

E&U 2021 – 1 – Draft Determination Proposed Renewable Energy Auction Scheme



**UTILITY REGULATION AND COMPETITION OFFICE
THE CAYMAN ISLANDS**

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1. Background

1. The Utility Regulation and Competition Office (**'OfReg'** or the **'Office'**) is the independent regulator established by section 4 of the Utility Regulation and Competition Law (2019 Revision) (the **'URC Law'**) for the electricity, information and communications technology, water, wastewater and fuels sectors in the Cayman Islands. The Office also regulates the use of electromagnetic spectrum and manages the .ky Internet domain.
2. Under its enabling legislation, the Office has several principal functions, two of which are to promote objectives set out in any Policy and to promote innovation and facilitate economic and national development.
3. On 23 September 2019, the Office published E&U 2019 – 2 – Consultation, "*Proposed Renewable Energy Auction Scheme.*" The proposed (**'the REAS'**) was appended to the consultation document.
4. By the closing date on 1 November 2019, the Office received six submissions to the consultation. One submission was received after the deadline on 4 November 2019. Due to the late submission, the Office decided not to consider the response.
5. On 10 December 2019, the Office announced that there would be a cross submissions phase until the 10 January 2020 to allow for an opportunity for respondents to comment on each other's submissions.
6. As of 10 January 2020, the Office did not receive any cross submissions. However, the Office extended the deadline and received two [2] cross-submission(s) as of 1 March 2020.
7. In this document, the Office addresses the issues raised in **E&U 2019 – 2 – Consultation** and issues this draft determination in response.

2. Legal Framework

8. In making the decision regarding the adoption and implementation regulations for the Electricity sector in the Cayman Islands, the Office is guided by its statutory remit, in particular as set out in the URC Law

and the Electricity Sector Regulation Law (2019 Revision) (the '**ESR Law**').

9. The following provisions are of particular relevance.
10. **Section 6** of the URC Law sets out the principal functions and powers of the Office. Section 6(1) and (2) are outlined below in part:

6. (1) *The principal functions of the Office, in the markets and sectors for which it has responsibility, are -*

- (a) to promote objectives set out in any Policy;*
- (b) to promote appropriate effective and fair competition;*
- (c) to protect the short and long-term interests of consumers in relation to utility services and in so doing -*
 - (i) supervise, monitor, and regulate any sectoral provider, in accordance with this Law, the regulations and sectoral legislation and any general policies made by Cabinet in writing;*
 - (ii) ensure that utility services are satisfactory and efficient and that charges imposed in respect of utility services are reasonable and reflect efficient costs of providing the services;*
- (d) to promote innovation and facilitate economic and national development.*

(2) *In performing its functions and exercising its powers under this or any other Law, the Office may -*

[...]

- (d) make administrative determinations, decisions, orders and regulations;*

[...]

- (t) establish technical standards for the provision of covered services;*
- (u) review and, as appropriate, approve, reject or modify tariffs filed by a sectoral provider governing the provision of covered services;*

(v) *establish and enforce quality of service standards applicable to covered services;*

[...]

(hh) *take any other action, not expressly prohibited by Law, that is necessary and proper to perform its duties under this Law and sectoral legislation.*

11. Section **3(2)(h)** of the ESR Law provides that the office may make recommendations “*to the Minister charged with responsibility for electricity, the making of regulations under this Law and the Electricity Laws.*”

12. **Section 9(2)(f)** of the ESR Law states, among other things, that:

[...] the principal functions of the Office are -

[...]

(e) *to grant, modify or renew licences for generation –*
(i) *for additional electricity generation in the context of the generation solicitation process;*
(ii) *where the Office is satisfied that it is economic to extend the life of the generating unit or units of a Generator held under an existing generation licence;*
(iii) *from alternative or renewable sources of energy; or*
(iv) *under section 26(4);*

(f) *to solicit additional generation capacity and conduct the generation solicitation process;*

[...]

(l) *to review and approve any PPA;*

[...]

13. **Section 9(5)** of ESR Law states, in part, that the Office in carrying out the functions and duties imposed and exercising the powers conferred by the *URC Law, the Office shall have regard to the following:*

“(a) *The need to develop and promote sustainable competition for additional electricity generation in accordance with this Law;*

[...]

(f) *Whether licensees have promoted or will promote the development and use of renewable or alternative forms of energy by licensees and consumers;*

[...]

(i) *the need to permit and promote the use of renewable or alternative forms of energy by consumers so as to reduce the load on any T&D system.”*

14. **Section 23(1) and (2)** of the ESR Law states that:

“(1) Subject to section 9(2)(q), no person shall generate, transmit, distribute or deliver electricity for reward unless licensed under this Law.

(2) Subject to this Law, the Office may grant a generation licence or a T&D licence to any person, upon such terms and conditions as it shall deem appropriate.”

15. **Section 6(2)(d)** states that the Office, in performing its functions and exercising its powers under the URC Law or any other Law, may *“make administrative determinations, decisions, orders and regulations.”*

16. **Section 6(3)** of the URC Law states that the Office *“without prejudice to subsection (1) or (2), the Office has power to carry on any activity which appears to it to be requisite, advantageous or convenient for or in connection with the performance of its functions or the exercise of its powers under this or any other Law.”*

17. **Section 7(1)** of the URC Law requires the Office, before issuing an administrative determination which in the reasonable opinion of the Office is of public significance, *“... to allow persons with sufficient interest or who are likely to be affected a reasonable opportunity to comment on the draft administrative determination.”*

18. It is the position of the Office that it retains the right to propose amendments to the REAS Structure and Requirements when appropriate but not so frequent as to render the auction scheme arbitrary or capricious, but in any event only after consultation.

3. E&U 2019 – 2 – Consultation

19. In **E&U 2019 – 2 – Consultation**, the Office consulted on the proposed implementation of a REAS. The Office, in support of its function of

adhering to Government policy, believes that a REAS would be the best way to encourage and procure investment regarding renewable energy in the jurisdiction.

20. The background of the proposed REAS is outlined in Part C of the E&U 2019 – 2 – Consultation paper.¹
21. In the Consultation, the Office posed fifteen (15) specific questions regarding the Draft REAS. The comments and the Office’s responses are outlined below.

4. Comments Received and Office Responses

22. The Office received six responses to E&U 2019 – 2 – Consultation, from BMR Energy (“BMR”), Caribbean Renewable Energy Association (“CREA”), Caribbean Utilities Company Ltd. (“CUC”), Gemstar Energy Constructors Ltd. (“Gemstar”), Ironwood Renewables (“Ironwood”), a Private Individual and a Private Individual (Citizen). The Office has reviewed all comments received and its responses are set out below each comment.
23. The full submissions are published on the Office’s website, and can be accessed at the below link -

<https://www.ofreg.ky/eu-2019-2-cross-submissions-on-the-proposed-renewable-energy-auction-scheme>

4.1 BMR Energy

A) Question 1

The REAS proposes that a measure whereby all renewable energy capacity available be allocated through a competitive bidding process via auctions. Do the respondents agree with the competitive auction based approach? If not, what alternative model would you propose and why?

24. BMR states "*We agree that all renewable energy capacity should be solicited via competitive bidding auctions and support an open and transparent process managed by OfReg.*"

¹ <https://www.ofreg.ky/eu-2019-2-consultation-proposed-renewable-energy-auction-scheme>

Office Response

25. BMR's comments are noted.

B) Question 2

Do you have any comments on the way in which we propose to establish the renewable energy auction scheme?

26. BMR's states in its response that *"the proposed phasing of new capacity discussed in item 4 of Appendix 1 includes 20 MW's of capacity from energy storage to be installed in 2022 and another 40MW's in 2030. CUC may find the additional storage planned for 2030 may be more valuable if added sooner and will improve the ability to efficiently use renewable energy and best manage grid stability and reliability. In addition, the planned phasing of wind power in incremental amounts over a 22-year period may be uneconomical. The installation and operation costs of wind include several one time/fixed costs making the installation of 2MW, 3MW, 5MW and 6 MW increments prohibitively expensive. It may be more advantageous to have the wind added over that period in fewer, larger steps over that same period."*

Office Response

27. The Office noted BMR's response and advises that twenty (20) MW's of energy storage was approved for CUC during the consultation period. The IRP is a roadmap and subject to change therefore the possibility for bringing forward the additional forty (40) MW's of storage can be explored with CUC. The Office acknowledges that installation and operation costs of wind include several one time/fixed costs and will consider phasing a greater capacity of wind power over the 22-year period as suggested. The target capacity for each period will be determined based on the reliability need or any additional need identified by the Office and CUC.

C) Question 3

Do respondents agree with the proposal to hold periodic auctions e.g. every two years, over the course of the lifetime of the scheme, to take advantage

to falling costs and reduce the impact on the electricity consumer? What changes if any would you make to this proposal?

28. BMR states "*the Plan to hold periodic auctions and stage the renewable build-out makes sense given i) the existing configuration and condition of the electrical grid on Grand Cayman, ii) the current system's capability to regulate intermittent renewable energy, iii) the lack of contiguous parcels of affordable land capable of hosting greater than 20 MW's of renewable energy and iv) the current lack of sufficient transmission infrastructure on the eastern end of Grand Cayman. However, it is likely that once the initial 8 - 10 years of the plan is implemented it may be appropriate to re-evaluate the plan for the subsequent 10 years. At that time, the underlying assumptions used in the current plan regarding energy usage, population growth and technology development should be updated, and plan revised, if appropriate, to reflect these changes. Successful implementation of the initial stages of the plan will establish the Cayman Islands as a leader in renewable energy, may bring increased economic growth requiring more aggressive plans for the following 10-year period.*"

Office Response

29. The Office noted that BMR agrees with the proposed periodic scheduling of the auctions. Historically, setting regularly scheduled auctions helps to facilitate market predictability to investors, and could result in lower bid prices. The Office plans to review the REAS after the initial year to determine its efficacy and every five (5) years thereafter (although it will be updated each year) to ensure that it is fit for purpose, and is achieving the objectives of the scheme and National Energy Policy.

D) Question 4

How much notice should be provided to industry of upcoming auctions?

30. BMR states "typically, there is a one-month notice in advance of an upcoming auction and bidders are given two to three months to respond. Therefore, the timeline outlined in the Proposed Renewable Energy Auction Scheme Structure and Requirements is sufficient assuming certain requirements (as outlined below) are adjusted."

Office Response

31. The Office noted BMR's response and proposed the implementation of the timeline stated in the REAS Structure and Requirements.

E) Question 5

Should capacity be auctioned in consistent capacity tranches (e.g. 5MW, 10 MW, etc.)?

32. BMR states that *"in order for the Government to reach its stated goals of 70% renewable penetration, we believe the minimum number of MW's auctioned in tranches, should be 20 - 25MW's. 20 - 25 MW's should provide enough interest to attract credible bidders and EPC construction firms to consider the auction. Consistent capacity tranches in subsequent auctions could lead to better planning by developers, however, developers and investors will limit their development investment exposure in the absence of an awarded PPA with real estate being the largest cost component especially on Grand Cayman."*

Office Response

33. The Office acknowledged that project sizes between 10 MW and 20 – 25 MW are feasible to meet the NEP goal. The objective of the REAS is to secure capacity to meet Cayman's future resource adequacy needs at the least possible cost. Providing capacity to meet resource adequacy means that the capacity has to be available to be dispatched in the energy market.

F) Question 6

What would be appropriate minimum project sizes (both in general and for large-scale solar)?

34. BMR states that *"while no minimum project size need be set, projects below five (5) MW will find it more difficult to be competitive. Smaller projects often have difficulty attracting contractors with experience, cost efficiency and financial strength to assure the lowest cost supply of equipment, installation and financing. In addition, larger projects also have a lower cost of O&M, insurance and utility-side work to administer on a per kwh basis."*

Office Response

35. The Office acknowledged that project size is very important and intends to set size criteria to strike a balance between:
- a. Achieving economies of scale so that consumers benefit from lower costs;
 - b. Attracting a wider pool of international developers (which are likely to find larger projects more attractive); and
 - c. Securing participation of multiple project developers to widen the pool of market participants. This can be achieved by placing restrictions on maximum size (and the number of investors participating in more than one project) so that multiple projects can be awarded to different investors for the overall level of capacity to be procured in the auction.

