
Office of Utilities Regulation

Landmark Developers Limited Sewerage Rates

Determination Notice




OFFICE OF UTILITIES REGULATION

2018 January 17

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2. DOCUMENT TITLE: Landmark Developers Limited Sewerage Rates Determination Notice											
3. PURPOSE OF DOCUMENT: This document sets out the Office's decisions on Landmark Developers Limited's first tariff application since the issuance of a licence in 2011, for the provisions of sewerage service to Liberty Estate in St. Mary.											
4. ANTECEDENT DOCUMENTS: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Publication Number</th> <th style="width: 33%;">Publication Title</th> <th style="width: 33%;">Publication Date</th> </tr> </thead> <tbody> <tr> <td style="height: 20px;"></td> <td></td> <td></td> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td></td> </tr> </tbody> </table>			Publication Number	Publication Title	Publication Date						
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5. APPROVAL: This document is approved by the Office of Utilities Regulation and the decisions therein becomes effective as of 2018 February 01 On behalf of the Office: <div style="text-align: center;">  </div> <div style="text-align: center;"> For Ansord E. Hewitt Director General </div> 2018 January 17											

Acronyms and Abbreviations

ANPAM	-	Annual Reset for Price Adjustment Mechanism
CDL	-	Can-Cara Development Limited
CPI	-	Consumer Price Index
DEML	-	Dynamic Environment Management Limited
FX	-	Foreign Exchange
GCT	-	General Consumption Tax
KWh	-	Kilowatt hours
LDL	-	Landmark Developers Limited
NWC	-	National Water Commission
OUR/Office	-	Office of Utilities Regulation
ROI	-	Return on Investment
ROR	-	Rate of Return
PAM	-	Price Adjustment Mechanism
Licence	-	Landmark Developers Limited Sewerage Service Provider Licence, 2011

1. Executive Summary

Landmark Developers Limited (LDL) is a development company which focuses on the development and sale of residential lots at Liberty Estate located at Industry Pen, Three Hills, St. Mary. In 2011, the company was granted a licence for the provision of sewerage services to Liberty Estate. LDL's sewerage facility currently has the capacity to collect and treat 313,500 gallons of sewage per day and currently 847 customers are connected to the facility.

LDL's Proposal

On 2017 May 19, LDL submitted an application for the introduction of sewerage rates and charges to residents of Liberty Estate (Rate Application). LDL proposed that customers be billed a fixed tariff of J\$3,667 per month which is comprised of a monthly Usage (Volumetric) Fee and a Fixed Service Fee. As shown in Table 1 below, LDL also proposed charges for a Connection Fee, Verification Fee and Reconnection Fee. In addition, LDL requested that a monthly Price Adjustment Mechanism (PAM) be included in its tariff and that the PAM used in the NWC's billing process be replicated.

Table 1: The Components of LDL's Tariff Request

Charge Type	Amount
Fixed Service Charge	\$3,078/Month
Usage (Volumetric) Charge	\$589/Month
Connection Fee	\$49,511
Verification Fee	\$7,427
Reconnection Fee	\$7,970

Source: LDL Tariff Application for sewerage rates

In support of its Rate Application and following the Rate of Return (ROR) methodology delineated in the Landmark Developers Limited Sewerage Service Provider Licence, 2011 (the Licence), LDL proposed a revenue requirement of \$37,276,381 which is derived from projected costs the company would face in the first year of formal operation. Prior to its Rate Application, LDL has not operated in the conventional mode of a utility and has not charged the residents of Liberty Estate who are connected to its sewerage facility a fee.

Notwithstanding, the provision in the Licence for the application of a ROR methodology, over the years the Office has applied a principle of "non-objection" to rates proposed by small water and sewerage service providers. The "non-objection" principle allows for the automatic

approval of the rates where the proposed rates do not exceed the rates charged by the NWC for comparable services.

In its examination of the Rate Application, the OUR queried several aspects of the submission, particularly in relation to the following:

- The prospective nature of the cost used to derive the tariff;
- The level of the costs in the application and the derived rate; and
- The implied inefficiencies in the projections.

The OUR also noted that the proposed rates, in almost every instance, were significantly higher than what currently obtains in the industry. Against this background, the non-objection policy was not applied and the OUR decided that the most appropriate approach in the circumstances, is to analyze the application on the basis of benchmarking.

Office Determination on LDL Proposal

As a result of the benchmarking analysis, the OUR concluded that the rates approved for LDL should be tagged to those of Can-Cara Development limited (CDL), a small water and sewage service provider that exhibits the same evolutionary characteristics as LDL. In this regard, the Office has determined that:

- a) LDL's tariff shall be \$3,103.22 per month per connection, based on the structure delineated in Table 2 below.

Table 2: LDL's Approved Charges

Block (*000 litres)	Sewerage (\$/*000 Liter)
0 to 14,000 litres	\$84.11
For the next 13,000 litres	\$148.30
For the next 14,000 litres	\$160.13
For the next 14,000 litres	\$204.39
For the next 36,000 litres	\$254.50
Over 91,000 litres	\$327.65
Usage (Volumetric) Charge	2,363.94
Service (Fixed) Charge	739.28
Average Tariff	3,103.22

- b) The Connection and Reconnection Fees shall be as follows:
 - Connection Fee of \$6,000-\$15,000
 - Reconnection Fee of \$10,000

- c) The proposed Verification Fee of \$7,429 is disallowed. Accordingly, no fees shall be attached to such a service.

