



DECISION

Document Reference: 2014/001/D

DEPRECIATION POLICY

For

DOMINICA ELECTRICITY SERVICES LTD

June 2014

Depreciation Policy for Dominica Electricity Services Ltd.

INDEPENDENT REGULATORY COMMISSION

**Decision
Electricity Supply Act No 10 of 2006**

This document sets out the Decision of the Independent Regulatory Commission **2014/001/D - "Depreciation Policy For Dominica Electricity Services Ltd"** - taken by the Commission at its meeting on May 22, 2014.

The Commission now **ORDERS** that these Rules, made pursuant to Sections 40 and 41 of the Electricity Supply Act No 10 of 2006, will become effective on the date given below.

Effective date: June 1, 2014

By Order

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**LANCELOT MCCASKEY
EXECUTIVE DIRECTOR**

*On Behalf of the Commission
May 26, 2014*

Depreciation Policy for Dominica Electricity Services Ltd.

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DEPRECIATION POLICY FOR DOMINICA ELECTRICITY SERVICES LTD

Introduction and Background

The Commission issued two new Licences, a Generation Licence and a Transmission Distribution and Supply Licence, to Dominica Electricity Services Ltd (DOMLEC), both which became effective on January 1 2014. These two Licences complete the process for aligning the regulatory framework for DOMLEC with the principles and intent of Electricity Supply Act No. 10 of 2006 (ESA) and established a regime of separate licensing for each of the business sectors of public electricity supply undertakings – generation, transmission distribution and supply.

The Transmission, Distribution and Supply Licence (the Licence) sets out the provisions for conducting tariff reviews and, at Condition 33, specifically addresses the procedure for the initial tariff review as follows:

DOMLEC shall, within 7 days of the Commencement Date, submit a timetable for the filing of an application to the Commission for a tariff review, and that the date for such a filing shall not be later than 9 months after the Commencement Date without the approval of the Commission. The application for a tariff review shall be in the format set out in the Commission's Decision Tariff Regime for Dominica Electricity Services Limited - Document Ref 2009/004/D and the tariff review shall be conducted in accordance with the process set out in that Decision.

The Commission is of the view that in order to ensure timely completion of its review of any application for a tariff review submitted by DOMLEC it would be minded to consider certain critical issues in separate proceedings leading up to the tariff review itself. These issues, which are critical inputs to the tariff determination, are:

- Depreciation Policy
- Determination of Weighted Average Cost of Capital (WACC)
- Determination of Asset Base
- Approval of Investment Programme

The Commission has signaled that it is prepared to conduct its review of and make determinations on these issues prior to the formal submission of the tariff review request on the presumption and condition that the Commission's Decisions on these issues will be used by DOMLEC as the inputs in the tariff request.

The Commission is minded to remind stakeholders that the purpose of depreciation is to allow a utility to recover the original cost (less net salvage) of fixed capital investment over the useful life of the plant by means of an equitable

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plan of charges through operating expenses. Depreciation is often times the most significant expense for most utilities and it is the means by which the utility recovers from ratepayers funds (over time) provided by investors (up front) for the construction or acquisition of tangible assets and utility plant. This systematic recovery of an asset's cost over its useful life is recorded in the company's income statement as an expense. In determining the depreciation rates to recover the cost of capital assets over their remaining useful life, the only assets to be considered are those that have been allowed into rate base. Since the depreciation expense is an estimate, any over or under recovery is reconciled in future depreciation charges. The utility should therefore conduct depreciation studies periodically.

DOMLEC submitted its proposals for the Depreciation Policy for the Commission's consideration in which regard it issued the first consultation document, Document Ref No: 2014/001/CD-01, Depreciation Policy for DOMLEC on February 7, 2014 which sets out the Commission's initial thinking in response to DOMLEC's proposals.

The Commission issued a second consultative document, Document Ref No: 2014/001/CD-02 dated March 24, 2014, which discussed the written responses it received from DOMLEC as well as several issues and comments which were raised at the public hearing, held on March 6, 2014. No comments were received in response to the second document.

The Commission's objective in this proceeding has been to consider and decide on:

- 1) Depreciation policy and rates applicable to DOMLEC's Assets; and
- 2) The application of the rates to the existing assets.

