



REGULATORY
AUTHORITY

Bermuda

Integrated Resource Plan (IRP) Proposal Consultation

Consultation Document Matter: 20180502

Date: 2nd May 2018

Responses Due: 17th August 2018 (*extended from
original date of 2nd July 2018*)

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I. INTRODUCTION

1. The Electricity Act 2016 (“EA”) received Royal Assent on 27th February 2016. The EA came into operation on 28th October 2016 pursuant to the Electricity Act 2016 Commencement Day Notice 2016 (BR 101/2016). The EA repealed the Energy Act 2009.

2. The Regulatory Authority of Bermuda (the “Authority”) is responsible for regulation of the electricity sector and its overarching responsibilities are to:

- Regulate tariffs and the quality of service provision to end users.
- Ensure that access to electricity infrastructure by current and prospective generators is transparent, fair, reasonable, and non-discriminatory; and
- Investigate and respond to complaints from end users as regards the provision of electricity.

3. Section 40(1) of the EA requires the Authority to request that the Transmission, Distribution and Retail Licensee (the “TD&R Licensee”) prepares an Integrated Resource Plan Proposal (“IRP Proposal”) within two years of the commencement of the EA.

4. On 17th November 2017, the Authority issued the Notice of Request for Integrated Resource Plan Proposal (the “Notice”), which required the TD&R Licensee to submit an IRP Proposal by 17th February 2018.

5. The TD&R Licensee submitted its IRP Proposal to the Authority on 15th February 2018.

6. Section 42 of the EA requires the Authority to publish the IRP Proposal prepared by the TD&R Licensee. Therefore, in line with the requirements of the EA, this Consultation Document aims to (i) consult on the IRP Proposal submitted by the TD&R Licensee, set forth in Appendix A; and (ii) request submissions of proposals for bulk generation or demand side resources. The IRP Proposal set forth in Appendix A is published on the Authority’s official website in accordance with the EA. The publication of the IRP Proposal, prepared by the TD&R Licensee, does not constitute an endorsement by the Authority of the IRP Proposal.

II. CONSULTATION PROCEDURE

7. This consultation is being undertaken in accordance with sections 69-73 of the Regulatory Authority Act 2011 ("RAA"). The procedure and accompanying timelines (as set out in Section 70 of the RAA), under which this consultation is taking place, have been set out in this Section 2.

8. Written comments should be submitted before 5:00 PM (Bermuda time) on 2nd July 2018.

9. The Authority invites comments from members of the public, electricity sectoral participants and sectoral providers, and other interested parties. The Authority requests that commenting parties, in their responses, reference the numbers of the relevant questions, as set forth in this Consultation Document, to which they are responding. A complete list of questions presented by this Consultation Document appears in Section 7.

10. The Authority also requests submissions of proposals for bulk generation or demand side resources, in accordance with section 42(2) of the EA, as set forth in Section 5.2 below.

11. Responses to this Consultation Document should be filed electronically in MS Word or Adobe Acrobat format. From the Authority's website, www.rab.bm, parties wishing to file comments should click on the 'Consultations' tab in the top menu, and select the fourth option in the drop-down list: "Submit a response". All comments should be clearly marked "Response to Consultation Document: Comments on Integrated Resource Plan Proposal Consultation" and should otherwise comply with Rules 18 and 30 of the Authority's [Interim Administrative Rules](#), which are posted on the Authority's website.

12. The Authority intends to make responses to this Consultation Document available on its website. If a commenting party's response contains any information that is confidential in nature, a clearly marked "Non-Confidential Version", redacted to delete the confidential information, should be provided, together with a complete version that is clearly marked as the "Confidential Version." Redactions should be strictly limited to "confidential information," meaning a trade secret, information whose commercial value would be diminished or destroyed by public disclosure, information whose disclosure would have an adverse effect on the commercial interests of the commenting party, or information that is legally subject to confidential treatment. The "Confidential Version" should highlight the information that has been redacted. Any person claiming confidentiality in respect of the information submitted must provide a full justification for the claim. Requests for confidentiality will be treated in the manner provided for in Rule 30 of the Authority's [Interim Administrative Rules](#).