Notwithstanding, the Office's decision to approve the introduction of sewerage charges to the residents of Liberty Estate who are connected to LDL's sewerage facility, the OUR has taken note of the quality of service issues raised by customers served by the company at the consultation meeting held in 2017 October. The Office takes the view that enduring quality of service improvements are best addressed through the development and implementation of appropriate policies. Consequently, the Office has determined, that LDL shall develop the relevant policies and procedures indicated below and submit same for the Office's approval:

- Within three (3) months of this Determination Notice, develop a policy that governs the procedures and schedule for the efficient management of the sewer system at all locations.
- Within six (6) months of this Determination Notice, develop a procedure outlining the activities to be undertaken to disconnect a sewer main. The policy must indicate how any material from the disconnection exercise is disposed of as well as measures to ensure the area does not pose a hazard to residents.
- Within six (6) months of this Determination Notice, develop a policy governing the process to repair leaks, replace mains and restore roads that were dug-up as a result of its activities. The policy must include timelines within which repairs and replacement will be carried out, whether scheduled or unscheduled, as well as the period in which road surfaces will be restored following completion of repair/replacement works.
- Within three (3) months of this Determination Notice, develop a Customer Service Charter outlining its service delivery commitments and customers' rights and responsibilities. This Charter must also detail the activities and timelines in its Complaints Handling Procedure.

The Office has also determined that the compensation payable for a breach of a Guaranteed Standard shall be the equivalent of four (4) times the service (fixed) charge, which is \$2,957.12.

Future Rate Reviews

The licences for small water and sewerage service providers set out provisions regarding the methodology for tariff reviews and computations. However, because of the challenge of getting adequate data from small water and sewage providers the OUR has opted, over the years, to employ the 'non-objection' policy previously described to this sector. Notwithstanding, the Office for the reasons set out herein has not applied the non-objection policy. In this instance, the Office has determined the sewerage rates on the basis of industry benchmarking.

Given the developments and quality of service issues arising in the water and sewerage sector, the Office takes the view that it is necessary to create a framework that will allow for more effective economic regulation of small service providers in the sector.

In this regard, the OUR will be engaging LDL and other stakeholders, by way of consultation, within the next twelve (12) months as it reviews its practice of automatic non-objection as well as the Rate of Return methodology employed for ratemaking. In the circumstances, LDL could anticipate the possibility that its next rate review will be done on the basis of strict adherence to the respective provisions set out in its Licence. In light of this, the OUR encourages LDL to prepare and submit its financial statements in fulfilment of the information requirements specified in its Licence, as well as quarterly performance reports. This will facilitate greater transparency and efficiency in future ratemaking exercises as well as lay the foundation for a more orderly development of the sector.

2. Introduction

Landmark Developers Limited (LDL) is a development company which focuses on the development and sale of residential lots at Liberty Estate located at Industry Pen, Three Hills, St. Mary. The Liberty Estate Development was set up as a joint venture partnership between the then Ministry of Housing and LDL in 1998. The residential housing in Liberty Estate was originally planned to be developed in five phases, four of which have been and are occupied by homeowners. The fifth phase is currently in the development stage.

LDL's sewerage facility currently has the capacity to collect and treat 313,500 gallons of sewage per day. The facility comprises a central sewer collection network that feeds into double chamber septic tanks where the sewage is processed in four (4) systems. The secondary treatment waste water is then chlorinated and released into the environment.

Given the scale of development at Liberty Estate and its proximity to the White River, the National Environment and Planning Agency (NEPA) instructed LDL to construct additional sewerage collection to meet the new service demands, and to upgrade its existing infrastructure to a tertiary sewerage treatment facility.

In 2011, LDL was granted the Landmark Developers Limited Sewerage Service Provider Licence, 2011 (the Licence), which allows the company to collect, treat, and dispose of sewage/effluent for Liberty Estate. The provisions of the Licence empowers the Office to prescribe the rates and charges to be applied by LDL.

On 2017 May 19, LDL submitted an application for the introduction of sewerage rates and charges to residents of Liberty Estates (Rate Application). LDL proposed that customers be billed a fixed tariff of J\$3,667 per month which is comprised of a monthly Usage (Volumetric) Charge and a Fixed Service Charge tied to a monthly PAM that would replicate the one used in NWC's billing process. In addition, LDL requested that its rate structure includes the following charges Connection fee, Verification fee and Reconnection fee. Table 3 below lists the details of LDL proposed rates.

Table 3: The Components of LDL's Tariff Request

Charge Type	Amount
Fixed Service Charge	\$3,078/Month
Usage (Volumetric) Charge	\$589/Month
Connection Fee	\$49,511
Verification Fee	\$7,427
Reconnection Fee	\$7,970

Source: LDL Tariff Application for sewerage rates

This Determination Notice reviews the Rate Application and sets out the OUR's analysis of submission as well as establishes the sewerage tariff applicable to LDL's customers. In addition, the Determination Notice summarizes LDL's customers feedback from the consultation meeting conducted and outlines the Service and Guaranteed Standards LDL will be required to observe.

3. Legislative and Regulatory Framework

The OUR is a multi-sector utility regulator established pursuant to the Office of Utilities Regulation Act (OUR Act), with regulatory oversight of the provision of certain prescribed utility services in Jamaica. Section 4(1) (a) of the OUR Act, indicates that it is a function of the OUR to “*regulate the provision of prescribed utility services by licensees or specified organizations*”. The provision of sewerage services and the supply and distribution of water are included among the prescribed utility services defined in section 2 and the First Schedule of the OUR Act.

Section 4(4) of the OUR Act expressly provides for the authority of the OUR to determine the rates charged for the provision of a prescribed service. The section reads:

“(4) The Office shall have power to determine, in accordance with the provisions of this Act, the rates or fares which may be charged in respect of the provisions of a prescribed utility service.”

In 2011, pursuant to the OUR Act, the minister with portfolio responsibility for the water and sewerage sectors granted the Licence to LDL to provide sewerage services to the Liberty Estate in St. Mary. The provisions of the Licence reinforce the OUR’s statutory powers to regulate the licensed business. Paragraph 6.3.1 of the Licence provides:

“The Licensee” in carrying out the “Licensed Business” shall be subject to regulation by “the Office” pursuant to the “OUR Act” and any other applicable Act and all regulations and rules made pursuant thereto”.