The Commission now sets out the statement of results to conclude the consultation on this issue and, in the second part, issues its Decision.

Policy and Legal framework

For completeness and ease of reference, the Policy and legal Framework which was presented in the first consultative document is reproduced in this section.

The Commission's duties and functions with regard to tariff making are provided for pursuant to provisions in three principal instruments – the Act, the Licence and Commission's Determination "Tariff Regime For Dominica Electricity Services Ltd Document Ref: 2009/004/D 9" (the Determination).

The Act provides at Section 18

The Commission shall be independent in the performance of its functions and duties under this Act and shall not be subject to the direction and control of the Government or of any person, corporation or authority, except that the Commission shall have due regard to the public interest and overall Government policy, as embodied in legislation.

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At Section 19

The Commission shall have sole and exclusive authority to regulate all electricity entities that are subject to this Act and shall have full powers to regulate all licensee with regard to all economic and technical aspects of regulation in accordance with this Act especially with regard to the determination of tariff or electricity charges.

At Section 20

(1) The Commission shall, without limiting the generality of this section, have a duty to perform and exercise its functions and powers under this Act in the manner which it considers best calculated to:

- (a) encourage the expansion of electricity supply in Dominica where this is economic and cost effective and in the public interest;*
- (b) encourage the operation and development of a safe, efficient and economic electricity sector in Dominica;*
- (d) facilitate the promotion of sustainable and fair competition in the electricity sector where it is efficient to do so;*
- (e) protect the interests of all classes of consumers of electricity as to the terms and conditions and price of supply;*
- (g) ensure that the financial viability of efficient regulated electricity undertakings is not undermined;*

Firstly the Act gives the Commission full authority to act independently in the performance of its duties under the Act – specifically having regard to public interest considerations and government policy, as embodied in legislation. In providing for its functions the ESA (S20) mandates the Commission to act in a manner which it considers best calculated to achieve a number of policy objectives and in this regard clauses (a), (b), (d), (e) and (g) of S 20 reproduced above are instructive.

The Licence at Condition 32 addresses the Price Control Mechanism:

Tariff Principles

The Commission shall determine the Licensee's rates for electric power pursuant to its powers under the ESA and on the principles set out in the Commission's Decision Document: Tariff Regime for Dominica Electricity Services Ltd.; Document Ref. 2009/004/D as amended from time to time.

While the Determination sets out in detail the methodology and process for determining the tariff for DOMLEC.

The following sections of the Determination are particularly instructive.

Regulatory Policy objectives

The Commission's regulatory policy is to establish a tariff which balances the

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interests of the consumers and investors alike where the investors have the opportunity to realize a fair return on investment while customers can expect an efficient, responsive and economical service in an environment where the rights of all stake holders are preserved. The Commission will not guarantee a rate of return to the investors but will seek to create a regulatory environment where the incentives are such that the company through efficient operational practices and continual efficiency improvements will have the opportunity to achieve the desired rate of return during any tariff period.

Tariff Principles

There are basically two models for a tariff structure which could apply in the Dominica situation.

- 1. A tariff which includes all the costs including the costs of fuel, based on a projected cost of fuel over the tariff period; or*
- 2. A two part tariff comprising (i) a non fuel base rate and (ii) a fuel charge, which fully recovers the cost of fuel (subject to efficiency factors) and no more.*

Both methods use the same techniques and parameters for estimating revenue requirements the exception being that in the first case fuel is included in the revenue requirements while it is not in the second case. The options for treating with fuel costs are discussed separately. The Commission has accepted option No. 2 and will allow a 100% pass-through of fuel costs.

The average tariff that will be in effect from time to time shall be consistent with the following:

$$RR = OC + FC + GO$$

Where:

RR = Revenue Requirement

OC = Operating Cost

FC = Financing Cost

GO = A provision to recover or return the cost of Obligations imposed by government which were not known or anticipated at the tariff review.