13. In accordance with section 73 of the RAA, any interested person may make an *ex parte* communication during this consultation process, subject to the requirements set

forth in this paragraph 13. An *ex parte* communication is defined as any communication to a Commissioner or member of staff of the Authority regarding the matter being consulted on in this Consultation Document, other than a written submission made pursuant to this Section 2. Within 2 business days after making an *ex parte* communication, the person who made the *ex parte* communication shall submit the following to the Authority: (i) a written description of the issues discussed and positions espoused; and (ii) a copy of any written materials provided. This will be posted on the Authority's website, along with a notice of the *ex parte* communication.

14. The principal point of contact at the Authority for interested persons for this Consultation Document is Monique Lister. She may be contacted by email, referencing "Comments on Integrated Resource Plan Proposal Consultation", at electricity@RAB.bm, or by mail at:

Monique Lister
Regulatory Authority
1st Floor, Craig Appin House
8 Wesley Street
Hamilton, Bermuda

15. In this Consultation Document, except insofar as the context otherwise requires, words or expressions shall have the meaning assigned to them by the EA, the RAA and the Interpretation Act 1951.

16. This Consultation Document is not a binding legal document and does not contain legal, commercial, financial, technical or other advice. The Authority is not bound by this Consultation Document, nor does it necessarily set out the Authority's final or definitive position on particular matters. To the extent that there might be any inconsistency between the contents of this Consultation Document and the due exercise by the Authority of its functions and powers, and the carrying out of its duties and the achievement of relevant objectives under law, such contents are without prejudice to the legal position of the Authority.

III. LEGISLATIVE CONTEXT

17. The Regulatory Authority Act 2011 (“RAA”) established a cross-sectoral independent and accountable regulatory authority “to protect the rights of consumers, encourage the deployment of innovative and affordable services, promote sustainable competition, foster investment, promote Bermudian ownership and employment and enhance Bermuda’s position in the global market”.¹

18. In June 2015, the Ministry of Economic Development of Bermuda published the National Electricity Sector Policy (the “Policy Document”). The Policy Document set out the groundwork for the institution of the subsequent Electricity Act 2016 (“EA”) and the desired structure of the Bermudian electricity sector.

19. The EA received Royal Assent on 27th February 2016. The EA came into operation on 28th October 2016 (the “Commencement Date”) pursuant to the Electricity Act 2016 Commencement Day Notice 2016 (BR 101/2016). The EA repealed the Energy Act 2009.

20. The Minister responsible for electricity is the Minister of Transport and Regulatory Affairs (the “Minister”). The Minister can issue Ministerial declarations to the Authority that establish policies for the electricity sector,² or regarding any matter within his or her authority as regards the electricity sector.³ In formulating Ministerial directions, the Minister shall set priorities and resolve tradeoffs or conflicts that arise from the purpose of the EA in a way that he or she thinks best serves the public interest.⁴

21. Section 14(1) of the EA provides that the function of the Authority is generally to monitor and regulate the electricity sector. The Authority has the powers to supervise, monitor and regulate the electricity sector in Bermuda in order to achieve the purposes of the EA.⁵ Such purposes, as set forth in section 6 of the EA, include:

- (a) to promote the adequacy, safety, sustainability and reliability of electricity supply in Bermuda so that Bermuda continues to be well positioned to compete in the international business and global tourism markets;
- (b) to encourage electricity conservation and the efficient use of electricity;
- (c) to promote the use of cleaner energy sources and technologies, including alternative energy sources and renewable energy sources;

¹ Regulatory Authority Act 2011, p. 5.

² Electricity Act 2016, Section 7(2).

³ Electricity Act 2016, Section 8(3).

⁴ Electricity Act 2016, Section 9.