In respect to price controls, paragraphs 6.16 (1) & (2) of the Licence, provides that:

1. *“The Licensee” is subject to the conditions in Schedule 3.*
2. *The rates to be charged by “the Licensee” in respect of the prescribed utility services shall be subject to such limitation as may be imposed from time to time by “the Office”.*

The Licence stipulates that the rates and charges as determined by the OUR should provide a reasonable opportunity for the Licensee to make a reasonable return on capital employed after taking into account all reasonable cost incurred in the provision of services. Extracts from Schedule 3 of the Licence, provide as follows:

“The rates for the supply of services by the “Licensed Business” shall be set such that provides a reasonable opportunity for “the Licensee” to make a reasonable return on capital employed after taking into account all reasonable costs incurred in the provision of the services.”

“Return on Investment...*The return on investment shall be calculated by multiplying the allowed rate-of-return by “the Licensee’s” total investment base (“Rate Base”) for the test year. The allowed rate of return is “the Licensee’s” Weighted Average Cost of Capital (WACC). The WACC (“K %”) will balance the interest of both consumers and investors and be commensurate with returns in other enterprises having corresponding risks which will assure confidence in the financial integrity of the enterprise so as to maintain its credit and to attract capital... “*

With regard to the application for an initial tariff, Schedule 3 of the Licence provides:

“On the granting of this License “the Licensee” shall submit a proposal for the initial tariffs to be charged in respect of services and the Rate Review Process as set out herein under shall be applicable.”

Further, the Licensee is permitted to apply to the OUR for a tariff review as needed, but no more frequently than once in every two (2) years. Schedule 3 of the Licence provides:

“At such intervals as the Licensee may determine, but not more often than once in every two years, the Licensee may submit an application for a tariff review. The Application must be supported with data and information as the Office will determine.”

Notwithstanding provisions of Schedule 3 of the Licence, the Office currently applies a policy of “non-objection” to rate applications by small water and sewerage service providers, such as LDL. The policy allows for the automatic approval of the proposed rates provided that such rates do not exceed the rates charged by the NWC for comparable services. However, in instances where the proposed rates are higher than those being charged by NWC, the small provider is required to provide the necessary cost data and audited financial statements in support of its application to facilitate a more detailed rate review by the OUR.

This automatic non-objection tariff setting methodology is to be reviewed by the OUR within the next twelve (12) months. As part of the review, the OUR will engage stakeholders in a consultation process on the issue.

With regard to environmental matters, LDL is primarily accountable to the National Environmental Planning Agency (NEPA)/the National Resources Conservation Authority (NRCA). However, Paragraph A, Schedule 2 of the Licence stipulates:

“The Licensee” shall conform to all and any standards that may be established by NEPA/NRCA. “The Licensee” shall provide “the Office” with copies of any licenses, standards, special permits issued by NEPA/NRCA from time to time, which shall form part of this License.”

The OUR, through the development and implementation of Service and Guaranteed Standards, seeks to ensure that customers receive modern utility services at an economical price.

Paragraph B, Schedule 2 of the Licence specifies the minimum service standards that LDL is required to adhere to, in relation to a blocked main and the odour emanating from the plant.

Pursuant to paragraph B, the Office may introduce or vary the minimum standards. Paragraph B of Schedule 2 states:

(a) *“The Licensee” shall clear 90% of all blocked mains within 4 hours of the report being received.*

(b) *Odour*

“The Licensee” shall maintain the plant in such a manner as to minimize complaints of odour. There shall be no more than 5 complaints per 100 customers regarding odour in any month.

“The Office” may from time to time, introduce additional or vary these service standards and will have regard to the performance of “the Licensee” in meeting these standards at the tariff review.”

The Licence expressly authorize the OUR to implement a guaranteed standard scheme that will encourage and facilitate minimum standards of customer service., Paragraph C, Schedule 2 of the Licence states:

“The Licensee” shall implement a scheme of guaranteed standards which may be prescribed by “the Office” from time to time.

In any such scheme, “the Office” will determine from time to time, the level of compensatory payment to be paid by the “Licensee” to the customer should “the Licensee” breach any standard so prescribed.”

4. Landmark Developers Limited's Proposal

LDL, in its Rate Application for an initial tariff, indicated that if the rates requested are approved, it would enable the company to recover its operating cost and capital investments. Even though LDL owns the Liberty Estate sewerage facility to which 847 residences in the community are connected, the facility has not operated as a formal utility service provider. Consequently, no rates or charges are being charged for the use of the facility by the residents. Notwithstanding, it was evident from the OUR's Consultation meeting in 2017 October that the residents were grossly dissatisfied with the quality of service delivered by LDL. In this respect, the OUR is of the view that the approved tariff should also put LDL in a position to address the quality of service issues that are of concern to the residents.

In its submission for an initial tariff, LDL requested the following:

Tariff Request 1

A fixed tariff of J\$3,667/month, which comprises a Fixed Service Charge of J\$3,078 and a Usage charge of J\$589. Landmark indicated that given the difficulties associated with assessing sewage volumes or estimating them from water consumption data, a fixed rate per connection is a practical way of addressing the tariff.

Tariff Request 2

As part of its tariff structure, LDL proposed that a monthly PAM, similar to the NWC's monthly adjustment mechanism, be applied to the base rates and charges for sewerage services to preserve the real revenue of the company. Similar to the NWC's mechanism, the company requested that its PAM captures the movements of the consumer price index (CPI), foreign exchange (FX -J\$/US\$) and Jamaica Public Service Company Limited's (JPS) average charge per kilowatt hour (\$/kWh). LDL proposed that the PAM be applied to its base rates one month after it is applied by the NWC.