The "Average Rate" then becomes the Revenue Requirement (\$) divided by the forecast sales (kWh).

$$\text{Average Rate} = \text{Revenue Requirement (\$)} / \text{Sales (kWh)}$$

Revenue Requirements

The Utility's revenue requirement is calculated as the sum of its estimated costs of providing service, where a fair return is included as one of those costs. These forecasted funding levels have to be sufficient to get the

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required work done without adversely impacting quality of service, or compromising reliability, customer service or safety: any disallowance resulting in deferral of projects or work activities must be carefully considered and weighed against these criteria.

The Revenue Requirement consists of the sum of Operating Costs and Financing Costs required for providing electricity service.

$$RR = \text{Operating Costs} + \text{Financing Costs}$$

Where RR = Revenue requirement

*Operating Costs = Costs of labour, non-generation fuel, **depreciation**, income taxes, deferred costs*

Financing Costs = Cost of capital which includes cost of debt and equity.

The critical exercise is to determine the forecast of the revenue requirements based on a sustainable and defensible estimate of the expenses for the base year. One approach is where the base year is the year for which the most recent published annual reports and audited financial statements are available and from which the Test Year (the forecasted year), representing a forecasted statement of expenses and costs that are known and measurable is derived.

In any event, in all cases, the expenses that are ultimately approved for inclusion will be those that are determined by the Commission to be prudent.

The non-fuel revenue requirement is developed based on a combination of demonstrated historic costs and forecast costs. The fuel revenue requirement is by definition a 100% pass-through of actual cost and will change monthly according to an agreed-to formula.

The revenue requirement for the Base Rate is then:

$$\text{Base Rate RR} = \text{NFOC} + \text{FC} + \text{GO} + \text{RF}$$

Where:

RR = Revenue Requirement

NFOC = Non-Fuel operating Costs (this includes non-generation fuel)

FC = Financing Costs

GO = Government Obligations, and

RF = Regulatory Fees

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Depreciation therefore is prescribed as an element of the non-fuel operating costs (NFOC).

The Determination continues on the question of Depreciation to note:

Depreciation rates can change over time. However it is incumbent on the utility to provide Depreciation Studies to justify any changes to the estimated removal or decommission cost, the estimated salvage value and the estimated remaining useful life in years. These are all the estimates necessary to determine annual depreciation: any changes to these parameters have to be approved by the regulator to ensure reasonable capital recovery.

DOMLEC will carry out a Depreciation Study prior to the second Tariff Review.

Consultation Questions and Responses:

The Commission thanks DOMLEC for its written responses to the five specific questions posed in the consultative document. Although this was the only written response received, several issues and comments were raised at the public hearing, held on March 6, 2014, as part of this consultation. The Commission also thanks those who attended and participated. In the second consultative document the Commission sets out its response and comments to not only the issues raised in formal responses but also to the concerns expressed at the public meeting. While the Commission notes that no comments were received in respect of the second consultative document it sets out below, for completeness and ease of reference, its responses to the issues raised.

Consultation Question No 1:

Do respondents agree that it is not only in order but also prudent for the Commission to accept for its consideration the Depreciation Study submitted by DOMLEC prior to the first tariff review

The background to this question reflects the Commission's concern that by considering a depreciation study prior to the second formal tariff review after issuing the Determination, it could be argued that the Commission was in fact acting contrarily to its own decisions, thus raising questions of "due process". It will be noted that the Commission, in supporting its position argued that:

While the Determination states that the depreciation study be done prior to the second tariff review it does not stipulate that such a study could not be done prior to the first and the Commission is therefore of the view that it is not in breach of its rules to consider a depreciation policy based on a Depreciation Study submitted by DOMLEC prior to the first tariff review. In order to clarify the situation, it is important to note that the Commission had anticipated that DOMLEC would have submitted a tariff review

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application immediately after the Determination came into effect in 2009 and it was prepared at the time, being aware that new Licences would not be in place until some years later, to conduct the tariff review on the basis of the depreciation policy existing at the time. As the tariff review did not take place at that time, the Commission believes that it would be prudent to conduct the first tariff review after the issuance of the Licence having the benefit of recent Depreciation Study.

