Office of Utilities Regulation

Electricity Wheeling Tariff Methodologies

OUR's Comments on Responses to Electricity Wheeling Tariff Methodologies Consultation Document

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Abstract

This document presents the Office of Utilities Regulation's (OUR's/Office's) response to comments received on the Electricity Wheeling Tariff Methodologies Consultation Document dated 2019 November 4 (Document No.: 2019/ELE/019/CON.001). The document specifically outlines the Office's views on the issues/concerns raised by respondents.

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Chapter 1: Background

An amendment to the electricity licence granted to the Jamaica Public Service Company Limited ("JPS") in 2011 August paved the way for the introduction of electricity wheeling in Jamaica. The amendment was codified in the Amended and Restated All-Island Electric Licence, 2011 (the "2011 Licence"), and provided for the movement of electricity (power wheeling) across the national grid by self-generators "on a basis that is cost reflective and consistent with tariffs and the Price Controls as approved by the Office." The introduction of power wheeling was aimed at promoting greater competition in the electricity sector and to provide more options with regard to the source of electricity to the consumers of electricity. The provision for electric power wheeling was maintained, with some adjustments, when the Amended and Restated All-Island Electric Licence, 2011 was replaced by the Electricity Licence, 2016 (the "Licence").

The requirement for JPS to offer a power wheeling service was carried forward in the Licence, which stipulates that JPS shall implement an electric power wheeling service for customers with an annual average demand in excess of 1 MVA, in accordance with such terms and conditions as approved by the Office. The Licence also states that the wheeling service must be for firm capacity. This is a departure from the related provisions in the 2011 Licence, which did not specify the demand and type of capacity restrictions now included in the Licence.

Accordingly, on 2019 November 4, the OUR published a consultation document entitled Electricity Wheeling Tariff Methodologies Document No. 2019/ELE/019/CON.001, ("Consultation Document"). The purpose of this Consultation Document was to provide a review and analysis of the available methodologies for determining wheeling charges. The main objectives are:

- (a) To explore wheeling charge methodologies and the computation of transmission and distribution network use of system charges, in order to guide the development of an appropriate electric power wheeling framework.
- (b) To develop fair and practical guidelines for the provision of wheeling services on Jamaica's transmission and distribution networks.

The OUR received responses to the Consultation Document from Consumer Advisory Committee on Utilities (CACU), Jamaica Broilers Limited (JBL) and the National Irrigation Commission (NIC/Commission).

The OUR's intention in issuing its comments to the responses received on the Consultation Document, is to correct any factual errors highlighted by respondents; provide further arguments, if appropriate, in support of the position proposed by the OUR; and, where reasonable, accept recommendations made by respondents.

Chapter 2: General Responses

2.1 General Questions on Power Wheeling

2.1.1 Stakeholder Responses

CACU indicated that the general consensus among its members was that the Consultation Document was an unnecessarily painful process as it did not address the following questions in a simple, clear and concise manner:

- What is power wheeling? (in simple, lay terms)
- Why does Jamaica need power wheeling?
- Who will benefit?
- Who will be the consumers that are affected and how?
- Where will this power wheeling be done? (island-wide and are there limits?)
- When and how will power wheeling be implemented?

Furthermore, the CACU believed that the Consultation Document provided textbook information which could have been placed in an appendix and that the document was repetitious.

2.1.2 OUR's Response

One of the primary objectives of the Consultation Document was to explore the various options available for wheeling pricing and to recommend a pricing methodology that was suitable for Jamaica at this time. In order to achieve this objective, the OUR believed it was important to:

- describe the various options available for power wheeling pricing;
- to assess the components of wheeling charges and the rationale for those charges, and;
- assess the nature of the electricity markets in which these options were utilized.

The level of detail provided and the pedagogical nature of the exposition was to facilitate stakeholders with little or no knowledge of power wheeling.