The Office is also cognisant that learning between auctions would increase the chances of competitive outcomes, and auctioning of smaller volumes would control the cost of support.

G) Question 7

Should the proportion of solar be different post 2021 to allow technology costs to come down?

36. BMR states that *“we believe the costs of solar equipment will continue to decline and the efficiency will improve on a steady basis over the next ten years but are unlikely to do so at the rates we have seen in the past. The planned phasing of solar power additions will provide a good balance of access to technology improvements, as they occur, while facilitating near term access to the environmental and economic benefits of the renewable energy. Some costs associated with installation and operation of solar in the Cayman Islands will not be reduced over time including the costs of land, civil construction, local labour for construction and operation and financing costs.”*

Office Response

37. The Office notes that Renewable energy has seen dramatic cost reductions in the last ten (10) years, and further significant reductions of solar or wind generated electricity costs. According to some energy sector reports, a further reduction of fifty percent (50%) by 2030 is expected. It is predicted that some of the installation and operational

costs in the Cayman Islands will remain, however, this will be influenced by various environmental and socio-economic factors.

H) Question 9(8)

Do you agree that planning approval, grid connection, and bid bonds/penalties criteria should be met before projects can proceed? What other pre-qualification criteria (if any), would you like to see introduced?

38. BMR, in summary, holds the opinion that the bid requirements for planning approval, grid connection and an estimate of costs from the T&D Licensee are not typical, introduce considerable cost and will cause considerable delay in the process. These requirements will impose considerable cost on bidders, possibly reducing the level of interest in procurement. It will be difficult for the T&D Licensee to complete detailed interconnection studies and cost estimate for each proposed project within the 3-month bid window. Instead, the T&D Licensee should be prepared to perform preliminary interconnection studies for each bidder to provide a preliminary interconnection scope for the proposed projects. This issue also raises the potential conflict that may occur if the T&D Licensee is planning to submit a competing proposal into the auction. Procedures would need to be established to assure that a proposed project by the T&D Licensee would receive the same level of information, in the same priority as it is made available to other bidders and that interconnection analyses be done on a non-discriminatory basis. We suggest that OfReg, as part of the pre-bid process, work with the T&D Licensee and an independent, third party engineering firm with the requisite experience, to determine available transmission capacity at injection points across the transmission and distribution system. This information could then be shared as part of the bid documents to ensure a fair and transparent bidding process for all.

Office Response

39. The Office noted BMR's concern about the costs of obtaining planning approval, grid connection and an estimate of costs from the T&D Licensee. Pre-bid grid connection studies have also been required in recently issued Invitation to Bid (ITB) auctions. The Office also noted that research shows that physical pre-qualification can be considered a participation cost that ensures the capability of bidders. Only bidders with serious intent to deliver their project will bear the (otherwise sunk) cost. The Office will establish procedures such that requirements for

interconnection studies and interconnection scope shall be specified in a way that ensures all bids are comparable.

I) Question 10(9)

Do you have any comments on the information which must be submitted by potential/existing bidders?

40. BMR states *"we would add the requirement that bidders provide detailed information on their direct experience in developing, constructing and operating renewable projects particularly in the Caribbean region, with its unique exposure to storms, hurricanes and high cost structure such as insurance coverages. The bidders should also provide resumes for the key management staff who will be directly involved in the development, construction and operation of the facility. Further, as part of the submission, bank comfort letters should be required to demonstrate that the bidder has the full funding available to execute the Project."*

Office Response

41. The Office opines that qualifications related to the technical capacity of the developer to deliver the project do not need to require extensive or country-specific past experience. However, familiarisation with geographic nuances is important for bidders to have. Moreover, the primary focus of the assessment of technical capacity should be on the technical characteristics of the proposed project (e.g. compliance of the proposed technology with the auction's requirements, environmental permits, grid connection plans). Information of key management staff will be required as part of the bid documents and bidders will have to fulfil certain financial requirements in order to qualify, such as provide financial guarantees. Furthermore, the Office plans to limit the participation to projects that can demonstrate economic viability, using information on developer experience, project location, interconnection studies and development schedule. The Office is also proposing to require bid bonds as part of the financial capacity criteria.

J) Question 11(10)

Please express any concerns about the impact of the new renewable energy auction scheme on electricity service providers?

42. BMR states "*no, the proposed auction is similar to auctions that have been introduced in numerous islands in the Caribbean. On each of these islands, the electric service provider has been able to integrate well with the selected renewable energy generators without any impact on the reliability of the service.*"

Office Response

43. The Office noted that BMR has no concerns about this matter.

K) Question 12(11)

What do stakeholders think of the proposed evaluation criteria set out in the scheme?

44. BMR states that "*direct experience and long-term commitment to developing, constructing and operating renewables in the region should be given greater consideration in the evaluation criteria. The consequences of inexperience and lack of attention to the region are typically project cost overruns, schedule delays and operating issues all of which will negatively impact the beneficiary, which is the rate payer.*"

Office Response

45. The Office noted BMR's comments and acknowledged that project development learning curves can potentially lead to cost overruns, schedule delays and operational issues. Recent research has shown that electricity infrastructure projects are prone to cost overrun issues almost independently of technology or location, and that solar and wind projects seem to present the least construction risk. The Office will seek to mitigate this risk by requiring that bidders are experienced and have detailed and accurate delivery strategy and execution plans, incorporating appropriate staffing and skills capabilities.

L) Question 13(12)

Do stakeholders have views on how evaluation criteria might be weighted?

46. BMR states that the *“direct experience and long-term commitment to developing, constructing and operating renewables in the region should be given greater consideration in the evaluation criteria. The consequences of inexperience and lack of attention to the region are typically project cost overruns, schedule delays and operating issues all of which will negatively impact the beneficiary, which is the rate payer.”*

Office Response

47. See the Office’s above response at paragraph 45.

M) Question 14(13)

Are there other evaluation criteria/principles that the office should consider to ensure the scheme meets its objectives?

48. BMR states that *“direct experience and long-term commitment to developing, constructing and operating renewables in the region should be given greater consideration in the evaluation criteria. The consequences of inexperience and lack of attention to the region are typically project cost overruns, schedule delays and operating issues all of which will negatively impact the beneficiary, which is the rate payer.”*

Office Response

49. See the Office’s above response at paragraph 45.

N) Question 15(14)

Are the costs associated with developing a proposal to bid into the scheme based on addressing the above criteria effectively likely to be prohibitive?

50. BMR, in summary, states that most energy development companies are willing to spend the funding needed to submit a proposal and, if selected, perform the required post-award development work including: detailed design and transmission engineering, detailed environmental tests and studies, comprehensive environmental impact assessment,

ongoing direct discussions with Government agencies, seeking approvals, financing, etc. these development activities cost several hundred thousand dollars and take from six to twelve months to complete. The concept included in the Proposed Auction Scheme, where much of the development work is completed prior to proposal submittal, will dampen interest in the auction and result in less competition and higher offers, if any are received.

Office Response

51. The Office noted BMR concerns. Successful auctions will require a sufficient number of well-qualified bidders therefore it is important to have qualification requirements that provide disincentives to speculative bidders. To ensure success, The Office will seek to establish a streamlined and transparent process for bidders to obtain licences, land and environmental permits as well as grid connection plans where bidders are required to obtain these prior to the auction.

4.2 CREA

52. Instead of answering the Office's individual questions, CREA provided a suggestion on how the procurement of renewable energy ("RE") investment should be conducted. CREA stated that their response was a reiteration of its initial comments regarding the auction it proposed in 2018. Please see below a summary of CREA's response.
53. CREA states that it first wanted to focus on developed space and distributed generation ("DG") until the EPC and the land use sub-committee has had time to conclude a plan on exactly where the renewable energy systems will be located. CREA believes that *"there is every opportunity to deploy several MWs of solar energy in under 12 months from start to finish with right format of the auction."*
54. As part of its proposed procurement plan, CREA proposes that a release of the initial tranche of capacity at 30 MWs. CREA recommended separating that initial auction capacity of 30 MWs into 15 MWs Rooftop DG Systems, 10 MWs Parking Lot Systems and 5 MWs for Innovation Projects (Floating Solar, etc.).
55. CREA also proposes creating 10 MWs specifically for parking lot systems. CREA holds the position that creating 10 MWs specifically for parking lot systems will have *"the double effect of creating RE generation in prime developed space as well as facilitate an island wide*

charging network for electric vehicles capable of being charged by solar energy and not by fossil fuels.”

56. In addition, CREA proposes that there should be an allocation of at least 5 MWs to Innovation Projects. CREA believes that there should be *“an opportunity for developers to submit for projects that sufficiently meet the standard of innovation and provide value for more via its proposed PPA price.”*
57. Lastly, CREA states that OfReg should ensure *“that the focus of any early tranches of the auction focuses on creating local jobs and building local expertise.”* CREA believes that there should be *“experience, performance and financial requirements but where such backing is required, the local providers can partner with international companies to achieve these requirements.”*

Office Response

58. The Office noted that CREA did not answer any of the consultation questions and only mentioned how the association believes that RE capacity should be added to the grid. The Office believes that to achieve the National Energy Policy (NEP) targets, a project with a high capacity factor (the average output for a given amount of installed capacity) would make a greater contribution to Cayman’s targets than an equivalently priced project with a lower capacity factor. The Office’s position is that the ability of projects to contribute to Cayman’s economic development will be viewed favourably. In particular, the contribution of projects to Caymanian jobs, development of supply chains (including services, operations and maintenance capability), maximising local content, and promotion of local industry competitiveness. However, The Office is aware that there are a number of challenges associated with local content requirements e.g. legal risks, prolonged delay risks, and the possibility of higher costs for the offtaker, and/or consumers. The Office recognises that achieving the NEP goals will require the selected projects to be completed in a timely manner. Therefore, the ability of bidders for projects to complete construction and begin full operation within a specified timeframe will be a crucial part of auction evaluation. This will include consideration of a bidder’s financial and planning status as well as the capability and capacity of the proponent to successfully implement the project.

4.3 CUC

A) Question 1

The REAS proposes that a measure whereby all renewable energy capacity available be allocated through a competitive bidding process via auctions. Do the respondents agree with the competitive auction based approach? If not, what alternative model would you propose and why?

59. CUC states that it *“agrees that the REAS is a possible measure to procure all utility scale renewable energy. However, it does not agree that the proposed scheme will be the most cost effective or efficient way of bringing renewable energy in large scale to the Cayman Islands. The consultation does not embark on an analysis of those costs nor does it contain a weighing of costs and benefits or an assessment of the costs and benefits of other ways of going about meeting the IRP or NEP objectives. As an example of an alternate scheme, CUC could conduct competitive tenders for renewable energy EPC contracts with oversight from OfReg. These projects would involve work being done by external providers to create generating capacity owned and operated by CUC and could be priced to meet a target ROI that is acceptable to OfReg and CUC. OfReg is already aware of the significant costs for bidders to participate in the REAS. These costs as well as the costs that OfReg will incur to conduct the RFP and provide appropriate analysis of the bids along with costs to negotiate and develop IPP PPA's will ultimately be borne by the consumer. These additional costs would likely be over \$1 million per project. CUC notes that the REAS does not address the issue of or how to provide firm or peaking capacity when using renewable energy sources to generate electricity. The focus on the price for KWh produced needs to be broadened so that when using price to make decisions about awarding PPAs other costs are considered, those include the costs of ensuring firm capacity, operating reserves and peaking power when using renewables.”*

Office Response

60. The Office noted CUC's response. The Office plans to conduct a regulatory impact analysis (RIA) of implementing the REAS prior to its adoption. Research on recently conducted auctions have indicated that the economic benefits have outweighed the costs. The Office is specifically tasked under Section 9. (2) (f) of the ESR Law *“to solicit additional generation capacity and conduct the generation solicitation process,”* and also under section 3.3.1.3 of the National Energy policy to: *“Ensure fair competition for procuring utility-scale sustainable generation.”* The Office's position is that while a variety of policies exist

to promote the development of renewable energy, competitive auctions have emerged as a preferred policy for utility-scale renewable energy development. Auctions foster competition and push prices down, thereby reducing tariffs for end-users and making the whole process more structured, sustainable and transparent. This addresses the fundamental problem of information asymmetry between the regulator (or any other entity responsible for determining purchase prices and support levels), plant operators and project developers regarding the Levelised Cost of Energy (LCOE) of a project.