In its written response DOMLEC states:

“The Tariff Regime Dominica Electricity Company Limited Document Reference 2009/004/D9 states that “DOMLEC should carry out a Depreciation Study prior to the second tariff filing”. The Depreciation Study is such a major part of a rate filing it seems inconceivable that the intention of the Decision was to prevent a Depreciation Study being done prior to the first rate study. Therefore it seems more reasonable that the Decision was saying that the Commission would be allowed to accept a first rate filing without a Depreciation Study but the Commission would not accept a second rate filing without such a study.

For this reason the utility agrees that it would be “prudent for the Commission to accept for its consideration the Depreciation Study submitted by DOMLEC prior to the first tariff review”.”

In summarizing at the end of the public meeting it was noted that there were no objections or adverse comments in response to the arguments that prompted Question No 1 and the Commission is of the view that it can and should pursue the objectives of this proceeding to consider and decide on:

- 1) Depreciation policy and rates applicable to DOMLEC’s Assets; and
- 2) The application of the rates to the existing assets.

Consultation Question No 2:

Do respondents agree to the Commission’s objective stated in (1) & (2) of the section titled ‘Setting Deprecation Rates’? If not, what are the other considerations?

The Commission’s concern which prompted this question was really to affirm the principles and processes set out in the Determination and which is described in the preceding section. The principle that as Depreciation rates can change over time, it is incumbent on the utility to provide Depreciation Studies to justify any changes to the estimated removal or decommission cost, the estimated salvage value and the estimated remaining useful life in years is important as it provides the basis for periodic assessment of the state of the assets and for the regulator to approve any proposed changes from time to time.

In its written response DOMLEC states:

As to the question as to whether

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- 1) *The Depreciation policy and rates put forward by DOMLEC in this application are applicable to DOMLEC's assets and*
- 2) *Whether the rates should be applied to the existing assets*

The Commission has conceded to the fact that "American Appraisal has the competencies to conduct the Depreciation Rate Study" and that it further "believes that Peter Huck P.E. has the necessary expertise and experience to advise on the depreciation rates and therefore accepts the report authored by him to be that of an expert in the field."

The utility concurs with the Commission's position. As such the utility is of the opinion that the rates are applicable to DOMLEC's assets, and further that they be applied to the existing assets for the 2013 financial year. (The application of the new rates on the 2013 financial year will have no bearing on the rate application.)

The determination of the depreciation rates in the Decision Document Tariff Regime For Dominica Electricity Services Limited (2009/004/D) states that "The depreciation calculation can be made using a straight-line remaining life basis method". DOMLEC's calculation was made on a "whole life basis method" which is an acceptable method of computing depreciation rates and is not excluded by the Decision Document.

The Commission notes DOMLEC's response particularly its agreement with the general principles established by the Commission in terms of the expertise of American and Appraisal and Peter Huck PE. It, however, believes that DOMLEC may have misunderstood the question as, at that stage, the Commission was not attempting to decide on the applicability of the detail provided in the report but generally to establish what the objectives and expected outcome of the consultation would be. Nevertheless the Commission is of the view that DOMLEC's comments are not invalid and will be taken into account at the appropriate time.

The Commission also notes that there were no expressions of disagreement as to the objectives of the Consultation.

Consultation Question No 3:

Do respondents agree with the Commission's proposals to establish different depreciation rates for medium and high speed diesel generators respectively? If not, please explain why not?

Consultation Question No 4:

If the response to Consultation Question No 2 is yes, do respondents agree with the proposed rates of 4.25% and 6.67% respectively for medium and high speed diesel generator technology? If not, please explain and propose alternatives

The background to these questions arises from the proposed depreciation rates offered by DOMLEC and points to specific concerns about the impact of technology on average life.

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The Consultative document provided details of DOMLEC's proposed depreciation policies for the various asset categories. For completeness and ease of reference these are reproduced in this document.