The OUR however, takes note of the questions raised by CACU. While these questions were addressed at various points in the Consultation Document, the OUR in this Response document provides a summary of the answers to these questions in the Table below.

| Question | OUR's Response |
|--|--|
| What is power wheeling? (in simple, lay terms) | Power wheeling is the delivery of electrical power from one location to one or more other locations through transmission and/or distribution lines owned by a third party. e.g. A customer inputs 10MW of energy on JPS' electrical grid at some point in Ewarton. The customer's intent is for the power to be utilized in Bog Walk and Kingston but it must |

| | be transported on JPS' transmission and distribution networks to get to these locations. |
|---|---|
| Why does Jamaica need power wheeling? | Power wheeling was introduced in Jamaica to promote greater competition in the electricity sector and provide more options with relation to the source of electricity to the consumers. |
| Who will benefit? | Customers of JPS who are desirous of supplying its own power requirements and for whom it is economical to generate power at one location and transport (via the transmission and distribution networks) to other locations for use. |
| Who will be the consumers that are affected and how? | Potentially any customer of JPS may be affected by the wheeling transaction, as the path that the electricity takes cannot be easily predicted. |
| | However, specifically, the wheeling transaction may impact the dispatch of other generators and the level of technical losses on the electricity network and can therefore impact the price that customers pay for electricity. If the wheeling generator is not integrated on the electricity network in a safe and reliable manner, it could also impact the safety and reliability of the electricity system for other customers. |
| Where will this wheeling be done? (island- wide and are there limits?) | The Electricity Act, 2015 (EA) nor the Licence does not place any restrictions on where power wheeling can be done within the island of Jamaica. |
| When and how will this be implemented? | The OUR will determine power wheeling rates in its 2019 – 2024 JPS Rate Review Determination Notice. |
| | The Ministry of Energy, Science and Technology (MSET) is responsible for the issuance of wheeling licences and to the development of the regulations for power wheeling. |

2.2 Operational Logistics involved in Power Wheeling

2.2.1 Stakeholder Response

CACU opined that JPS' proposed wheeling contract, wheeling code and proposed wheeling tariff methodology ("JPS Wheeling Documents") presented in Appendices C, D and E of the Consultation Document provided more details on the wheeling application, making it clear that implementation of wheeling involves quite a bit of operational logistics. Additionally, CACU questioned how the inherent safety risks to plant, property and personnel will be mitigated.

2.2.2 OUR's Response

JPS' Wheeling Documents, in addition to a proposed tariff methodology, outlined a regulatory framework and associated contract for power wheeling. Both the proposed regulatory framework and contract by necessity, would need to recognize the realities of the operational logistics.

MSET is tasked with the responsibility of developing the regulations for power wheeling. Once the regulations have been developed and promulgated, the OUR may develop further terms and conditions for power wheeling in accordance with the regulations. The wheeling regulations and any further terms and conditions should address the operational logistics of power wheeling. Also, the question of how safety risks would be mitigated will be addressed within this regulatory construct.

Whilst the OUR understands the complexities of the operational logistics, it is constrained at this time to comment on it until the draft wheeling regulations have been developed.

2.3 Observations on Proposed Methodology

2.3.1 Stakeholder Response

CACU observed that the rationale for the proposed wheeling methodology appears temporary, open ended and devoid of information on the peculiarities of the local market. CACU further stated that it expected to review the design of an innovative, creative, appropriate and customized wheeling methodology based on several **local** factors including but not limited to the current grid capacity, expected and forecast traffic, technical and non-technical losses and rate structures.

Additionally, CACU indicated that the Consultation Document may have lacked the required thought process and technical analysis to allow stakeholders to constructively respond and/or recommend the preferred wheeling tariff methodology for Jamaica. The organization also indicated that it looks forward to receiving better particulars on a more tailor-made approach to Jamaica's wheeling methodology.

2.3.2 OUR's Response

In recommending a wheeling tariff methodology for Jamaica, the OUR considered a number of factors including local legislation, the size of the network, existing electricity supply rate structures,

how transmission costs are recovered by the utility from existing rate payers and tariff design principles.

The OUR notes that other jurisdictions such as New Zealand have made a number of progressive changes to their wheeling tariff methodology and in fact, have adopted a process for reviewing the methodology every few years. It is therefore not unusual for the OUR to suggest that the wheeling tariff methodology be reviewed after some time. The review will follow a period of observation once the wheeling customers have come on board. The strength and weaknesses of the recommended approach would be reviewed once enough data is available from the market. This will allow the OUR, along with stakeholders, to develop a more customized approach given the peculiarities of the existing wheeling market.

