

GUIDELINES

ON DETERMINATION OF GAS TRANSPORTATION FACILITY TARIFF UNDER INCENTIVE-BASED REGULATION (IBR)

Established pursuant to section 13 of Act 501

[GAS SUPPLY ACT 1993 (ACT 501)]

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**GUIDELINES ON DETERMINATION OF GAS TRANSPORTATION FACILITY
TARIFF UNDER THE INCENTIVE-BASED REGULATION**

GP/ST/No.41/2024

IN exercise of the powers conferred by section 37C of the Gas Supply Act 1993 [Act 501], the Commission issues the following guidelines:

Citation and commencement

1. These guidelines may be cited as the Guidelines On Determination Of Gas Transportation Facility Tariff Under the Incentive-Based Regulation and shall come into operation on the date of its registration.

Purpose

2. The purpose of these Guidelines is to describe the Incentive Based Regulation established by the Commission for the purpose of approving revenues and tariffs for regulated services provided by the facility.

Revocation

3. The Guidelines On Determination Of Gas Transportation Facility Tariff Under the Incentive-Based Regulation with registration number of GP/ST/No.18/2018 (Pin.2021) are revoked.

Dated: 5/12/2024



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1. Objective

The objective of these Guidelines are:

- (a) to define the calculation of Allowed Revenues which the Transportation Licensee may recover from User of Regulated Services provided by the facility; and
- (b) to define the principles and process for setting Regulated Tariffs in order to recover these Allowed Revenues.

END OF SECTION

2. Interpretation

2.1. In these Guidelines, unless the context requires, the definition of the terms are as follows:

“Act”	means the Gas Supply Act 1993 [<i>Act 501</i>];
“Actual Capex”	means the real or realized expenditures made by the licensee for acquiring, constructing, or improving capital assets;
“Actual Contributions”	means the financial in terms of value of any customer contributions, plus the value of any grants, subsidies, or other contributions from third parties towards the operations, projects, or capital of the licensee;
“Actual Depreciation”	means the depreciation expense incurred by the Transportation Licensee;
“Actual Disposals”	means the process of selling, removing, or decommissioning assets that are no longer needed or useful to the Transportation licensee;
“Actual Opex”	means the real or realized expenditure made by the licensee in order to maintain its operations and provide services;
“Allowed Tariff”	means the sum of the Base Tariff and the Tariff Adjustment;
“Allowed Capex”	means the maximum amount of capital expenses that a licensee is permitted to incur within a specified period, as determined by the Commission;

“Allowed Cost of Internal Gas Consumption”	means the cost of purchasing gas for its own operation that a licensee is permitted to incur;
“Allowed Cost of Working Capital”	means the cost associated with the capital necessary for a licensee to maintain its day-to-day operations and meet its financial obligations;
“Allowed Depreciation”	means the depreciation expense that a licensee is permitted to include in its operating costs;
“Allowed Opex”	means the maximum amount of operating expenses that a licensee is permitted to incur within a specified period, as determined by the Commission;
“Allowed Rate of Return”	means the average rate of return which can also be referred as Weighted Average Cost of Capital that a licensee is allowed to earn on its capital, which includes both equity and debt;
“Allowed Return on Capital”	means the permissible rate of return that the licensee can earn on its invested capital, as determined by the Commission;
“Allowed Revenue”	means the amount of forecasted revenues, before adjustments, that a licensee can charge to recover the reasonable and efficient costs, including a fair return on capital of providing the Regulated Services during a Regulatory Period;
“Allowed Revenue Model”	means a spreadsheet or equivalent financial model prepared by a licensee and approved by the Commission for the

purposes of calculating the Allowed Revenue;

“Allowed Quality of Service Incentive”

means a regulatory mechanism that rewards or penalizes a licensee based on its performance in delivering services according to predefined quality standards. If the service meets or exceeds these standards, the provider may receive financial incentives, while failure to meet them could result in penalties via Tariff Adjustments;

“Allowed Tax and Zakat”

means amount of tax and zakat that a licensee is permitted to incur;

“Average Days Payable”

means the average number of days it takes for a licensee to pay its suppliers or vendors for goods or services received;

“Average Days Receivables”

means the average number of days it takes for a licensee to collect payments from its customers after providing goods or services;

“Base Tariff”

means the approved Base Tariff for a Regulatory Period and is constant in all years of that Regulatory Period;

“Base Step Trend”

means the methodology used to derive forecast Opex that involve the selection of a starting Actual Opex amount or base which is then escalated and adjusted as appropriate to derive a forecast that best reflects the Opex requirements of the forthcoming regulatory period;

“Base Tariff Table”	means the list of individual charges by customer category and by type of charge;
“Capex”	means capital expenditure for acquiring, constructing, or improving capital assets;
“Capex Efficiency Carry-Over Scheme”	means a regulatory mechanism that allows a licensee to retain and carry over the benefits of any Capex efficiencies achieved during a Regulatory Period into subsequent periods;
“Capital Asset Pricing Model”	means a financial model that calculate the expected rate of return for an asset or investment;
“Cash Working Capital Requirement”	means the amount of cash or liquid assets that a licensee needs to have on hand to cover its day-to-day operating expenses and financial obligations;
“Commission”	has the meaning assigned to it under the Energy Commission Act 2001 [<i>Act 610</i>];
“Draft Determination”	means a preliminary proposal decision made by the Commission regarding Base Tariff for review and feedback by stakeholder;
“Earned Unpredictable Capex Underspend Benefit”	means a financial incentive or penalty that a licensee gains when its actual Capex earn on unpredictable projects is lower or higher than the amount approved by regulators;
“EBITDA”	means Earnings Before Interest, Taxes, Depreciation and Amortization which refers to a financial metric that represents a company's operating performance before non-operating expenses like interest, taxes,

	depreciation, and amortization are deducted;
“Equity Beta”	measures the sensitivity of a stock's returns to changes in the overall market returns;
“Excluded Services”	means non-Regulated Services that are provided using the same gas facility under the Regulated Services;
“Excluded Services Adjustment”	means the sharing of the Excluded Services Income between gas facility licensee and the User of the facility based on the agreed sharing ratio;
“Excluded Services Income”	means net income generated from Excluded Services that are not subject to regulatory oversight or included in the regulated tariff structure;
“Final Determination”	means a final proposal decision made by the Commission regarding Base Tariff;
“Fuel Gas”	means the natural gas or other gases used as a fuel source within the facility's operations;
“FFO”	means Fund From Operation which represents a measure of cash generated from the core operations of the licensee;
“Gearing Ratio”	means the proportion of a licensee's debt to its total capital that is determined by the Commission. Calculated as the total debt to total capital;
“Incremental Efficiency Gain”	means the additional or incremental improvement achieved in operational

	efficiency compared to a baseline or previous performance level;
“Internal Gas Consumption”	means Transportation Licensee’s gas consumption for its own operation;
“Internal Gas Consumption Adjustment”	means the sharing of any variances from Internal Gas Consumption between gas facility licensee and the User of the facility;
“Investment Plan”	means the outline of the strategic initiatives that the Transportation Licensee intends to undertake over a specified period;
“Maintenance Gas”	means natural gas or other gases used specifically for maintenance purposes within the facility;
“Marginal Cost of Gas Supply”	means the incremental cost associated with supplying an additional unit of gas to meet demand;
“Maximum Quality of Service Incentive”	means the highest possible financial reward or penalty that a service provider can receive under a regulatory framework based on its performance in meeting or exceeding established quality of service standards;
“Opex”	means Operating Expenses which refers to the ongoing costs incurred by the Transportation Licensee in order to maintain its operations and provide services;
“Opex Efficiency Carry-Over Scheme”	means a regulatory mechanism that allows a Transportation Licensee to retain and carry over the benefits of any Opex

	efficiencies achieved during a Regulatory Period into subsequent periods;
“Opex Underspend”	means Actual Opex that are lower than the Opex allowed by the Commission;
“Post-Tax Cost of Equity”	means the return that investors expect to earn on their equity investment for the Transportation Licensee after accounting for taxes;
“Regulated Asset Base”	means the total value of a Transportation Licensee’s assets that are considered by Commission when setting tariffs or rates;
“Regulated Services”	means the receipt, distribution and delivery of gas through any part of the facility at a quantity equal to or less than the Reserved Firm Capacity without interruption, except as is expressly permitted under the Access Arrangement;
“Regulated Tariff”	means the tariffs and charges applied for the provision of the Regulated Services;
“Regulatory Period”	means a specific timeframe during which the Commission establishes and enforces tariffs or rates that service providers can charge consumers;
“Regulatory Proposal”	means the proposed of Allowed Revenue and Base Tariff for each year of the next Regulatory Period by licensee;
“Regulatory Reviews”	means the periodic evaluations conducted by the Commission to determine the Base Tariff, Allowed Revenue and the structure of the Regulated Tariffs for the next Regulatory Period;

“Reserved Firm Capacity”	means the capacity that is reserved to User to flow gas into and from an entry point to the facility to an exit point from the facility;
“Revenue-Cap Adjustment”	means the difference in revenues resulting from differences between actual and forecast firm capacity reservations between gas facility licensee and the User of the facility;
“Risk-Free Rate”	means the theoretical rate of return on an investment that carries no risk of financial loss, typically represented by the yield on government bonds or securities;
“Tariff Adjustments”	means the representation of the annual Tariff Adjustment added to the Base Tariff to give the Allowed Tariff in each year;
“Transportation Licensee”	means a person licensed under section 11 of the Act to transport gas;
“Unaccounted for Gas”	means natural gas that is lost or untraceable within the facility's system;
“Unpredictable Capex”	means the Capex that is uncertain or was unforeseen at the time of setting Allowed Revenue;
“Unpredictable Capex Adjustment”	means adjustments for the annual difference between the estimate of Unpredictable Capex and actual Unpredictable Capex;
“Unpredictable Opex”	means the Opex that is uncertain or was unforeseen at the time of setting Allowed Revenue;

“Unpredictable Opex Adjustment”

means the adjustments for the annual difference between the estimated unpredictable Opex included in the Allowed Revenue of the Transportation Licensee and the actual Unpredictable Opex;

“User”

means any entity that holds a shipping license issued under Act 501 and accesses or utilizes the services of a gas facility; and

“Working Capital Remuneration Rate”

means the rate of return or interest applied to the working capital held by the licensee.

- 2.2. Subject to section 2.1 and unless expressly indicated to the contrary or unless the context otherwise requires, terms adopted and used in these Guidelines shall bear the same meaning as they are defined in the Act.

END OF SECTION

3. Incentive-Based Regulation framework

Objectives of the IBR framework

- 3.1. The objectives of the IBR framework are:
- (a) to protect User in relation to transportation of gas from any potential misuse of monopoly or market power;
 - (b) to provide reasonable assurance that a Transportation Licensee will receive revenues from tariffs and charges that will cover its costs, including a reasonable return on capital of providing the Regulated Services, provided that such licensee is efficient, well managed and appropriately financed;
 - (c) to facilitate the financing of required and efficient investments in gas transportation infrastructure and supply;
 - (d) to provide incentives for the Transportation Licensee to deliver outcomes consistent with customer needs and priorities, including efficient operation and quality of service;
 - (e) to provide for efficient and evolving allocations of risk between the Transportation Licensee and User;
 - (f) to design gas transportation tariff structures that maximise the efficiency of gas supply and consumption;
 - (g) to ensure that gas transportation tariffs are reasonable and provide fair value to User;
 - (h) to ensure that revenue and tariff regulation is transparent, consistently adheres to the principles of tariff determination and the regulatory proposals from the Transportation Licensee and the Commission's determinations are evidence-based; and
 - (i) to safeguard that any review and approval made by the Commission on any revenue and tariff proposals is in compliance with its roles and responsibilities in relation to regulating the gas supply industry, as stipulated in the Gas Supply Act 1993 [Act 501] and the Energy Commission Act 2001 [Act 610].

Overview of tariffs

- 3.2. Under the IBR framework, the Transportation Licensee is permitted to earn an Allowed Tariff, which recovers its forecast efficient costs and allowed returns.
- 3.3. The Allowed Tariff is comprised of:
- (a) the Base Tariff, which are set for each Regulatory Period at Regulatory Reviews, and
 - (b) the Tariff Adjustments, which are applied annually as described in these Guidelines.
- 3.4. Where a Transportation Licensee owns one or more physically separated facilities which are operated and maintained under the same licence, then the same Allowed Tariff applies to all such facilities.
- 3.5. Where the same legal entity owns one or more physically separated facilities which are operated and maintained under separate licences, then separate Allowed Tariff apply to each such facility.

Incentives of the Transportation Licensee

- 3.6. If the Transportation Licensee reduces its actual costs below its forecast efficient costs embedded in its Allowed Tariff, then it retains some of the resulting savings and increased profits.
- 3.7. If the Transportation Licensee's actual costs exceed the forecast efficient costs, then it will bear some of the difference and its profits will be correspondingly reduced. This provides the incentives for a Transportation Licensee to improve efficiency above and beyond the expected improvements included in the estimation of Allowed Tariff.
- 3.8. The forecast of efficient costs for each Regulatory Period will take into account of a Transportation Licensee's actual costs achieved in preceding Regulatory Periods. This provides the mechanism by which cost reductions resulting from better-than-expected efficiency performance by a Transportation Licensee are returned to User and provides some financial protection to a Transportation Licensee if its actual costs are higher than forecast.
- 3.9. In order to provide incentives for a Transportation Licensee to maintain and, where economically efficient, improve the quality of Regulated Services, quality of service incentives and penalties will be included in the Allowed Tariff.

- 3.10. These incentives and penalties will be based on a Transportation Licensee's actual performance against Key Performance Indicators.

Form of control

- 3.11. The Transportation Licensee will recover its forecast efficient costs, plus adjustments, except to the extent there are differences actual tariff revenue and revenues based on Allowed Tariff that arise due to differences between forecast Reserved Firm Capacity and actual Reserved Firm Capacity. Any such differences may be shared between the Transportation Licensee and User through the Revenue-Cap Adjustment as described in these Guidelines.

END OF SECTION

4. Application of the IBR framework

Regulated Services

- 4.1. The IBR framework applies to Regulated Services which are defined as the minimum set of services that the Transportation Licensee is required to provide in accordance with the Third-Party Access Code for Malaysian Transportation Pipelines.
- 4.2. These Regulated Services include, but are not limited to:
- (a) the provision of firm entry capacity to the facility;
 - (b) the provision of firm exit capacity from the facility; and
 - (c) the transportation of gas between entry and exit points, up to the volumes permitted under reserved firm entry and exit capacity.