Tariff Request 3

Landmark proposed that the following miscellaneous fees be approved:

- **Connection Fee**

A fee of J\$49,511 to connect customers to the sewerage infrastructure was proposed. LDL stated that the revenue from the connection fee is to cover the initial capital cost of the sewerage system that has been utilized by the residents of Phase 2 Annex and Phase 3 for approximately fifteen (15) years without the application of charges for the sewerage service. In order to justify the rate proposed, LDL calculated the fee based on the following costs:

Computation of Connection Fee

Labour:	J\$7,426.61
Material:	J\$22,279.83
Supervision:	J\$14,853.22
Commission of installation:	J\$2,475.54
Mark Up:	J\$ 2,475.54
Connection Fee b/f GCT:	J\$49,511

- **Verification Fee**

LDL explained that given the nature of its customer base, it is necessary to charge a fee to all existing customers to certify that the connection is viable. The proposed amount of \$7,427 is based the labour cost in the connection fee inclusive of GCT.

- **Reconnection Fee**

LDL explained that the charge of \$7,950 is based on the cost to create a disconnection of the customer's sewerage connection from the main system and then removing the blockage to tie the customer back into the sewerage system. The company indicated that the process requires the services of a rented backhoe along with the company's labour input.

Given that LDL has not been operating as a utility service provider, it does not have the data that would allow for a conventional rate of return (ROR) tariff analysis based on a historical test-year. The figures provided in the Rate Application for the test year are therefore based on projections rather than actual costs.

5. Public Consultation

Consistent with its practice, the OUR conducted a public consultation with the residents of Liberty Estate and other stakeholders as part of the review of the Rate Application. The public consultation provided an avenue through which the residents of Liberty Estate were made aware of the Rate Application and for the OUR to obtain comments on quality of service matters and the proposed service standards. The consultation meeting was held on 2017 October 19 at Community Christian Church, Liberty Estate, St. Mary.

In its presentation to the residents, LDL outlined the proposed rates and stated that they were based on LDL's expected capital and operating costs. The company pointed out that the existing sewerage facility has a capacity of 313,500 gallons per day and can collect, treat and dispose of sewerage for up to 1,008 households. LDL stated that at present, 847 households are connected with the estimated average daily volume of sewerage being collected of 263,427 gallons. LDL also explained the architecture and operation of the sewage facility by indicating that it is comprised of a central collection network that feeds into a double chamber septic tank, where the sewage is processed in four systems. Thereafter, the primary treated sewage is sent into a filter bed or secondary treatment.

LDL stated that although the existing infrastructure, which represents an investment of over \$100 million, has been in place since 2001, residents of Phase 2, Phase 2 Annex and Phase 3 have not been charged for using the facility. LDL then explained the rationale for the decision to submit its Rate Application. The company pointed out that consequent on NEPA's approval of the design relative to the upgrade of the sewerage system and for the development Phase 5 lots in 2017, LDL is now ready to apply rates determined in accordance with the provisions of its Licence. The rates determined by the OUR will provide revenues to enable LDL to undertake the needed upgrade and infrastructure development works.

Highlights of Customers concerns:

1. Lack of Confidence in LDL's Ability to Provide the Needed Service

Residents highlighted LDL's failure to honour previous commitments regarding improvements to the road network; adequacy of lighting; properly functioning sewerage system and voiced their lack of confidence in LDL's promise to upgrade the infrastructure and by extension, service delivery. They also referred to LDL's presentation regarding the handover of the development to the relevant authorities, and pointed out that whenever the residents encounter difficulties and seek to engage the Parish Council, they are advised that the developers have not complied with the requirements of the Parish Council. Further, the development has not been handed over to the Parish Council.

The residents pointed out that there was the issue of a lack of trust between them and LDL. They therefore want to know what measures will be put in place to hold LDL accountable and the available redress in the case of a failure to comply.

As an example of mistrust of LDL, a resident queried the reasonableness on the part of LDL to make a request for a verification fee, given that it is the company that needs to confirm whether the proper piping infrastructure was laid in the first place.

LDL's Response:

In response, LDL indicated that it is very sympathetic to the customers' concerns but sought to clarify some of the concerns raised by the residents. LDL advised that in relation to the road network issues, initially there was a joint venture agreement between LDL and the Ministry of Housing under which the company is responsible for up to 40% of road works, while the Ministry is responsible for the remaining 60%. LDL advised that in keeping with the said agreement, it carried out road works up to 40% in most of the development phases. LDL further stated that under a new agreement reached in 2014, it has committed to utilizing revenues, which were previously committed to further development work, to complete the road works.

With regard to the issues related to the Parish Council, LDL advised that the development is not yet handed over to the Parish Council because of the unfinished roads. The company reiterated that plans are afoot to complete the road works to fulfil the requirements of the Parish Council and hand over of the development.

2. Prorating the Connection Fee and Upgrade of Sewerage System

The residents expressed concern regarding the fixed connection fee of \$49,511 and queried whether the charge should be prorated to represent the time at which each premise was connected to the sewerage system. One customer queried whether he will be required to pay the connection fee, since he had already paid \$50,000 to connect to the sewerage system.

Residents also disputed LDL's claim regarding the upgrading of the sewerage system and stated that there was currently no system in place to upgrade. One customer also mentioned that as a result of the existing poor infrastructure, customers were experiencing effluent overflow into their homes.

LDL Response:

LDL advised that the rates proposed represent the cost (of \$43 million) that it will incur to undertake the necessary works to effect the upgrade.

The work to be undertaken will entail the improvement of the sewerage system to a tertiary state, with re-beds and wet lands and the disposition of the final sewage in absorption pits.