The treatment of non-technical losses for power wheeling customers must be viewed in a wider context of how losses are allocated to all customers on JPS' transmission and distribution networks. Accordingly, this matter is best addressed in the 2019 - 2024 JPS Rate Review Determination Notice, as the OUR would then have had the benefit of assessing JPS' load research information and Cost of Service Study.

2.4 Power Wheeling in Micro-Grids

2.4.1 Stakeholder Response

The NIC highlighted the important role that electricity plays in meeting the electrical requirements for irrigation practices and agri-buildings and relevant structures. The Commission also highlighted the distinctive nature of irrigation power requirements being that it is highly seasonal.

The NIC emphasized that rural farming communities around the world are increasingly turning to micro-grids to meet their unique energy needs. It also argued that power wheeling in conjunction with micro-grids presents a timely option, for rural agricultural communities to improve the efficiency of their energy supply, as well as for organizations such as the NIC, to improve their operational efficiencies, thereby reducing costs of supplying irrigation water to their customers.

The NIC proposed that consideration be given to the application of power wheeling in micro-grid networks and that the OUR also includes the considerations for intra-area wheeling service.

2.4.2 OUR's Response

The OUR is aware of the increasing importance of micro-grids in providing clean, reliable power in remote locations and understands that this could be an attractive option for the NIC.

The OUR notes that the provisions of the EA and Licence does not exclude micro-grids from participating in power wheeling provided that they are customers of JPS with an annual average demand in excess of 1 MVA and is of firm capacity. Since customers of JPS' are excluded from supplying electricity to other customers, unless they are of the same legal entity, then the customers who are being supplied by the micro-grid should be the same legal entity that also owns the generation facility.

The wheeling arrangements as envisaged in the EA is for wheeling across JPS' electricity network does not exclude micro-grids, provided the 1 MVA minimum load criterion is met and the owners of the generation sources are the same legal entity as the customers being supplied.

2.5 Infrastructure Cost Recovery

2.5.1 Responses of Stakeholders

CACU asked what would happen after 2027. It further asked if it is to be assumed that they would already have recovered the infrastructure cost prior to that date.

CACU noted that the OUR had proposed that (Long Run Incremental Cost (LRIC) or other forward looking methods may be considered in the future. An article located at <u>https://www.infrastructureinvestor.com/japans-proposed-transmission-charge-will-hurt-renewables-report/</u> was referenced. CACU suggested that the article indicated that in some instances when the forward looking methods are utilized, infrastructure costs may not be recovered. It indicated that infrastructure cost is important as this will impact other power generators, in particular renewables and, questioned how would the OUR addressed the scenario of all costs being recovered.

2.5.2 OUR's Response

The question of "what happens after 2027" is not clear because no context was provided. However, the OUR's interpretation is that CACU may have been addressing the expiration date of the Licence and/or the expiration of JPS' exclusive right to transmit, distribute and supply electricity island-wide and how that could affect the contracts between the wheelers and JPS.

The OUR is unable to comment on what will happen after 2027 as the specifics on how wheeling contracts will be treated following expiration of the Licence. This matter is one that ought to be addressed in the wheeling regulations to be developed by MSET. However, from a regulatory perspective, stability and access to the grid should be given priority in such a transition.

The OUR is also uncertain of CACU's question regarding the recovery of infrastructure costs. CACU may have intended to ask what happens if all infrastructure cost is **not** recovered. The OUR was also unable to access the article which CACU referenced so was unable to understand the context of the question. The OUR is however aware that LRIC methods may not allow the utility to recover all its costs since marginal/incremental cost is often below average cost for utilities. In that context, a mark-up on marginal cost is often allowed to enable the recovery of full cost.

Chapter 3: Comments Specific to Annex 'A' – Electricity Wheeling Tariff Methodologies Consultation Document

3.1 Firm Capacity

3.1.1 Responses by Stakeholders

The JBL requested that the Office consider including in its "Definitions" section, a statement on what it considers to be "Firm Capacity".

CACU noted that wheeling power is restricted to only power producers who can provide "firm capacity" but opined that wheeling should be allowed for self-generators desirous of using clean energy, who can generate electricity during high periods of sun or wind and store energy.

3.1.2 OUR's Response

The OUR is of the view that the definition of "Firm Capacity" is a matter that should be addressed in the regulations for power wheeling to be developed by MSET. Once "firm capacity" is clearly defined in the regulation, there will be more clarity on what types of generators would be allowed to participate in power wheeling.

