of the SP Development Program (“**CQRA Plan**”) (MoEMRR 19/2016 Article 13).

- (b) Not earlier than four months after the publication of the CQRA Plan, DGoNRE will (i) publish online the CQA Announcement and (ii) invite Pre-Qualified SP Developers to submit applications for the Capacity Quotas covered by the CA Announcement (“**CQ Applications**”) (MoEMRR 19/2016 Article 13).
- (c) Each CQA Announcement will be valid for a maximum of two months. No new CQA Announcement may be made until the earlier of (i) the expiry of the previous two month announcement period and (ii) not less than 80% of the Capacity Quota, covered by the last CQA Announcement, being taken up by Pre-Qualified SP Developers (MoEMRR 19/2016 Article 13).
- (d) CQ Applications must be submitted online together with the following supporting documents:
  - (i) self-assessment of TKDN requirements for the SP Generator proposed to deliver the Capacity Quota applied for;
  - (ii) certification of the proposed solar module and inverter;
  - (iii) Feasibility Study; and
  - (iv) Interconnection Study (MoEMRR 19/2016 Article 14).
- (e) Feasibility Study Reports must include, among other things, (i) claimed/identified benefits of the SP Generator, (ii) a description of the technology to be used, (iii) existing installed capacity [of the relevant Pre-Qualified SP Developer], (iv) ownership [of the relevant Pre-Qualified SP Developer], (v) [how and the extent to which] the TKDN Requirement [will be satisfied], (vi) proposed location of the SP Generator, (vii) preliminary geotechnical analysis, (viii) environmental analysis, (ix) costs, (x) risk mitigation and (xi) details of warranty service (MoEMRR 19/2016 Article 14).
- (f) Interconnection Study Reports must include, among other things, (i) initial identification of voltage limit violations, (ii) analysis of relevant distribution system and (iii) details of interconnection facilities between the PLN network and the SP Generator (MoEMRR 19/2016 Article 14).
- (g) A team, comprising representatives from DGoNRE, the Directorate General of Electricity and PLN (“**Review Team**”), will review the CQ Applications together with the supporting documents for the same (MoEMRR 19/2016 Article 16).
- (h) Once the Review Team accepts and approves the CQ Application of a particular Pre-Qualified SP Developer, that Pre-Qualified SP Developer becomes the “**Approved SP Developer**” for the Capacity Quota in question (MoEMRR 19/2016 Article 16).

**1.6 Limitations on Number of Capacity Quotas per Developer:** In an endeavor to avoid having any one Pre-Qualified Developer dominate a particular stage of the SP Development

Program in any particular region, the following limitations apply:

- (a) Where the **aggregate** CQR Plan Capacity Quota for a particular region:
  - (i) exceeds 100 MW, a Pre-Qualified SP Developer may only submit CQ Applications for a maximum of 20 MW;
  - (ii) is between 10 MW and 100 MW, a Pre-Qualified SP Developer may only submit CQ Applications for a maximum of 20% of the offered Capacity Quota; and
  - (iii) is less than 10 MW, there is no limit on the number of CQ Applications submitted.
- (b) A Pre-Qualified SP Developer may only obtain a maximum of three Capacity Quota approvals (i) in any one region and (ii) as part of any one SP Development Program stage.
- (c) However, in the event that, after one month from the date of the relevant CQA Announcement, not all the available Capacity Quota for a particular region has been taken up, a Pre-Qualified SP Developer, which has already obtained three Capacity Quota approvals in that region and as part of a particular SP Development Program stage, may apply for part or all of the remaining available Capacity Quota (MoEMRR 19/2016 Article 15).

1.7 **Signing of Power Purchase Agreement:** Approved SP Developers are obliged to sign PPAs with PLN not later than one month after being awarded Capacity Quotas (MoEMRR 19/2016 Article 17).

In the event of any delay in signing a PPA, DGoNRE (on behalf of MoEMR) will “facilitate” the signing of the PPA (MoEMRR 19/2016 Article 17(3)).

Copies of duly signed PPAs must be submitted by Approved SP Developers to ESDM through DGoNRE (MoEMRR 19/2016 Article 17).