Components of Allowed Tariff

- 4.3. The Transportation Licensee will earn an Allowed Tariff that is equal to its Base Tariff plus its Tariff Adjustment.
- 4.4. The Allowed Tariff will be calculated according to the following formula:

$$ALLW_t = BASE_P + ADJT_t$$

Where:

'P' is the next Regulatory Period

't' is the year of Regulatory Period 'P'

' $ALLW_t$ ' is the Allowed Tariff in year 't' (expressed in RM/GJ/day)

' $BASE_P$ ' is the Base Tariff in Regulatory Period 'P' (expressed in RM/GJ/day)

' $ADJT_t$ ' is the Adjustment in year 't' (expressed in RM/GJ/day)

- 4.5. The Base Tariff for each Regulatory Period is determined by the Commission at Regulatory Reviews. It is set to recover Allowed Revenue, which represents a forecast of a Transportation Licensee's efficient costs, including a return of providing Regulated Services.
- 4.6. The Base Tariff will be the same for each year of a Regulatory Period.
- 4.7. The Tariff Adjustment for each year is calculated by the Commission as the sum of applicable adjustments, including but not limited to the Revenue-Cap Adjustment, Excluded Services Adjustment, Unpredictable Opex Adjustment, Unpredictable Capex Adjustment,

and Internal Gas Adjustment as described in these Guidelines. These adjustments represent changes in a Transportation Licensee's efficient costs that are largely outside of its control.

Excluded services

- 4.8. The IBR framework applies only to Regulated Services, from which Transportation Licensee's earn tariff revenue.
- 4.9. The Transportation Licensee may earn income from Excluded Services, which are services that are not regulated but are provided in full or in part using regulated assets and/or staff or other resources of a Transportation Licensee.
- 4.10. The Excluded Services Income may be partially or fully deducted from Allowed Tariff as part of Tariff Adjustments, as described in these Guidelines.
- 4.11. Tariffs applied for the provision of Excluded Services will be determined by one of the following methods:
 - (a) by direct negotiation between the Transportation Licensee and User; or
 - (b) by establishing the tariffs through a competitive process.
- 4.12. The principles and process for determining tariffs for Excluded Services will be included in the Access Arrangement issued by the Transportation Licensee.
- 4.13. The tariffs for Excluded Services applicable to each customer will be contained in their individual agreement related to the Excluded Services.

Length of the Regulatory Period

- 4.14. The Commission will determine the length of the Regulatory Period before the Regulatory Proposal submission.

END OF SECTION

5. Customer Tariffs

Customer tariffs

- 5.1. The tariffs charged by the Transportation Licensee to its User for the provision of Regulated Services will comprise the sum of the following:
- (a) the Base Tariff Table, which comprises individual charges and is expected to recover the Base Tariff, as approved for the Regulatory Period by the Minister; and
 - (b) the Tariff Adjustment, as calculated annually.

Base Tariff Table

- 5.2. The Base Tariff Table will list individual charges by customer category and by type of charge, whereas the Base Tariff is defined as an average and does not distinguish by customer category or type of Regulated Service.
- 5.3. The Tariff Adjustment will be applied as a uniformed percentage adjustment to all tariffs listed in the Base Tariff Table.
- 5.4. The Base Tariff Table may be the same for each year of a Regulatory Period, or it may vary from year to year.
- 5.5. The Transportation Licensee will propose a Base Tariff Table as part of its Regulatory Proposal.
- 5.6. The Base Tariff Table for each Regulatory Period will be determined by the Commission, with the Transportation Licensee's assistance to calculate expected revenues if requested, no later than 15 days following the approval of Base Tariff by the Minister.

Tariff structure principles

- 5.7. The Base Tariff Table will meet the principle of cost recovery by ensuring that the Transportation Licensee is expected to recover the Base Tariff from User across the Regulatory Period.
- 5.8. The Base Tariff Table will also be consistent with the following principles:

(a) **Cost-reflective**

The tariffs must be broadly reflective of the different costs of services to different User. Gradual adjustments to cost-reflective tariffs may be justified if it would otherwise result in large tariff increases for a particular customer category or categories; and

(b) **Non-discriminatory**

The tariffs for an individual Regulated Service may only differ between User where there are significant differences in the costs of service to these different User.

Type of charges

- 5.9. The types of charges must include, at a minimum, a capacity tariff of (RM/GJ/day).
- 5.10. The types of charges may include a commodity tariff. Where a commodity tariff is applied, the proportion of Allowed Revenue recovered through this tariff should reflect the share of variable or short-term volume-driven costs in total costs.
- 5.11. The types of charges may include standing or other fixed charges to recover the costs of services, such as metering, that are provided irrespective of whether any capacity is booked or any volumes of gas flowed in any one period.
- 5.12. Unless otherwise approved by the Commission, the Base Tariff Table will be applied on a postage-stamp basis with no locational element.
- 5.13. Regulated Tariffs may be applied to:
- (a) the reserved entry capacity to the facility;
 - (b) the reserved exit capacity from the facility; or
 - (c) a combination of entry and exit capacity.

Publishing customer tariffs

- 5.14. The Base Tariff Table and Tariff Adjustments will be published by the Transportation Licensee on its website and by such other means as it considers appropriate to bring it to the attention of existing and prospective User.

END OF SECTION

6. Regulatory Reviews

Objective of Regulatory Reviews

- 6.1. The objective of the Regulatory Review is to determine the Base Tariff, Allowed Revenue and the structure of the Regulated Tariffs for the next Regulatory Period.
- 6.2. The Regulatory Review for the Transportation Licensee shall be conducted by the Commission before the start of the next Regulatory Period in accordance with the time frame as stated in subsection 6.18(b) of these Guidelines.

Regulatory Review process

- 6.3. The Commission may issue an Allowed Revenue Model to the Transportation Licensee prior to the submission of the Regulatory Proposal by the Transportation Licensee.
- 6.4. The Allowed Revenue Model will be used by the Transportation Licensee to calculate its proposed Allowed Revenue and Base Tariff in each year of the next Regulatory Period.
- 6.5. The Allowed Revenue Model shall include inputs and calculations that are in accordance with the requirements under these Guidelines and any changes made to it shall be clearly stated and justified by the Transportation Licensee.
- 6.6. The Commission may request the Transportation Licensee to include specific information in the Regulatory Proposal, and such information and its format shall be included in the Regulatory Proposal by the Transportation Licensee before it is submitted to the Commission.
- 6.7. The Transportation Licensee will submit to the Commission a Regulatory Proposal for the provision of Regulated Services for the next Regulatory Period, in accordance with these Guidelines.
- 6.8. The Commission shall review the Regulatory Proposal submitted by the Transportation Licensee and may require the Transportation Licensee to provide additional explanation and evidence in written form, if necessary.
- 6.9. Any additional explanation or information provided by the Transportation Licensee should not modify the proposed Allowed Revenue or Base Tariff that has been submitted, unless it is for the

purpose of rectifying any error identified by the Transportation Licensee.

- 6.10. The Commission will submit to the Transportation Licensee its Draft Determination of the Allowed Revenue, Base Tariff, and the structure of Regulated Tariffs.
- 6.11. The Draft Determination shall contain explanation and reasons of the differences between the Transportation Licensee's Regulatory Proposal and the Commission's Draft Determination.
- 6.12. The Transportation Licensee will prepare and submit to the Commission its Revised Regulatory Proposal no later than six months prior to the start of the next Regulatory Period, within the period in accordance with subsection 6.18(d) of these Guidelines.
- 6.13. There are no requirements on the Transportation Licensee regarding the content of the Revised Regulatory Proposal, however to the extent that it does not contain updated information on any matter, then the Commission may rely on the Regulatory Proposal in making its Final Determination.
- 6.14. The Commission will submit to the Minister for approval the recommended Final Determination of the Allowed Revenue, Base Tariff, and structure of Regulated Tariffs which includes the following:
 - (a) a summary of comments received from the Transportation Licensee and from stakeholders, if applicable, on the Draft Determination and the responses from the Commission to the comments received;
 - (b) an explanation of the reasons for differences between the Transportation Licensee's Revised Regulatory Proposal and the Commission's Final Determination; and
 - (c) an explanation of the reasons for differences between the Commission's Draft Determination and the Commission's Final Determination.
- 6.15. The Minister may approve the Base Tariff for the Regulatory Period prior to the commencement of the next Regulatory Period. The approved tariffs may or may not differ from those recommended by the Commission.
- 6.16. The Commission shall submit the approved Final Determination to the Transportation Licensee upon the approval of the Minister.

Regulatory Review timetable

- 6.17. The Commission will publish the timetable and process for conducting a Regulatory Review, no later than eighteen (18) months prior to the start of the next Regulatory Period.
- 6.18. The timetable of each Regulatory Review shall be in accordance with the following time frames:
- (a) the Allowed Revenue Model or any specific or additional information requests shall be issued to the Transportation Licensee by the Commission no later than fifteen (15) months prior to the start of the next Regulatory Period;
 - (b) the Regulatory Proposal shall be submitted to the Commission by the Transportation Licensee no later than twelve (12) months prior to the start of the next Regulatory Period;
 - (c) the Draft Determination shall be submitted to the Transportation Licensee by the Commission no later than eight (8) months prior to the start of the next Regulatory Period;
 - (d) the Revised Regulatory Proposal shall be submitted by the Transportation Licensee to the Commission no later than six (6) months prior to the start of the next Regulatory Period; and
 - (e) the Final Determination shall be submitted by the Commission for the approval of the Minister no later than three (3) months prior to the start of the next Regulatory Period.

Stakeholder consultation during a Regulatory Review

- 6.19. When the Commission publishes its timetable and process for conducting a Regulatory Review, the Commission may notify the Transportation Licensee whether the Regulatory Review may include consultation with stakeholders, and if so, may notify the Transportation Licensee of the protocol for doing so.
- 6.20. The stakeholder consultation protocol may include, but is not limited to, the specifications of:
- (a) the format and extent of the Transportation Licensee's Regulatory Proposal to be published;
 - (b) the format and extent of the Commission's Draft and Final Determinations to be published; and

- (c) the time frames, formats, and processes that will be made available to stakeholders to provide comments on information that is published as part of the Regulatory Review.
- 6.21. Any non-confidential submission received by the Commission from stakeholders will be provided to the relevant Transportation Licensee, and may also be published on the Commission's website.
- 6.22. Where the Regulatory Review includes consultation with stakeholder, the Transportation Licensee shall submit an additional Regulatory Proposal prepared by the Transportation Licensee for the purpose of publication by the Commission.
- 6.23. The published version of the Regulatory Proposal shall include but not limited to the following:
 - (a) a summary of the Regulatory Proposal, the purpose of which is to explain it in reasonably plain language to User and other stakeholders;
 - (b) the Transportation Licensee's proposed Base Tariff for the next Regulatory Period, comparing it with the current Base Tariff and Allowed Tariff;
 - (c) the Transportation Licensee's proposed Allowed Revenue for the next Regulatory Period, comparing it with the current Allowed Revenue and an explanation of any material differences between them;
 - (d) a description of how, in preparing the Regulatory Proposal, the Transportation Licensee has sought to understand and take account of the needs and preferences of User and other stakeholders;
 - (e) a description of the key risks and benefits of the Transportation Licensee's Regulatory Proposal for User; and
 - (f) the Transportation Licensee's proposed structure of Regulated Tariffs, comparing it with the current structure of Regulated Tariffs, and an explanation of any material differences between them.
- 6.24. The published version of the Draft Determination will include but not limited to, a comparison between the tariffs proposed by the Transportation Licensee and the tariffs that the Commission determines, together with a transparent summary of the reasons for any differences.

- 6.25. The Final Determination, or a version of it, will only be published after the approval from the Minister is granted.
- 6.26. The published version of the Final Determination will include a comparison between the tariffs proposed by the Transportation Licensee in its Regulatory Proposal and in its Revised Regulatory Proposal, the tariffs that the Commission determined in its Draft Determination and in its Final Determination, together with a transparent summary of the reasons for its Final Determination
- 6.27. The summary by the Commission may differ from its recommendations to the Minister and the final tariffs approved by the Minister.

Contents of a Regulatory Proposal

- 6.28. The Regulatory Proposal of the Transportation Licensee will include the Transportation Licensee's proposed Allowed Revenue and Base Tariff for each year of the next Regulatory Period.
- 6.29. The Regulatory Proposal of the Transportation Licensee will:
- (a) comply with the requirements stipulated under these Guidelines;
 - (b) include detailed calculations of the proposed Allowed Revenues, Base Tariff, and structure of Regulated Tariffs and a detailed description and explanation of the method of calculation of the proposed revenues and tariff;
 - (c) describe the input received from User and other stakeholders on matters relevant to the proposal; and
 - (d) include a business plan, or a document or material providing similar content to that of a business plan, of a duration at least equal to that of the next Regulatory Period, from which Allowed Revenues are derived in accordance with the obligations of the licensee under the Act.
- 6.30. The Regulatory Proposal of the Transportation Licensee will include its proposed structure of Regulated Tariffs and provide evidence that it meets the principles set out in these Guidelines.
- 6.31. The Regulatory Proposal of the Transportation Licensee may contain any such further information which might assist the Commission with its determination such as follows:
- (a) information on expenditure trend and on expenditure drivers;

- (b) information on expenditure variance;
- (c) benchmarking and productivity assessments;
- (d) information on KPI performance trend;
- (e) relevant references to forecast parameters or methods used by comparable business entities under IBR regimes in Malaysia or in other jurisdictions;
- (f) evidence to support demand forecasts;
- (g) evidence of existing compliance obligations or changes to such obligations of the Transportation Licensee; and
- (h) evidence to support parameters used in deriving the proposed Allowed Rate of Return.

Criteria for the Draft Determination and Final Determination by the Commission

6.32. In making its Draft Determination and Final Determination for the Transportation Licensee, the Commission shall consider the following:

- (a) the requirements stipulated under these Guidelines;
- (b) the information included in or accompanying the Regulatory Proposal and Revised Regulatory Proposal;
- (c) any further information that the Transportation Licensee may provide at its discretion or in response to written requests from the Commission;
- (d) written submissions from stakeholders received by the Commission in response to invitations for comment; and
- (e) any analysis undertaken by or for the Commission that is published prior to the making of the determination or as part of the determination.

6.33. When making a Draft Determination, or Final Determination, the Commission will determine whether a Regulatory Proposal or Revised Regulatory Proposal meets the objectives of the IBR framework and the requirements set out in the Guidelines.