Further, LDL refuted the residents' assertion that there is no sewerage system in place and reiterated the existence of the system and the connections thereto. However, LDL conceded that there are minimal issues with the sewerage system in Phase 2 Annex and Phase 3 and in accordance with the instructions by NEPA and the Ministry of Health, they have carried out reactive maintenance work to remedy same. They also advised that the works were carried out on a reactive basis due to the unavailability of needed resources.

LDL further advised that under its Licence, the company is obligated to fully maintain the sewerage system in accordance with the requirements of the OUR and other agencies. Accordingly, all four systems are being prepared for upgrading works, following which, they will be fully maintained. The company further advised that the work to upgrade the facilities will be carried out in accordance with the requirements of the Ministry of Health, NEPA and the Parish Council.

In relation to the connection fee, LDL advised that where monies have already been paid for connection, then no additional connection charges will be applicable. However, residents need to ensure that they can provide proof of payment, such as a receipt.

LDL also committed to consider the suggestion to prorate the connection fee bearing in mind the fact that although residents have not been living in Liberty for the sixteen (16) year period, the infrastructure and the system have been put in place for that period. Accordingly, LDL indicated that a reasonable methodology that allows the company to recover the associated capital cost, will have to be decided on.

3. LDL's Licence

Residents queried the basis on which the OUR granted a licence to LDL, given that it is a private company that will be required to provide such a critical service. They feared that the lack of compliance from LDL can have severe health implications on the wider community.

A query was also raised regarding the reason why sewerage services were not being provided to the area by the NWC.

OUR's Response:

In response, the OUR advised that it does not grant licences but rather reviewed the application submitted and makes a recommendation to the responsible Minister. The ultimate decision as to whether or not to grant a licence rests with the responsible Minister.

LDL response:

In relation to the provision of sewerage services by NWC, LDL advised that given small size of the system, it would not have been feasible for the NWC to connect the development connect to its system. LDL further pointed out that the NWC has adopted the policy of allowing small to medium developers to provide their own water and/or sewerage services.

LDL also reminded the residents that over the years, the residents have received the sewerage service at no cost and the imposition of a charge is as a result of the necessity to carry out upgrading work, which costs \$43 million. LDL further reiterated its commitment to honour its statutory and regulatory obligations.

4. Office Facility

Residents complained that there is no facility within the community for the payment of bills and to report their concerns regarding their sewerage service. They also stated that there is no structured and publicised means of communicating with LDL.

LDL's Response:

LDL advised customers that the company can be contacted by telephone: 880-5873/819-2864, email, or via its offices at Barbados Avenue in Kingston. However, LDL advised that the company is in the process of opening an office, in the community, to facilitate the residents.

5. Water Catchment

Residents complained that the water catchment located at Tank Hill is unhygienic and is not being properly maintained, as it is left open, which poses a threat to health and safety.

LDL's Response:

LDL stated that maintenance of the referenced water catchment is the responsibility of the NWC. The company further stated that upon handing over the water catchment to the NWC, the area was fenced and locked to restrict unauthorized personnel from entry.

6. Analysis of the Rate Application

The revenue requirement applicable to the rate application process is predicated on the ROR methodology. Under this approach, the utility may be allowed to recover all prudently incurred costs plus a rate of return on its investment. Consistent with the provisions of the Licence, the revenue requirement is expressed as:

Revenue Requirement = Operating costs + Depreciation + Taxes + Return on Investment

Where the return on investment (ROI) is the product of the Weighted Average Cost of Capital (WACC) and the rate base (RB).

In support of its Rate Application and following the methodology delineated in the Licence, LDL proposed a revenue requirement of \$37,276,381 which is derived as shown in Table 4 below.

Table 4: LDL Revenue Requirement Derivation

Details	Costs \$
Operating Cost (before interest)	9,096,000
Finance Cost	8,934,950
Depreciation	4,414,706
Taxes	148,276
ROI = (WACC*Rate Base)	14,553,725
Revenue Requirement¹	37,276,381
WACC	9.53%
Rate Base	\$152,677,442
No. Customers	847
Months	12
Average Tariff	\$3,667

Source: LDL Tariff Application for sewerage rates

It should be noted that based on the data presented by LDL in the Rate Application, the computation of the revenue requirement and the average tariff should be \$37,147,657 and \$3,654.83 respectively.

¹ Given the components of cost, their addition should result in the revenue requirement being \$37,147,657
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From a rate making perspective, LDL proposal presents three major challenges if the proposed tariffs were to be embraced and the ROR methodology as prescribed by the Licence is followed. The subsequent section outlines the challenges.

The Level of the Increase

Firstly, the Licence contemplates the calculation of tariffs on the basis of a retrospective (test year) rather than a prospective test year. LDL tariff proposal is predicated on the cost it anticipates it would incur when it is fully operational. These costs include:

- A 245% increase in operating cost before interest
- New financing cost of \$8.9 million
- A 37% increase in the value of its asset base

According to LDL's proposal, the average tariff it would have charged customers in 2016 should have been \$1,618 but given the upgrades expected, customers would be required to pay \$3,667 or 126.6% more. It is evident that LDL previously gave very little attention to its sewerage facility and undoubtedly a substantial amount of expenditure would be required to lift the facility to an acceptable level. However, the proposed tariff appears to be high relative to what currently obtains in the industry. Additionally, even if it is assumed that the residents of Liberty Estate were currently paying a charge of \$1,618 per month, the imposition of a 126.6% increase would be a source of rate shock. Further, since previously no charges were applied to the service, it is reasonable to conclude that the shock would be inevitably great. Therefore, the regulator, out of necessity, must exercise a high degree of prudence in arriving at the rates.