Asset Category - Buildings and construction

Asset Category		Present Depreciation		Proposed Depreciation	
		Rate (%)	Implied Life (yrs)	Rate (%)	Average life (yrs)
Buildings and Construction					
	Head works & Pipeline - Trafalgar	3.33	30		
	Head works & Pipeline - Padu	3.33	30		
	Power House	2.50	40		
	Melville Hall & Sugar Loaf	2.50	40		
	Office & Stores	2.50	40		
	Fencing - Trafalgar & Padu	2.50	40		
	Fond Cole	2.50	40		
	New Hydro Building	2.90	35		
	Generation - Hydro electric			2.00	50
	Generation - Diesel			2.90	34.5
	General Purpose			2.75	36.4

Asset Category - Plant and Machinery

Asset Category		Present Depreciation		Proposed Depreciation	
		Rate (%)	Implied Life (yrs)	Rate (%)	Average life (yrs)
Plant and Machinery					
	Plant: Hydro	4.00	25		
	Plant: Hydro Accessories	10.00	10		
	Plant: Diesel Accessories	10.00	10		
	Plant: Diesel Accessories	10.00	10		
	Plant: general Accessories	6.67/10.00	10/15		
	Plant: Diesel	6.67	15		
	Plant: Diesel - FC5 Addition (Spares)	16.67	6	16.67	6
	Tools & Testing Equipment	10.00	10	10.00	10
	Hydroelectric plant equipment			2.25	44
	Diesel Plant Equipment			4.25	23.5

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The Commission had queried what the provision “Plant: Diesel – FCS Addition (spares) is and whether it belongs in the depreciation schedule. DOMLEC has clarified that FCS is really FC5 (Fond Cole 5) and that these spares were used in capital maintenance works on that plant and therefore has been brought in as a depreciable expense.

Asset Category – Network, Vehicles, Office Furniture, Office Equipment, Software and Intangible assets

Asset Category		Present Depreciation		Proposed Depreciation	
		Rate (%)	Implied Life (yrs)	Rate	Average life
Network					
	Various, all with same present rate	5.00	20		
	Network, except meters			4.50	22.2
	Networks, meters			5.00	20
Vehicles					
	Light	20.00	5	16.67	6
	Heavy	14.00	7.1	12.50	8
Office Furniture					
	Office Furniture	12.50	8	10.0	10
	Residential Furniture	12.50	8	10.0	10
Office Equipment (Appliances)					
	Office Equipment (printers, hand held devices)	33.30	3.0	20.00	5.0
	Office Equipment (copiers, switches, etc)	12.50	8.0	14.00	7.1
	CIS System	33.33	3.0	14.00	7.1
	Computers	33.30	3.0	25.00	4.0
Software (Intangible Assets)					
	Software – CIS, Enterprise, AMI, etc	33.3	3	14.00	7.1

In considering the proposals from DOMLEC, the Commission made comparisons with depreciation rates applied to similar assets in other jurisdictions (citing Jamaica and Barbados) and concluded that DOMLEC’s proposals are generally in line with electric utility practices.

The Commission was, however, of the view that the application of the rates to the diesel generation plant should be more granular and that each plant ought to be assigned a specific rate determined by the technology. In this regard, the Commission posited that High Speed Diesels, by virtue of their technology, have a shorter life than medium speed diesels and are subject to higher capital maintenance and life extension interventions than their medium speed counterparts.

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It was this concern, particularly that relating to the differences in diesel generating technology, which prompted Question No 3. In this regard the Commission proffered that the applicable rates could be

Table 1
Proposed Depreciation rates for Diesel generators

Technology	Depreciation rate (%)	Average life (yrs)
Medium Speed	4.25	23.5
High Speed	6.67	15

In its written response to Question 3 DOMLEC states:

On this question the utility is ambivalent.

The reason why DOMLEC supports one rate for all the diesel generating units is that it anticipates that the advent of geothermal generation will severely reduce generation on both the high speed and medium speed engines and so in the long run the diesel assets will see reduced hours and will perhaps be replaced due to obsolescence as opposed to reduced performance due to age.

However if the Commission is of the opinion that geothermal generation is more than 5 years away then DOMLEC can subscribe to separate rates for the two types of engines.

This position is also consistent with comments made by Mr Peter Huck PE at the public meeting where he commented, inter alia, "The basic fact of different rates for different assets is generally acceptable. So I do not have a problem conceptually with different rates for medium speed and high speed diesels but when I made the recommendation to use one rate for them I picked what I thought, based on the data, the conditioning and all these things that we considered, that my rate was a reasonable average for both types of units which, while it is generally agreed they would have ... different lives they could have a different life, they are similar than dissimilar. So the choice of one rate for both kinds of units I thought was appropriately reasonable. As I said two rates for two different types of property in this case are acceptable if that is the direction things want to be moved."