Consideration of long-term sustainability

- 6.34. The Commission may consider whether the Base Tariff is consistent with the Transportation Licensee maintaining an investment-grade credit rating in making its Draft Determination and Final Determination for the Transportation Licensee.
- 6.35. In assessing this, the Commission may consider the criteria typically applied by ratings agencies which include, but not limited to evaluating forecasts of the following indicators for the next Regulatory Period:
- (a) the EBITDA interest coverage;
 - (b) the FFO to debt; and
 - (c) the total debt to total capital (Gearing Ratio).
- 6.36. Where the Commission considers that the Transportation Licensee may not be able to maintain an investment-grade credit rating, the Commission may make adjustments to the Allowed Revenues to address this concern, including but not limited to the application of accelerated depreciation allowances and the deferral of Capex.

Reasons for the determinations of the Commission

- 6.37. The Commission may provide and publish reasons for the Draft Determination, and Final Determination which include the following:
- (a) reasons for finding that the determination should be made as proposed; and
 - (b) constituent decisions that relate to each of the components of the Allowed Revenue, on which the determination is predicated.
- 6.38. The reasons given by the Commission for a Draft Determination or Final Determination must set out the basis and rationale of the determination, including:
- (a) details of the qualitative and quantitative methods applied in any calculations and formula made or used by the Commission, including whether the Commission has substantially adopted the methods proposed by the Transportation Licensee and the Commission's rationale for adopting any alternative methods;
 - (b) the values adopted by the Commission for each of the input variables in any calculations and formula, including:

- (i) whether those values have been taken or derived from the Transportation Licensee's Regulatory Proposal or Revised Regulatory Proposal; and
 - (ii) the justification from the Commission for adopting the alternative values, if applicable;
- (c) details of any assumption made by the Commission in undertaking any material qualitative and quantitative analysis; and
- (d) reasons for the making of any determinations, the giving or withholding of any approvals, and the exercise of any discretions as referred to in these Guidelines, for the purposes of the determination, such reasons being expressed by reference to the requirements relating to such determinations, approvals, or discretions as are contained in these Guidelines and consistent with the objectives of the IBR framework.

Delays in ministerial approval of base tariff

- 6.39. Where the approval of the Minister for the Base Tariff is delayed beyond the start of a Regulatory Period then the following will apply:
- (a) The Commission shall obtain the approval from the Minister for the existing Base Tariff to remain in effect until an approval is issued;
 - (b) the value of any over-recovery or under-recovery of Allowed Revenues which results from such delay may:
 - (i) be returned to User, if an over-recovery, or
 - (ii) paid to the Transportation Licensee, if an under-recovery, through the Revenue-Cap Adjustment mechanism described in these Guidelines; and
 - (c) alternatively, the value of any over-recovery or under-recovery of Allowed Revenues may be returned to User or paid to the Transportation Licensee through any other mechanism as determined by the Commission and such mechanism will account for the time value of money at the Allowed Rate of Return applicable to the new Regulatory Period.

END OF SECTION

7. Tariff Adjustment process

Objectives of Tariff Adjustments

- 7.1. The Commission will apply annual Tariff Adjustments within each Regulatory Period which will be for a period from 1 January to 31 December each year.
- 7.2. The Tariff Adjustments will be in large part mechanical by nature and will be limited to the specific circumstances arising and the specific types of revenues and/or expenditures affected. They will not supplant the primary requirements that Transportation Licensee's accurately forecast expenditure, that the Commission sets allowances on an ex-ante basis, and that the Transportation Licensee be incentivised to improve their efficiency.

Tariff Adjustments process

- 7.3. The Transportation Licensee will submit a proposed Tariff Adjustment for the subsequent year to the Commission no later than 31 August of the current year.
- 7.4. The proposed Tariff Adjustment will be accompanied by a report that includes:
 - (a) the calculation of each component of the Tariff Adjustment formula, along with certification of the calculation by a reputable audit company;
 - (b) a detailed explanation of the main variances between actual and forecast costs and revenues applicable to the calculation of each component of the Tariff Adjustment;
 - (c) a detailed explanation of how forecast Reserved Firm Capacity was calculated, as applicable to the Tariff Adjustment; and
 - (d) any proposed new Unpredictable Opex and Unpredictable Capex for the remainder of the current Regulatory Period, along with justification for the proposal in accordance with these Guidelines.
- 7.5. The Commission will review the Transportation Licensee's proposed Tariff Adjustment and will either submit a determination to the Transportation Licensee or recommend a determination to the Minister

if required by these Guidelines, no later than 30 September of each year.

- 7.6. The Commission may require the Transportation Licensee to provide additional explanation and evidence in written form, and to update its proposed Tariff Adjustment calculation. In such cases, the Commission will either submit a determination to the Transportation Licensee or recommend a determination to the Minister if required by these Guidelines, no later than 31 October of each year.

Proposal of new Unpredictable Opex and Capex

- 7.7. The Transportation Licensee may apply for the recovery of new Unpredictable Opex and Unpredictable Capex as part of its proposed Tariff Adjustment within the time frames as set out in these Guidelines.
- 7.8. The Transportation Licensee's proposal for the recovery of new Unpredictable Opex and Unpredictable Capex may relate to expenditure that either:
- (a) has not yet been incurred but is foreseen in the current Regulatory Period; or
 - (b) has incurred not more than one calendar year prior to the calendar year of application.
- 7.9. New Unpredictable Opex and Unpredictable Capex that is approved by the Commission will be recovered in future years through Unpredictable Opex Adjustments, Unpredictable Capex Adjustments and the roll forward of the actual Regulated Asset Base, in accordance with these Guidelines.
- 7.10. The Transportation Licensee's proposal for the recovery of new Unpredictable Opex and Unpredictable Capex will include:
- (a) a description of the event or circumstance that has arisen or is likely to arise and, by reference to the expenditure and criteria described in these Guidelines, the reason why the Transportation Licensee considers that the proposed new costs are justified;
 - (b) the justification for why financial impact was not reasonably foreseen at the previous Regulatory Review and was not prudently insured against; and

- (c) the evidence that the Transportation Licensee has followed good industry practice.

Tariff Adjustment Model

- 7.11. The Commission may, from time to time, issue a Tariff Adjustment Model, which will be used by the Transportation Licensee as the basis for calculating proposed Tariff Adjustments.
- 7.12. Any input and calculations in the Tariff Adjustment Model shall be verifiable and consistent with the requirement of these Guidelines and any changes made to it shall be clearly stated and justified.

Ministerial approval of Tariff Adjustments

- 7.13. The Minister may approve a Tariff Adjustment that is different from that recommended by the Commission.

Delays in approval of Tariff Adjustments

- 7.14. Where the approval of the Minister for a Tariff Adjustment is delayed, the Commission shall obtain the approval from the Minister for the existing Allowed Tariff to remain in effect until the approval for the Tariff Adjustment is issued.
- 7.15. Prior to the commencement of the next year, the Commission will determine the value of any over-recovery or under-recovery of revenues by the Transportation Licensee arising from a delay in approval of the Tariff Adjustment.
- 7.16. This will be calculated as the difference between revenue earned from the applied tariffs and revenue that would have been earned had the approved tariffs been applied without delay, adjusted for the time value of money at the Allowed Rate of Return.
- 7.17. This difference shall be:
 - (a) returned to User, if an over-recovery;
 - (b) paid to the Transportation Licensee, if an under-recovery, as an addition to the next Tariff Adjustment; or
 - (c) through any other mechanism as determined by the Commission.

Error in calculation

- 7.18. Any under-recovery of revenues or costs arising due to errors in the calculation of a Tariff Adjustment by a Transportation Licensee will not be compensated.
- 7.19. Any over-recovery of revenues or costs arising due to errors in the calculation of a Tariff Adjustment by a Transportation Licensee will be returned to User, after accounting for the time value of money at the applicable rate.

END OF SECTION

COMPONENTS OF ALLOWED TARIFF

The following sections specify the determination of the components of Allowed Tariff.

8. Base Tariff

Principles of the Base Tariff

- 8.1. The Base Tariff of the Transportation Licensee allows recovery of its Allowed Revenue across the Regulatory Period.
- 8.2. The Base Tariff of the Transportation Licensee is determined by the Commission at Regulatory Reviews and is set for each Regulatory Period.

Calculation of the Base Tariff

- 8.3. The Base Tariff of the Transportation Licensee will be calculated as the present value of the Allowed Revenue across the Regulatory Period, divided by the present value of forecast Reserved Firm Capacity, according to the following formula:

$$BASE_P = \left[\sum_t^T \frac{AREV_t}{(1 + RATE_P)^t} \right] / \left[\sum_t^T \frac{FCAP_t}{(1 + RATE_P)^t} \right]$$

Where:

'P' is the next Regulatory Period

't' is the year of Regulatory Period 'P'

'T' is the total length of Regulatory Period 'P' in years

'BASE_P' is the Base Tariff for Regulatory Period 'P' (expressed in RM/GJ/day)

'AREV_t' is the Allowed Revenue in year 't' (expressed in RM)

'FCAP_t' is the forecast Reserved Firm Capacity in year 't' (expressed in GJ/day)

'RATE_P' is the Allowed Rate of Return for Regulatory Period 'P' (expressed as a percentage)

- 8.4. The forecast Reserved Firm Capacity, which is an input to the Base Tariff, will be determined by the Commission and will be a forecast of the capacity that is reserved to User to flow gas into and from an entry point to the facility to an exit point from the facility without interruption, except as is expressly permitted under the Access Arrangement.

END OF SECTION

9. Tariff Adjustments

Principles of the Tariff Adjustment

- 9.1. The Tariff Adjustment of the Transportation Licensee will be calculated based on the details, including but not limited to:
- (a) the sum of the Revenue-Cap Adjustment;
 - (b) the Excluded Services Adjustment;
 - (c) the Unpredictable Opex Adjustment;
 - (d) the Unpredictable Capex Adjustment; and
 - (e) the Internal Gas Consumption Adjustment.

Calculation of the Tariff Adjustment

- 9.2. The Tariff Adjustment for the Transportation Licensee will be calculated according to the following formula:

$$ADJT_t = RCAP_t + EXAJ_t + UOAJ_t + UCAJ_t + IGCA_t$$

Where:

' $ADJT_t$ ' is the Tariff Adjustment in year ' t ' (expressed in RM/GJ/day)

' $RCAP_t$ ' is the Revenue-Cap Adjustment in year ' t ' (expressed in RM/GJ/day)

' $EXAJ_t$ ' is the Excluded Services Adjustment in year ' t ' (expressed in RM/GJ/day)

' $UOAJ_t$ ' is the Unpredictable Opex Adjustment in year ' t ' (expressed in RM/GJ/day)

' $UCAJ_t$ ' is the Unpredictable Capex Adjustment in year ' t ' (expressed in RM/GJ/day)

' $IGCA_t$ ' is the Internal Gas Consumption Adjustment in year ' t ' (expressed in RM/GJ/day)

END OF SECTION

COMPONENTS OF BASE TARIFF AND ALLOWED REVENUES

The following sections specify the determination of the components of Base Tariff and Allowed Revenues.

10. Allowed Revenues

Principles of Allowed Revenue

- 10.1. The Commission will determine at each Regulatory Review, the Transportation Licensee's Allowed Revenue for each year of the next Regulatory Period.
- 10.2. Allowed Revenue represents the maximum revenues, before adjustments, that a Transportation Licensee can charge to recover the reasonable and efficient costs, including a fair return on capital, of providing the Regulated Services during a Regulatory Period.
- 10.3. Allowed Revenue is calculated using a 'building-block' methodology, whereby the total revenue is calculated as the sum of operating costs, Internal Gas Consumption, depreciation, a return on capital, working capital, a tax allowance, and various incentive allowances, as described further in these Guidelines.
- 10.4. All calculations of Allowed Revenue, and the resulting Base Tariff, will be conducted in nominal terms.

Calculation of Allowed Revenue

- 10.5. The Allowed Revenue will be calculated according to the following formula:

$$AREV_t = OPEX_t + IGC_t + WORK_t + RTOC_t + DEPN_t + TAXZ_t + CPXE_t + OPXE_t + SERV_t$$

Where:

' $OPEX_t$ ' is the Allowed Opex in year ' t ' and which may include an estimate of Unpredictable Opex (expressed in RM)

' IGC_t ' is the Allowed Cost of Internal Gas Consumption in year ' t ' (expressed in RM)

' $WORK_t$ ' is the Allowed Cost of Working Capital in year ' t ' (expressed in RM)

' $RTOC_t$ ' is the Allowed Return on Capital in year ' t ' (expressed in RM)

' $DEPN_t$ ' is the Allowed Depreciation in year ' t ' (expressed in RM)

' $TAXZ_t$ ' is the Allowed Tax and Zakat in year ' t ' (expressed in RM)

' $CPXE_t$ ' is the Allowed Capex Efficiency Carry-Over in year ' t ' (expressed in RM)

' $OPXE_t$ ' is the Allowed Opex Efficiency Carry-Over in year ' t ' (expressed in RM)

' $SERV_t$ ' is the Allowed Quality of Service Incentive applied in year ' t ' (expressed in RM)

- 10.6. The Allowed Return on Capital, which is a component of Allowed Revenue, will be calculated according to the following formula:

$$RTOC_t = (RAB_{t-1} + 0.5 \times (CPEX_t - DISP_t - CONT_t)) \times RATE_P$$

Where:

' RAB_{t-1} ' is the forecast Regulated Asset Base in year ' $t-1$ ' (expressed in RM)

' $CPEX_t$ ' is the Allowed Capex in year ' t ' and which may include an estimate of Unpredictable Capex (expressed in RM)

' $DISP_t$ ' is the Allowed Disposals in year ' t ' (expressed in RM)

' $CONT_t$ ' is the Allowed Contributions in year ' t ' (expressed in RM)

END OF SECTION

11. Allowed Operating Expenditure

Principles of Allowed Opex

- 11.1. The Commission will determine, at each Regulatory Review, the Transportation Licensee's Allowed Opex for each year of the next Regulatory Period. Allowed Opex is an input to Allowed Revenue and subsequently the Base Tariff.
- 11.2. Allowed Opex will represent a forecast of the Transportation Licensee's efficient Opex that is attributable to Regulated Services, including any efficient costs charged to the Transportation Licensee by a related party, and excluding any financing costs, taxation on profits, or any unreasonable or inflated margin earned by a related entity.
- 11.3. Allowed Opex will also exclude the Internal Gas Cost, which is recovered separately as a component of Allowed Revenue.

Calculation of Allowed Opex

- 11.4. Allowed Opex will be determined using a Base Step Trend approach where the assessment will consider sound regulatory principles and practices employed by regulated utilities and regulators elsewhere in undertaking regulatory opex forecasts using the Base Step Trend method.
- 11.5. The determination of Allowed Opex using the Base Step Trend method will comprise the following components:
 - (a) **Efficient base year Opex**
 - (i) This will be based on the available Actual Opex in the penultimate year of the Regulatory Period, adjusted where necessary such that these costs represent an efficient amount that reasonably reflects future requirements before consideration of any trends, steps or other non-trended components.
 - (ii) In cases where the Actual Opex in the penultimate year was significantly affected by a one-off event, then Actual Opex from an alternative year may be used instead.