The Costs Used in the Derivation of the Rates

Secondly, the OUR takes issue with some elements of LDL proposed costs. For instance, given that LDL's core business is the supply of lots for housing development, there is no evidence of the separation of its assets regarding that side of the business from those dedicated to the provision of sewerage services. In principle, the assets to be used in tariff making ought to be those that are 'used and useful' in the provision of the utility service to the customers. Furthermore, in the case of other developments similar to Liberty Estate, in purchasing their lots, the residents actually contribute to the payment for the sewerage infrastructure. Although it is not clear as to whether this was the position in the case of Liberty Estate, since there is no evidence to the contrary, it would be reasonable to make such an assumption. Consequently, the charges as presented by LDL could contain some elements of double counting.

The Efficiency of the Proposed Operation

Thirdly, there are reasons to question whether LDL's proposed operations accords with the requirement of efficiency which should be captured in the tariff. For example, LDL has signalled its intention to employ nine (9) staff members; a general manager, plant supervisor, systems billing officer, administrative officer, two (2) clerical staff and three (3) utility staff members. However, based on comparisons with other small water and sewerage service providers, a start-up operation of this type, generally requires four (4) to six (6) employees. Consequently, there are indications that there is scope for the redistribution of cost across the business, as well as a need for greater efficiency in the proposed operation.

Benchmarking

In the practice of rate making, when cost information is absent, ambiguous or questionable, regulators often invoke the instrument of benchmarking to arrive at their decisions. In this particular case, for the reasons delineated above, the OUR takes the view that this is necessary. In performing the benchmarking analysis, the OUR decided that it would be appropriate to reference LDL proposal against three other Jamaican sewerage service providers, NWC, Can-Cara Development Limited (CDL) and Dynamic Environment Management Limited (DEML).

The NWC now operates with the assumption that on average it treats 50 imperial gallons (or 230 liters) of sewage per person daily. Given that on average, a typical household consists of 3.1 persons², then on average, a household generates approximately 22,000 liters of sewage monthly. As shown in Table 5 below, LDL's rate proposal is compared with the approved rates of the other sewerage service providers against whom LDL is being benchmarked.

² Information derived from Jamaica's 2011 census statistics produced by STATIN. See: <http://statinja.gov.jm/Census/PopCensus/Popcensus2011Index.aspx>

Table 5: LDL Rate Proposal versus Rates of Other Sewerage Service Providers

Volumetric Service Blocks (‘000 litres)	LDL	NWC	CDL	DEML
	Rate (\$/000’Litre)	Rate (\$/000’Litre)	Rate (\$/000’Litre)	Rate (\$/000’Litre)
0 - 14	-	88.54	84.11	-
>14 - 27	-	156.11	148.3	-
>27 - 41	-	168.56	160.13	-
>41 - 54	-	215.15	204.39	-
>54 - 90	-	267.91	254.5	-
> 90	-	344.89	327.65	-
Avg. Volumetric Charge	589.00	2488.44	2363.94	2,392.28
Service (Fixed) Charge	3,078.00	778.19	739.28	618.10
Average Tariff	3,667.00	3,266.63	3,103.22	3,010.38
Reconnection Fee	\$7,950	\$3,547 - \$10,652	\$10,000	\$4,202.93
Connection Fee	\$49,511	Private Contract	\$6000- \$15,000	-
Verification Fee	\$7,429	None	None	None

The monthly volumetric sewerage charges shown in Table 5 above, were derived based on the assumption that each company treats 22,000 liters of sewage per household monthly. The fixed service charges were those approved for the referenced utility.

Volumetric and Fixed Service Charge

LDL’s proposed Fixed Service Charge is high and the proposed Volumetric (or Usage) Charge is low, while the opposite is true for the other three utilities. If, however, the Fixed Service Charge is substituted for the Volumetric Charge and visa-versa, the two sets of charges would be more comparable. In any case, the flipping of these charges seems reasonable since under normal circumstances, the customers are required to pay the fixed charge even if the sewerage service is not employed during a given month. Therefore, it would appear to be unreasonable to ask a customer to pay \$3,078 when LDL’s facility is not used for a month, particularly given the fact that the benchmarked companies all have fixed charges below \$800 per month.

The Average Tariff

The Average Tariff represents the summation of the Fixed Charge and the Average Volumetric Charge. When compared with other utilities, LDL's proposed Average Tariff of \$3,667 is 12% to 22% higher. Furthermore, if the "non-objection" rule is invoked, LDL's proposed Average Tariff Charge would be rejected on the grounds that it exceeds NWC's approved charge by \$400.37.

Based on the foregoing and given the fact that CDL has more or less evolved in a similar way – beginning as a development company, selling lots as well as houses to buyers, it seems plausible that at this point in time, LDL should be given the exact Average Tariff (and the corresponding Fixed and Volumetric charges) as CDL.

Reconnection Fee

Reconnection Fees is an important tool in addressing the non-payment of bills. Currently, NWC's Reconnection Fees³ ranges between \$3,547 and \$10,652, while CDL and DEML fees are \$10,000 and \$4,202.93 respectively. LDL's proposed fee therefore is reasonable as it represents roughly an average of the existing fees across the utilities. However, having so far tagged LDL fees to CDL's charges on the grounds that benchmarking is a more prudent approach to apply, the OUR sees no injustice in setting the Reconnection Fee to be equal to that of CDL.

Connection Fee

The proposed fee for establishing the initial connection to LDL sewerage facility is \$49,511. This Connection Fee compares with a charge that range between \$6,000 and \$15,000 for CDL. For NWC, the Reconnection Fee is based on the case by case assessment of the job required.

Unlike NWC that provides service over diverse terrains, LDL provides services to a specific area for which the terrain is known and understood. In this regard, it is appropriate that a precise fee be established. Given the available benchmark, \$49,511 appears to be excessive. Hence, the OUR is of the view that the range set by CDL with an upper limit of \$15,000 is reasonable.