The OUR, however, takes note of the role that clean energy with storage could play.

3.2 **Qualifying Threshold for Power Wheeling**

3.2.1 Responses by Stakeholders

The JBL requested that the Office consider making the qualifying threshold for power wheeling being 1 MVA of the average annual peak demand instead of the average demand. This as the existing customers are charged based on their peak demand (not their average demand). JBL noted that it is well established and recognized that the System Operator has to plan based on the peak demand and queried why this principle was not applicable in this case.

3.2.2 OUR's Response

Condition 12(1) of the Licence stipulates that:

"The Licensee shall implement an Electric Power Wheeling service for customers with an annual average demand in excess of 1MVA in accordance with such terms and conditions as are approved by the Office."

Thus, the qualifying threshold is enshrined in the Licence. The Office is therefore not at liberty to change the qualifying threshold for power wheeling.

3.3 Predictability of Power Wheeling Costing Methodology

3.3.1 Responses by Stakeholders

"The JBL noted that whereas it is recognized that as the country develops, changes may be required to the costing methodology, due consideration should be given to the time required to

recover that investment. Consequently, the methodology should not change in an unpredictable way so as to adversely impact the wheeling entity."

3.3.2 OUR's Response

The OUR understands the importance of price stability and of a stable pricing mechanism especially for wheelers who have made significant investments. As such, the OUR would have to put measures in place to ensure that wheelers under one costing methodology is not unduly impacted if a new costing methodology comes into force.

3.4 Postage Stamp versus MW-km (Load Flow-Based)

3.4.1 Responses by Stakeholders

CACU questioned why the OUR proposed the Postage Stamp Methodology as an interim approach and not use another approach such as the MW-km (Load Flow Based) methodology. CACU highlighted some of the perceived benefits of the MW-km method.

The NIC also noted that the OUR is considering the recommendation of the Postage Methodology in the first instance and suggested that a method is considered which can reflect, to some extent, the actual usage of the power system. The NIC opined that this could be addressed by the MW-km (Load Flow-based) methodology.

3.4.2 OUR's Response

In determining which pricing methodology to utilise, the OUR assessed each methodology against the Key Principles for pricing (criterion) set out in the Consultation Document. For each methodology, each criterion was assigned a score of 1, 0 or -1 depending on whether it was broadly compliant with the criterion, neutral or not compliant with the criteria. An overall score for the methodology was then derived by summing the scores for each of the criterion.

The LRIC, postage stamp and MW-km (Load Flow Based) methodologies all scored the highest and equally, when assessed against the key pricing principles that the OUR examined. On that basis, each one of these three methods could have been applied. The OUR however, proposed the postage stamp methodology because of its simplicity, transparency and the ease of implementation.

The OUR accepts that the MW-km (load flow based) method could better reflect usage of the electricity network but recognizes that this method is not simple to implement and may present more difficulties for the public to understand. However, the OUR does not rule out exploring this method in the future.

3.5 Wheeling Cost Components

3.5.1 Responses by Stakeholders

CACU indicated that it was unclear about how incremental operating and maintenance costs could arise for a wheeling customer. CACU indicated that it understandable that there will be a need for additional metering equipment to track the wheeling transaction but questioned what

additional maintenance would be required relative to the requirements under normal circumstances. JBL also expressed a similar view as it stated that the possibility that some potential wheeling entities may already be connected to the grid and the associated administrative costs of monitoring the activities may already have been considered in existing arrangements and so should not be treated as an "incremental cost".

CACU also indicated that it was not clear what "embedded costs" were and indicated that the OUR must exercise care to ensure that there is no double counting of costs.

3.5.2 OUR's Response

A new wheeling transaction may require that JPS install new transmission or distribution infrastructure which was not previously required prior to the transaction. In such a case, JPS would incur incremental operating and maintenance cost for the new infrastructure. Even if a wheeling customer was previously a customer of JPS, new infrastructure to facilitate wheeling of electricity may be required as power flows may be significantly different under wheeling.

Embedded costs represent the allocated cost of existing transmission and distribution facilities used by the wheeling transaction. Since electricity can flow anywhere throughout the network based on the laws of physics, the wheeling transaction will also likely utilise the existing network and services in addition to any incremental infrastructure that may be required. All the users of the network, including the wheeling customers, may be required to pay a portion of these embedded costs.