(b) **Trend rates (rate of change)**

Trend rates will account for forecast rate of change in costs during the Regulatory Period, starting from the efficient base year Opex. They may include the following factors:

- (i) **General cost inflation.** By default, Opex is expected to increase in line with the annual change in the Consumer Price Index (CPI). The forecast of CPI should be derived from official and independent sources which are publicly available.
- (ii) **Real cost escalations.** The forecast real price increases of opex components that are likely to change at a rate that is significantly different to CPI. It is likely to include increases in employee costs which includes but not limited to salaries, social charges, guaranteed bonuses, pension contributions in excess of CPI.
- (iii) **Output growth-related.** The forecast real rate of change in Opex resulting from changes in system outputs, in particular the firm capacity.
- (iv) **Productivity rate.** The forecast real price decrease in Opex resulting from productivity improvements.

(c) **Step change and other non-trended components**

This will account for specific 'one-off' changes in Opex that result from obligations or requirements that are externally imposed on the Transportation Licensee, including:

- (i) externally imposed changes to the scope of a Transportation Licensee's role;
- (ii) externally imposed charges or changes in accounting policies that result in a change in capitalisation for a material expenditure item, between Capex and Opex; and
- (iii) significant costs that are known to occur irregularly or according to periodic cycles.

11.6. In determining the forecast productivity rate, the Commission shall consider the following:

- (a) the historical rates of productivity improvement achieved by the Transportation Licensee;

- (b) the assessments made for other the Transportation Licensee and for other regulated infrastructure providers in Malaysia that are capital intensive in nature; and
 - (c) the assessments made by other regulatory authorities for similar businesses in countries with similar incentive-based regulatory regimes.
- 11.7. In determining the Allowed Opex, the Commission may also consider and employ other available assessment or analytical methods commonly employed by regulators elsewhere to assess the reasonableness and efficiency of Opex including but not limited to:
 - (a) **the technical or engineering reviews**, usually undertaken with the assistance of specialised technical consultants or experts. Such reviews may be used to prepare a ‘bottom-up’ estimate of Allowed Opex;
 - (b) **the benchmarking, econometric, and statistical techniques** that relate allowed costs to benchmarks established by reference to comparator entities; and
 - (c) **the independent efficiency assessments** relating to specific cost categories, in particular related party transactions.
- 11.8. In determining whether any related entity costs are reasonable and efficient, as part of determining Allowed Opex, the Commission may consider:
 - (a) whether the related party transactions are entered on an arm’s length basis through competitive tendering;
 - (b) whether the related party costs reflect the direct cost of providing the services, inclusive of a commercially reasonable return or margin; and
 - (c) whether the related party can demonstrate that the costs are comparable to market benchmarks, if there are several market service providers for the relevant services.

Unpredictable Opex

- 11.9. Unpredictable Opex comprises of the Opex that meets both of the following conditions:
 - (a) the Opex is uncertain or was unforeseen at the time of setting Allowed Revenue; and

- (b) the Opex relates to an event or circumstance that the Transportation Licensee does not have control over to any material extent, including a Force Majeure event.
- 11.10. Unpredictable Opex may include, but not limited to, costs arising from:
 - (a) changes in a Transportation Licensee's obligations due to Government direction or instruction that is beyond the control of the Transportation Licensee; and
 - (b) the introduction of a tax or licence fee or similar charge that is beyond the control of the Transportation Licensee.
- 11.11. The Commission may include an estimate of foreseen but uncertain Unpredictable Opex in its determination of Allowed Opex.
- 11.12. Any differences arising between this estimated Unpredictable Opex and actual Unpredictable Opex may be recovered by the Transportation Licensee as part of Unpredictable Opex Adjustments in accordance with these Guidelines.
- 11.13. The inclusion of estimated Unpredictable Opex in the determination of Allowed Opex would generally apply by exception and does not supplant the primary requirement that Transportation Licensee accurately forecast expenditure and that the Commission sets allowances on an ex-ante basis.

END OF SECTION

12. Allowed Cost of Internal Gas Consumption

Principles of Allowed Cost of Internal Gas Consumption

- 12.1. The Commission will determine at each Regulatory Review, the Transportation Licensee's Allowed Cost of Internal Gas Consumption for each year of the next Regulatory Period. Allowed Cost of Internal Gas Consumption is an input to Allowed Revenue and subsequently the Base Tariff.
- 12.2. The Allowed Cost of Internal Gas Consumption will represent a forecast of the Transportation Licensee's costs of purchasing gas to cover internal gas consumption including of losses and of gas consumed in compressors

Calculation of Allowed Cost of Internal Gas Consumption

- 12.3. The Allowed Cost of Internal Gas Consumption will be calculated according to the following formula:

$$IGC_t = IGCV_t \times MCGS_t$$

Where:

' $IGCV_t$ ' is the forecast Internal Gas Consumption volume in year ' t ' (expressed in GJ)

' $MCGS_t$ ' is the forecast Marginal Cost of Gas Supply in year ' t ' (expressed in RM/GJ)

- 12.4. The forecast Internal Gas Consumption volume will be determined based on a forecast consumption as a percentage of throughput volumes of natural gas.
- 12.5. The forecast Internal Gas Consumption volume will include gas consumed for the following reasons:
- (a) Fuel Gas;
 - (b) Maintenance Gas; and
 - (c) Unaccounted for Gas.
- 12.6. The forecast Internal Gas Consumption volume will be determined at each Regulatory Review.
- 12.7. In determining the forecast Internal Gas Consumption volume, the Commission may consider the following:

- (a) the historical actual Internal Gas Consumption volumes of the licensee;
- (b) the historical actual Internal Gas Consumption volumes of other licensees with comparable characteristics;
- (c) the comparison with other countries as a benchmark on internal gas consumption experience by gas transportation businesses; and
- (d) any other information provided by the licensee, either as part of its Regulatory Proposal or Revised Regulatory Proposal, or in response to a request from the Commission to provide such information.

12.8. The forecast Marginal Cost of Gas Supply will be a forecast of gas purchasing prices estimated with reference to one of the following reference prices:

- (a) a competitive gas exchange;
- (b) the Malaysian Reference Price;
- (c) an established and published index of Asian liquified natural gas prices; or
- (d) an established and published crude oil price benchmark.

12.9. The forecast Marginal Cost of Gas Supply will include adjustments for transport costs, associated regasification terminal, and transportation charges as appropriate.

END OF SECTION

13. Allowed Cost of Working Capital

Principles of Allowed Cost of Working Capital

- 13.1. The Commission will determine at each Regulatory Review, the Transportation Licensee's Allowed Cost of Working Capital for each year of the next Regulatory Period. Allowed Cost of Working Capital is an input to Allowed Revenue and subsequently the Base Tariff.
- 13.2. The Allowed Cost of Working Capital will represent the costs incurred due to delays between the Transportation Licensee delivering regulated goods or services and receiving payment for those goods or services, net of any benefits they receive due to delays between them receiving and paying for those goods and services.

Calculation of Allowed Cost of Working Capital

- 13.3. The Allowed Cost of Working Capital will be calculated according to the following formula:

$$WORK_t = CASH_t \times WCRR_p$$

Where:

' $CASH_t$ ' is Cash Working Capital Requirement in year ' t ' (expressed in RM)

' $WCRR_p$ ' is the Working Capital Remuneration Rate for the Regulatory Period ' P ' (expressed as a percentage)

- 13.4. The Cash Working Capital Requirement, which is an input to the Allowed Cost of Working Capital, is calculated according to the following formula:

$$CASH_t = (OPEX_t + IGC_t) / 365 \times (RBLE_p - PBLE_p)$$

Where:

' $RBLE_p$ ' is the Average Days Receivables for Regulatory Period ' p ' (expressed in days)

' $PBLE_p$ ' is the Average Days Payable for Regulatory Period ' p ' (expressed in days)

- 13.5. The Average Days Receivables, which is an input to the Cash Working Capital Requirement, will be set equal to the average number of days of accounts receivable in the preceding three years for which actual audited data is available.
- 13.6. The Average Days Payable, which is an input to the Cash Working Capital Requirement, will be set equal to the average number of days

of accounts payable in the preceding three years for which actual audited data is available.

- 13.7. The Working Capital Remuneration Rate is equal to the One-Month Kuala Lumpur Interbank Offered Rate (KLIBOR), reported by Bank Negara Malaysia, calculated one month prior to the submission date of the relevant Regulatory Proposal or determination, plus 1.5 percentage points, converted to an annualised rate.
- 13.8. The Allowed Cost of Working Capital will not have a negative value.

END OF SECTION

14. Allowed Rate of Return

Principles of Allowed Rate of Return

- 14.1. The Commission will determine, at each Regulatory Review, the Transportation Licensee's Allowed Rate of Return for the next Regulatory Period. The Allowed Rate of Return is an input to Allowed Revenue and subsequently the Base Tariff.
- 14.2. The Allowed Rate of Return may otherwise be referred to as the Weighted Average Cost of Capital and will represent the commercially fair and reasonable return to debt and equity investors on the Regulated Asset Base of the Transportation Licensee.
- 14.3. A fair and reasonable return is one that is commensurate with the efficient financing costs of an entity with a similar degree of risk to that of the Transportation Licensee in respect of the provision of its regulated services.
- 14.4. In determining the Allowed Rate of Return for the Transportation Licensee, the Commission will ensure that:
- (a) the Allowed Rate of Return is based on an efficient and prudent capital structure;
 - (b) the Allowed Rate of Return reflects market-based returns on debt and equity;
 - (c) the Allowed Rate of Return adequately reflects regulatory and market risk in relation to the Transportation Licensee's regulated activities, and commensurate with risks reflective of economic environments of Malaysia; and
 - (d) there is consistency between all the Allowed Rate of Return parameters.

Calculation of Allowed Rate of Return

- 14.5. The Allowed Rate of Return of the Transportation Licensee will be determined on a nominal, post-tax basis and calculated according to the following formula:

$$RATE_p = GEAR_p \times DEBT_p \times (1 - TAXR_p) + (1 - GEAR_p) \times EQTY_p$$

Where:

' $RATE_P$ ' is the Allowed Rate of Return in nominal, post-tax terms in Regulatory Period ' P '

' $GEAR_P$ ' is the Gearing in Regulatory Period ' P '

' $DEBT_P$ ' is the Pre-Tax Cost of Debt in nominal terms in Regulatory Period ' P '

' $EQTY_P$ ' is the Post-Tax Cost of Equity in nominal terms in Regulatory Period ' P '

' $TAXR_P$ ' is the average statutory corporation tax rate in effect during Regulatory Period ' P '

Determining Gearing

- 14.6. The Gearing of the Transportation Licensee will be set based on an assessment of an efficient financing structure and need not be equal to the actual level of gearing of the Transportation Licensee.
- 14.7. In setting Gearing, the Commission will ensure that:
- (a) the Gearing is generally consistent with an investment grade rating for the Transportation Licensee, if assessed on a stand-alone basis for each entity; and
 - (b) the Gearing does not lead nor is reasonably likely to lead to financing difficulties for the Transportation Licensee or to costs of financing that create an unfair burden on User considering the entities' forward investment programme.
- 14.8. In setting Gearing, the Commission may consider the following:
- (a) the level of Gearing applied to other regulated infrastructure providers in Malaysia;
 - (b) the approach to estimating the level of Gearing applied by regulatory authorities in countries that have similar incentive-based regulation and adjusted where appropriate to reflect economic environments to Malaysia; and
 - (c) the level of gearing of companies that are of equivalent risk to the Transportation Licensee and are used in the Commission's determination of Equity Beta.
- 14.9. The default Gearing value will be 55%. For the avoidance of doubt, if the default Gearing is applied by the Commission, then its use will be justified.

Determining Pre-Tax Cost of Debt

- 14.10. The Pre-Tax Cost of Debt will be calculated as a weighted average of:
- (a) the average interest rate on existing debt ('embedded debt'); and
 - (b) the forecast cost of new debt to be raised during the Regulatory Period.
- 14.11. The weightings used to calculate the Pre-Tax Cost of Debt will reflect the average shares of embedded debt and new debt as percentages of total debt over the next Regulatory Period, taking into account:
- (a) the reduction in the balance of embedded debt from principal repayments over the Regulatory Period; and
 - (b) the expected need for new debt to finance Allowed Capex, based on the Gearing as set in accordance with these Guidelines.
- 14.12. The forecast cost of the new debt will equal the Risk-Free Rate plus the Debt Premium, plus efficient debt issuance costs.
- 14.13. The Debt Premium will equal the estimated premium over the Risk-Free Rate that the Transportation Licensee must pay to finance its debt and reflects the additional risk of these companies or entities.
- 14.14. The Debt Premium will be calculated as the difference between the Risk-Free Rate and the historical 10-year average yield, based on daily spot rates, on 10-year corporate bonds issued by companies in Malaysia with an AA2 credit rating by a reputable Malaysian credit rating agency.

Determining Post-Tax Cost of Equity

- 14.15. In setting the Post-Tax Cost of Equity, the Commission will consider the following:
- (a) the cost of equity assessments made for other regulated infrastructure providers in Malaysia; and
 - (b) the approach to assessing generic cost of equity components, and the required risk-related returns for equity investors of gas transportation business, applied by regulatory authorities in countries that have similar incentive-based regulation and adjusted where appropriate to reflect economic environments of

Malaysia and to account for the effect of any country-specific risk.

- 14.16. The Post-Tax Cost of Equity will be calculated according to the following Capital Asset Pricing Model formula:

$$EQTY_p = RKFR_p + (MRKP_p \times BETA_p)$$

Where:

' $RKFR_p$ ' is the Risk-Free Rate in Regulatory Period ' P '

' $MRKP_p$ ' is the Market Risk Premium in Regulatory Period ' P '

' $BETA_p$ ' is the Equity Beta in Regulatory Period ' P '

- 14.17. The Risk-Free Rate will be calculated as the historical 10-year average yield, based on daily spot rates, on 10 year Malaysian Government Securities.

- 14.18. In setting the Market Risk Premium, the Commission will consider the following:

- (a) evidence from the Malaysian stock market (KLSE);
- (b) alternative estimation approaches, including but not limited to historical excess returns, the dividend growth model, and surveys;
- (c) estimates adopted for other regulated infrastructure providers in Malaysia;
- (d) international estimates for countries with similar risks to Malaysia; and
- (e) approaches adopted by regulatory authorities in countries that have similar incentive-based regulation and economic environments to Malaysia.