61. Furthermore, auctions have avoided some of the pitfalls and abuses related to single sourcing or direct negotiation between the contracting parties, which reduces the burden on the regulatory oversight process. Prices resulting from auctions have provided an elegant solution to the long-lasting regulatory challenge of defining what “prudent” costs of generation should be passed on to end-use customers. The Office also acknowledges that investors’ perceptions regarding the fairness of the process are crucial for the auction’s success. Even in places where competition is modest and markets are small like the Cayman Islands, countries can still benefit from the use of competitive auction mechanisms.
62. The Office in considering recommended efficient practices for the conduct of auctions notes that if auctions are designed and managed by distribution utilities and contract prices are passed directly to consumers by means of a pass-through mechanism, distributors have a constant yield for their assets regardless of auction results. This discourages proper design, which minimises prices. Moreover, It is difficult to compare a bid from a Cost of Service (COS) utility, where risk is shared with ratepayers, with a bid from an independent power producer (IPP), where risk is fully factored in the bid. Under Cost of Service (COS) model, a utility would favour its own capital investments for services so it can earn a rate of return on such investments rather than seeing others provide the same service.
63. The REAS purposely does not address the issue of how to provide firm or peaking capacity when using renewable energy sources to generate electricity as that is not its intent. However, The Office recognises that energy storage must be considered as part of the solution and that a fully integrated solar-plus-storage utility-scale project can provide a viable PV Peaker solution. Such projects have the ability to simultaneously provide volumetric energy, frequency response, frequency regulation, and voltage regulation, which enables the grid to

capitalise on the technology's capabilities, a prerequisite for mass adoption of firm renewables.

B) Question 2

Do you have any comments on the way in which we propose to establish the renewable energy auction scheme?

64. CUC states that *“allocating the responsibility and management of triggering and specifying incremental renewable energy capacity on the grid to the T&D Licensee will allow for the T&D Licensee to have generating systems come on to the grid in accordance with long range planning guidelines while maintaining safe, stable and reliable service to the electric customers of Grand Cayman. For much the same reasons, the T&D Licensee should be able to specify operating criteria for renewable energy plants such as capacity, ramp rates and storage requirements if any.”*

Office Response

65. For new capacity, the auction rules will specify the timing and frequency of the auctions. This will be determined by either the identification of a forecast gap, or, alternately, on a regular basis to provide off takers with a risk management instrument. The Office states that it is empowered under Section 9, (2) (f) of the ESR Law *“to solicit additional generation capacity and conduct the generation solicitation process.”* The Office recognises that it is crucial to ensure that new generation projects have adequate operating performance so that long-term system adequacy and reliability is assured. The Office notes CUC's concerns about maintaining safe and reliable power to consumers. The addition of energy storage will increase the overall cost of the solution and the REAS proposes to auction both solar PV and energy storage. Consideration will be given to what is the optimal solar PV and battery energy storage sizes required to yield a lower blended LCOE to the customer while also providing reliable and safe power.

C) Question 3

Do respondents agree with the proposal to hold periodic auctions e.g. every two years, over the course of the lifetime of the scheme, to take advantage

to falling costs and reduce the impact on the electricity consumer? What changes if any would you make to this proposal?

66. CUC states that it *"is comfortable with every 2 years; however, there may be a need for projects annually in the initial years in order to meet the timelines prescribed in the 2017 IRP and the NEP."*

Office Response

67. The Office acknowledged that CUC agrees with the proposed 2-year auction cycle.

D) Question 4

How much notice should be provided to industry of upcoming auctions?

68. CUC states that it *"thinks that 2 months' notice should be sufficient."*

Office Response

The Office acknowledged that CUC agrees that two (2) months' notice suffices.

E) Question 5

Should capacity be auctioned in consistent capacity tranches (e.g. 5MW, 10 MW, etc.)?

69. CUC states that *"capacity should be auctioned in accordance with agreement between OfReg and the T&D Licensee as described in the response question 2. Capacity phases should aim to fulfil the goals of the NEP and be guided by the roadmap provided by the T&D Licensee's IRP. One way of doing this may be use consistent capacity tranches, however, there is little benefit that is apparent for restricting the future auction sizes in this manner."*

Office Response

70. The Office recognised that it will require the capacity phases to align with the achievement of the NEP goals. Consideration will be given to the public's IRP roadmap (as amended), from time-to-time. And since the IRP is not a static document it must be continually developed to reflect accurate technology costs and resource operating

characteristics at sufficient granularity to evaluate a range of RE generation sources. The proposed capacity tranches will be used to inform regulatory strategies that balance uncertainty with economic and environmental obligations including the NEP objectives.

F) Question 6

What would be appropriate minimum project sizes (both in general and for large-scale solar)?

71. CUC states that *"4MW would be an appropriate minimum size."*

Office Response

72. The Office noted CUC's suggestion for an appropriate minimum size and will take this into consideration.

G) Question 7

Should the proportion of solar be different post 2021 to allow technology costs to come down?

73. CUC states that it *"is not clear on what this question is asking. Subject to that, cuc [sic. CUC] would favour adopting whatever technology appears at the time to offer the best prospect of electricity from renewables at the lowest cost rather than determining proportions in advance."*

Office Response

74. The question is seeking a response as to whether or not the amount of solar PV to be auctioned should be different post 2021 since the costs of solar is continuing to drop dramatically. And as previously noted, a further cost reduction of 50% by 2030 is expected. Should an alternative cheaper source be available, certainly that would be viewed favourably by The Office.

H) Question 9(8)

Do you agree that planning approval, grid connection, and bid bonds/penalties criteria should be met before projects can proceed? What other pre-qualification criteria (if any), would you like to see introduced?

75. CUC states that *“If this is a requirement for becoming an eligible bidder it removes any uncertainty about the bid, but it would lead to the possibility that multiple bidders will burden the CPA & DoE & CUC for early approvals, only to have many of the projects be unsuccessful in the auction. That would impose a cost on the agencies to whom requests for approvals were submitted and would probably delay the point at which a bid could be submitted for consideration. On the bid side, it would likely deter prospective bidders by increasing the cost of unsuccessful bids. CUC suggest that the best way to deal with the need for such approvals is to them in two stages. With grid interconnection, CUC would recommend that Interconnection studies should only be done for Preferred projects and basic assumptions for costs of interconnection be published in the RFP. With CPA and DoE approvals, CUC suggested the Office liaise with these agencies to reach a position where they can give guidelines for projects that are not Preferred Projects leaving resources free to concentrate the full approvals process on Preferred Projects. CUC also suggest that control over the proposed site's property should be demonstrated at the project proposal stage.”*

Office Response

76. The Office noted CUC’s suggestion and opines that performing grid integration and interconnection studies for utility-scale renewables should only be required for Preferred Projects. Discussions with the CPA & DoE agencies has revealed that they do not anticipate any stretching of resources if/when multiple approvals are sought. The Office will seek to establish a streamlined and transparent process with the appropriate agencies for bidders to obtain licences, land and environmental permits.

I) Question 10(9)

Do you have any comments on the information which must be submitted by potential/existing bidders?

77. CUC states that “technical information that enables CUC to verify that the proposal meets the T&D Code and power quality standards should be provided. CUC will provide the power system integration performance requirements and bidders should show how they intend to meet those requirements. Bidders should provide annual generation forecasts for the life of the project so that the project can be analysed from a total cost basis by integrating it into the portfolio of resources and then analysing the total cost of energy.” “Each tranche of re [sic. RE] will require backup, dispatchability and ramping. If cost is a consideration in evaluating proposals (as it must be), then those needs will have to be identified when proposals are assessed and means will have to be found to fund them.”.

Office Response

78. The Office agreed that the technical information that enables CUC to verify proposed projects compliance with the T&D Code and power quality standards should be provided. The goal of adding RE to the grid is to diversify the energy mix, reduce Green House Gas (GHG) emissions, enhance reliability, security, and resiliency from these generation sources. Bidders have to provide a Forecast Energy Sales Report as part of the technical specifications. Successful bidders are expected to enter into Power Purchase Agreements (PPAs) with CUC that would stipulate the annual generation projections for the duration of the project. The REAS includes both storage and intermittent renewables capacities, and appropriately-sized Battery Energy Storage Systems (BESSs) can provide long-duration services such as load-following and ramping services to ensure supply meets demand.

J) Question 11(10)

Please express any concerns about the impact of the new renewable energy auction scheme on electricity service providers?

79. CUC states that “it will be necessary for each bidder to evaluate their interconnection requirement. That will take time (it may take months for each bidder) and will incur significant expense [sic. expense]. If multiple bidders emerge each of which requires an interconnection evaluation

the cost involved in the evaluations will be significant as will the time taken to conduct them. CUC would probably have to contract out that work, but even with outsourcing there will still be delay and the cost would remain."

Office Response

80. The Office opines that consistent forms and requirements from bidders can improve interconnection processes in several ways, e.g. by reducing the number of questions the utility receives or increasing the amount of applications submitted correctly without missing information. Introducing efficiencies into the process can lead to reduced costs and delays. The Office considers the NREL's suggestion pertinent in this situation which is; "it may be useful or necessary to move toward more forward-looking and proactive approaches to interconnection, shifting toward a DER integration mindset rather than considering individual interconnection applications in isolation.

K) Question 12(11)

What do stakeholders think of the proposed evaluation criteria set out in the scheme?

81. CUC, in summary, states that it noted that the Qualification Criteria form minimum thresholds for a bid to be considered compliant. The Qualification Criteria include Technical Criteria. These need to include a detailed set of criteria for evaluation of whether the technical requirements meet the T&D Licensee's design and operating requirements and it should be made clear that a bid that fails to meet the technical criteria will be disqualified. It would be a mistake to simply take the price per MWH [*sic*. MWh]. Cost of energy should not only be evaluated on the proposed pricing; the proposed projects should be analysed for total effect on the complete portfolio of existing generation and planned future generation.

Office Response

82. The Office is cognisant of the need for technical compatibility with the existing grid network. Accordingly, the Office's would not accept bids that do not meet the technical requirements of the T&D Licensee's design and operating requirements. The Office does not agree that price should not be the determining factor in the REAS as research of

both international and regional auctions indicate that this is the case. A functional network that produces the least possible cost of energy for consumers whilst simultaneously incorporating the optimum technology solutions is the goal of the REAS and this aligns with the NEP's objectives.

L) Question 13(12)

Do stakeholders have views on how evaluation criteria might be weighted??

83. CUC suggests "cost 70% Financial strength and experience of the proposer 20% Other Criteria 10%."

Office Response

84. The Office noted CUC's suggestion for weighting criteria and will take this into consideration.

M) Question 14(13)

Are there other evaluation criteria/principles that the office should consider to ensure the scheme meets its objectives?

85. CUC states, in summary, that the Qualification Criteria should contain requirements for mechanisms or frameworks to ensure grid stability, reliability, resiliency and safety. The current focus on simply providing MWh of RE on to the grid does not go far enough. The structure of having the T&D Licensee develop high-level technical specifications and operating criteria for the projects in order to fulfil the scheme's objectives.

Office Response

86. Please refer to the Office's response at paragraph 78.

N) Question 15(14)

Are the costs associated with developing a proposal to bid into the scheme based on addressing the above criteria effectively likely to be prohibitive?

87. CUC states that "*the cost is significant; however, insofar as the bid bonds are refundable to non-successful bidders, the cost will serve to*

limit bidders to only serious participants with appropriate levels of financial capability. However, many of these costs can be avoided under CUC's proposed procurement scheme."

Office Response

88. The Office's proposed REAS intends to attract serious bidders only hence the requirement to post bid bonds. Furthermore, the Office reiterates that competitive auctions have emerged as a preferred policy for utility-scale renewable energy development and that investor's perceptions regarding the fairness of the process are crucial for the auction's success. Accordingly, the Office does not feel that it is appropriate to have the T&D licensee conduct the auction.

4.4 Gemstar

A) Question 1

The REAS proposes that a measure whereby all renewable energy capacity available be allocated through a competitive bidding process via auctions. Do the respondents agree with the competitive auction based approach? If not, what alternative model would you propose and why?