To illustrate an example of embedded costs, consider the staff that are used for System Operation and for billing. It may not be necessary to increase the staff complement to facilitate the wheeling transaction but these existing staff will now spend a part of their time working on matters related to the wheeling transaction. The System Operators would need to communicate with the wheeler for dispatch purposes and the billing staff would need to prepare bills for the wheeling customers. Thus, while the overall costs of these staff members have not changed, the wheeler would now be required to pay a portion of it.

3.6 Failure of the Postage Stamp Methodology to Factor Benefits of Power Wheeling

3.6.1 Responses of Stakeholders

CACU suggested that the postage stamp methodology would not allow wheelers to capture some of the locational benefits of wheeling. CACU used the example of a wheeling transaction with entry and exit being very close and pointed out that using postage stamp, the wheeler would incur costs for the network overall, as opposed to its defined path ("contract path").

JBL also questioned whether the proposed postage stamp methodology would allow the wheeler to capture the benefit of a wheeling transaction which reduces congestion on a particular area of the network and thereby prolong the need for the requisite system upgrades as the load of the System Operator's non-wheeling customers increase.

3.6.2 OUR's Response

The postage stamp methodology is essentially an embedded cost approach that can be modified to incorporate future costs. As such, the methodology allocates a portion of all of the network costs, to the users of the system including the wheeling customers. The OUR acknowledges that the network path of the wheeling transaction may not necessarily utilise all of the network.

The OUR takes the view that this is not discriminatory as there are other customers on JPS' network who are close to points of generation, who are not utilising the full network but will incur costs for the full network based on the existing tariff setting process. This partially arises because of the difficulty of tracking the exact path of electricity flow on the network (even if a contract path was previously defined).

While the MW-km contract path or the MW-km load flow based methods provide better approximations of the portion of network that will be utilised in the wheeling transaction, these are also not exact methods. The OUR however, concurs that the postage stamp method cannot capture the benefit that is derived from the generator being close to the load.

The postage stamp method also will not allow the wheeler to capture the benefit of reducing any congestion on the network or on the other hand be penalized for contributing to congestion on the grid. Accordingly, any benefit or additional cost caused by the wheeling transaction would accrue to the entire system. Hence, the wheeler would only encounter a portion of that incremental cost or benefit.

3.7 Ancillary Costs and Reactive Power Support

3.7.1 Responses of Stakeholders

CACU suggested that it may be unfair if JPS is allowed to recover ancillary costs, which include the cost for voltage regulation and reactive power, as JPS takes reactive power from IPPs at no cost, yet may end up earning for reactive power provided to customers that did not necessarily originate from their own facilities.

3.7.2 OUR's Response

Larger customers may be charged for reactive power taken from the grid through the demand (kVA) charges. The reactive power taken from the grid may be provided by generating units on the grid (including IPP units) or other compensation devices installed by JPS.

While it may possible that JPS is receiving reactive power support from IPP generating units, it is still important that customers are charged for reactive power, as it provides an incentive for customers to keep their power factors as close to one as possible. Otherwise, the network stability and power quality may be compromised.

3.8 Deep Connection Charges

3.8.1 Responses of Stakeholders

CACU requested clarification regarding the OUR's treatment of the avoidance of gaming, if deep connection charges are applied for wheeling connections. The OUR had proposed that to prevent gaming from happening, it would implement a system whereby, as new wheelers come onto the system using the same transmission/distribution investments that were made by a previous wheeler, they would be required to pay a portion of the costs for the asset base on a postage stamp allocation method.

CACU expressed discomfort with the OUR's proposed method, stating that it read more like an academic paper rather than a consultative document seeking stakeholder engagement. To illustrate CACU cited an example where a first wheeler paid \$1,500 for an investment and then a second wheeler comes and would be required to reimburse \$750 to the first wheeler. CACU then raised the question of what would happen if a third wheeler was to start utilising the investment that was made by the first investor.

3.8.2 OUR's Response

With regard to the treatment of third and subsequent users of the asset, the OUR proposes that they will have to compensate all previous users of the asset in accordance with the methodology illustrated below.