- 14.19. In setting the Equity Beta, the Commission will consider the following:

- (a) the measured equity beta for the Transportation Licensee or, where this is not a stand-alone listed entity, its parent entity, and the KLSE Composite Index, over at least the past ten years average and using daily data. Where parent entity data is used, the estimated beta may be adjusted to reflect the systematic risk associated with the relevant Transportation Licensee alone;
- (b) the estimates adopted for other regulated infrastructure providers in Malaysia that are capital intensive in nature;

- (c) the approaches and estimates adopted by regulatory authorities in countries that have similar incentive-based regulation and economic environments to Malaysia, with preference given to countries where at least some of the regulated companies are listed on a liquid stock exchange; and
- (d) the directly estimated beta must be adjusted using market data to reflect the determined Gearing.

Input data to Allowed Rate of Return

- 14.20. The Transportation Licensee's Regulatory Proposal and the Commission's Draft Determinations will be based on data with a cut-off date of eighteen (18) months prior to the start date of the next Regulatory Period.
- 14.21. The Transportation Licensee's Revised Regulatory Submission and the Commission's Final Determination will be based on data with a cut-off date of nine (9) months prior to the start date of the next Regulatory Period.

END OF SECTION

15. Regulated Asset Base

Principles of the Regulated Asset Base

- 15.1. The Regulated Asset Base represents net efficient investments by the Transportation Licensee related to the provision of Regulated Services and which are remunerated through Allowed Revenue applies through the following general principles:
- (a) the assets included in the Regulated Asset Base are valued at the historical cost of purchase or construction. No revaluation is applied;
 - (b) the Commission may exclude part of the costs of assets from the Regulated Asset Base where, based on an ex-post prudency review conducted in accordance with these Guidelines, it considers these costs to be inefficient;
 - (c) the Commission may exclude the full costs of assets from the Regulated Asset Base where, based on an ex-post prudency review conducted in accordance with these Guidelines, the assets are considered to be imprudent investments or otherwise not to be required to deliver the Regulated Services;
 - (d) the assets that have been disposed of will be excluded from the Regulated Asset Base;
 - (e) the share of assets, which are used for the provision of Regulated Services, that have been funded by User or third parties will be excluded from the Regulated Asset Base; and
 - (f) the share of new assets which are used for the provision of Regulated Services but are deemed to be excessive in accordance with these Guidelines will be excluded from the Regulated Asset Base.
- 15.2. The Regulated Asset Base may differ from the value of fixed assets reported in the Transportation Licensee's Audited Financial Statements.
- 15.3. At the end of each Regulatory Period, the Commission will roll forward the Regulated Asset Base for each year of the current Regulatory Period based on the actual net capital costs incurred, except to the extent that any such costs are disallowed in accordance with the ex-post prudency review provisions of these Guidelines.

- 15.4. At each Regulatory Review, the Commission will determine a forecast of the Transportation Licensee's Regulated Asset Base for each year of the next Regulatory Period. The Regulated Asset Base is an input to the Allowed Return on Capital, which is in turn an input to the Allowed Revenue and subsequently the Base Tariff.

Rolling forward the Regulated Asset Base

- 15.5. The roll forward of the actual Regulated Asset Base for the current Regulatory Period, which is used as the starting point for determining the forecast Regulated Asset Base in the next Regulatory Period, will be calculated according to following formula:

$$aRAB_t = aRAB_{t-1} + aCPEX_t - aDISP_t - aCONT_t - aDEPN_t$$

Where:

'aRAB' is the actual Regulated Asset Base in year 't' (expressed in RM)

'aCPEX_t' is Actual Capex in year 't' (expressed in RM)

'aDISP_t' is the Actual Disposals by Transportation Licensee in year 't' (expressed in RM)

'aCONT_t' is the Actual Contributions received or incurred by the Transportation Licensee in year 't' (expressed in RM)

'aDEPN_t' is the Actual Depreciation (of the Regulated Asset Base) in year 't' (expressed in RM)

- 15.6. The Actual Capex will be set at the actual level of capex in each year, except to the extent that any capex is disallowed in accordance with the ex-post prudency review provisions of these Guidelines. Actual Capex will include actual Unpredictable Capex.
- 15.7. Actual Disposals will be set at an amount that is equivalent to the book value of disposed assets and reasonably considering the fair value from the sale or transfer of assets by the Transportation Licensee to other parties.
- 15.8. Actual Contributions will be the value of any customer contributions, plus the value of any grants, subsidies, or other contributions from third parties that are of a capital or non-current nature, towards Actual Capex.
- 15.9. Actual Depreciation will be recalculated according to the same methodology as Allowed Depreciation, but using Actual Capex, Actual Disposals, and Actual Contributions as inputs to the calculation.

- 15.10. When determining Allowed Revenues for the next Regulatory Period at a Regulatory Review, audited actual values of capex, disposals, and contributions will not yet be available for the final year of the current Regulatory Period. For that purpose:
- (a) the actual Regulated Asset Base in the final year of the current Regulatory Period will be estimated by using values of Allowed Capex, Allowed Disposals, and Allowed Contributions, as set at the previous Regulatory Review; and
 - (b) the roll forward of the actual Regulated Asset Base in the current Regulatory Period will commence from the final year of the previous Regulatory Period and use the audited values of Actual Capex, Actual Disposals, and Actual Contributions for that year, subject to any ex-post prudency review provisions.

Forecasting the Regulated Asset Base

- 15.11. The forecast Regulated Asset Base for each year of the next Regulatory Period, which is used to determine Allowed Revenue, will be calculated according to the following formula:

$$RAB_t = RAB_{t-1} + CPEX_t - DISP_t - CONT_t - DEPN_t$$

Where:

' RAB_{t-1} ' is the forecast Regulated Asset Base in year 't-1', except:

When $t=1$, ' RAB_{t-1} ' will equal the actual Regulated Asset Base in the last year of the current Regulatory Period ' $P-1$ ' (expressed in RM)

- 15.12. The Allowed Disposals may be a forecast of the value of proceeds arising from the sale or transfer of assets by the Transportation Licensee to other parties in each year of the next Regulatory Period or may be set at a value of zero.
- 15.13. The Allowed Contributions will be a forecast of the value of customer contributions, plus a forecast of the value of any grants, subsidies, or other contributions from third parties that are of a capital or non-current nature, towards Allowed Capex.

Treatment of line-pack

- 15.14. The cost of procuring line-pack will be included in the Regulated Asset Base as separate asset category which does not depreciate, thereby allowing a return to be earned on this cost.

- 15.15. The cost of procuring line-pack asset category of the Regulated Asset Base will be rolled forward at each Regulatory Review in the same manner as other asset categories, including:
- (a) the actual Regulated Asset Base for the current Regulatory Period, which is used as the starting point for determining the forecast Regulated Asset Base in the next Regulatory Period, will be based on the actual costs of line-pack purchase. Where line-pack has been provided for free or in-kind, a cost of zero will be applied; and
 - (b) the forecast Regulated Asset Base for the next Regulatory Period will be calculated based on a forecast of the cost of procuring line-pack.

END OF SECTION

16. Allowed Capital Expenditure

Principles of Allowed Capex

- 16.1. The Commission will determine at each Regulatory Review, the Transportation Licensee's Allowed Capex for each year of the next Regulatory Period.
- 16.2. The Allowed Capex is an input to the Regulated Asset Base and Allowed Return on Capital, which are in turn inputs to the Allowed Revenue and subsequently the Base Tariff.
- 16.3. The Allowed Capex represent a forecast of the Transportation Licensee's efficient Capex that is required to achieve the following Capex objectives:
- (a) to meet or manage the expected demand for Regulated Services over that period;
 - (b) to comply with all applicable regulatory obligations and requirements associated with the provision of Regulated Services;
 - (c) to the extent not prescribed by another regulatory obligation or requirement in relation to the quality, reliability and security of supply, or reliability and security of the transmission and distribution pipeline:
 - (i) to maintain, or improve to the extent required by User, the quality, reliability, and security of supply of Regulated Services; and
 - (ii) to maintain, or improve to the extent required by User, the reliability and security of the transmission pipeline through the provision of Regulated Services; and
 - (d) to maintain the safety of the transmission pipeline through the provision of Regulated Services.
- 16.4. The Allowed Capex may consist of both new and existing assets.
- 16.5. For existing assets, the Capex on existing assets may include repair, rehabilitation, replacement, and other maintenance works on existing assets that are expected to lead to an increase in the capacity of that asset or an extension of its usable life or both. Such expenditures will be treated as Capex and added to the Regulated Asset Base.

Review of proposed Allowed Capex

- 16.6. The Commission shall consider the following matter in determining the Allowed Capex and the efficiency of the proposed Allowed Capex submitted by the Transportation Licensee:
- (a) the efficient costs of achieving the Capex objectives;
 - (b) the costs that a prudent operator would require to achieve the Capex objectives; and
 - (c) a realistic expectation of the demand forecast and cost inputs required to achieve the Capex objectives.

Proposed Investment Plan

- 16.7. As part of its Regulatory Proposal, the Transportation Licensee will submit a proposed Investment Plan, which the Commission will use to inform its determination of Allowed Capex.
- 16.8. The proposed Investment Plan will include but not limited to the following:
- (a) a list of all Capex projects and programmes, for smaller projects or volume-based expenditure, that the Transportation Licensee proposes to invest in during the next Regulatory Period;
 - (b) the estimated Capex of each project or programme, separating out any customer contributions and grants, subsidies, or other contributions from third parties that are of a capital or non-current nature. The estimated Capex will be clearly identified by each year of the next Regulatory Period. This means that for Capex projects or programmes spanning more than one year the Investment Plan must provide a clear indication of the costs expected to be incurred in each year of the project or programme;
 - (c) an explanation of the basis on which the Capex for each project or programme has been estimated such as the unit costs and unit volumes of the project or programme;
 - (d) the expected commissioning date of each project or programme; and

- (e) a summary justification for each project or programme explaining the need and the alternatives considered and reasons such alternatives were not adopted.
- 16.9. The Commission may make use of engineering estimates and of benchmarking of the costs of individual projects and programmes and of the Investment Plan as a whole or by component in reviewing the need for the proposed Capex of each project and programme including in the proposed Investment Plan.
- 16.10. For example, the Commission may assess the reasonableness of proposed Capex of meeting growth in demand or consumption by comparison with the historical average Capex of investments to meet consumption and demand growth.
- 16.11. In determining Allowed Capex for the Transportation Licensee, the Commission will specify the total amount of allowed expenditure each year.
- 16.12. The Commission's determination of total Allowed Capex may be informed by the Investment Plan and the costs of individual projects and programmes. The Commission may also set Capex allowances for individual projects or programmes, which include the Unpredictable Capex.

Ex-post prudency reviews of capex

- 16.13. In determining the Actual Capex to be included in the actual Regulated Asset Base when rolled forward at Regulatory Reviews, the Commission may undertake an ex-post review of historical Capex to assess its prudency and efficiency.
- 16.14. An ex-post review of Capex will generally only be undertaken where there is material overspending of total Capex by the Transportation Licensee.
- 16.15. The materiality threshold will be considered to have been met where the total Capex overspend of the Transportation Licensee, excluding Unpredictable Capex, exceeds 1% of the Allowed Revenue.
- 16.16. An ex-post review of Capex will generally focus on projects and programmes where one of the following applies:
- (a) the project or programme was not included in the proposed Investment Plan or in a plan prepared and approved under the

open season provisions in the relevant Third-Party Access Code for Malaysian Transmission Pipelines; or

- (b) the project or programme was included in the proposed Investment Plan but was explicitly excluded from the Commission's determination of Allowed Capex; or
- (c) the project or programme was included in the proposed Investment Plan, but its actual costs exceeded either the forecast costs included in the plan, or the costs allowed in the Commission's determination of Allowed Capex, if applicable.

16.17. Without limiting the factors that must be considered by the Commission in assessing prudence and efficiency, the Commission may consider the following:

- (a) the circumstances prevailing at the time of the investment decision, and the factors that could reasonably be expected to have been considered at that time;
- (b) whether cost over-runs were caused by the actions of the Transportation Licensee or by external factors outside of its control;
- (c) whether the expenditure was reasonably related to any requirements set by the Commission and/or under relevant laws, regulations, and licence conditions;
- (d) whether alternative ways of addressing requirements and needs were considered and justifiably excluded;
- (e) whether opportunities were considered, and actions taken, where justified, to discontinue, defer, or to de-scope other projects that may otherwise have been required to meet the identified need;
- (f) whether accepted good industry practice was followed;
- (g) whether the relevant Transportation Licensee acted prudently in procuring goods, works and services at a reasonably efficient cost, including whether an appropriate competitive tendering process was followed;
- (h) whether the timing of construction was appropriate having regard to current and projected demand and quality of service; and

- (i) whether the costs do not include an unreasonable or inflated margin earned by a Transportation Licensee-related party.
- 16.18. The Commission shall convey its analysis to the Transportation Licensee before deciding on its ex-post review of Capex and shall provide the Transportation Licensee the opportunity to respond.
- 16.19. After the consultation with the Transportation Licensee and if the Commission is satisfied that certain expenditure under this section is imprudent or inefficient, it may determine that the amount of the Capex that would otherwise be added to the Regulated Asset Base should be reduced by such amount as the Commission is satisfied corresponds to Capex incurred that is not prudent or efficient.
- 16.20. The ex-post prudency reviews would generally apply by exception and do not supplant the primary requirement that the Transportation Licensee accurately forecast investment needs and costs, and that the Commission sets allowances on an ex-ante basis.

Unpredictable Capex

- 16.21. The Unpredictable Capex comprises Capex that meets the following conditions as follows:
 - (a) the Capex is uncertain or was unforeseen at the time of setting Allowed Revenue; and
 - (b) the Capex relates to an event or circumstance that the Transportation Licensee does not have control over to any material extent.
- 16.22. The Unpredictable Capex may include, but is not limited to, costs arising from changes in a Transportation Licensee's obligations that arise from a Government direction or instruction that is outside of the Transportation Licensee's control.
- 16.23. The Commission may include an estimate of foreseen but uncertain Unpredictable Capex in its determination of Allowed Capex.
- 16.24. Any differences arising between this estimate of Unpredictable Capex and actual Unpredictable Capex, approved by the Commission to be prudent and efficient, will be recovered by the Transportation Licensee as part of Unpredictable Capex Adjustments.
- 16.25. The inclusion of an estimate of Unpredictable Capex would generally apply by exception and does not supplant the primary requirement that

Transportation Licensee accurately forecast expenditure and that the Commission sets allowances on an ex-ante basis.