89. Gemstar states that it does understand the merits of competitive auctions only when the process benefits both policy and price. One of the principal drawbacks with REAS-type auctions is costs may not necessarily be cheaper because the bidding costs are onerous. Auctions draw on companies to commit competitively to a realized rate, and potentially low bidding the auction. It also invites the high potential of collusion between big providers because small operators cannot sustain the qualification process competitively, thereby making competition not equal. There are many reasons why not to use the REAS-type auctions, particularly in a small island environment, and limited generation requirements. GEC Group feels the Feed-In Tariff (FIT) process to be more effective for Cayman than the REAS process for the following points; 1. Simple policy model that can be designed to target specific technologies, 2. Limits the risk for investors; 3. Allows for new companies to enter into the market; 4. Providers incentive to maximize production; 5. When privately funded, FIT has no burden on

public budgets. The FIT is set for each technology and is paid for over a fixed number of years. This makes for a stable market and allows for long term planning. This encourages investment in renewable energy, as IRR rates are attractive and secure. There are different models of FIT that would suit different policy mandates, such as Gross FIT, or NET FIT. Where FIT has advantages over REAS largely benefits smaller markets and smaller companies. Although it can be costly, this can be overcome with private funding. It has a lower risk and costs for project developers. FIT also offers support for new technologies. The more attractive aspect of FIT is long term stability, largely due to not forcing competition into too low-cost assumptions as is prevalent in REAS type competition.

Office Response

90. Gemstar's comments are noted. Successful auctions will require a sufficient number of well-qualified bidders therefore it is important to have qualification requirements that provide disincentives to speculative bidders. In the proposed well-structured auctions process, the qualifications are not designed to limit the number of potential bidders to a few which could encourage collusion, however, bids must meet certain thresholds in order to be eligible. The Office research has shown that the main alternative procurement mechanism to auctions is feed-in tariffs (FITs) (Kreycik et al. 2011; Couture, Jacobs, et al. 2015). However, as has become evident in recent years, one of the most difficult aspects of designing a successful FIT policy is determining the right tariff level and adjusting it over time as market and technological circumstances change. In this respect, The Office reiterates that well-designed competitive auctions have emerged as a preferred policy for utility-scale renewable energy development and that investors' perceptions regarding the fairness of the process are crucial for the auction's success. Moreover, FITs are increasingly being abandoned in both developed and developing countries in favour of competitive tenders which can yield better prices for both consumers and industry. The recent regional successes support OfReg's view that the most effective strategy would be to implement auction scheme to maximise price competition and to achieve capacity targets.

B) Question 2

Do you have any comments on the way in which we propose to establish the renewable energy auction scheme?

91. Gemstar states that should OfReg consider implementing REAS, GEC Energy would suggest the following criteria to be considered in the implementation of the auction; 1. Give enough consultation and bid preparation time, 2. Reduce financial or material pre-qualification burdens or penalty for small actors, 3. Different pricing rules for small actors; 4. Set ceiling prices and have them fully disclosed at the time of tender; 5. Pre-establish a site where the RE will be installed. Different technologies have diverse characteristics and are therefore impacted differently by the same pre-qualification criteria and realization periods, thereby disadvantaging some RE technologies through expensive planning costs, bidding costs, and some non-cost barriers like timing and permits. Employing the same standards across different technologies can produce an undesired result. Auctions do not always operate efficiently, particularly in smaller markets. If the competition base is not sizeable; the available allocation not big enough; or the evaluation criteria too stringent (all factors that may deem the auction inefficient) unfair advantages amongst bidders can be created.

Office Response

92. The Office holds the opinion that its proposed REAS provides sufficient consultation and bid preparation time. The commercial and technical qualifications are designed so that bid submissions will exclude those entities simply not qualified to competently deliver and operate a project. Consequently, bids must meet a minimum threshold in order to qualify. The Office understands that “small actors” are hard to define and granting favourable treatment creates an expectation for all actors to want to obtain similar exemptions. The bid process will be clear, transparent and timely so that bidders have sufficient information to meet the auction’s intended outcome. The option of setting ceiling prices that are disclosed to project developers that want to participate to ensure price discovery and greater competition may be explored. As previously mentioned, the Office will seek to establish a streamlined and transparent process with the appropriate agencies for bidders to obtain licences, land and environmental permits. Streamlined administrative procedures coupled with communication and transparency provided equally to all project developers will help ensure the auction’s deliverables.

C) Question 3

Do respondents agree with the proposal to hold periodic auctions e.g. every two years, over the course of the lifetime of the scheme, to take advantage to falling costs and reduce the impact on the electricity consumer? What changes if any would you make to this proposal?

93. Gemstar states that it feels that a long-term winddown, with a lengthy forward-looking auction plan should be considered. At least 3-4 years ahead, along with a well detailed auction schedule. The optimal number of time (depending on technology), auction volumes and market situations, should be a minimum of once every two years, to a maximum of once every year. This way the supply chain can plan and develop projects accordingly. Auctions depend on significant competitive participation, and when a bidder loses a bid, a long wait would likely lose their interest in further participation. This helps with investors' confidence of potential market opportunities, and willingness to extend credit to viable projects.

Office Response

94. The Office acknowledged that Gemstar agrees with the proposed 2-year auction cycle.

D) Question 4

How much notice should be provided to industry of upcoming auctions?

95. Gemstar states that *"a minimum 12 months, but preferably 18 months. Auction bids are very costly, as the documentation to submit is extremely onerous. As indicated in Question 2, GEC Group suggests lowering the qualification demands to allow smaller actors to participate. Indeed, each technology whether solar, wind, or biofuels each have unique application specifications imposing their own demands for required time. GEC Group suggests making the period correspond more specifically for each technology. In this case, GEC Group suggests the 12 to 18-month interval for solar PV. It is not so much to take advantage of falling costs, but to maintain competitive interest. Solar material costs have dropped dramatically in the past 5 years. It is unlikely to see any further significant reductions as the development of components has matured. On a going-forward basis, competition will be the primary contribute to reducing prices. Indeed,*

the caveat for policy makers is that there should be more focus on qualitative review in an industry where reliability is a key component to a successful installation at the utility-scale level. In short saying; low cost is always the right direction."

Office Response

96. The Office noted Gemstar's suggestion however, research shows that two (2) months' notice has sufficed for planned auctions irrespective of the type of technology deployed. The Office does not agree with the suggestion to lower the qualification criteria as these are intended to allow only bidders with certain qualities, e.g. experience level, financial capacity, etc., to vie for the projects. The Office may consider other options to allow participation by smaller actors. The REAS proposes firstly an auction roadmap that corresponds with the NEP goal of having 70% of electricity generation from renewables by 2037, and secondly a more detailed auction schedule with specific description of the upcoming auctions to be published at least every two (2) years for the next two (2) years. This facilitates flexibility for the Office while accommodating the need for investor certainty. As previously mentioned, The Office notes that RE has seen dramatic cost reductions in the last 10 years, and further significant reductions of solar or wind or generated electricity costs. According to some energy sector reports, a further reduction of 50% by 2030 is expected. As a prudent regulator, The Office will seek to adjust auction schedules according to perceived shifts in market conditions.

E) Question 5

Should capacity be auctioned in consistent capacity tranches (e.g. 5MW, 10 MW, etc.)?

97. Gemstar states *"for RE specific auctions tranches in solar PV suit the 5MW and 10 MW allocations. However, they should be permitted to expand to as large as 20MW, should the demand be necessary and the allocation available."*

Office Response

98. The Office recognises that it will require the auction tranches to align with the achievement of the NEP goals. The REAS will be designed to be robust, flexible, sustainable and scalable in order to deliver the required amount of renewable electricity to the grid.

F) Question 6

What would be appropriate minimum project sizes (both in general and for large-scale solar)?

99. Gemstar states that they “will only comment on solar PV, where the minimum sized utility-scaled installation would be 5MW. Where GEC Group is not in agreement is that the environmental consent criteria in the evaluation. This process penalizes small scale solar projects with unreasonable environmental restrictions. Obviously solar PV requires ample space. Solar power does not produce any EMI or RFI emissions, therefore should not be subject to stringent environmental reviews, provided such lands are not designated as environmentally sensitive.”

Office Response

100. The Office stated that the REAS environmental consent criteria is not intended to penalise any bidder. Similar to fossil fuel power plants, solar plant development requires some grading of land and clearing of vegetation which could be critical habitat for rare species, have cultural significance, etc., so land use as well as access to transmission and water rights must be considered. Whilst any EMI or RFI emissions from solar power plants is typically very low, it is necessary for The Office to ensure that any environmental impact is minimised. Furthermore, The Office needs to give due regard to the requirements of the National Conservation Law, 2013 when considering applications for electricity generation plants.

G) Question 7

Should the proportion of solar be different post 2021 to allow technology costs to come down?

101. Gemstar states that it *“is of the opinion that post 2021 technology costs for utility-scale solar will not advance significantly enough to suggest initiating a policy change. The component cost of solar PV lays largely in the panel. Though expected to cost less in coming years, the likelihood of a sizeable reduction in costs by 2032 will not overshadow the cost savings during that same period through successful auctioning. Reliability is a key aspect to all solar PV installations, where cost savings with lower-cost products do not always translate into like-for-like technology.”*

Office Response

102. The Office reiterates that RE has seen dramatic cost reductions in the last 10 years, and further significant reductions of solar or wind or generated electricity costs. According to some energy sector reports, a further reduction of 50% by 2030 is expected. Technical performance including system reliability is a key component of the bid qualification criteria and projects are expected to use products that meet the reliability thresholds.

H) Question 9(8)

Do you agree that planning approval, grid connection, and bid bonds/penalties criteria should be met before projects can proceed? What other pre-qualification criteria (if any), would you like to see introduced?

103. *Gemstar states that it “has significant concerns in the areas of planning approval, grid connection, and how It can affect bid bonds/penalties and the auction itself. The location of installations has factors that determine the viability of the project, and the possible reality of its implementation. There are no tangible specifics that potential competitors can ascertain prior to bid submission that can lower the risk in meeting the criteria set out in the REAS. Land costs versus connection-location costs; land costs versus environmental assessments; non-cost barriers such as planning issues and permits; duty concessions; and labour permit concessions, are all factors which gravely affects competition costs. This uncertainty poses considerable risk to bidders that may unfairly compromise their bid and activate the penalty conditions set out in the auction. This could result in fewer bidders, possible collusion, and certainly eliminate the smaller actors to participate. GEC Group recommends fewer qualification criteria.”*

Office Response

104. The Office does not agree with GEC Group’s suggestion to have fewer, or lower the qualification criteria as these are intended to allow only bidders with certain qualities, e.g. experience level, financial capacity, technical capability, etc., to vie for the projects. The auction will be designed to ensure that a large enough pool of similarly strong bidders enter the auction while also considering options to reduce the risk for smaller actors.

I) Question 10(9)

Do you have any comments on the information which must be submitted by potential/existing bidders?

105. Gemstar states that it *"is comfortable with the Structure of the Project, and Legal Criteria. On the matter of Land Acquisition and Land Use Criteria, it should be allowed that within the qualifications criteria, representation of a legal undertaking to secure lands. Land prices can escalate once they are subject to RE installation. Acquisitions need to be held extremely confidential to prevent artificial inflation of land values. Environmental Consent Criteria is too broad in its scope, putting the onus on the bidder to secure Environmental Consent. There should be exemptions already negotiated prior to the auction in keeping with the allocations being auctions. For example, project capacity and limit on installation coverage (land coverage) should be relaxed for solar installations. Or if the lands are already designated by Caymanian Government prior to bid submission, then environmental consent should be pre-approved."*

Office Response

106. The Office acknowledged Gemstar's concerns about the Land Acquisition and Legal Criteria and may consider accepting representation of a legal undertaking to secure lands. Part of the NEP requires the establishment of designated, pre-approved sites for project development. This element when established, can reduced the cost of acquiring land while reducing various other project and construction-related risks. The Office will seek to establish a streamlined and transparent process with the appropriate agencies for bidders to obtain licences, land and environmental permits.

J) Question 11(10)

Please express any concerns about the impact of the new re [Sic. Renewable] auction scheme on electricity service providers?