It is noteworthy that other comments at the public meetings were not unsupportive of different rates for the two technology types, (in fact one respondent was quite emphatic that different rates should apply) although no suggestions were made as to what the rates ought to be.

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In response to Question 4 DOMLEC comments:

If the Commission determines that there be separate rates for each diesel type the utility agrees with the depreciation rates of 4.25% and 6.67% on the medium speed and high speed diesels respectively as proposed by the Commission.

The Commission notes DOMLEC's responses to the proposal for differential rates and this being the case its agreement that the rates proposed would be appropriate. The Commission invites further discussion on this issue.

Consultation Question No 5:

Do respondents agree with or have any comments on the Commission's position in respect of:

- 1) The appropriateness of DOMLEC assigning the same life to medium and high speed diesel engine technology?*
- 2) DOMLEC's approach to assigning the remaining useful life (arising from the RUL Study) without any apparent consideration of the actual condition and circumstances of the individual plant.*

DOMLEC responded in writing as follows:

- 1) The utility's response to this question is outlined in the answer to Consultation Question #3.*
- 2) DOMLEC's approach was not solely based on the Remaining Useful Life study, but also on the expectation that with, geothermal generation there will be a significant reduction in the hours of service from these diesel engines. So the engines will continue to be depreciated, their useful life will be lengthened as a result of low annual service hours. In addition to historical and prospective use, the proposed DOMLEC depreciation rate and average service life considered existing condition of the plants, manufacturers' life indications, and the experience of others.*

The Commission notes and agrees with DOMLEC's response to part (1) that this issue was addressed under Question 3. In the discussion the Commission has also noted arguments advanced by DOMLEC and in particular Mr Peter Huck's concluding comments "I just want to summarize by saying, again, that the recommended whole life method and the depreciation rates that were recommended are reasonable and appropriate for DOMLEC's ... and timely capital recovery of its plant investment" resonated with the Commission and those present at the public hearing.

The Commission took note of a number of issues that were raised and, as it indicated in the second consultative document, it has been minded to give due to consideration to these issues in its deliberations.

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Prospects for the introduction of geothermal plant – the implications for the operations of existing plant in the context of the introduction of electricity generation from geothermal energy are noteworthy. DOMLEC opined that the flat to declining demand for electricity allows the utility to focus on the rehabilitation and extended use of the existing plant and that with the introduction of geothermal these plants will essentially be in a standby mode. In this regard DOMLEC confirmed that life extensions had been undertaken on Fond Cole No 5 (FC5) and New Trafalgar No 1 (NT1) plants. The view expressed from the floor was a concern that to depend on the introduction of geothermal would place the utility in a “dangerous situation” because of the uncertainty about the timing for commercial operation of the geothermal plant.

The differences and potential impact of the whole life versus the remaining life method - was raised in terms of the impact of either on revenue requirements and therefore rates. M Peter Huck PE provided the explanation that “all things being equal, they have the same effect”. He mentioned that because of the method of calculation there may be some differences between the final resource on the remaining life method and the whole life method. Ultimately however both methods result in full recovery of the investment.

The Commission has taken note of the approach used in the depreciation study that the whole life method as used would yield slightly different outcomes in the derivation remaining life and notes that this is the method that has been utilized by DOMLEC traditionally. The Commission feels that since it has been raised it should, for completeness, note the differences between the two techniques.

(i) *Whole life or average service life technique* – it is assumed that the asset will be retired or disposed of after a specific average life and that the future amount of net salvage or cost of removal is known at the time the depreciation rate is determined. No further adjustment is made to the depreciation rate during the life of the asset. The same depreciation rate remains in place throughout the life of the asset.

(ii) *Remaining life technique* – the estimated life of the asset and the future amount of net salvage or cost of removal are determined when the asset is put into use. There is a periodic review of the estimated remaining life and net salvage or cost of removal of the asset. As a result of the review, if it is determined that the original estimated useful life of the asset and/or the net salvage or removal costs are different from the original estimates, the annual depreciation expense would be amended to ensure that the amended depreciable amount is allocated evenly over the remaining life of the asset. The computed depreciation expense would be expressed as a proportion of the historical cost of the asset and a new rate of depreciation could result.