16.26. At the time of including an estimate of Unpredictable Capex for a project or programme, the Commission will also define the appropriate methodology to be used when calculating that project's actual Unpredictable Capex as part of Unpredictable Capex Adjustments. Methodologies may include but are not limited to:

(a) **Full pass-through.** This is where the actual cost of a Capex project or programme is to be fully recovered by the Transportation Licensee, by making Unpredictable Capex Adjustments to account for the full effect of differences between estimated and actual Unpredictable Capex on Allowed Revenues.

This methodology could apply when an investment is very likely to be needed, but both the quantity of investment and the unit cost are uncertain and largely outside of the Transportation Licensee's control;

(b) **Fixed volume with price pass-through.** This is where the quantity of investment is set based on ex-ante allowance and the price is updated for actual unit costs incurred, subject to any prudency review.

This methodology could apply when the quantity of investment is known but there is too much uncertainty around costs to set an ex-ante allowance. For example, site clearance costs;

(c) **Fixed unit cost with volume pass-through.** This is where the unit cost of investment is set based on an ex-ante allowance and the volume is updated for actual investment volumes undertaken, subject to any prudency review.

This methodology could apply where the unit cost of the investment is known or predictable but the volume is uncertain. For example, pipe replacement, where the average cost per kilometre is known but the total number of kilometres is uncertain;

(d) **Budget ceiling.** This is where a maximum budget is set for a specific Capex programme. This could either be treated as a firm limit or one that would then trigger a prudency review.

This methodology could apply to a specific Capex programme or project to avoid over-investment and exceeding expected benefits that were used to justify the investment; and

- (e) **Contingent projects.** This is where a pre-specified trigger event will be defined that gives rise to the need for the project.
 - (i) This methodology could apply where there are unique investment drivers, for example a major new customer as opposed to general investment drivers for example load growth affecting a broader region, and where it is not sufficiently certain that the event or condition giving rise to the investment need will occur during the next Regulatory Period.
 - (ii) Under this methodology, the estimate of Unpredictable Capex included in the determination of Allowed Revenues will be zero, but the project would be pre-approved and therefore any actual Unpredictable Capex would be included in the Unpredictable Capex Adjustment following the trigger event.

Cost of procuring line-pack

- 16.27. The forecast cost of procuring line-pack will be included in Allowed Capex and will be determined based on:
- (a) the volumes of line-pack required for each facility, which will be estimated based on engineering judgement. The estimates will take account of any forecast expansion to the facility within that period; and
 - (b) the Marginal Cost of Gas Supply.
- 16.28. The cost of procuring line-pack will be subject to the same ex-post prudence review requirements as described in these Guidelines for other forms of Allowed Capex.

END OF SECTION

17. Allowed Depreciation

Principles of Allowed Depreciation

- 17.1. The Commission will determine at each Regulatory Review, the Transportation Licensee's Allowed Depreciation for each year of the next Regulatory Period. Allowed Depreciation is an input to Allowed Revenue and subsequently the Base Tariff.
- 17.2. The depreciation will be calculated to allow the Transportation Licensee to recover the Regulated Asset Base in full, over the expected lives of the relevant regulated assets.

Calculation of Allowed Depreciation

- 17.3. The Allowed Depreciation relating to Allowed Capex incurred in the next Regulatory Period will be calculated based on average asset life for each Asset Category, and it will be calculated by assuming that, in the year that an asset is added to the Regulated Asset Base, half of it is added at the beginning of the year and half of it is added at the end of the year. The assets in the Regulated Asset Base will be grouped into Asset Categories, with each Asset Category sharing a similar asset life.
- 17.4. The asset lives will generally reflect the technical lives of assets, except where there is demonstrable reason why the technical life of an asset category varies from the useful economic life of that asset category.
- 17.5. The Allowed Depreciation relating to Actual Capex incurred in current and previous Regulatory Periods may be calculated based on an average remaining asset life for each Asset Category, to avoid maintaining annual depreciation schedules related to historical Capex from several Regulatory Periods prior.
- 17.6. The average remaining asset lives should be set such that the resulting total Allowed Depreciation over the next Regulatory Period is approximately the same as if annual depreciation schedules were used.
- 17.7. In the event that it is not reasonably practicable for the Transportation Licensee to allocate Allowed Contributions by Asset Category, to facilitate the exclusion of Allowed Contributions from the calculation of Allowed Depreciation, then the Commission may instead amortise the Allowed Contributions at a separate rate and deduct the amortised contributions from the Allowed Depreciation.

- 17.8. The amortisation rate should reflect an approximate weighted average service life of contributed assets.

END OF SECTION

18. Allowed Tax and Zakat

Principles of Allowed Tax and Zakat

- 18.1. The Commission will determine at each Regulatory Review, the Transportation Licensee's Allowed Tax and Zakat for each year of the next Regulatory Period. Allowed Tax and Zakat is an input to Allowed Revenue and subsequently the Base Tariff.
- 18.2. The Allowed Tax and Zakat will represent an allowance each year for corporate tax payments, calculated based on forecasts of taxable income and the applicable rate for corporate tax and zakat payments.
- 18.3. The Commission may account for differences between Allowed Depreciation and Capital Allowances allowed under Malaysian tax law in calculating Allowed Tax and Zakat.

Calculation of Allowed Tax and Zakat

- 18.4. The Allowed Tax and Zakat will be calculated assuming that the following components of Allowed Revenue are not tax deductible:
- (a) the Allowed Return on Capital;
 - (b) the Allowed Depreciation;
 - (c) the Allowed Cost of Working Capital;
 - (d) the Allowed Opex Efficiency Carry-Over;
 - (e) the Allowed Capex Efficiency Carry-Over; and
 - (f) the Allowed Quality of Service Incentive.
- 18.5. Allowed Tax and Zakat will be calculated according to the following formula:

$$TAXZ_t = (RTOC_t + DEPN_t - CAPA_t + WORK_t + OPXE_t + CPXE_t + SERV_t) \times TAXR_t / (1 - TAXR_t)$$

Where:

'CAPA_t' is Capital Allowances in year 't' (expressed in RM)

'TAXR_t' is the average statutory corporation tax rate during year 't' (expressed as a percentage)

- 18.6. The Capital Allowances, which represent the tax deductible cost of wear and tear on fixed assets allowed under Malaysian tax law, will be calculated based on:
- (a) the Allowed Capex after deducting Allowed Disposals and Allowed Contributions; and
 - (b) the applicable capital allowance rates under the current and relevant Malaysian tax law.
- 18.7. Where Capital Allowances are not calculated then the Allowed Depreciation for that year will be applied instead.
- 18.8. The Allowed Tax and Zakat will not have a negative value and any forecast taxation losses incurred in any year of the Regulatory Period may be carried forward to offset forecast Allowed Tax and Zakat in future years of the Regulatory Period.

END OF SECTION

19. Allowed Opex Efficiency Carry-Over

Principles of the Allowed Opex Efficiency Carry-Over

- 19.1. The Commission will determine, at each Regulatory Review, the Transportation Licensee's Allowed Opex Efficiency Carry-Over for each year of the next Regulatory Period. The Allowed Opex Efficiency Carry-Over is an input to Allowed Revenue and subsequently the Base Tariff.
- 19.2. The Allowed Opex Efficiency Carry-Over is calculated to meet the objectives of the Opex Efficiency Carry-Over Scheme (ECS), which are as follows:
- (a) to enhance the incentive of the Transportation Licensee to achieve prudent and efficient expenditures;
 - (b) to assist with providing clear and consistent incentives, with an incentive power that does not materially vary of time either within or between Regulatory Periods; and
 - (c) to assist with and not unduly distort expenditure decision-making between Capex and Opex, to the extent that such options exist.

Application of the Opex ECS

- 19.3. The Opex ECS is not applicable to Unpredictable Opex, which will be excluded from the calculation of the Allowed Opex Efficiency Carry-Over.
- 19.4. The Opex ECS is not applicable to the costs of internal gas consumption, which will be excluded from the calculation of the Allowed Opex Efficiency Carry-Over.
- 19.5. The Commission may also determine other specific categories of the Allowed Opex to be excluded from the Opex ECS, on the basis that they are largely outside of the Transportation Licensee's control. Such exclusions will generally apply by exception and do not supplant the primary requirement that the Transportation Licensee be incentivised to improve the efficiency of all its Opex.
- 19.6. For any expenditure categories that are excluded from the Opex ECS, both the Actual Opex and Allowed Opex relating to those categories will be excluded from the calculation of the Allowed Opex Efficiency Carry-Over.

Calculation of the Allowed Opex Efficiency Carry-Over

19.7. The Allowed Opex Efficiency Carry-Over will be calculated as follows:

- (a) For each year of the current or soon to be completed Regulatory Period, the Opex Underspend or overspend, if negative, will be calculated as the difference between Allowed Opex and Actual Opex.

In the last year of the current Regulatory Period an estimate of Actual Opex will be used that assumes the same Opex Underspend (in RM) as in the penultimate year;

- (b) For each year of the current Regulatory Period, the Incremental Efficiency Gain or loss, if negative, will be calculated as the difference between the Opex Underspend in that year and the Opex Underspend in the preceding year.

The exception is in the first year of the current Regulatory Period, where the Incremental Efficiency Gain will be set equal to the Opex Underspend in that year less the Incremental Efficiency Gain in the last year of the previous Regulatory Period, which is calculated based on audited values of Actual Opex, and will be adjusted for any non-recurrent expenditures included in those years;

- (c) The Allowed Opex Efficiency Carry-Over will be set such that the Incremental Efficiency Gain in each year of the current Regulatory Period is retained or incurred, if negative, for a period equal to the number of years in the next Regulatory Period, by being carried forward for that number of years.

For example, an Incremental Efficiency Gain incurred in the penultimate year of the current Regulatory Period will be carried forward for three years (the length of the next Regulatory Period), which means from the last year of the current Regulatory Period through to and including year two of the next Regulatory Period; and

- (d) No subsequent adjustment will be made to account for any difference between the estimated and actual values of Actual Opex in the last year of each Regulatory Period once those audited values are known.

On the basis that under the Base Step Trend approach, as described in these Guidelines, the efficient base year Opex used

to set Allowed Opex for the next Regulatory Period is set based on Actual Opex in the penultimate year of the current Regulatory Period, and therefore any Incremental Efficiency Gain in the final year of a Regulatory Period will already be retained or incurred, if negative, by the Transportation Licensee for the length of the next Regulatory Period.

- 19.8. The above description of the calculation of the Allowed Opex Efficiency Carry-Over will be applied according to the following formula:

$$OPXE_t = \sum_{n=t}^{N-1} GAIN_n$$

Where:

'*t*' is the year of the next Regulatory Period '*P*'

'*n*' is the year of the current Regulatory Period '*P-1*'

'*N*' is the last year of the current Regulatory Period '*P-1*'

'*GAIN_n*' is the Incremental Efficiency Gain in year '*n*' (expressed in RM)

- 19.9. The above calculation of the Incremental Efficiency Gain will be applied according to the following formula:

If $n = 1$ (the first year of the current Regulatory Period) then:

$$GAIN_n = (OPEX_n - aOPEX_n) - GAIN_{n-1}$$

If $n > 1$ (not the first year of the current Regulatory Period) then:

$$GAIN_n = (OPEX_n - aOPEX_n) - (OPEX_{n-1} - aOPEX_{n-1})$$

Where:

'*OPEX_n*' is the Allowed Opex in year '*n*' (expressed in RM)

'*aOPEX_n*' is the Actual Opex in year '*n*' (expressed in RM)

'*GAIN_{n-1}*' is the Incremental Efficiency Gain in the last year of the previous Regulatory Period which is calculated based on audited values of Actual Opex in that year (expressed in RM)

END OF SECTION

20. Allowed Capex Efficiency Carry-Over

Principles of the Allowed Capex Efficiency Carry-Over

- 20.1. The Commission will determine, at each Regulatory Review, the Transportation Licensee's Allowed Capex Efficiency Carry-Over for each year of the next Regulatory Period. The Allowed Capex Efficiency Carry-Over is an input to Allowed Revenue and subsequently the Base Tariff.
- 20.2. The Allowed Capex Efficiency Carry-Over is calculated to meet the objectives of the Capex Efficiency Carry-Over Scheme (ECS), which are as follows:
- (a) to enhance the incentive of the Transportation Licensee to achieve prudent and efficient expenditures;
 - (b) to assist with providing clear and consistent incentives to the Transportation Licensee, with an incentive power that does not materially vary of time either within or between Regulatory Periods; and
 - (c) to assist with and not unduly distort expenditure decision-making between Capex and Opex, to the extent that such options exist.

Application of the Capex ECS

- 20.3. The Capex ECS is not applicable to Unpredictable Capex, which will be excluded from the calculation of the Capex Efficiency Carry-Over.
- 20.4. The Commission may also determine that specific projects or programmes of Capex to be excluded from the calculation of the Capex Efficiency Carry-Over.
- 20.5. The exclusions under section 20.3 will generally apply by exception and do not supplant the primary requirement that Transportation Licensee be incentivised to improve the efficiency of all its Capex.
- 20.6. Any specific projects or programmes that are excluded from the Capex ECS, both the Actual Capex and Allowed Capex relating to those projects or programmes will be excluded from the calculation of the Capex Efficiency Carry-Over.
- 20.7. The reasons for excluding specific projects or programmes from the Capex ECS may include but are not limited to:

- (a) the primary driver of the project or programmes is an obligation imposed by Government or by the Commission; or
- (b) there is a strong relationship between the level of expenditure on the project or programme and the level of achievement of an outcome such as volume-deployments of an item of technology, where underspend alone cannot be assumed to be an indicator of efficiency.

20.8. Where the Commission determines that specific projects or programmes of Allowed Capex to be excluded from the Capex ECS, the Commission may define an alternative incentive scheme to apply to that project or programme.

20.9. The Capex ECS will apply to Transportation Licensee as follows:

- (a) if the Transportation Licensee total Actual Capex across the relevant period is materially lower than its total Allowed Capex across the relevant period, then the Capex ECS adjustment shares the underspend between the Transportation Licensee and its customers.

This sharing is intended to provide an incentive to the Transportation Licensee for efficiency improvements in Capex while, at the same time, recognising that some savings may be due to circumstances outside of the Transportation Licensee's control, for example, a large customer deferring a connection which do not result from efficiency improvements. Due to the difficulty to identify the cause of a saving, the adjustment shares any underspends based on a percentage that is pre-determined by the Commission;

- (b) if the Transportation Licensee's total Actual Capex across the relevant period is greater than total Allowed Capex across the relevant period, there will be no sharing between the Transportation Licensee and its customers.