107. Gemstar has no comments on this question.

Office Response

108. N/A.

K) Question 12(11)

What do stakeholders think of the proposed evaluation criteria set out in the scheme?

109. Gemstar states that *“the proposed evaluation criteria clearly have a bias towards large project developers. As an example, GEC Group wishes to draw on the auction in Cayman in August 13, 2014: Evaluation of Bids for 36 Megawatts of Firm Power Generating Capacity for Grand Cayman/ Final Report. The allocation of points as evidenced by this report clearly benefitted CUC. Although the various criteria need to be considered/there is nothing transparent in the allocation of points (as set out by the REAS). The way this auction is structured in the Proposed REAS very much resembles the same conditions set out in August 2014 Final Report, ft [Sic. it] eliminates small actors from competition. The process to satisfy the Evaluation criteria is burdensome both from a legal cost and commitment of funds in hopes of qualifying. Land acquisition costs. Grid connections, and environmental consent criteria are examples of why the costs can be considerable.”*

Office Response

110. The Office intends to implement an inclusive auction that provides a level playing field for all participants. The Office intends that the bid evaluation process will be based on clear, point-based criteria and designed to the extent possible that the project selection process is unbiased and transparent. The Office acknowledges that high transaction costs for participation can raise barriers for small actors and could potentially lead to growing market concentration. As previously mentioned, there is a challenge in defining what constitutes “small actors” coupled with the risk of all participants wanting similar incentives that may be granted to small actors. The Office is aware that any loosening of pre-qualification requirements may have negative consequences for example, the risk that a project may not be built. As a trade-off, consideration may be given to incentives such as reserving a share of the total volume auctioned for small actors and streamlining of site-specific documentation acquisition.

L) Question 13(12)

Do stakeholders have views on how evaluation criteria might be weighted??

111. Gemstar stated that it *“believes the weighting needs to be 90% on price and technology and 10% on Financial Robustness, Environmental*

Consent and Economic Development. Implementation of RE technology poses immediate economic and environmental benefit that really should not be an essential part any Evaluation Criteria. With reliability being the most important component to the success of any RE installation (on a long-term basis) the project costs far outweighs the short-term impacts of financial or environmental implications. Price dictates at what level competitive bidding reaches the correct trade-off of risk-versus-reward. In addition, financial weighting is not significant to public budgets when the costs are 100% funded by private equity. Aside from properly reviewing and evaluating financial sources, to ascertain legitimate equity, the focus should always be towards the caliber of the equipment and operation that the consumers of Cayman Islands must rely on."

Office Response

112. The Office noted Gemstar's suggested weighting criteria but disagrees with the heavily-biased 90% on price and technology. Since non-price components are to be included in the evaluation criteria a best practice weighting of 70% price and 30% non-price may be used.

M) Question 14(13)

Are there other evaluation criteria/principles that the office should consider to ensure the scheme meets its objectives?

113. Gemstar states that *"through exhaustive research of other existing REAS-type schemes feel the proposal speaks well to almost all the necessary criteria. Although, in the financial and environmental criteria, GEC Group feels there is a general risk-adverse approach that is beyond achievable in a practical sense, and business sense. The objectives can still be met with a "water-down" version of the same criteria. Indeed, alt criteria is correct in that they need to be addressed, but the risk-adverse approach is too burdensome to all bidders and does not necessarily achieve the objectives of the auction."*

Office Response

114. The Office noted Gemstar's research has proven that the REAS considers almost all of the necessary criteria for an auction scheme. The Office considers that the approach being taken is not risk-averse but is rather a prudent means of ensuring that the auction outcomes are met.

N) Question 15(14)

Are the costs associated with developing a proposal to bid into the scheme based on addressing the above criteria effectively likely to be prohibitive?

115. Gemstar states that it *"is of the opinion that the development of a bid as outlined in Appendix 1, Scheme structure and Requirements, is prohibitive ONLY to small actors. Where competition is the key to all auctions, by placing cost burdens as barriers to fair and competitive bidding is self-defeating. Thought needs to be extended in these principal areas as the relate to the bids;*
- 1. Land acquisition timing and securing and legal implications*
 - 2. Grid connection negotiations and legal implications*
 - 3. Environmental evaluation costs and legal implications*
 - 4. Planning and permit costs and legal implications*
 - 5. Duty costs*
 - 6. Labour permitting costs"*

Office Response

116. Please see the Office's response at paragraph 106.

4.5 Ironwood Renewables

A) Question 1

The REAS proposes that a measure whereby all renewable energy capacity available be allocated through a competitive bidding process via auctions. Do the respondents agree with the competitive auction based approach? If not, what alternative model would you propose and why?

117. Ironwood Renewables agrees with the competitive auction based approach.

Office Response

118. Ironwood Renewables' comments were noted.

B) Question 2

Do you have any comments on the way in which we propose to establish the renewable energy auction scheme?

119. Ironwood states that *"price is of course an important factor and a primary factor by which projects should be assessed, however project maturity and risk of execution is similarly important to avoid repeat procurements for the same MW allocations."*

Office Response

120. The Office noted Ironwood Renewables comments and agrees that project maturity and risk of execution are important criteria necessary to avoid repeat procurements for the same capacity allocations. This is precisely why a multi-criteria valuation system is being proposed.

C) Question 3

Do respondents agree with the proposal to hold periodic auctions e.g. every two years, over the course of the lifetime of the scheme, to take advantage to falling costs and reduce the impact on the electricity consumer? What changes if any would you make to this proposal?

121. Ironwood Renewables states that it agreed with the proposal for periodic auctions.

Office Response

122. Ironwood Renewables' comments were noted.

D) Question 4

How much notice should be provided to industry of upcoming auctions?

123. Ironwood Renewables states that *"6 months' notice is preferable to industry to prepare and finalise project execution to ensure that sufficiently mature projects are bid into the auction."*

Office Response

124. The Office noted Ironwood Renewables suggestion and will take it into consideration. Sufficient time will be given for consultation and bid preparation.

E) Question 5

Should capacity be auctioned in consistent capacity tranches (e.g. 5MW, 10 MW, etc.)?

125. Ironwood Renewables states that "*the size tranches of projects within a given auction year are less important than cost and maturity. Across auction years, a meaningful (multi-project) first year procurement is important followed by clear expectations of what will be auctioned when. Consistent volumes across auctions isn't particularly important from our prospective.*"

Office Response

126. The Office subscribed to the generally accepted rule of establishing a clear and predictable schedule of auction rounds, with the specific volumes that the agency hopes to procure in each round. This helps create more stability and certainty in the market, and can play a significant role in driving economic diversification and job creation by encouraging the growth of a diverse local supply chain.

F) Question 6

What would be appropriate minimum project sizes (both in general and for large-scale solar)?

127. Ironwood Renewables states that the "*minimum project size should be 1MW to ensure minimum viable pricing to CUC.*"

Office Response

128. The Office noted Ironwood Renewables suggestion and will take it into consideration.

G) Question 7

Should the proportion of solar be different post 2021 to allow technology costs to come down?

129. Ironwood Renewables states that *"an initial auction with multiple sizeable projects being contracted is important for the overall long term cost reductions in Cayman solar EPC and O&M services. While there are technological and module cost improvements expected, having clear precedent for EPC and O&M from the 2021 auction will provide greater certainty on cost and reduce the effective rate to CUC consumers."*

Office Response

130. The Office noted Ironwood Renewables suggestion and will take it into consideration.

H) Question 9(8)

Do you agree that planning approval, grid connection, and bid bonds/penalties criteria should be met before projects can proceed? What other pre-qualification criteria (if any), would you like to see introduced?

131. Ironwood Renewables states that it does not believe that *"these should be binary to submit to the procurement and secure, however we do believe that qualitatively giving priority to more mature projects with as much risk (planning and grid) reduced as possible. Bid securities are necessary and the norm in industry procurements."*

Office Response

132. The Office noted Ironwood Renewables comment and will take it into consideration.

I) Question 10(9)

Do you have any comments on the information which must be submitted by potential/existing bidders?

133. Ironwood Renewables states that *"clear guidelines on scoring metrics and clear timeline with a draft PPA prior to bidding would [be] optimal."*

Office Response

134. The Office intended that the bid evaluation process will be based on clear, point-based criteria and designed to the extent possible that the project selection process is unbiased and transparent. The PPA is negotiated by the parties and is subject to OfReg's approval. The offtaker can prepare a draft PPA which OfReg will review to determine if it is fit for purpose and issue it prior to bidding.

J) Question 11(10)

Please express any concerns about the impact of the new renewable energy auction scheme on electricity service providers?

135. Ironwood Renewables states that it had no concerns.

Office Response

136. Ironwood Renewables' comments were noted.

K) Question 12(11)

What do stakeholders think of the proposed evaluation criteria set out in the scheme?

137. Ironwood Renewables states that "*moving to a non-binary threshold on planning approval and instead scoring on a gradient around siting risk would be preferred.*"

Office Response

138. Ironwood Renewables' comment was noted.

L) Question 13(12)

Do stakeholders have views on how evaluation criteria might be weighted?

139. Ironwood Renewables states, "*no proposed modification.*"

Office Response

140. Ironwood Renewables' comment was noted.

M) Question 14(13)

Are there other evaluation criteria/principles that the office should consider to ensure the scheme meets its objectives?

141. Ironwood Renewables states, "*no proposed modification.*"

Office Response

142. Ironwood Renewables' comment was noted.

N) Question 15(14)

Are the costs associated with developing a proposal to bid into the scheme based on addressing the above criteria effectively likely to be prohibitive?

143. Ironwood Renewables states that "*project development is expensive, however with non-binary project maturity requirements then the cost should not be prohibitive.*"

Office Response

144. The Office noted Ironwood Renewables comment and will take it into consideration.

4.6 Roger Southam

A) Question 1

The REAS proposes that a measure whereby all renewable energy capacity available be allocated through a competitive bidding process via auctions. Do the respondents agree with the competitive auction based approach? If not, what alternative model would you propose and why?

145. Roger Southam states that he agreed with the competitive auction based approach.

Office Response

146. Roger Southam's agreement was noted.

B) Question 2

Do you have any comments on the way in which we propose to establish the renewable energy auction scheme?

147. Roger Southam states that he agrees.

Office Response

148. Roger Southam's agreement was noted.

C) Question 3

Do respondents agree with the proposal to hold periodic auctions e.g. every two years, over the course of the lifetime of the scheme, to take advantage to falling costs and reduce the impact on the electricity consumer? What changes if any would you make to this proposal?

149. Roger Southam states that "it is not known how long the authorisation process will take after the auction which makes this difficult to comment on."

Office Response

150. Roger Southam's comment was noted. The Office is aware that historically, setting regularly scheduled auctions helps facilitate market predictability to investors, and could result in lower bid prices.

D) Question 4

How much notice should be provided to industry of upcoming auctions?

151. Roger Southam states four (4) months.

Office Response

152. Roger Southam's comment was noted.

E) Question 5

Should capacity be auctioned in consistent capacity tranches (e.g. 5MW, 10 MW, etc.)?

153. Roger Southam states that "*tranches by 10MW is fine.*"

Office Response

154. Roger Southam's comment was noted.

F) Question 6

What would be appropriate minimum project sizes (both in general and for large-scale solar)?

155. Roger Southam states that "for AD (anaerobic digestion): 1.5MW project size; we have no experience in other renewable energy sources."

Office Response

156. Roger Southam's comment was noted. The Office acknowledges that AD plants can play a key role in the production of RE as well as the reduction of Greenhouse Gases (GHGs).

G) Question 7

Should the proportion of solar be different post 2021 to allow technology costs to come down?

157. Roger Southam states that he delivers "AD energy and are not operating in solar power, therefore no comment on this question."

Office Response

158. The Office acknowledged Roger Southam's response.

H) Question 9(8)

Do you agree that planning approval, grid connection, and bid bonds/penalties criteria should be met before projects can proceed? What other pre-qualification criteria (if any), would you like to see introduced?

159. Roger Southam states that he does not believe that *“these should be binary to submit to the procurement and secure, however we do believe that qualitatively giving priority to more mature projects with as much risk (planning and grid) reduced as possible. Bid securities are necessary and the norm in industry procurements.”*

Office Response

160. Please refer to the Office’s response at paragraph 132.

I) Question 10(9)

Do you have any comments on the information which must be submitted by potential/existing bidders?