Verification Fee

LDL has proposed a Verification Fee of \$7,429. This is purportedly required to ascertain the viability of the connection. It is interesting to note, that this fee is not conventional in the water and sewerage industry. In addition, LDL did not provide a compelling argument to justify why such a fee should be unique to its operation. In this regard, the request for this fee is denied.

³ This is actually the reconnection of water supply. The assumption is if water is disconnected the sewage facility is not being used.

Determination 1

- a) Having assessed LDL's Rate Application, the Office, in the absence of test year data, has concluded that benchmarking LDL's rates to comparable approved rates in the sewerage industry is a reasonable basis for establishing the company's tariffs. Consequently, the Office has determined that the rates and charges applicable to LDL's customers shall be as follows:

Block (‘000 litres)	Sewerage (\$/‘000 Liter)
0 to 14,000 litres	\$84.11
For the next 13,000 litres	\$148.30
For the next 14,000 litres	\$160.13
For the next 14,000 litres	\$204.39
For the next 36,000 litres	\$254.50
Over 91,000 litres	\$327.65
Avg. Volumetric Charge	2,363.94
Service (Fixed) Charge	739.28
Average Tariff	3,103.22

- b) The Office approves the following:
- Reconnection Fee of \$10,000
 - Connection Fee of \$6000-\$15,000
- c) The Office disallows the proposed Verification Fee of \$7,429. Accordingly, no fees shall be attached to such a service.

Price Adjustment Mechanism (PAM)

The PAM is an indexation mechanism that is applied to the base rate and charges for water and sewerage services to preserve the real revenue of a company. LDL requested that a PAM equivalent to that of the NWC be applied to its base rate. Currently, the PAM captures movement in the CPI, FX (\$/US\$) and electricity price (\$/kWh).

Given that small businesses tend to have less resources to cope with inflation, FX depreciation and electricity price volatility which from time to time impacts the economy, the PAM which automatically adjusts rates in response to changes in these variables, provides a financial buffer against such changes between formal rate reviews. In this regard, the Office takes the position that the PAM should be a component of LDL's rate structure.

However, given the implementation lag which inevitably will occur, since the PAM applicable for any given month must await NWC's calculation and the OUR's certification, LDL will be required to implement the PAM generated by NWC and approved on the basis of a two (2) month lag. For example, the PAM generated from the NWC's data in January is to be implemented in LDL's billing in March.

In addition, the base rates for LDL's PAM shall be reset at its anniversary, which is determined as the time at which the tariff becomes effective.

Determination 2

- a) The Office has determined that LDL's tariff structure shall include a Price Adjustment Mechanism (PAM) that mirrors that of the NWC. However, LDL shall be required to implement the PAM generated by NWC and certified by the OUR on the basis of a two (2) month lag.
- b) The Office has also determined that the LDL's base tariff shall be adjusted annually on the anniversary of effective date of this Determination Notice to reflect the move of the PAM over the period.

7. Quality of Service and Performance Criteria

After giving due consideration to the concerns expressed by the residents at the LDL consultation meeting, the Office has developed and approved quality of service standards and performance criteria for LDL. In setting the service standards and performance criteria, the Office considered the OUR's mandate to protect the interest of consumers, the need to encourage improved efficiencies in the daily operations of utility providers, and took account of the OUR's powers under the Licence to introduce quality of service schemes. The Office has also identified areas which require policy development for implementation by LDL.

The quality of service standards that have been established for LDL comprises Overall Standards (see Table 6 below) and Guaranteed Standards (see Table 7 below). The Overall Standards outline several general performance criteria to be met by LDL, while the Guaranteed Standards set out specific service quality standards for which non-compliance by LDL will result in compensatory payments to the affected customer.

Table 6: Overall Standards

Category	Performance measure
Correction of sewerage problems	LDL shall clear ninety percent (90%) of all reported blocked mains within four (4) hours of the report being received.
Sewerage/odour	LDL shall maintain the plant in such a manner as to minimize complaints of odour. There shall be no more than five (5) complaints per one hundred (100) customers regarding odour in any month.
Sewerage effluent quality	LDL shall ensure that sewage effluent is within the standards specified by NEPA.
Environmental	LDL shall conform to all and any standards that may be established by NEPA/NRCA. LDL shall provide the Office with copies of any licences, standards, special permits issued by NEPA/NRCA from time to time which shall form part of its licence.

Table 7: Guaranteed Standards

Code	Guaranteed Standard	Mode of Compensation
GS 1 – Connection of New Customers	LDL shall connect all new customers within three (3) working days after signing the contract for connection.	Claim
GS2 – Issue of First Bill	LDL shall issue (print and mail/deliver) a bill to a customer within thirty (30) working days after the account is opened.	Claim
GS3(a) – Response to complaints - Acknowledgements	LDL, shall acknowledge written customer complaints within three (3) working days of receipt.	Claim
GS3(b) – Response to Complaints - Investigations	Unless it is an investigation involving a 3 rd party, LDL shall, within fifteen (15) working days of receipt of a complaint, complete investigation and inform the customer of the results.	Claim
GS3(c) – Investigations involving 3 rd party	LDL shall, within thirty (30) working days of receipt of a complaint, complete investigation involving 3 rd party and inform the customer of the results.	Claim
GS4 (a)– Wrongful Disconnection	LDL shall not disconnect the service of an account which is either not in arrears or is the subject of an investigation by LDL or by the OUR.	Claim
GS4 (b) – Reconnection after Wrongful Disconnection	Where LDL has wrongfully disconnected a service account it shall be reconnected to the service within twelve (12) hours of being notified of the error.	Claim
GS5 – Reconnection after Payment of Overdue Amount	LDL shall, within twenty-four (24) hours of receipt of all applicable payments (outstanding amounts, reconnection fee etc.) reconnect customers disconnected for overdue amounts.	Claim
GS6 – Payment of compensation	<p>LDL shall credit a customer's account with the applicable compensation payment within one (1) billing period after a breach of any of the Guaranteed Standards.</p> <p>For the avoidance of doubt, if LDL does not credit the customer's account with the applicable compensation payment within the time specified herein, LDL would have breached this guaranteed standard GS5. Where applicable, customer must submit claims within one hundred and twenty (120) days after the date of the occurrence of the breach.</p>	Automatic

The compensation payable for breach of a Guaranteed Standard is the equivalent of four (4) times the service (fixed) charge. Given that the service (fixed) charge is \$739.28, the compensation payment for a breach of the Guaranteed Standard is \$2,957.12.