The Capex ECS adjustment will equal zero unless the Transportation Licensee's total Actual Capex across the relevant period is materially lower than its total Allowed Capex across the relevant period; and

- (c) the relevant period over which Actual Capex and Allowed Capex will be compared is from the last year of the previous Regulatory Period through to, and including, the penultimate year of the current Regulatory Period.

The last year of the current Regulatory Period is excluded from the comparison because audited values of Actual Capex will not be known at the time of determining the Allowed Revenue.

- 20.10. The total Actual Capex across the relevant period will be considered to be materially lower than total Allowed Capex across the relevant period if the difference exceeds the greater of:
- (a) 1% of total Allowed Revenue across the relevant period; or
 - (b) 5% of average annual Actual Capex across the relevant period.
- 20.11. The Commission may adjust the values of Capex underspend used in the calculation of the Capex ECS adjustment to ensure that the benefits of the Transportation Licensee deferring Capex from one period to the next are shared with customers. Any such adjustment will only be applied if total Allowed Capex in the next period is materially higher than it would have been had the Capex not been deferred.

Sharing factor for Capex ECS

- 20.12. In determining the Allowed Revenue, the Commission will determine a Capex sharing factor that will be applied to Capex underspends incurred during the next relevant period.
- 20.13. The Capex sharing factor will be expressed as a percentage and will represent the share of the Capex underspend that will be returned to customers through the Capex ECS adjustment, with the balance, i.e. 100% minus the Capex sharing factor, retained by the Transportation Licensee.
- 20.14. The Commission will set the Capex sharing factor such that the incentive power faced by the Transportation Licensee to improve Capex efficiency is broadly similar to the incentive power faced by the Transportation Licensee to improve Opex efficiency under the Opex ECS.
- 20.15. Unless otherwise determined by the Commission, the Capex sharing factor will be at the ratio of 70%:30%, which means that 70% of the Capex underspend will be returned to customers and 30% will be retained Transportation Licensee through the Capex ECS adjustment.

Calculation of the Capex ECS adjustment

20.16. The Capex ECS adjustment will be calculated as follows:

- (a) for the last year of the previous Regulatory Period and for each year of the current or soon to be completed Regulatory Period, excluding the last year of the current Regulatory period, the Capex underspend will be calculated as the difference between Actual Capex and Allowed Capex, less any deferral adjustment.

For this matter:

- (i) the Capex underspend may be positive or negative in any given year; and
 - (ii) the deferral adjustment will equal the increase in Allowed Capex in the next period arising due to deferrals in the current period, after adjusting for the time value of money at the applicable Weighted Average Cost of Capital;
- (b) for the last year of the previous Regulatory Period and for each year of the current Regulatory Period, the earned underspend benefit will be calculated as the difference between the total Allowed Revenue earned from using Allowed Capex and the total Allowed Revenue that would have been earned had Actual Capex been used in the calculation instead.
 - (i) the components of the Allowed Revenue that will change if using Allowed Capex rather than Actual Capex include return on capital, depreciation, and the tax and zakat allowance.
 - (ii) the earned underspend benefit may be:
 - (A) positive, if Actual Capex was lower than Allowed Capex; or
 - (B) negative, if Actual Capex was higher than Allowed Capex,in any given year;
 - (c) the total shared underspend, which is a total value rather than an annual value, will be calculated as the sum of:
 - (i) the Capex underspend, multiplied by one minus the applicable Capex sharing factors, summed across the

period and adjusted for the time value of money at the applicable Weighted Average Cost of Capital; and

- (ii) the earned underspend benefit, summed across the period and adjusted for the time value of money at the applicable Weighted Average Cost of Capital, multiplied by minus one;
- (d) for each year of the next Regulatory Period, the Capex ECS adjustment will be calculated as the total shared underspend converted to an annual amount, taking account of time value of money at the Weighted Average Cost of Capital for the next Regulatory Period;
- (e) in calculating the Capex ECS adjustment, the Commission will by default allow recovery within the next Regulatory Period. Where this would result in an unacceptable impact on customer tariffs that cannot be rectified by other means, the Commission may adjust it to spread the recovery of the total shared underspend across multiple Regulatory Periods.

20.17. The above description of the calculation of the Capex ECS adjustment will be applied according to the following formula:

$$ECSX_t = \frac{TSUS_{P-1}}{ANNF_P}$$

Where:

'P' is the next Regulatory Period

'P-1' is the current Regulatory Period

't' is the year of the next Regulatory Period 'P'

'TSUS_{P-1}' is the total shared underspend for Transportation Licensee in the current Regulatory Period 'P-1' (expressed in RM)

'ANNF_P' is the annuity factor for Transportation Licensee in the next Regulatory Period 'P' (expressed as a factor)

20.18. The total shared underspend, which is a component of the Capex ECS adjustment, will be calculated according to the following formula:

$$TSUS_{P-1} = \sum_{n=1}^N [(CXUS_n \times (1 - CXSF_n) - EUSB_n) \times (1 + RATE_n)^{(N-n)}]$$

Where:

'n' is the year of the current Regulatory Period 'P-1'

'n-1' is the last year of the previous Regulatory Period 'P-2'

' N ' is the total number of years in the current Regulatory Period ' $P-1$ '

' $CXUS_n$ ' is the Capex underspend for Transportation Licensee in year ' n ' (expressed in RM)

' $CXSF_n$ ' is the Capex sharing factor for Transportation Licensee in year ' n ' (expressed as a percentage)

' $EUSB_n$ ' is the earned underspend benefit for Transportation Licensee in year ' n ' (expressed in RM)

20.19. The Capex underspend, which is a component of the total shared underspend, will be calculated according to the following formula:

If $n < N$ (not the last year of the current Regulatory Period) then:

$$CXUS_n = CPEX_n - aCPEX_n - DFRA_n$$

Where:

' $DFRA_n$ ' is the deferral adjustment for Transportation Licensee in year ' n ' (expressed in RM)

If $n = N$ (the last year of the current Regulatory Period) then:

$$CXUS_n = 0$$

20.20. The annuity factor, which is a component of the Capex ECS adjustment, will be calculated according to the following formula:

$$ANNF_P = \frac{1 - (1 + RATE_P)^{-T}}{RATE_P}$$

Where:

' T ' is the total number of years in the next Regulatory Period ' P '

END OF SECTION

21. Allowed Quality of Service Incentive

Principles of the Allowed Quality of Service Incentive

- 21.1. The Commission will determine, at each Regulatory Review, the Transportation Licensee's Allowed Quality of Service Incentive for each year of the next Regulatory Period. The Allowed Quality of Service Incentive is an input to Allowed Revenue and subsequently the Base Tariff.
- 21.2. The Allowed Quality of Service Incentive will serve the following purposes:
- (a) to provide an incentive for the Transportation Licensee to improve its performance relative to the Key Performance Indicators (KPIs) determined by the Commission; and
 - (b) to help counteract the incentive otherwise inherent under incentive-based regulation frameworks to reduce costs at the expense of service quality.

Application of the Allowed Quality of Service Incentive

- 21.3. At each Regulatory Review, the Commission will determine the KPIs that will apply to the Transportation Licensee for the next Regulatory Period.
- 21.4. Each KPI determined by the Commission will be one of the following types:
- (a) **Symmetrical.** Will incur a penalty for under-performance against the target and an incentive for over-performance;
 - (b) **Penalty-only.** Will incur a penalty for under-performance against the target only;
 - (c) **Reward-only.** Will incur an incentive for over-performance against the target only; or
 - (d) **Monitor-only.** Will incur no financial reward or penalty attached. Monitor-only may provide an appropriate mechanism for KPIs that are previously untried and/or where there is no adequate historical data on performance which can be used as a starting point.

- 21.5. Each KPI determined by the Commission will comprise the following:
- (a) a target value;
 - (b) a deadband range around the target value, inside which no penalty or reward applies. In some circumstances this may be set to 0;
 - (c) an incentive range around the target value, which falls outside the deadband range, and inside which a penalty and/or incentive will apply in proportion to the difference between actual performance and limits of the incentive range; and
 - (d) a weighting, expressed a percentage. The weighting of all KPIs for the Transportation Licensee must add to 100%. A monitor-only KPI will have a weighting of 0%.
- 21.6. In setting the target values and ranges, the Commission may consider the following:
- (a) targets should generally not represent a worsening of service quality relative to current performance;
 - (b) the expected impacts of Allowed Opex and Allowed Capex on service quality;
 - (c) any proposal made by the Transportation Licensee relating to KPIs;
 - (d) assessments made by technical experts; and
 - (e) assessments made by regulatory authorities in countries that have similar incentive-based regulation and similar quality of service levels.
- 21.7. At each Regulatory Review, the Commission will determine a revenue at risk value that will apply to the Transportation Licensee for the next Regulatory Period. This will be expressed as a percentage and multiplied by the Allowed Revenue to represent the annual Maximum Quality of Service Incentive or penalty, if a negative.
- 21.8. Unless determined otherwise by the Commission, the default value of the revenue at risk value will be 1%.
- 21.9. The Transportation Licensee will report on the actual performance of all its KPIs to the Commission at a frequency and in a format prescribed by the Commission. At a minimum it will report actual performance on its KPIs at least annually.

- 21.10. As part of its Regulatory Proposal, and otherwise when requested by the Commission, the Transportation Licensee will report forecast performance of all its KPIs where actual values are not yet available to the Commission.
- 21.11. The Commission may publish the Transportation Licensee's reported performance of some or all of its KPIs on its website.

Calculation of the Allowed Quality of Service Incentive

- 21.12. The Allowed Quality of Service Incentive will be calculated as follows:
- (a) for each year of the current or soon to be completed Regulatory Period, the Maximum Quality of Service Incentive will be calculated as the Allowed Revenue multiplied by the revenue at risk percentage;
 - (b) for each year of the current Regulatory Period and for each KPI, KPI performance will be calculated as follows:
 - (i) if the actual performance against a KPI is inside the deadband range for that KPI, then KPI performance will equal zero;
 - (ii) if the actual performance against a KPI is above the upper limit of the incentive range for that KPI, then KPI performance will equal 100%;
 - (iii) if the actual performance against a KPI is above the upper limit of the deadband range for that KPI, and below the upper limit of the incentive range for that KPI, then KPI performance will equal the percentage between these two limits where actual performance falls. For example, if actual performance is halfway between the upper limit of the deadband range and the upper limit of the incentive range, then the KPI performance will equal 50%;
 - (iv) if the actual performance against a KPI is below the lower limit of the incentive range for that KPI, then KPI performance will equal -100%; and
 - (v) if the actual performance against a KPI is below the lower limit of the deadband range for that KPI, and above the lower limit of the incentive range for that KPI, then KPI performance will equal the percentage between these two limits where actual performance falls, multiplied by minus

one. For example, if actual performance is halfway between the lower limit of the deadband range and the lower limit of the incentive range, then the KPI performance will equal -50%;

- (c) for each year of the current Regulatory Period, weighted average KPI performance will be calculated as the sum, across all the KPIs, of KPI performance multiplied by the KPI weighting;
- (d) for each year of the next Regulatory Period, the Allowed Quality of Service Incentive will be calculated as the sum, across all years of the current Regulatory Period, of Maximum Quality of Service Incentive multiplied by average KPI performance, divided by the number of years in the next Regulatory Period;
- (e) the Allowed Quality of Service Incentive will also include a quality of service true-up relating to the use of an estimated value of actual performance in the last year of the previous Regulatory Period.

21.13. The above description of the calculation of the Allowed Quality of Service Incentive will be applied according to the following formula:

$$SERV_t = \frac{[\sum_n^N MQSI_n \times APRF_n]}{T_p} + SQTU_t$$

Where:

'P' is the next Regulatory Period

'P-1' is the current Regulatory Period

't' is the year of the next Regulatory Period 'P'

'T' is the total number of years in the next Regulatory Period 'P'

'n' is the year of the current Regulatory Period 'P-1'

'N' is the last year of the current Regulatory Period 'P-1'

'MQSI_n' is the Maximum Quality of Service Incentive for year 'n' of the current Regulatory Period 'P-1' (expressed in RM)

'APRF_n' is the average KPI performance for year 'n' of the current Regulatory Period 'P-1' (expressed as a percentage)

'SQTU_t' is the quality of service true-up for year 't' of the next Regulatory Period 'P' (expressed in RM)

- 21.14. The above description of the calculation of the Maximum Quality of Service Incentive will be applied according to the following formula:

$$MQSI_n = AREV_n \times RRSK_{P-1}$$

Where:

' $AREV_n$ ' is the Allowed Revenue in year ' n ' of the current Regulatory Period ' $P-1$ ' (expressed in RM)

' $RRSK_{P-1}$ ' is the revenue at risk for the current Regulatory Period ' $P-1$ ' (expressed as a percentage)

- 21.15. The above description of the calculation of the average KPI performance will be applied according to the following formula:

$$APRF_n = \left[\sum_q^Q PERF_{q,n} \times KPIW_{q,P-1} \right]$$

Where:

' q ' is an individual KPI for of Transportation Licensee

' Q ' is the total number of KPIs in the current Regulatory Period

' $PERF_{q,n}$ ' is the KPI performance for KPI ' q ' for year ' n ' of the current Regulatory Period ' $P-1$ ' (expressed as a percentage)

' $KPIW_{q,P-1}$ ' is the KPI Weight for KPI ' q ' for Regulatory Period ' $P-1$ ' (expressed as a percentage)

- 21.16. When setting the Allowed Revenue for the next Regulatory Period, the quality of service true-up will be calculated as the difference between the Allowed Quality of Service Incentive earned during the previous Regulatory Period, which used an estimate of actual performance against KPIs in the last year of the previous Regulatory Period, and the Allowed Quality of Service Incentive that would have been earned if the audited value had been used rather than the estimate. The difference will be adjusted for the time value of money at the applicable Allowed Rate of Return during the current Regulatory Period.

END OF SECTION

COMPONENTS OF THE TARIFF ADJUSTMENT

The following sections specify the determination of the components of the Tariff Adjustment.

22. Excluded Services Adjustment

Principles of the Excluded Services Adjustment

- 22.1. Each year, the Commission will determine the Transportation Licensee's Excluded Services Adjustment. The Excluded Services Adjustment is an input to the Tariff Adjustment.
- 22.2. Excluded Services Income comprises net income received by the Transportation Licensee from the provision of Excluded Services. Excluded Services Income is net of any non-regulated expenses that a Transportation Licensee has incurred in the process of earning the Excluded Services Income and to be submitted based on audited values of actual cost of Excluded Services Income.
- 22.3. The objective of the Excluded Services Adjustment is to strike a balance between:
- (a) returning to User, the Excluded Services Income which has been earned using the assets and/or staff of a Transportation Licensee and therefore already funded by User through Base Tariff; and
 - (b) providing an incentive to the Transportation Licensee to increase Excluded Services Income, where on balance it is advantageous to User to do so.