161. Roger Southam states that he agrees with the list and also suggest a list of references be included.

Office Response

162. The Office noted Roger Southam’s agreement.

J) Question 11(10)

Please express any concerns about the impact of the new renewable energy auction scheme on electricity service providers?

163. Roger Southam states that he has no concerns with this.

Office Response

164. Roger Southam’s comment was noted.

K) Question 12(11)

What do stakeholders think of the proposed evaluation criteria set out in the scheme?

165. Roger Southam states that "it feels too weighted on price and we suggest a 50/50 evaluation like 50% CAPEX, 50% Experience (know-how)."

Office Response

166. The Office noted Roger Southam's suggested weighting criteria but disagrees with the 50/50 evaluation method. Since non-price components are to be included in the evaluation criteria a best practice weighting of 70% price and 30% non-price may be used.

L) Question 13(12)

Do stakeholders have views on how evaluation criteria might be weighted?

167. Roger Southam states that he suggests a 50/50 evaluation like 50% CAPEX, 50% experience (know-how).

Office Response

168. Please refer to the Office's response at paragraph 166.

M) Question 14(13)

Are there other evaluation criteria/principles that the office should consider to ensure the scheme meets its objectives?

169. Roger Southam's suggests that consideration of the costs of the OPEX.

Office Response

- Roger Southam's comment was noted.
170.

N) Question 15(14)

Are the costs associated with developing a proposal to bid into the scheme based on addressing the above criteria effectively likely to be prohibitive?

171. Roger Southam's states that he does not feel it should be prohibitive, but the handling of the first tranche will directly impact and effect subsequent tenders."

Office Response

172. Roger Southam's opinion was noted.

4.7 Private Individual (Citizen)

173. As the response from Private Individual was received by the Office after the deadline without a satisfactory explanation for the delay, the Office made the decision not to accept his submission to this Consultation.

5. Cross Submissions

174. The Office did not receive any cross submissions as of the deadline on 10 January 2020. The Office then extended the deadline from 10 January 2020 to 31 January 2020.
175. The Office then received 2 cross submission(s) from BMR Energy and CUC.

5.1 BMR Energy

176. BMR Energy cross-submission was dated 4 February 2020. In its' submission, BMR Energy states that it would like to emphasise that for a successful auction process and implementation of renewable generation, there needed to be "*open and transparent competition*", "*use of commercially proven technology*" and "*qualified and experienced bidders*".
177. BMR Energy "*fully support that all renewable energy capacity be procured through a competitive bidding process via auctions led or overseen by OfReg.*" It states that "*competitive solicitations cause*

bidders to be creative and disciplined in their submissions particularly if security is posted to stand behind offers.”

178. BMR Energy states that *“the use of commercially proven technology will lead to more development and operational certainty.”* It believes that *“the Cayman Islands should not risk achieving the goals outlined in the IRP nor the ratepayer benefits offered by proven renewable energy technology by taking on the risk of a failed project which is inherent in technologies that are not commercially proven”.*
179. In addition, it holds the position that *“it is important the solicitation only be open to qualified and experienced bidders with direct experience in the Caribbean.”* BMR Energy states that it *“acquired two solar projects in the Caribbean”* previously and it *“strongly urges that both direct Caribbean renewable experience and financial capability be applied as qualification criteria.”*

Office Response

180. The Office noted the comments made in BMR’s cross-submission and reiterates that its objective is to develop and implement an efficient, effective and transparent REAS that assists in meeting Cayman’s NEP goals. Drawing on international experiences and key lessons learnt, the REAS will contain financial and physical pre-qualifications and penalty criteria to boost realisation rates. Elements such as approved technologies, financial capacity, project experience, among others are to be incorporated in the design.

5.2 CUC

A) Question 1

The REAS proposes that a measure whereby all renewable energy capacity available be allocated through a competitive bidding process via auctions. Do the respondents agree with the competitive auction based approach? If not, what alternative model would you propose and why?

181. CUC states that it agrees that the REAS is a possible measure to procure utility scale renewable energy, albeit only when considered in larger volumes. Therefore, CUC does not agree with Ironwood Renewables, BMR Energy, CREA and Roger Southam *“that the proposed competitive auction based approach will be the most cost*

effective, timely or efficient way of deploying renewable energy to the Cayman islands.”

182. In addition, CUC holds the position that the European Bank for Reconstruction and Development paper “*Competitive Selection and Support for Renewable Energy*” Policy Guidelines, March 2018 is “*not necessarily the most suitable guiding document to be utilised in the design elements of an unsubsidised auction scheme for the Cayman Islands.*” CUC notes that the policy guidance document “*refers to thresholds which state the lower limit which competitive bidding processes do not need to be employed and stresses the focus of the guidelines is on larger projects, which fall above those thresholds.*”
183. Lastly, CUC recommends “*that further literature and case studies are studied to assess the feasibility, cost and value of implementing a competitive renewable auction scheme with relatively small volumes in a developed island state with a small islanded network.*”

Office Response

184. The Office noted CUC’s position which is contrary to the support for the REAS shown by four other stakeholders. As indicated in the consultation paper we quoted the European Bank for Reconstruction and Development paper “*Competitive Selection and Support for Renewable Energy*” Policy Guidelines, March 2018 as a guideline however, this is not the only research that has been conducted. The Office remains of the view that implementing the REAS is consistent with the NEP goals. Accordingly, the REAS will rely on competitive forces to achieve renewable energy ambitions at the lowest feasible cost to electricity customers.

B) Question 2

Do you have any comments on the way in which we propose to establish the renewable energy auction scheme?

185. CUC states that it agrees with Gemstar’s views, in response to question 2, that “*auctions do not operate efficiently in smaller markets; however, CUC disagrees with the suggestion of creating unbalanced evaluation criteria which favour “small actors” or reduce financial or pre-qualification requirements to any form of regulatory procurement scheme.*”

186. According to CUC, “it is not immediately clear what a “small actor” is classified as” and believes that *“inclusion of the evaluation criteria to favour this could be seen as uncompetitive and as uneconomic.”* CUC holds the view that *“the use of stringent qualification criteria (Structure, Financial, Technical, Legal, Environmental and Land), appropriate-sized financial guarantees (e.g. bid & performance bonds), and effective penalty mechanisms ensures high project realization rates.”*

Office Response

187. Contrary to CUC’s and Gemstar’s views, research by the Office has shown that properly designed auctions can work efficiently in smaller markets. The Office is aware that any loosening of pre-qualification requirements may have negative consequences for example, the risk that a project may not be built. As a trade-off, consideration may be given to incentives such as reserving a share of the total volume auctioned for small actors (who will have to be classified), and/or streamlining of site-specific documentation acquisition.

C) Question 3

Do respondents agree with the proposal to hold periodic auctions e.g. every two years, over the course of the lifetime of the scheme, to take advantage to falling costs and reduce the impact on the electricity consumer? What changes if any would you make to this proposal?

188. CUC did not submit a cross-submission in response to this question.

Office Response

189. N/A

D) Question 4

How much notice should be provided to industry of upcoming auctions?

190. CUC did not submit a cross-submission in response to this question.

Office Response

191. N/A.

E) Question 5

Should capacity be auctioned in consistent capacity tranches (e.g. 5MW, 10 MW, etc.)?

192. CUC did not submit a cross-submission in response to this question.

Office Response

193. N/A.

F) Question 6

What would be appropriate minimum project sizes (both in general and for large-scale solar)?

194. CUC did not submit a cross-submission in response to this question.

Office Response

195. N/A.

G) Question 7

Should the proportion of solar be different post 2021 to allow technology costs to come down?

196. CUC did not submit a cross-submission in response to this question.

Office Response

197. N/A.

H) Question 9(8)

Do you agree that planning approval, grid connection, and bid bonds/penalties criteria should be met before projects can proceed? What other pre-qualification criteria (if any), would you like to see introduced?

198. CUC disagrees with BMR that *“the bid requirements for planning approval, grid connection and an estimate of costs from the T&D licensee are not typical in renewable auction schemes.”* CUC states that *“it is best global best practice that the proposed bidder would have*

an estimate of costs, or a cost estimate letter from the T&D Licensee prior to bidding.”

199. Nonetheless, CUC agrees with BMR that consideration needs to be given to the *“which various approvals should be obtained.”* CUC believes that if obtaining approvals is “a requirement for qualifying as an eligible bidder”, it will then remove any uncertainty regarding bids. However, CUC notes this *“would impose a cost on the agencies to who requests for approvals were submitted and would probably delay the point at which a bid could [be] submitted for consideration.”*
200. CUC holds the position that *“if the requirement to obtain full approvals is deferred until projects are Preferred Projects then time and cost can be saved.”* CUC would suggest that such approvals are addressed in two stages. CUC recommends that interconnection studies “should only be done for preferred projects”. In terms of CPA and DoE approvals, CUC would suggest that “the Office liaise with these agencies to reach a position where they can give guidelines for projects that are not Preferred Projects”.

Office Response

201. Please refer to the Office’s response at paragraph 76 . The Office noted CUC’s recommendation and will take this into consideration.

l) Question 10(9)

Do you have any comments on the information which must be submitted by potential/existing bidders?

202. CUC agrees with Ironwood Renewables’ suggestion that “a standard PPA project document prior to bidding is optimal, common in auction schemes and is industry norm in mature electricity markets.” CUC is willing to provide a standard PPA.

Office Response

203. The Office noted CUC’s willingness to provide a “standard PPA” document prior to bidding and welcomes this initiative. However, this document must first be approved by The Office prior to execution by the parties.

J) Question 11(10)

Please express any concerns about the impact of the new renewable energy auction scheme on electricity service providers?

204. CUC holds the position that *“the Cayman Islands are a developed country and it is difficult to compare what has been implemented on other less developed Caribbean islands”* in response to BMR’s response. CUC believes that the jurisdiction that should be comparing itself to more mature markets.
205. CUC notes that *“no substantive evidence is provided to the statement that there has been no impact on the reliability of service from the introduction of renewable energy generators on other islands.”* CUC provides the example of the installation of a 22 MW battery by the Jamaica Public Service Company in order to *“assist with maintaining consistent power supply and to curtail the power fluctuations that were being experienced on the grid.”*
206. CUC notes that Ironwood Renewables, BMR Energy, CREA and Roger Southam have not *“provided any substantive feedback on issues of backup, dispatch ability and ramping requirements that the proposed projects and auction scheme would entail.”* CUC holds the opinion that *“the concept of buying all energy from an independent power producer, whether it suits the Cayman Islands demand profile or not [Sic. not], has the potential to introduce much higher cost on the T&D Licensee and its generators for remedial actions measures to ensure the T&D Licensee can maintain quality of supply commitments to as per its license.”* Therefore, resulting in cost absorption by consumers.
207. CUC holds the opinion that *“the REAS in its current format”* will *“force the T&D Licensee to take uneconomic mitigation steps to ensure that reliable electricity is supplied to customer.”* In addition, *“if cost is a consideration in evaluating proposals (as it must be) then those needs will have to be identified when proposals are assessed and means will have to be found to fund them.”*
208. CUC, in summarising its position, recommends that *“the technical specifications for the RE plant require minimum ramp rates and an element of dispatchability.”*

Office Response

209. Please refer to the Office's response to CUC at paragraph 81.

K) Question 12(11)

What do stakeholders think of the proposed evaluation criteria set out in the scheme?

210. CUC did not submit a cross-submission in response to this question.

Office Response

211. N/A

L) Question 13(12)

Do stakeholders have views on how evaluation criteria might be weighted?

212. CUC did not submit a cross-submission in response to this question.

Office Response

213. N/A

M) Question 14(13)

Are there other evaluation criteria/principles that the office should consider to ensure the scheme meets its objectives?

214. CUC did not submit a cross-submission in response to this question.

Office Response

215. N/A

N) Question 15(14)

Are the costs associated with developing a proposal to bid into the scheme based on addressing the above criteria effectively likely to be prohibitive?