⁵ Electricity Act 2016, Section 14(2)(a).

- (d) to provide sectoral participants and end-users with non-discriminatory interconnection to transmission and distribution systems;
 - (e) to protect the interests of end-users with respect to prices and affordability, and the adequacy, reliability and quality of electricity service;
 - (f) to promote economic efficiency and sustainability in the generation, transmission, distribution and sale of electricity.”
22. The principal functions of the Authority set forth in section 12 of the RAA include:
- (a) “to promote and preserve competition”, section 12(a);
 - (b) “to promote the interests of the residents and consumers of Bermuda”, Section 12(b);
 - (c) “to promote the development of the Bermudian economy, Bermudian employment and Bermudian ownership”, section 12 (c); and
 - (d) “to promote innovation”, section 12(d).
23. In accordance with the Policy Document, the reformed electricity sector in Bermuda will introduce competition between existing generation facilities, prospective third-party bulk generators (i.e. independent power producers), distributed generators, and other demand-side resources. In order to achieve greater efficiency while maintaining an appropriate level of overall system reliability, the costs and benefits of all competing resources and sectoral developments will need to be considered when developing future investments plans, to ensure that these plans are efficient. The TD&R Licensee is required to produce an IRP Proposal that contains a resource plan and a procurement plan specifically designed to address future sectoral demand.
24. Section 40 of the EA (i) requires the Authority to issue a notice requesting the IRP Proposal from the TD&R Licensee within 2 years of the Commencement Date of the EA; and (ii) sets forth the requirements for the notice, including requirements for the IRP Proposal.
25. Section 41 of the EA requires the IRP Proposal to (i) comply with the EA, any administrative determinations and the notice requesting the IRP Proposal; and (ii) contain the requirements set forth in section 40 of the EA.
26. After the Authority has received and accepted the IRP Proposal, section 42(1) of the EA requires the Authority to publish the IRP Proposal on its official website for review and comments by the public. The publication of the IRP Proposal, prepared by the TD&R Licensee, does not constitute an endorsement by the Authority of the IRP Proposal.

27. The Authority shall also request the submission of proposals for bulk generation or demand side resources (“Alternative Proposals”) pursuant to sections 42(2) and 42(3) of the EA.

28. Section 43 of the EA requires the Authority to hold at least one public consultation for each Alternative Proposal received before the stipulated deadline and to hold meetings with the proponent of each Alternative Proposal, the TD&R Licensee and any other persons that the Authority considers relevant in order to assess the Alternative Proposals.

29. Section 44 of the EA requires the TD&R Licensee to prepare a final draft Integrated Resource Plan (“IRP”) for the Authority’s review and approval that takes the public comments and Alternative Proposals into consideration and implements the Authority’s comments. Section 44 also sets forth the process for the Authority’s approval of the IRP.

30. Section 45 of the EA requires the Authority to publish the approved IRP on its official website.

31. The remainder of the Consultation Document explains the IRP process, seeks views on the IRP Proposal from the TD&R Licensee, and seeks Alternative Proposals for bulk generation or demand side resources.

IV. BACKGROUND

32. An IRP is a plan that seeks to balance the future demand and supply of electricity. Broadly, the IRP's purpose is to set out the strategy for the procurement and retirement of generation assets as well as demand side resources that meets the needs of consumers in a cost efficient manner that is also consistent with Bermuda's energy policy objectives.

33. Accordingly, this plan should incorporate the latest evidence on the costs and technical characteristics of different generation and load management technologies in order to evaluate the least-cost capacity expansion plan for the electricity market of Bermuda. The plan should include both a resource plan—including a forecast of expected demand and the state of the existing generation resources—and a procurement plan, which details how the TD&R Licensee proposes to meet the expected demand.

34. The Authority issued the Notice on 17th November 2017, which required the TD&R Licensee to submit an IRP Proposal by 17th February 2018. The Notice required the IRP Proposal to cover a period of three years from the date of the approved IRP (the "IRP Period").