Assume that the initial investment of \$1500 is made by the first wheeler in year 1 and assume that in year 3, a new wheeler comes onto the system with the same size generator. Assuming a depreciation rate of 10% per annum for the asset, the net book value of the asset in year 3 would be \$1200. The new wheeler would be required to reimburse \$600 to wheeler 1. Now assume a third wheeler comes unto the system in year 5. At that time the net book value of the asset would be \$900. If the new generator is only half the size of the previous generators, then it would be responsible for only \$180 of the asset, so it will pay \$180 which would be shared equally between wheeler 1 and wheeler 2 (since they are equal size). The process would continue for all subsequent generators using the same connection assets.

In the OUR's proposed approach illustrated above, both the timing and level of the investment is taken into account.

3.9 Impact of Wheeling Tariffs on General Tariffs

3.9.1 Responses of Stakeholders

CACU questioned whether wheeling tariffs will affect general tariffs. The organization further questioned whether rates will be adjusted separately and if there are any possible relationship to rates for residential and commercial customers. CACU stated that it had a particular interest in this issue given the bilateral nature of the wheeling arrangement, JPS' residential and commercial customers should not be expected to subsidize the cost of power wheeling.

3.9.2 OUR's Response

The rates for wheeling transactions and for other customers will be determined after the OUR takes into consideration a cost of service and load research study. The cost of the entire network would be allocated to all rate classes on the system using a postage stamp methodology. The cost allocation between the rate classes and the wheeling customers would be based on cost reflectivity principle to ensure as much as possible that cross subsidization does not take place.

Chapter 4: Comments Related to Annexes "C", "D" and "E" – JPS Proposed Wheeling Methodology, Wheeling Contract and Wheeling Code

4.1 Fuel Type

4.1.1 Responses of Stakeholders

CACU noted that JPS' description of energy consumption using oil in Annex C is inaccurate when one considers the introduction and use of natural gas in Jamaica.

4.1.2 OUR's Response

Annex C was written in 2017 and the consumption of fuels at that time would have been different from the current prevailing conditions.

With the commissioning of the gas-fired 192MW South Jamaica Power Plant (SJPC) and the 94MW New Fortress-Jamalco Plant by February 2020, gas is expected to be the dominant fuel, accounting for approximately 70% of the fuel consumption in the electricity sector as shown in the figure below.



By 2025, solar is expected to play a more prominent a role as the percentage of renewables is increased. The figure below shows the expected fuel mix in the electricity sector by 2025.



4.2 Spinning Reserve and Fuel Use

4.2.1 Responses of Stakeholders

CACU questioned how one would account for the location of spinning reserve and what fuel is being used on the network.

4.2.2 OUR's Response

A generating plant not owned by JPS would normally only be required to provide spinning reserve if there is a contractual arrangement to provide same to JPS. In that context, the location of spinning reserve would be dependent on the plants that have been contracted to provide spinning reserve to the system and the JPS owned plants that have been designated for spinning reserve.

The type of fuels being used on the system are determined by economic dispatch of generating units on the system. The plants which are most economic to dispatch will be dispatched first to meet the load, as the load grows, the next most economic plant is dispatched to meet the load and so on. The fuels used by the dispatched plants would be the fuels used on the system.

4.3 Allocation of Non-Technical Losses

4.3.1 Responses of Stakeholders

With reference to Section 4 of Annex C, CACU question whether it was fair to allocate all the nontechnical losses to rate 10 and rate 20 customers. It also expressed concern that the rate 10 and rate 20 customers may end up paying demand charges as a means of recovering revenue losses. CACU also cautioned that power wheeling should not be used as an avenue for the utility to exploit.

4.3.2 OUR's Response

JPS collects information on non-technical losses through audit processes which are conducted each year. The information collected includes the probability of theft occurring in a rate class and the expected amount of energy (kilowatt-hour) that is stolen when an incident of theft occurs. This data from JPS is assessed by the OUR to determine the allocation of non-technical losses to each rate class. The conclusion after this analysis may not necessarily be the same as what was reflected in Section 4 of Annex C. While there may be some amount of subjectivity in the allocation process, the OUR aims to make this as objective as possible.

The OUR considers a number of pricing principles including cost reflectivity and economic efficiency when determining rates, the presence of power wheeling should not alter the tariffs of the other rate classes.