1.8 **Financial Close:** Financial close of a new SP Generator (“**Financial Closure**”) must take place not later than six months after the signing date of the relevant PPA (MoEMRR 19/2016 Article 20).

Failure to achieve the deadline for Financial Closure results in the [automatic] revocation of the Capacity Quota award and, hence, of Approved SP Developer status for that Capacity Quota (MoEMRR 19/2016 Article 20).

Following Financial Closure, the relevant Approved SP Developer must apply for an Electricity Business License (“**IUPTL**”) (MoEMRR 19/2016 Article 21).

1.9 **Commercial Operation:** COD must be not later than:

- (a) twelve months from the date of IUPTL issuance in the case of SP Generators with a capacity of 10 MW or less; and

- (b) twenty four months from the date of IUPTL issuance in the case of SP Generators with a capacity of more than 10 MW (MoEMRR 19/2016 Article 23).

Not later than thirty days prior to COD, the Approved SP Developer must submit a Verification Report re TKDN Requirement compliance to DGoNRE with a copy to PLN (MoEMRR 19/2016 Article 22).

Failure to achieve the relevant COD deadline will result in an [automatic] reduction of the applicable Tariff equal to (i) 3% for delays up to three months, (ii) 5% for delays between three months and six months and (iii) 8% for delays between six months and twelve months (MoEMRR 19/2016 Article 23).

Failure to meet the TKDN Requirement will also result in a decrease in the applicable Tariff albeit by an unspecified amount (MoEMRR 19/2016 Article 22).

- 1.10 **Consequence of Revocation of Approved SP Developer Status:** In the event of revocation of Approved SP Developer status, the relevant Pre-Qualified SP Developer is prohibited from submitting another CQ Application for two years thereafter (MoEMRR 19/2016 Article 24).

- 1.11 **Transitional Matters:** Any SP Developers, which were awarded Capacity Quotas prior to the effective date of MoEMRR 19/2016, have until 12 October 2016 to sign PPAs with PLN, failing which their Capacity Quota awards will be [automatically] revoked (MoEMRR 19/2016 Article 25).

Business entities, negotiating the purchase of Solar Power on the basis of a business to business arrangement with PLN and as of the effective date of MoEMRR 19/2016, may continue the process of negotiating and signing PPAs with PLN (MoEMRR 19/2016 Article 26).

- 1.12 **Effective Date:** The effective date of MoEMRR 19/2016 is 12 July 2016 (MoEMRR 19/2016 Article 27).

## 2. **Assessment and Evaluation of MoEMRR 19/2016**

- 2.1 **Legal Certainty:** In issuing MoEMRR 19/2016, ESDM was clearly very concerned to avoid a repeat of the debacle surrounding the Supreme Court's striking down of the 2013 SP Regulation and thereby provide legal certainty and regulatory regime continuity for would-be SP Developers. This concern is particularly evident in MoEMRR 19/2016's numerous references to the TKDN Requirement and the penalties for non-compliance with the same. Cynics might regard MoEMRR 19/2016 as being little more than an "APAMSI support initiative". However, even if APAMSI members will benefit substantially from MoEMRR 19/2016, it must also be the case that it is in the interests of all would-be SP Developers to have, in place, a regulatory regime for SP Projects which is not subject to legal challenge. Without such a regulatory regime, there was always going to be a great reluctance, on the part of both domestic investors and foreign investors, to develop SP Projects in Indonesia and, therefore, this part of the local renewable energy industry would have continued indefinitely to show little progress despite the obvious potential for much greater use of Solar Power in Indonesia.

- 2.2 **Sufficient Economic Incentives:** Would-be SP Developers seem, generally speaking, to be reasonably satisfied with the SP Tariffs for the first stage of the SP Development Program although the express exclusion of any escalation, in the applicable SP Tariff, during the life of a particular SP Project has been highlighted as a potential commercial issue in the event of rising operating costs over time.