35. On 6th December 2017, the Authority issued an Order setting out Integrated Resource Plan Guidelines (the "Guidelines Order") to provide guidance on the development of the IRP Proposal to the TD&R Licensee.

36. The TD&R Licensee submitted its IRP Proposal to the Authority on 15th February 2018.

37. The Authority has reviewed the IRP Proposal to assess its compliance with the EA, the Guidelines Order and the Notice (collectively, the "Proposal Requirements"), as required under section 41 of the EA.

38. The Authority has accepted the IRP Proposal for the purposes of public consultation, although the Authority's assessment (set forth in Appendix B) is that the IRP Proposal has broadly, but not uniformly, met the Proposal Requirements. While the Authority has accepted the IRP Proposal for public consultation, it will, concurrent with this consultation, undertake a further detailed analysis of the IRP Proposal in order to determine whether the proposal represents the least-cost capacity expansion plan for the electricity market of Bermuda.

39. In the consultative process, which this Consultation Document initiates, the Authority seeks comments from the public on the IRP Proposal submitted by the TD&R Licensee, and on the Alternative Proposals for generation resources.

V. IRP PROPOSAL AND ALTERNATIVE PROPOSALS

40. This section outlines the process for public consultation on the IRP Proposal and submission of Alternative Proposals.

a) IRP PROPOSAL

41. The IRP Proposal is published on the Authority's official website in accordance with the EA. The publication of the IRP Proposal, prepared by the TD&R Licensee, does not constitute an endorsement by the Authority of the IRP Proposal.

42. The EA requires the IRP Proposal to contain (i) a resource plan that includes the expected demand for the IRP Period and the state of the TD&R Licensee's existing resources; and (ii) a procurement plan that details how the TD&R Licensee proposes to meet the demand.⁶ The IRP Proposal must also comply with the Notice and the Guidelines Order and meet the requirements set forth in Section 40 of the EA.

43. In preparing the IRP Proposal, the TD&R Licensee should consider (i) all possible resources, including new generation capacity, demand side resources (including demand response and energy efficiency), and retirement of generation capacity; and (ii) a range of renewable energy and efficient generation options, and a prudent diversification of the generation portfolio.⁷ The IRP Proposal should also (i) prioritise actions that most meet the purposes of the EA, conform to Ministerial directions, and be reasonably likely to supply electricity at the least cost, subject to trade-offs contained in the Ministerial directions or instructions from the Authority; (ii) include recommendations on whether any resources should be procured through competitive bidding; and (iii) propose limits for total distributed generation capacity over the planning period.⁸

44. The Proposal Requirements provided the guidelines on what is expected to be included in the IRP Proposal in order to ensure that the Authority is able to meet its obligations under the EA in a manner that is consistent with the Policy Document and to implement the regulatory regime established by the electricity sector licences.

45. After assessing the IRP Proposal's compliance with the Proposal Requirements and accepting the IRP Proposal, the Authority is required to publish the IRP Proposal for public consultation.

46. The Authority's assessment, set forth in Appendix B, is that the IRP Proposal has broadly, but not uniformly, met the Proposal Requirements. The Authority has, therefore, accepted the IRP Proposal for public consultation.

⁶ Electricity Act 2016, Section 40(1).

⁷ Electricity Act 2016, Section 40(2)(a).

⁸ Electricity Act 2016, Section 40(2)(b)-(d).

47. While the Authority has accepted the IRP Proposal for public consultation, it will, concurrent with this consultation, undertake a further detailed analysis of the IRP Proposal in order to determine whether the proposal represents the least-cost capacity expansion plan for the electricity market of Bermuda.