The consultation reinforced the Commission’s views as expressed in the Consultative Document as follows:

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Establishing depreciation rates and the attendant remaining useful lives of the utility's assets is a critical factor in tariff making as these can have a direct impact on the resultant rates charged to consumers.

The alignment of depreciation rates used for financial reporting with rates used for tariff making, though desirable is not necessarily mandatory and that, in the Commission's view, the objective is to ensure that the rates used for computation of depreciation expense in the test year are likely to result in a depreciation expense that is fair and reasonable in that year.

The Commission has not heard any compelling arguments that would affect its general agreement with DOMLEC's recommendations in respect of the asset categories and, in doing so, it will rely on the external audit reviews to confirm the Cost and Depreciation Reserve elements.

- Buildings and Construction
- Plant and machinery - Hydro.
- Network
- Tools and Equipment
- Vehicles
- Office Furniture
- Office Equipment (Appliances)
- Software (Intangible Assets)

The Commission has taken note of the comments regarding the difference in the technologies of high speed and medium speed diesel engine plant and notes that there is general support to the principle that different depreciation rates should apply for the two technologies. The Commission however notes that while DOMLEC has no objections to the rates proposed, should the Commission adopt the differential rates, no specific suggestions were made by other stake holders. Although the impact on the revenue requirements may not be significant, the Commission believes the principle was of sufficient importance to pose the question again in the second consultative document.

For the avoidance of any doubt, the Commission repeated the following question which was raised in the first consultative document in the second iteration and has taken careful note that no adverse responses were received:

Do respondents agree with the proposed rates of 4.25% and 6.67% (see table 2 below) respectively for medium and high speed diesel generator technology? If not, please explain and propose alternatives.

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Proposed Depreciation rates for Diesel generators

<i>Technology</i>	<i>Depreciation rate (%)</i>	<i>Average life (yrs)</i>
<i>Medium Speed</i>	4.25	23.5
<i>High Speed</i>	6.67	15

Conclusions and Decisions

In this consultation the Commission has considered proposals regarding a depreciation policy for DOMLEC. In these considerations the Commission has had regard to proposals made by DOMLEC as well as responses to and comments on questions and issues raised in two consultative documents.

The Commission is satisfied that it has exhausted all likely opportunities for stakeholder participation and that it has derived significant guidance from the consultative process to enable it to draw conclusions and finally decide on the issues that are the subject of this proceeding.

The Commission therefore concludes as follows:

Acceptance and purpose of the Depreciation Study submitted by DOMLEC

The Commission's concern about a possible challenge that by considering the depreciation study prior to the second formal tariff review after its Decision "*Tariff Regime for Dominica Electricity Services Limited - Document Ref 2009/004/D*", it could be argued that the Commission is in fact acting contrarily to its own decisions, is of no import as, in making that decision, the Commission's was clearly signaling that it would not consider a second tariff review (after issuing "*Tariff Regime for Dominica Electricity Services Limited - Document Ref 2009/004/D*") without having the benefit of a depreciation study.

The Commission therefore concludes that it is acting prudently to accept and consider the Depreciation Study submitted by DOMLEC which is the subject of this proceeding and in doing so the outcome of the proceeding will be decisions on:

- a. Depreciation policy and rates applicable to DOMLEC's Assets; and**
- b. The application of the rates to the existing assets.**

Depreciation rates for medium speed and high speed diesel generators

DOMLEC proposed a global depreciation rate for the diesel generating plant and in doing so offered a rationale that "*it anticipates that the advent of geothermal generation will severely reduce generation on both the high speed and medium speed engines and so in the long run the diesel assets will see reduced hours and will perhaps be replaced due to obsolescence as opposed to reduced performance due to age.*" DOMLEC also commented that it could

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subscribe to different rates if the Commission is of the opinion that geothermal generation is more than 5 years away. The Commission is of the view that the technology considerations and practical reality of the two types of machines is such that ascribing the same depreciation rate to each would be inappropriate as high speed diesels have a shorter life than medium speed diesels and are subject to higher capital maintenance and life extension interventions than their medium speed counterparts thus giving rise to retirement decisions at earlier intervals.