It is unclear whether or not the “no escalation” restriction applies in the event of any extension of a PPA beyond the initial twenty year term. A reasonable argument can surely be made that, after twenty years, it is not unreasonable that SP Developers should be entitled to a review of the applicable SP Tariff as part of any PPA extension negotiations.

- 2.3 **Early Conclusion of PPAs with PLN:** Fixing the applicable SP Tariffs in advance and clearly providing that the same are non-negotiable greatly facilitates the process of concluding PPAs with PLN on a timely basis. As settling, with PLN, the applicable power purchase tariff is, typically, the most difficult and time consuming aspect of any PPA negotiation, ESDM has effectively streamlined the PPA process dramatically by offering what amounts to a “take it or leave it” SP Tariff regime. Would-be SP Developers, which do not find the SP Tariffs sufficiently attractive, will simply not seek to become Approved SP Developers while those that do should be willing to sign the proposed PPA in substantially the form offered by PLN.

This very different approach to Solar Power PPAs, compared to more traditional fossil fuel PPAs, has undoubtedly been made necessary by the fact that, individually, SP Projects are on a much smaller scale, in terms of MW generating capacity, than traditional fossil fuel power projects. Accordingly, Indonesia needs a very large number of individual SP Projects in order to make any meaningful contribution to the fulfillment of its energy needs. As such, it would be wholly impractical to have individually negotiated tariffs and PPAs for every SP Project. This “one size fits all” or “mass produced assembly line” approach would seem to have a lot to recommend it in the case of GoI’s commitment to a huge rollout of additional electricity generating capacity within five years.

- 2.4 **Encouraging COD Realization:** MoEMRR 19/2016 sets out a tight timetable for COD realization once the PPA has been signed and provides for very significant penalties if COD is not achieved in accordance with the timetable. This is, of course, entirely consistent with the urgency GoI attaches to completing the EGC Expansion Program by 2019. However, project timetables are rarely achieved in Indonesia and for a host of reasons that often have nothing to do with the fault of the project developer. Accordingly, the (i) appropriateness of seemingly automatic reductions in the agreed SP Tariff for failure to achieve the mandated COD and (ii) the absence of any clearly specified exceptions for COD delay caused by force majeure events must be questioned. It is also unclear what is the applicable SP Tariff reduction in the event COD is delayed by more than twelve months, something that would not be at all uncommon for Indonesian energy projects.

- 2.5 **Foreign Investment:** One aspect that GoI has, arguably, **not** given sufficient attention to, in trying to encourage the greater use of Solar Power, is the applicable foreign ownership restrictions.

The 2016 Negative Investment List provides that foreign ownership of SP Projects may not exceed:

- (a) 95% for SP Projects of more than 10 MW;

- (b) 49% for SP Projects of 1 to 10 MW; and
- (c) 0% for SP Projects of less than 1 MW.

As most commercial SP Projects are in the 1 to 10 MW range, foreign investors are still effectively limited to a minority ownership position in respect of SP Projects. The inability to have majority ownership is likely to be a material concern and a significant disincentive for foreign SP Developers looking at investing in Indonesia as well as for potential financiers of SP Projects undertaken by foreign SP Developers.

The above outlined, less than generous treatment of foreign ownership of SP Projects is to be contrasted with the 2016 Negative Investment List's much more generous treatment of foreign ownership of geothermal power generated electricity ("**Geothermal Power**") projects ("**GP Projects**") where foreign ownership may now not exceed:

- (a) 67% for GP Projects of less than or equal to 10 MW; and
- (b) 90% for operation and maintenance services.

The 2016 Negative Investment List's differential treatment of SP Projects and GP Projects is curious and seems to make little sense unless GoI (i) is giving a higher priority to the development of Indonesia's Geothermal Power resources than it is to Indonesia's Solar Power resources or (ii) wants to protect domestic SP Developers from foreign competition on the basis that SP Projects are likely to be of more interest to domestic investors than are GP Projects.

Some foreign SP Developers have been seeking to craft creative arguments as to why, in applying the foreign ownership limitations on SP Projects, the Investment Coordinating Board ("**BKPM**") should regard an "SP Project" as being **all** the Solar Power capacity a particular foreign SP Developer has in a particular province or regency rather than looking at each SP Project on a standalone basis (**i.e.**, aggregate capacity rather than standalone capacity). At this time, the writer considers it unlikely BKPM will be swayed by these arguments given how it has, in the past, responded to similar aggregate capacity arguments albeit in different industries and in different contexts.