48. The Authority welcomes comments from the public on the IRP Proposal submitted by the TD&R Licensee.

Consultation questions

1. Are there any provisions in the IRP Proposal that should be modified? Please include any reasoning and evidence in your answers.
 2. Do you consider that the procurement strategy outlined in the IRP Proposal is appropriate?
 3. Which generation resources should the TD&R Licensee procure using competitive bidding, if any?
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b) ALTERNATIVE PROPOSALS

49. The Authority invites interested parties to provide their views on any alternative scenarios that should be included in the IRP, as well as any other aspect of the assumptions, assessment methodology, and conclusions set out by the TD&R Licensee. These alternatives may provide for an electricity generation mix that is more consistent with the purposes of the EA (e.g. least-cost provision of reliable electricity).

50. In particular, this Consultation Document requests submissions of detailed proposals for bulk generation or demand side resources for potential inclusion in the IRP. Any Alternative Proposal should cover a period of three years, the period until the next IRP Proposal will be requested. The Alternative Proposal should demonstrate (i) how its inclusion in the IRP would result in an electricity supply that is more consistent with the purposes of the EA and Ministerial directions; and (ii) how it uses technology that is in commercial operation in another jurisdiction.

Consultation questions

4. Are there alternative scenarios not included in the IRP Proposal, which may provide for an electricity generation mix that is more consistent with the purposes of the EA (e.g. least-cost provision of reliable electricity)?
 5. Do you have any additional views on the assumptions, assessment methodology, and conclusions set out in the IRP Proposal?
 6. Do you have any Alternative Proposals for bulk generation or demand side resources that should be considered in the IRP?
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VI. NEXT STEPS

51. The Authority will hold at least one public consultation for every Alternative Proposal received before the deadline set forth in this Consultation Document, whether alone or together with other Alternative Proposals. The Authority will also hold as many meetings as it deems necessary with the proponent of each Alternative Proposal, the TD&R Licensee and any other persons that the Authority considers relevant in order to assess the Alternative Proposals.

52. The Authority will, concurrent with this consultation, undertake a further detailed analysis of the IRP Proposal in order to determine whether the proposal represents the least-cost capacity expansion plan for the electricity market of Bermuda.

53. The TD&R Licensee will then prepare a draft final IRP ("Draft IRP") for the review and approval of the Authority. The Draft IRP will take any public comments and Alternative Proposals into consideration and will implement any comments of the Authority.

54. The Authority will review the Draft IRP and may approve it if, acting in accordance with regulatory principles and any administrative determinations, the Authority considers the Draft IRP to be the best approach to meeting the purposes of the EA and complying with any Ministerial directions. This may be an iterative process, as the Authority may require the TD&R Licensee to modify the Draft IRP until it is in a form that can meet the Authority's approval.

55. The Authority will then publish the approved IRP on its official website.

VII. CONSULTATION QUESTIONS

56. Interested parties are invited to comment on the IRP Proposal from the TD&R Licensee, in particular in relation to the following questions:

Consultation questions

1. Are there any provisions in the IRP Proposal that should be modified? Please include any reasoning and evidence in your answers.
 2. Do you consider that the procurement strategy outlined in the IRP Proposal is appropriate?
 3. Which generation resources should the TD&R Licensee procure using competitive bidding, if any?
 4. Are there alternative scenarios not included in the IRP Proposal, which may provide for an electricity generation mix that is more consistent with the purposes of the EA (e.g. least-cost provision of reliable electricity)?
 5. Do you have any additional views on the assumptions, assessment methodology, and conclusions set out in the IRP Proposal?
 6. Do you have any Alternative Proposals for bulk generation or demand side resources that should be considered in the IRP?
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APPENDIX A

APPENDIX A: IRP PROPOSAL

The documents linked below contains the TD&R Licensee's IRP Proposal and the Appendices to the IRP Proposal.

[**IRP Proposal**](#) (click to open)

[**Appendices to IRP Proposal**](#) (click to open)

APPENDIX B

APPENDIX B: ASSESSMENT OF THE IRP PROPOSAL

The document linked below contains the Authority's assessment of the IRP Proposal's compliance with the Proposal Requirements.

[Assessment of IRP Proposal](#) (click to open)