4.4 Termination of Wheeling Contract

4.4.1 Responses of Stakeholders

CACU pointed out that the draft contract proposed by JPS in Section 2 of Annex E, specifies a clause for termination of the contract after five (5) years, which may be extended by an additional five (5 years. It questioned whether power wheeling was intended to be a temporary venture, given the significant investments made by both parties.

4.4.2 OUR's Response

The final detailed provisions of wheeling contracts are dependent on the wheeling regulations and it would be premature for the OUR to comment on this matter at this time.

4.5 Top Up and Spill Scenarios

4.5.1 Responses of Stakeholders

JBL stated that the Office, in its review of the potential methodologies, references "top up" and "spill" scenarios, however, it did not see any reference to a "spill scenario" in JPS' proposals. The only reference in JPS' proposals is to top up requirements, whichfell under a characterization of "penalties". JBL stated that in its opinion, fairness in the arrangements requires that some credit be given for provision of power to the grid whenever demand from the load site falls; much in the same way consideration is given to a "dumped power" scenario.

4.5.2 OUR's Response

JPS' proposal seems to be suggesting that in the "spill" scenario, the energy would be "banked" or credited to the wheelers account which it could use at a later date when needed. Under this proposal, there would be no sale to the grid.

JPS seems to be proposing that if the wheeler needs extra energy at a later date and if there is not enough energy banked, then it would buy from the system at the prevailing rate.

The OUR reiterates that this is a proposal which requires further examination. However, this is an important point, which should be explored in developing the regulations or terms and conditions of power wheeling.

4.6 Time Allocated to Exploration of Power Wheeling

4.6.1 Responses of Stakeholders

JBL is of the view that the proposed time allotted to the exploratory phase of power wheeling is too long, especially if all the requisite information on the characteristics of load/generation is provided and fully known.

4.6.2 OUR's Response

The OUR understands the business imperative of potential wheelers. The OUR is of the view that enough time should be allowed in the exploratory stage to properly understand this new service. Notwithstanding, JBL's comment merits consideration in developing the regulations or terms and conditions of power wheeling.

4.7 Security Deposit Requirement

4.7.1 Responses of Stakeholders

Regarding Section 14 of the Wheeling Code, Annex E, JBL questioned whether it was necessary for potential wheeling customers who are already existing customers of the JPS and who already have a track record, to pay a security deposit. It also questioned whether this would present an additional and unnecessary barrier to wheeling arrangements.

4.7.2 OUR's Response

This matter should be addressed in the regulations or the terms and conditions for power wheeling. However, the OUR takes the view that in arriving at a determination on this matter, the principles of transparency and fairness ought to be observed.

4.8 Termination Clause

4.8.1 Responses of Stakeholders

JBL stated that it was not comfortable with some aspects of JPS' proposed section on Termination of Service, in Annex E.

4.8.2 OUR's Response

This is a matter that should be addressed in the regulations or the terms and conditions for power wheeling and therefore, JPS' proposals does not necessarily reflect the OUR's views.

4.9 Insurance Policy

4.9.1 Responses of Stakeholders

JBL stated that more discussion is needed to understand the requirement of additional insurance policy to facilitate power wheeling, especially if the potential operators have decades of experience in providing power to the grid and possess the requisite hardware to mitigate damages to the grid. It further stated that the risk of damage is bi-directional as the grid can impact the wheeler's infrastructure negatively should also be considered.

4.9.2 OUR's Response

This is a matter that should be addressed in the regulations or the terms and conditions for power wheeling and therefore, JPS' proposals does not necessarily reflect the OUR's views.

4.10 Wheeling Impact Studies

4.10.1 Responses of Stakeholders

The NIC noted the need for the completion of wheeling impact studies, which would require the System Operator to develop and maintain a set of technical planning studies for evaluating the impact on the grid of any proposed interconnection for power wheeling purposes.

It also noted that the System Operator is responsible to carry out all the wheeling impact studies necessary to properly evaluate the impact of a wheeling arrangement on the security and reliability of the grid. In this regard, JBL is seeking to understand which of the planning studies indicated in Section 15 of the Generation Code and Sections 3.12 to 3.17 of the Transmission Code shall be carried out to evaluate the impact of a wheeling arrangement on the grid.

4.10.2 OUR's Response

This is a matter that should be addressed in the regulations or the terms and conditions for power wheeling.