216. CUC did not submit a cross-submission in response to this question.

Office Response

217. N/A

Additional comments by CUC

218. CUC addresses CREA's submission, and made the following comments.
219. CUC disagrees with CREA's approach on an economical basis, and holds the position that the *"initial focus should be on allocating capacity toward utility scale generation first to provide the lowest price to consumer while simultaneously allowing DER's to participate in the DER Program."*
220. CUC also disagrees with the statements that the "utility scale generation does not account for environmental impacts", and that *"utility scale solar projects would be required to obtain consent from the National Conservation Council prior to obtaining Central Planning Authority Approvals."*
221. In response to CREA's point no. 1, CUC strongly recommends that OfReg considers the practicalities regarding DG installations which can substantially increase levelised costs, when analysing the *"installation complexities and spatial constraints."*
222. In response to CREA's point no. 2, CUC agrees that an increase of distributed renewable capacity will assist in meeting the NEP targets and *"the DER Programme is currently set up to facilitate development in this sector"*. CUC holds the position that *"there are currently no barriers to initiate development activities for these types of systems and once the utility scale battery storage project is brought into commercial operation, an increased amount of DER capacity will be allocated."*
223. In response to CREA's point no. 3, CUC disagrees with creating specific spatial constraints and allocating tranches of auction capacity as it believes that *"it would lead to an artificial price which would be absorbed by the consumer."* CUC's opinion is that *"the most competitively priced DER systems should be developed and would be the most beneficial to the end consumer."* CUC states that *"at present there is greater value of charging EVs outside of peak demand times"* and with increased renewable penetration, CUC will adjust the tariff

schedule accordingly to incentivise consumers to charge EVs at times of surplus generation.

224. In response to CREA's point no. 5, CUC states that *"it is not immediately clear why there should be preference given for projects which should be able to compete against other readily available commercial technologies."*
225. Lastly, in response to CREA's point no. 6, CUC agrees with *"the focus of creating local jobs, building expertise and marking Cayman a destination for renewable energy excellence."* CUC states that should it develop generation, *"it would be largely developed by a local workforce and maximise local opportunities."*

Office Response

226. The Office has previously addressed most of these matters in its initial response to CREA's comment at paragraph 60. The Office also opines that the REAS's initial focus should be on utility-scale plants in order to deliver the least cost electricity to consumers. Also that large-scale solar systems provides workforce opportunities in construction, operations, and maintenance activities and helps develop industry expertise.

6. Determinations

227. The Office has carefully considered all comments and suggestions in response to the draft REAS Structure and Requirements, and incorporated appropriate modifications and clarifications.
228. Pursuant to Sections 9. 2. (f), 9. 5. (a), (f) and (i) of the ESR Law, the Office determines that the REAS which will rely on competitive forces to achieve the NEP's renewable energy ambitions of 70% by 2037 at the lowest feasible cost to electricity customers while delivering technology diversity, be adopted and implemented.
229. The Office recognises that considerable thought and effort was put into the submissions, as evidenced by the comments received. We thank respondents for their comments and look forward to implementing a successful REAS auction and the speedy delivery of renewable energy projects that will be supported under the scheme.

Appendix 1

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Final Renewable Energy Auction Scheme Structure and Requirements

1. The Renewable Energy Auction Scheme ('the REAS') will involve a series of tranching auctions for renewable energy capacity. Important considerations, for these auction tranches, will be a) how they are staged; b) what renewable energy technology will be auctioned; and c) how auctioned capacity meets the Government's National Energy Policy ('NEP') objectives.
2. The scheme will be designed as a series of single step, closed-bid auctions in the years to 2037 that are initiated by the issue of a combined Request for Qualification and Proposal ('RFP'). Each tender or auction makes available a total amount of megawatts ('MWs') in specific technology categories. Bids are due within three (3) months of the RFP and are screened initially for compliance with general requirements and qualification criteria. Compliant bids are then evaluated on a comparative basis and Preferred Bidder status is awarded to the highest ranked projects within the total MW allocation. Financial Close ('FC') and signing of contracts is expected within nine (9) – twelve (12) months and Commercial Operation Dates ('CODs') within twenty-four (24) – thirty-six (36) months of signing the Power Purchase Agreement ('PPA').
3. The Integrated Resource Plan ('IRP') prepared by Caribbean Utilities Company, Ltd., in 2017 and accepted by the Office in 2018 provides a roadmap of what new generation capacity is needed, and from which sources. The Office, in issuing new generation licences is guided by this IRP.
4. The IRP suggests/recommends a technology split that comprises of: an annual capacity of 25MWs generated from utility-scale solar be added to the grid from 2021-2023; 20MWs in 2024, 20MW in 2029 and 2030; a capacity of 20MWs generated from energy storage be added to the grid in 2022, and another 40MWs in 2030. A phased capacity generated from utility-scale wind power to be added to the grid of 3MWs in 2023, 8MWs in 2024, 14MWs in 2025, 3MWs in 2026, 2MWs in 2028, 6MWs in 2035, 5MWs in 2042 and 3MWs in 2045. The Office will consider combining the tranches of utility-scale wind power where appropriate to achieve economies of scale.
5. The Office understands that it is important that certainty, in relation to the auction scheme requirements, is provided to industry to ensure that an adequate slate of projects is available to meet the targets. It also recognises that the requirement to provide industry with sufficient notice of upcoming auctions will need to be balanced against the need to maintain some flexibility for the Office to adjust the scheme where the market changes significantly.

6. The Office intends to address these issues by regularly committing to a pipeline of auctions with defined capacity amounts, with the first commitment to be the auction schedule in 2021. Consequently, 25MWs of utility-scale solar renewable energy is available for allocation for RE projects in 2021, with the remainder of RE projects available for future bid rounds. The firm auction date together with the respective amounts to be auctioned will be announced at least sixty (60) days before an auction is undertaken.
7. There will be two distinct sets of criteria in the bid evaluation process. These are the compliance requirements, outlined in the General Requirements and Qualification Criteria; and the scoring criteria, outlined in the Evaluation Criteria. In the first stage, bid submissions are assessed to determine whether they are “Compliant Bids”. A Compliant Bid is one that meets both general requirements (Part A of the RFP) and meets or exceeds numerous prescribed thresholds (Part B of the RFP) to qualify for the second stage. The latter stage involves the comparative evaluation (Part C of the RFP) of all Compliant Bids based on price (70%), non-price (20%) and a basket of Economic Development criteria (10%).

General Requirements (Part A of the RFP)

8. Part A provides an overview of the REAS, its’ key players and governing laws. It also provides information for the relevant bid submission phase, such as the maximum capacity in megawatts available for tender per technology, price caps per technology to ensure bid tariffs are within acceptable limits and a timetable with deadlines for each stage of the bid window (‘BW’). Lastly, it lists general requirements for participation, and in many cases introducing criteria which are then detailed in Part B.

Eligible Bidders, Documentation Fee and Registration

9. The RFP will be available internationally, provided that each entity wishing to obtain a copy of the RFP pays a nonrefundable documentation fee of CI \$250.00. In order to be eligible for participation in a particular bid submission phase, a prospective bidder must first be deemed a “Qualified Bidder” by the Office based on the Statement of Qualifications (‘SOQ’) submitted to the Office, and pay the above non-refundable documentation fee on or before the prescribed Bid Registration Date.
10. The SOQ should contain information with respect to the prospective bidder’s expertise and experience, which must be relevant to establishing an electrical energy generating facility on Grand Cayman. In addition, the SOQ shall provide evidence of the prospective bidder’s financial status in sufficient detail to enable the Office to be assured that the bidder would be capable of financing these projects and remain financially viable for the term of the PPA.
11. The SOQ will also serve as an expression of interest in submitting a bid and assurance that the prospective bidder’s intended generation project would satisfy the technical criteria in the renewable energy project.

Contractual Agreements

12. A requirement of the REAS competitive tenders is that IPPs must negotiate PPAs, Inter-connection Agreements ('IAs') and/or Transmission Agreements with the respective Transmission & Distribution ('T&D') Licensee. The T&D Licensee has to buy all generated electricity for the auctioned price. Bidders are not permitted to mark up the draft PPA, IA, or Connection Agreements provided with the RFP.
13. Qualified Bidders will be provided a period in which to negotiate and finalise other contracts and project documents (such as those with contractors, equipment suppliers and lenders). In addition, bidders are required to obtain a budget quotation from the respective T&D licensees in respect of connection works in the same period. These are all prerequisites for concluding the IA and other aforementioned Agreements.

T&D licensees' Requirements and Interface

14. Qualified Bidders are expected to approach the relevant T&D Licensee to obtain information on grid capacity and potential constraints when selecting project sites. The Office then confirms grid capacity with the T&D Licensee during its evaluation of the bidders' bid responses.
15. The RFP will outline different ways in which "interconnection works" – i.e. those required for the dedicated IPP connection to the grid - may be undertaken. Bidders are required to provide statements clarifying the parts of the connection works that they will undertake, own and operate and must clearly define the interface with the T&D Licensee.

Generation Licence

16. Upon being selected as the winning bidder, the project company, after having signed a PPA with the T&D Licensee, must apply for a generation licence from the Office as required by the Electricity Sector Regulation Law.

Bid Guarantee and Qualified Bidder Guarantee

17. Upon bid submission, bidders are required to provide the Office with an unconditional, irrevocable Qualified Bidder Guarantee of CI \$5,000.00 per MW of contracted capacity for the proposed project. Once provisionally informed of its Qualified Bidder status, each IPP has fifteen (15) days to lodge a new guarantee (the 'Qualified Bidder Guarantee') with the Office for an even greater CI \$10,000.00 per MW of contracted capacity. Only thereafter will it officially be appointed as a Qualified Bidder.

18. The purpose of bid guarantees is to disincentivise bidders from submitting unrealistic proposals by inexperienced bidders who subsequently struggle to finance and deliver on their project as it was proposed. For example, the Qualified Bidder Guarantee may be forfeited to the Office if the qualified bidder fails to: comply with any conditions contained in the letter of appointment as qualified bidder; sign any of the required contracts within the time period specified under the RFP; or pay the development fee when prescribed (although this is not an exhaustive list). “The inclusion of high penalty costs helps to ensure that bids are as fail-safe as possible.” (Papapetrou, 2014).

Bid Validity Period

19. The RFP requires that bid submissions constitute valid and irrevocably binding offers for one hundred and eighty (180) calendar days from the submission date.

Bid Currency

20. All monetary amounts in the bid response must be presented in US dollars.

Briefing Notes

21. Briefing Notes will be issued by the Office on an ad hoc basis, either to supplement or amend information in the RFP or in response to a bidder-requested clarification. They are thereafter deemed to be part of the RFP and require equal compliance upon bid submission. The Office will strive to release the last Briefing Note no later than ten (10) days before the relevant bid submission date.

Qualification Criteria (Part B of the RFP)

22. Part B of the RFP elaborates on several requirements introduced in Part A (General Requirements) and introduces new criteria with which the bidder must comply to qualify for the final evaluation. These Qualification Criteria are divided into eight categories, detailed below. In broad terms projects that “qualify” for comparative evaluation are those that are technically, financially and legally qualified, as well as having sufficient experience, commitment and resources, to execute the project as submitted. Each submission must therefore meet or exceed all prescribed thresholds (per criterion) to be considered a Compliant Bid.

Structure of the Project

23. Bidders must provide a blueprint of the project’s structure as well as identify and explain the Project Company (even if it was not yet established at the bid submission date), equity participants, funders, contractors and the shareholders of the entity respectively.

Legal Criteria and Evaluation

24. Bidders must provide proof that they will comply with all applicable Cayman Islands laws relating to their eligibility to vie to provide renewable energy generation systems.

Land Acquisition and Land Use Criteria and Evaluation

25. The criteria requires bidders to submit documents that provide sufficient proof of land acquisition. Acceptable instruments or agreements include copies of the extract from the Cayman Islands Land Register showing the “Property, Proprietorship and Incumbrances” sections for the project site or a copy of a lease attested to by an Attorney-at-Law, together with an extract evidencing that it has been registered or is capable of registration by the IA effective date in the Land Register for the site (with a copy of the extract) for the duration of the PPA. Alternatively, bidders may submit (together with the relevant site extract) an unconditional land option (to purchase or lease), lease or sale of land agreement exercisable at the bidder’s choice and which allows them to secure the same real rights obtained via the aforementioned land registration or lease agreement and so certified by an Attorney-at-Law. Lastly, in a situation where the project site Land Registration documents are unavailable at the date of bid submission (for example the Registrar is in the process of registering the transfer of ownership to the bidder), the RFP permits the Certificate of an Attorney-at-Law in their place. This is conditional upon the Attorney-at-Law providing a full explanation for the lack of documentation, and must include copies of the Transfer of Land Form (Form RL1.), and bidders assuming the risk of ensuring it will be obtained without delaying FC.
26. The proof of land acquisition may not be required if the land on which the project is to be developed has been pre-selected by Government for renewable energy development.