Where applicable, customer must submit claims within one hundred and twenty (120) days after the date of the occurrence of the breach.

LDL is required to comply with the Overall and Guaranteed Standards outlined in Tables 6 and 7 above, along with all the other standards in its Licence, environmental permits and service contracts.

LDL shall submit quarterly reports to the Office on its performance against the Guaranteed Standards commencing with the first quarter of 2018. These reports are to be submitted to the Office within thirty (30) working days of the end of each reporting period and shall indicate the number of breaches committed against each standard, and the potential and actual compensation pay out for each breach.

Determination 3

- a) LDL shall comply with the Overall and Guaranteed Standards set out in Tables 6 & 7. In addition, the compensation payable for a breach of a Guaranteed Standard shall be equivalent to four (4) times the service (fixed) charge, which is **\$2,957.12**.
- b) LDL shall submit quarterly reports to the Office on its performance against the Guaranteed Standards commencing with the 2018 January – March quarter. These reports are to be submitted to the Office within thirty (30) working days of the end of each reporting period and shall indicate the number of breaches committed against each standard, and the potential and actual compensation pay out for each breach.

Issues for Policy Development

The Office is of the view that some of the concerns relating to service delivery that were highlighted by customers for improvement, are more appropriately addressed through the development of policies. Accordingly, LDL, under the guidance of the OUR, is required to develop and implement the following policies:

- **Procedures and Schedule for Managing the Sewer System**

In light of the numerous complaints regarding the poor maintenance of the sewerage plant, within three (3) months of this Determination Notice, LDL shall develop a policy governing the procedures and schedule for the efficient management of the sewer system at all locations. For clarity, this policy must detail the activities to be carried out and the schedule of activities that will ensure the most efficient operations of the system.

- **Procedures to Disconnect Sewer Mains**

Being a provider of sewerage services only, LDL may need to disconnect customers from its service. As such, LDL shall within six (6) months of this Determination Notice, develop a procedure outlining the activities to be undertaken to disconnect a sewer main. The policy must indicate how any material from the disconnection exercise is disposed of as well as measures to ensure the area does not pose a hazard to residents.

- **Repairs, Replacements and Road Restoration Policy**

In an effort to ensure that steps are taken to address customers' concerns regarding works to repair mains and restore road surfaces, LDL shall, within six (6) months of this Determination Notice, develop a policy governing the process to repair leaks, replace mains and restore roads that were dug-up as a result of its activities. The policy must include timelines within which repairs and replacement will be carried out, whether scheduled or unscheduled, as well as the period within which road surfaces will be restored following completion of repair/replacement works.

- **Customer Service Charter and Complaints Handling Procedure**

Within three (3) months of this Determination Notice, LDL shall develop a Customer Service Charter outlining its service delivery commitments and customers' rights and responsibilities. The Charter shall also detail the activities and timelines in its Complaints Handling Procedure. In light of customers' complaints, this procedure is intended to ensure that adequate provisions are made for customers to engage LDL regarding the resolution of concerns/complaints.

Determination 4

LDL shall develop the following policies and procedures for approval by the OUR and implementation:

- a. Within three (3) months of this Determination Notice, develop a policy governing the procedures and schedule for the efficient management of the sewer system at all locations. For clarity, this policy must detail the activities to be carried out and the schedule of activities that will ensure the most efficient operations of the system.
- b. Within six (6) months of this Determination Notice, develop a procedure outlining the activities to be undertaken to disconnect a sewer main. The procedure must indicate how any material from the disconnection exercise is disposed of as well as measures to ensure the area does not pose a hazard to residents.
- c. Within six (6) months of this Determination Notice, develop a policy governing the process to repair leaks, replace mains and restore roads that were dug-up as a result of its activities. The policy must include timelines within which repairs and replacement will be carried out, whether scheduled or unscheduled, as well as the period in which road surfaces will be restored following completion of repair/replacement works.
- d. Within three (3) months of this Determination Notice, develop a Customer Service Charter outlining its service delivery commitments and customers' rights and responsibilities. The Charter must also detail the activities and timelines in its Complaints Handling Procedure.

Future Rate Reviews

Given the developments in the water and sewerage sector, and the issues related to poor quality of service and information asymmetries encountered among some water and sewerage providers, the Office is of the view that it is necessary to review, among other things, its current non-objection approach to rate setting for these service providers. Consequently, the OUR will be engaging stakeholders by way of consultation within the next twelve (12) months, regarding its approach to tariff setting for this group of providers. It is intended that a framework for the more effective regulation of small service providers in the sector will be created. In the circumstances, LDL could anticipate the possibility that its next rate review will be consistent with the respective provisions contained in its Licence.

In light of this, the OUR encourages LDL to prepare and submit its financial statements in fulfilment of the information requirements specified in its Licence. Additionally, LDL will be required to submit quarterly operation and revenue data to the OUR no later than thirty (30) days after the end of each quarter. This will facilitate greater transparency and efficiency in future ratemaking exercises, as well as the more orderly development of the sector.