## **SUMMARY AND CONCLUSIONS**

ESDM has moved decisively to overcome the setback to the local Solar Power industry represented by APAMSI's successful Supreme Court challenge to the 2013 SP Regulation.

As there are no indications APAMSI is unhappy with MoEMRR 19/2016, the local solar power industry may now finally have the legal and fiscal certainty it needs in order to encourage meaningful development of SP Projects.

MoEMRR 19/2016 provides a good and practical model for fast tracking the signing of a large number of PPAs for individually small capacity SP Projects by virtue of its non-negotiable, "take it or leave it" system of fixed SP Tariffs.



While investor interest in local SP Projects has undoubtedly been encouraged by MoEMRR 19/2016, the continuing inability of foreign investors to have majority ownership of 1 to 10 MW SP Projects continues to be a stumbling block for foreign investors.

Foreign investors, in local SP Projects, should be entitled to the same, much more favorable, foreign ownership limitations that now apply to GP Projects. There is no obvious reason why Solar Power should be regarded as any less important than Geothermal Power when it comes to encouraging foreign investment in renewable energy development for Indonesia.

## APPENDIX

### FIRST STAGE CAPACITY QUOTA OFFERINGS AND FEED IN TARIFFS

| No. | Region  | Capacity Quota (MW) | Purchase Price (US Cents per kwh) |
|-----|---|---------------------|-----------------------------------|
| 1.  | DKI Jakarta   | 150.0               | 14.5                              |
| 2.  | West Java   |                     |                                   |
| 3.  | Banten  |                     |                                   |
| 4.  | Central Java and Yogyakarta                           |                     |                                   |
| 5.  | East Java   |                     |                                   |
| 6.  | Bali  | 5.0                 | 16.0                              |
| 7.  | Lampung   | 5.0                 | 15.0                              |
| 8.  | South Sumatra, Jambi and Bengkulu                     | 10.0                | 15.0                              |
| 9.  | Aceh  | 5.0                 | 17.0                              |
| 10. | North Sumatra   | 25.0                | 16.0                              |
| 11. | West Sumatra  | 5.0                 | 15.5                              |
| 12. | Riau and Riau Islands                                 | 4.0                 | 17.0                              |
| 13. | Bangka Belitung                                       | 5.0                 | 17.0                              |
| 14. | West Kalimantan                                       | 5.0                 | 17.0                              |
| 15. | South Kalimantan and Central Kalimantan               | 4.0                 | 16.0                              |
| 16. | East Kalimantan and North Kalimantan Sulawesi         | 3.0                 | 16.5                              |
| 17. | North Sulawesi, Central Sulawesi and Gorontalo        | 5.0                 | 17.0                              |
| 18. | South Sulawesi, South East Sulawesi and West Sulawesi | 5.0                 | 16.0                              |
| 19. | West Nusa Tenggara                                    | 5.0                 | 18.0                              |
| 20. | East Nusa Tenggara                                    | 3.5                 | 23.0                              |
| 21. | Maluku and North Maluku                               | 3.0                 | 23.0                              |
| 22. | Papua and West Papua                                  | 2.5                 | 23.0                              |

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[This article has been contributed by Bill Sullivan, Senior Foreign Counsel with [Christian Teo & Partners](#). [Christian Teo & Partners](#) is a Jakarta based, Indonesian law firm and a leader in Indonesian mining law and regulatory practice. [Christian Teo & Partners](#) operates in association with international law firm [Stephenson Harwood LLP](#) which has nine offices across Asia, Europe and the Middle East: Beijing, Dubai, Hong Kong, London, Paris, Piraeus, Seoul, Shanghai and Singapore. Readers may contact the author at email: [bsullivan@cteolaw.com](mailto:bsullivan@cteolaw.com); office: 62 21 5150280; mobile: 62 815 85060978]