Environmental Consent Criteria and Evaluation

27. Bidders must pass both general and technology-specific sub-criteria under the Qualification criterion, and provide evidence that all requisite environmental consents listed in the RFP have been obtained by bid submission.
28. The primary requirement across all technologies is an Environmental Authorisation permit per project, in the name of the Project Company, as required by the Department of Environment (‘DOE’). To achieve this, the Project Company must conduct an Environmental Impact Assessment (‘EIA’). The EIA is required when a project’s capacity exceeds 5MW or it covers an area greater than 1 hectare.
29. Bidders must submit hard copies of the Environmental Statement (‘ES’), and include details of any objections to the facility’s development raised during any public participation process as well as appeals to any Environmental Consent required by

the project. The Office may deem the bid insufficient to pass the criterion where the relevant appeal or review period has not expired by bid submission.

30. The environmental consent criteria and evaluation may not be required if the land on which the project is to be developed has been pre-selected by Government for renewable energy development.
31. When pre-selected sites are available, they will be used in alternation through different auction windows where developers are free to select their own sites. This alternation between pre-selected and self-selected sites intends to ensure a more level playing field between different types of developers.
32. Other technology-specific consents required. Wind projects must also include proof of consent from the Cayman Islands Civil Aviation Authority to erect potential obstacles to aviation. If any of the requisite authorisation or documentation submitted is subject to conditions, the Office reserves the right to consider these conditions and determine whether the bidder is in a position to comply. If not, the bidder will not pass this criterion. Upon being selected as Qualified Bidders they are required to demonstrate that all applications have been made and are progressing adequately so as not to delay FC.

Financial Criteria and Evaluation

33. The financial qualification criteria broadly relate to the bid price and related financial proposal. Four key criteria are assessed under this category.

Price

34. Price only bid: Bidders will be required to submit fully indexed prices (based on CPI inflation and partially indexed USPPPI. Pay-as-bid pricing rule is proposed as this is a common feature in auctions used globally e.g. in France, Germany, California and many other countries.

Financial Standing

35. This sub-category requires disclosures in respect of the funding that a bidder proposes to use for its project. Where projects will be wholly or partially funded by corporate/equity finance, bidders must provide the identity of all providers/members, respectively, as well as the value of the contribution from each and the source of finance (for example, reserves, parent company, external sources, development banks or similar institution). Where corporate financing will be used, the bidder is required to provide the audited financial statements for the latest three (3) financial years of the entity that is the ultimate provider of finance and providing the guarantee on which the corporate finance is based. In the case of equity finance, the audited financial statements for the latest three (3) financial years must be provided for each ultimate provider.

36. Additionally, the bidder must demonstrate in the bid response that the net assets of each ultimate corporate and/or equity finance provider(s) over the past three (3) years have been at least 100% of the finance it is proposing to put towards the bid project (“net asset test”), or that the provider has a proven track record in the past five (5) years of raising corporate/equity finance (as applicable), to the equivalent of at least 100% of its proposed finance (“track record test”). A corporate finance guarantor must provide evidence of having raised corporate finance for its own account or for one of its subsidiaries in order to pass the above track record test. No reliance may be placed on the track record or third party entities or advisors to the guarantor.

Robustness and deliverability of funding proposal

37. Bidders must provide a clear breakdown of the sources of funds (equity, corporate finance and external debt) and their uses (capital expenditure, grid connection costs, contingency elements etc.). The bid response must also provide a plan, including a financial due diligence plan, setting out key activities and proposed dates for the achievement of FC within prescribed timeframes.

38. Another requirement common to all sources of finance is that letters of support must be provided by the ultimate finance providers. The letters of support require each financier to make a firm commitment and pledge that it has conducted a due diligence on the proposed project and can confirm accuracy of the bidder's documentation. Funders also have to acknowledge that they accept risk allocation as embedded in the PPA, IA and other agreements. Term sheets must be provided as well.

39. Where a project will use external debt the bidder must demonstrate that any of its members have a proven track record, in the last five (5) years, of raising external debt of a similar nature to that proposed by the bidder. In the case of multiple lenders, the bidder should clearly distinguish between Tier 1 and Tier 2 lender(s), where the former is responsible for the due diligence and the latter relies on this.

40. In addition to the above requirements, bidders only pass this threshold if they demonstrate a “robust mitigation strategy” i.e. a clear alternative plan to obtain funds in the event that their proposed finance provider becomes unable to do so on the terms stated. This demonstration also requires the provision of a letter of indicative support from the alternative funders, which states that they have held discussions with the bidder on this matter. Ultimately these financial qualification criteria aim to ensure that project bid are as fail-safe as possible.

Robustness of the financial models

41. Bidders must submit two financial models, namely the “Sponsor Case” (reviewed and agreed upon by equity/corporate finance providers, as applicable) and the “Banking Case” (reviewed and agreed upon by external debt providers). Alternatively one model capable of running both scenarios is permitted. Although the project bid price is the

same under both, the RFP requires that the “Sponsor Case” model be adopted for the purposes of the Implementation Agreement.

42. Lastly, bidders must submit a Declaration in respect of Success Payments, which are broadly defined as the reimbursements of costs incurred in the development of the bid project which will be payable only on achievement of FC. Possible examples include payments to site developers, free carry for equity members and success payments for equity and non-equity members. The quantum, rationale and timing of all success payments must also be disclosed and all such payments must be clearly identifiable in the submitted financial model.

Technical Criteria and Evaluation

43. Bidders must complete a standardised technical evaluation matrix as part of their bid response. This section also contains numerous requirements around grid connection. Firstly, all bidders must provide a signed letter stating that the project is able to comply with the applicable Transmission and Distribution Codes. The bid response must also clearly identify which parts of the interconnection works will be implemented by the bidder (dependent on whether they choose an own- or self-build basis), and the interface with works to be performed by the T&D licensee. Similar clarifications must be provided for which part of these works will later be owned and operated by the bidder versus the T&D Licensee.
44. Lastly, bidders are required to include an estimate of costs letter (‘ECL’), which provides an indicative timeline and cost of the required connection works from the relevant T&D Licensee. The onus is on bidders to apply in sufficient time to receive this ECL by submission date, and they assume all risk in relation to achieving grid connection by the Scheduled Commercial Operation Date (‘COD’) as per the PPA. Where the bidder intends to perform interconnection works on an own- or self-build basis, they must also supply an itemised cost estimate for their part. Upon being appointed Preferred Bidders, bidders must replace this ECL by obtaining a more up-to-date and accurate budget quote from the T&D Licensee (in relation to connection works) before signature date.
45. Technical specifications also include, but are not limited to:
 - Eligible capacity per bid project.
 - Eligible technology requirements (e.g. American and International Standards with which they must comply; certificates of proof that certain component models adhere to prescribed certification programme designs; components meet the “proven technology” requirements and demonstrate a minimum prescribed Technical Availability).
 - Forecast Energy Sales Report (this must have been conducted by a suitable energy resource assessor, and been independently reviewed by another assessor; both of whom are subject to minimum requirements and disclosures in terms of experience).

- Contracting Company capability requirements.
- Project schedule disclosures required and a deadline by which COD must be achieved.

Economic Development Criteria and Evaluation

46. The ability of projects to contribute to Cayman's economic development will also be viewed favourably. In particular, the contribution of projects to Caymanian jobs, maximising local content, promotion of local industry competitiveness, regional development and broader economic benefits, will factor into the auction evaluation.

Evaluation Criteria (Part C of the RFP)

47. All Compliant Bids proceed to the second stage in which they are subject to a comparative evaluation. The scoring of bid submissions is split between price (70%), non-price (20%), and ED criteria (10%).

Price Scoring

48. For each Compliant Bid received, the office requires that Qualified Bidders submit firm basis pricing for each technology they plan to bid on.

Overall Scoring

49. The bidder's price score out of seventy (70) points and its non-price criteria score out of 20 points together with its score out of 10 points in respect of ED Criteria, are added together for a final combined score. All bids for a particular technology are then ranked and Preferred Bidders are appointed, giving consideration both to those highest ranked and to the maximum MW available per technology in the relevant bid round.

Penalties

50. There will be a penalty for total non-compliance, i.e. failing to realise the project within the contracted time period. A new installation will be required to start generation within thirty-six (36) months. For solar PV installations a period of 24 months applies, and for onshore wind installations a period of thirty-six (36) months applies. The proposed penalty for total non-compliance is US\$12,750 per MW contracted installation capacity.

51. There is also a proposed penalty for production deficit, i.e. failing to deliver the full contracted electricity volume. Delivering less than 85% of the offered volume in a settlement period of three (3) years will result in a financial penalty at the rate of 50% of the awarded price times the total undelivered electricity.

Glossary of Terms

“Generation licence” means a licence which permits a Generator, among other things (a) to generate electricity for sale to a T&D licensee for further transmission and distribution to consumers; and (b) to construct, reconstruct, replace or modify a generating station or any generating unit therein for the purpose of generating electricity for sale to a T&D licensee;

“Generator” means a person possessing a valid licence to generate and deliver electricity to a T&D licensee.

“Interconnection” means the electrical connection of a generating station of a Generator, or of a generating unit used for self supply to the T&D system of a T&D licensee.

“IPP” means an independent power producer (IPP) or non-utility generator (NUG) an entity, which is not a public utility, but which owns facilities to generate electric power for sale to utilities and end users.

“Licence” means a licence granted to a person by the Cabinet or by the Office under the Electricity Sector Regulation Law and includes any renewal thereof or modification thereto.

LCOE: Levelised Cost of Electricity. Expressed in US\$/MWh, the average price of electricity that each type of RE technology would have to earn in its lifetime, at a given load factor, in order to cover its capital and operating costs.

“Licensee” means a person to whom a licence is granted.

“Person” includes any individual, body corporate (either aggregate or sole), partnership, entity or association, undertaking, club, society or other body of one or more persons.

“PPA” or **“power purchase agreement”** means an agreement made or terms and conditions agreed between a Generator and a T&D licensee approved by the Office whereby the T&D licensee contracts to purchase or acquire electricity generated by a Generator as specified in the agreement or terms and conditions.

“REAS”: means Renewable Energy Auction Scheme.

“Renewable or alternative forms of energy” means non-fossil energy used in the generation of electricity which does not deplete the amount of that energy available in the future or for which the supply can be readily regenerated, including energy derived from wind, hydro, biomass, waste (including waste heat), bio-fuel, geothermal, fuel cells, tidal, temperature inversion or convection, solar or wave or any combination of such forms of energy.

“**T&D**” means transmission and distribution.

“**T&D Code**” means a set of rules adopted, prepared or adapted by a T&D licensee and approved by the Office under this Law to be observed in respect of all technical aspects including safety, relating to interconnection and connection to and operation of the transmission and distribution system operated by the T&D licensee, including the dispatch of generating units to serve the load and reserve requirements of that T&D licensee.

“**T&D licence**” means a licence which permits the licensee, inter alia, to purchase, transmit and distribute electricity for delivery to consumers for reward, and includes a licence to construct, reconstruct, replace or modify transmission and distribution facilities for those purposes.

“**T&D System**” means the T&D network of a T&D licensee for the transport of electricity from the generating station of a Generator to consumer meters and consists of structures, lines, underground conduit, conductors, transformers, relays, switchgear and associated equipment.

Technology Neutral Auctions: a scheme comprising of auctions where projects from different technologies (with close or overlapping viability gaps) compete against each other, bidding for support. Technology neutral schemes are typically technology agnostic.

Technology Specific Auctions: a scheme or auction where a category is set up for a specific technology. Projects utilising this technology then compete against each other, bidding for support.

Viability Gap: the shortfall between market revenues and a generator's LCOE, expressed in US\$/MWh.