The Commission has decided that the depreciation for these generators shall be:

<i>Technology</i>	<i>Depreciation rate (%)</i>	<i>Average life (yrs)</i>
<i>Medium Speed</i>	<i>4.25</i>	<i>23.5</i>
<i>High Speed</i>	<i>6.67</i>	<i>15</i>

The Commission is however expressing no view on DOMLEC's intimation that this decision reflects an opinion on the part of the Commission that "geothermal generation is more than 5 years away". For the avoidance of doubt the Commission reiterates that it is not expressing or implying that it has a view on the timetable for the introduction of geothermal generation into Dominica's public electricity supply system.

Depreciation policy and rates

After making an adjustment for the difference in depreciation rates for high speed and medium speed generators the Commission has decided that the rates submitted by DOMLEC are acceptable and has decided that these shall be:

A. Asset Category - Buildings and construction

Asset Category		Present Depreciation		Approved Depreciation	
		Rate (%)	Implied Life (yrs)	Rate (%)	Average life (yrs)
Buildings and Construction					
	Head works & Pipeline - Trafalgar	3.33	30		
	Head works & Pipeline - Padu	3.33	30		
	Power House	2.50	40		
	Melville Hall & Sugar Loaf	2.50	40		
	Office & Stores	2.50	40		
	Fencing - Trafalgar & Padu	2.50	40		
	Fond Cole	2.50	40		
	New Hydro Building	2.90	35		
	Generation - Hydro electric			2.00	50
	Generation - Diesel			2.90	34.5
	General Purpose			2.75	36.4

B. Asset Category - Plant and Machinery

Depreciation Policy for Dominica Electricity Services Ltd.

Asset Category		Present Depreciation		Approved Depreciation	
		Rate (%)	Implied Life (yrs)	Rate (%)	Average life (yrs)
Plant and Machinery					
	Plant: Hydro	4.00	25		
	Plant: Hydro Accessories	10.00	10		
	Plant: Diesel Accessories	10.00	10		
	Plant: Diesel Accessories	10.00	10		
	Plant: general Accessories	6.67/10.00	10/15		
	Plant: Diesel	6.67	15		
	Plant: Diesel - FC5 Addition (Spares)	16.67	6	16.67	6
	Tools & Testing Equipment	10.00	10	10.00	10
	Hydroelectric plant equipment			2.25	44
	Diesel Plant Equipment - Medium Speed			4.25	23.5
	Diesel Plant Equipment - High Speed			6.67	15

C. Asset Category - Network, Vehicles, Office Furniture, Office Equipment, Software and Intangible assets

Asset Category		Present Depreciation		Approved Depreciation	
		Rate (%)	Implied Life (yrs)	Rate	Average life
Network					
	Various, all with same present rate	5.00	20		
	Network, except meters			4.50	22.2
	Networks, meters			5.00	20
Vehicles					
	Light	20.00	5	16.67	6
	Heavy	14.00	7.1	12.50	8
Office Furniture					
	Office Furniture	12.50	8	10.0	10
	Residential Furniture	12.50	8	10.0	10
Office Equipment (Appliances)					
	Office Equipment (printers, hand held devices)	33.30	3.0	20.00	5.0
	Office Equipment (copiers, switches, etc)	12.50	8.0	14.00	7.1
	CIS System	33.33	3.0	14.00	7.1
	Computers	33.30	3.0	25.00	4.0
Software (Intangible Assets)					
	Software - CIS, Enterprise, AML, etc	33.3	3	14.00	7.1

Depreciation Policy for Dominica Electricity Services Ltd.

The Commission agrees that the general asset categories shall be

- Buildings and Construction
- Plant and machinery
 - Hydro
 - Diesels
- Network
- Tools and Equipment
- Vehicles
- Office Furniture
- Office Equipment (Appliances)
- Software (Intangible Assets)

The Commission will rely on specific reports by DOMLEC's external auditors to confirm the Cost and Depreciation Reserve elements. In the meantime, DOMLEC shall amend its current schedules as presented with its initial submission to reflect the Depreciation Policy.