Sharing Factors for Excluded Services Income

- 22.4. The Excluded Services Adjustment will be calculated by applying Excluded Services sharing factors for different categories of Excluded Services Income to their values.
- 22.5. At Regulatory Reviews the Commission will determine an Excluded Services sharing factor for each category of Excluded Services Income, which will be used to calculate Excluded Services Adjustments during the next Regulatory Period.
- 22.6. Each Excluded Services sharing factor will be expressed as a percentage and will represent the share of that category's income that will be returned to User through Tariff Adjustments, with the balance, i.e. 100% minus the Excluded Services sharing factor, retained by the Transportation Licensee.

- 22.7. Each Excluded Services sharing factor will generally be set on the principle of distinguishing between those Excluded Services that are determine on case-to-case basis considering the different natures of respective Excluded Services. Unless otherwise determined by the Commission, an Excluded Services sharing factor of 50% will apply to each category of Excluded Services Income, which means that 50% of Excluded Services Income will be returned to User through Tariff Adjustments.

Application of the Excluded Services Adjustment

- 22.8. The Excluded Services Adjustment will be calculated based on Excluded Services Income arising two years prior, to ensure that the audited values of Excluded Services Income are available.
- 22.9. The Excluded Services Adjustment will be calculated regardless of which Regulatory Period the year, two years prior falls in.
- 22.10. The Excluded Services Adjustment will account for the time value of money at the Allowed Rate of Return for the relevant years.

Calculation of the Excluded Services Adjustment

- 22.11. The Excluded Services Adjustment will be calculated according to the following formula:

$$EXAJ_t = - \left[\sum_{i=1}^I aEXSI_{i,m} \times EXSF_{i,m} \right] \times (1 + RATE_m) / FCAP_t$$

Where:

'*I*' is the total number of categories of Excluded Services Income

'*aEXSI_m*' is the average actual Excluded Services Income for category '*i*' in the 12 months ranging from month 1 to month 12 of the year '*t-2*' (expressed in RM)

'*EXSF_{,i,m}*' is the average Excluded Services sharing factor applying to Excluded Services Income category '*i*' for the 12 months ranging from month 1 to month 12 of the year '*t-2*' (expressed as a percentage).

END OF SECTION

23. Unpredictable Opex Adjustment

Principles of the Unpredictable Opex Adjustment

- 23.1. Each year, the Commission will determine the Transportation Licensee's Unpredictable Opex Adjustment, which is an input to the Tariff Adjustment.
- 23.2. The Unpredictable Opex Adjustment will ensure that any differences between estimated Unpredictable Opex, included in the Commission's determination of Allowed Opex at the most recent Regulatory Review, and actual Unpredictable Opex will be paid to the Transportation Licensee, if an under-recovery, or returned to User, if an over-recovery.
- 23.3. The Unpredictable Opex Adjustment will also ensure that any new Unpredictable Opex, approved within a Regulatory Period at a prior Tariff Adjustment, will be recovered by the Transportation Licensee.
- 23.4. The actual Unpredictable Opex will be set at the actual level of expenditure in each year based on audited values. However, the Commission may disallow some part of the actual Unpredictable Opex if the Commission finds that the costs are spent inefficiently or the margin earned by a Transportation Licensee or its related party is unreasonable or too high.

Application of the Unpredictable Opex Adjustment

- 23.5. The Unpredictable Opex Adjustment will be calculated based on values two years prior, to ensure that the audited values of actual Unpredictable Opex are available.
- 23.6. For the avoidance of doubt:
 - (a) the Transportation Licensee will recover any differences between estimated Unpredictable Opex, included in the Commission's determination of Allowed Opex at the most recent Regulatory Review, and actual Unpredictable Opex two years after it is incurred;
 - (b) the Transportation Licensee will recover any approved new Unpredictable Opex, approved within a Regulatory Period as part of Tariff Adjustment, two years after it is incurred. No estimate of new Unpredictable Opex will be included in the calculation of the Unpredictable Opex Adjustment; and

- (c) the Unpredictable Opex Adjustment will be calculated regardless of which Regulatory Period the year, two years prior falls in.

Calculation of the Unpredictable Opex Adjustment

- 23.7. The Unpredictable Opex Adjustment will be calculated according to the following formula:

$$UOAJ_t = (aUPOX_m - UPOX_m) / FCAP_t$$

Where:

' $aUPOX_m$ ' is the actual Unpredictable Opex in the 12 months ranging from month 1 to month 12 of the year ' $t-2$ ' (expressed in RM)

' $UPOX_m$ ' is the estimated Unpredictable Opex in the 12 months ranging from month 1 to month 12 of the year ' $t-2$ ' (expressed in RM)

END OF SECTION

24. Unpredictable Capex Adjustment

Principles of the Unpredictable Capex Adjustment

- 24.1. Each year, the Commission will determine the Transportation Licensee's Unpredictable Capex Adjustment, which is an input to the Tariff Adjustment.
- 24.2. The Unpredictable Capex Adjustment will ensure that any over-recovery or under-recovery of Allowed Revenues due to differences between estimated Unpredictable Capex, included in the Commission's determination of Allowed Capex at the most recent Regulatory Review, and actual Unpredictable Capex will be paid to the Transportation Licensee, if an under-recovery, or returned to User, if an over-recovery.
- 24.3. The Unpredictable Capex Adjustment will also ensure that any new Unpredictable Capex, approved within a Regulatory Period at a prior Tariff Adjustment, will be recovered by the Transportation Licensee.
- 24.4. Any new Unpredictable Capex will be recovered through calculation of the effect on Allowed Return on Capital, Allowed Depreciation, and Allowed Tax and Zakat.
- 24.5. The actual Unpredictable Capex will be set at a level determined by the Commission, by applying the recovery mechanism or mechanisms determined by the Commission at Regulatory Reviews for each project or programme designated as Unpredictable Capex. For this purpose:
 - (a) the value of actual Unpredictable Capex may be set based on a budget ceiling, a fixed volume with price pass-through, a fixed unit cost with volume pass-through, or based on some other recovery mechanism that was determined by the Commission; and
 - (b) The Commission may not consider the actual costs for Unpredictable Capex, despite applying a full pass-through mechanism, if the Commission finds that the costs are spent inefficiently or the margin earned by a Transportation Licensee or its related party is unreasonable or too high.

Application of the Unpredictable Capex Adjustment

- 24.6. The Unpredictable Capex Adjustment will be calculated based on values two years prior, to ensure that the audited values of actual Unpredictable Capex are available.

- 24.7. For the avoidance of doubt:
- (a) the Transportation Licensee will recover any differences between estimated Unpredictable Capex, included in the Commission's determination of Allowed Capex at the most recent Regulatory Review, and actual Unpredictable Capex two years after it is incurred;
 - (b) the Transportation Licensee will recover any approved new Unpredictable Capex, approved within a Regulatory Period as part of Tariff Adjustment, two years after it is incurred. No estimate of new Unpredictable Capex will be included in the calculation of the Unpredictable Capex Adjustment; and
 - (c) the Unpredictable Capex Adjustment will be calculated regardless of which Regulatory Period the year, two years prior falls in.
- 24.8. In any given year, the Commission may determine that an over-recovery or under-recovery of Allowed Revenues due to Unpredictable Capex be postponed until the next Regulatory Period, rather than apply the Unpredictable Capex Adjustment. In such cases, this will be done by adjusting the amount of actual Unpredictable Capex that is included in Actual Capex when rolling forward the actual Regulated Asset Base.

Calculation of the Unpredictable Capex Adjustment

- 24.9. The Unpredictable Capex Adjustment will be calculated according to the following formula:

$$UCAJ_t = -EUUB_m / FCAP_t$$

Where:

' $EUUB_m$ ' is the Earned Unpredictable Capex Underspend Benefit in the 12 months ranging from month 1 to month 12 of the year ' $t-2$ ' (expressed in RM)

- 24.10. The Earned Unpredictable Capex Underspend Benefit will be calculated as the difference between the Allowed Revenue earned using estimated Unpredictable Capex and the Allowed Revenue that would have been earned had actual Unpredictable Capex been used in the calculation instead. For this purpose:
- (a) the components of Allowed Revenue that will change if using actual Unpredictable Capex rather than estimated Unpredictable Capex include Allowed Return on Capital, Allowed Depreciation, and Allowed Tax and Zakat; and

- (b) the Earned Unpredictable Capex Underspend Benefit may be:
 - (i) positive, if actual Unpredictable Capex was lower than estimated Unpredictable Capex; or
 - (ii) negative, if actual Unpredictable Capex was higher than estimated Unpredictable Capex,
- in any given year.

24.11. The Earned Unpredictable Capex Underspend Benefit will account for the accumulated effect on Allowed Revenues of differences between actual Unpredictable Capex and estimated Unpredictable Capex during the relevant Regulatory Period.

For example:

- (a) if the current year (t) is year 3 of the current Regulatory Period, then the effect on Allowed Revenue two years prior will be calculated reflecting the differences between actual Unpredictable Capex and estimated Unpredictable Capex in year 1 of the current Regulatory Period; or
- (b) if the current year (t) is year 1 of the current Regulatory Period and the previous Regulatory Period had a length of 3 years, then the effect on Allowed Revenue two years prior will be calculated reflecting the differences between actual Unpredictable Capex and estimated Unpredictable Capex in years 1 and 2 of the previous Regulatory Period.

END OF SECTION

25. Internal Gas Consumption Adjustment

Principles of Internal Gas Consumption Adjustment

- 25.1. Each year, the Commission will determine the Transportation Licensee's Internal Gas Consumption Adjustment, which is an input to the Tariff Adjustment.
- 25.2. The Internal Gas Consumption Adjustment will consist of two adjustments:
- (a) the **Internal Gas Consumption volume adjustment**. This provides an adjustment which reflects differences between forecast and actual Internal Gas Consumption volume in each year of the Regulatory Period; and
 - (b) the **Internal Gas Consumption price adjustment**. This provides an adjustment which reflects the differences between forecast and actual Marginal Cost of Gas Supply in each year of the Regulatory Period.
- 25.3. The objective of the Internal Gas Consumption Adjustment is to strike a balance between:
- (a) protecting the Transportation Licensee from the impacts of large and uncontrollable fluctuations in the Marginal Cost of Gas Supply within a Regulatory Period.
 - (b) providing an incentive to the Transportation Licensee to reduce Internal Gas Consumption volume; and
 - (c) providing an incentive to the Transportation Licensee to prudently forecast the Marginal Cost of Gas Supply.

Sharing Factors for Internal Gas Consumption Adjustment

- 25.4. The Internal Gas Consumption Adjustment will be calculated by applying sharing factors to the Internal Gas Consumption volume adjustment and the Internal Gas Consumption price adjustment.
- 25.5. At Regulatory Reviews the Commission will determine an Internal Gas Consumption volume adjustment sharing factor and an Internal Gas Consumption price adjustment sharing factor, which will be used to calculate Internal Gas Consumption Adjustments during the next Regulatory Period.

- 25.6. Each sharing factor will be expressed as a percentage and will represent the share of the adjustment that will be returned to User through Tariff Adjustments, with the balance, i.e. 100% minus the sharing factor, retained by the Transportation Licensee.
- 25.7. Unless otherwise determined by the Commission, the Internal Gas Consumption volume adjustment sharing factor will be set according to the following:
- (a) if there is cost saving due to lower Internal Gas Consumption volume compared to forecasted volume, the Internal Gas Consumption volume adjustment sharing factor will be set at 25%; and
 - (b) if there is cost increase due to higher Internal Gas Consumption volume compared to forecasted volume, the Internal Gas Consumption volume adjustment sharing factor will be set at 0%.
- 25.8. Unless otherwise determined by the Commission, the Internal Gas Consumption price adjustment sharing factor will be set at 100%.

Application of the Internal Gas Consumption Adjustment

- 25.9. The Internal Gas Consumption Adjustment will be calculated based on the Cost of Internal Gas Consumption incurred two years prior, to ensure that the audited values of actual cost of Internal Gas Consumption are available.
- 25.10. The Internal Gas Consumption Adjustment will be calculated regardless of which Regulatory Period the year, two years prior falls in.
- 25.11. The Internal Gas Consumption Adjustment will account for the time value of money at the Allowed Rate of Return for the relevant years.

Calculation of the Internal Gas Consumption Adjustment

- 25.12. The Internal Gas Consumption Adjustment will be calculated according to the following formula:

$$IGCA_t = (IGCVA_m \times IVSF_P + IGCPA_m \times IPSF_P) \times (1 + RATE_m) / FCAP_t$$

Where:

' $IGCVA_m$ ' is the Internal Gas Consumption volume adjustment in the 12 months ranging from month 1 to month 12 of the year ' $t-2$ ' (expressed in RM)

' $IVSF_P$ ' is Internal Gas Consumption volume adjustment sharing factor for Regulatory Period ' P ' (expressed as a percentage)

' $IGCPA_m$ ' is the Internal Gas Consumption price adjustment in the 12 months ranging from month 1 to month 12 of the year ' $t-2$ ' (expressed in RM)

' $IPSF_P$ ' is Internal Gas Consumption price adjustment sharing factor for Regulatory Period ' P ' (expressed as a percentage).

- 25.13. The Internal Gas Consumption volume adjustment, which is a component of the Internal Gas Consumption Adjustment, will be calculated according to the following formula:

$$IGCVA_m = (aIGCV_m - IGCV_m) \times MCGS_m$$

Where:

' $aIGCV_m$ ' is the actual Internal Gas Consumption volume in the 12 months ranging from month 1 to month 12 of the year ' $t-2$ ' (expressed in GJ)

' $IGCV_m$ ' is the forecast Internal Gas Consumption volume in the 12 months ranging from month 1 to month 12 of the year ' $t-2$ ' (expressed in GJ)

' $MCGS_m$ ' is the forecast Marginal Cost of Gas Supply in the 12 months ranging from month 1 to month 12 of the year ' $t-2$ ' (expressed in RM/GJ)

- 25.14. The Internal Gas Consumption price adjustment, which is a component of the Internal Gas Consumption Adjustment, will be calculated according to the following formula:

$$IGCPA_m = (aMCGS_m - MCGS_m) \times aIGCV_m$$

Where:

' $aMCGS_m$ ' is the actual Marginal Cost of Gas Supply in the 12 months ranging from month 1 to month 12 of the year ' $t-2$ ' (expressed in RM/GJ)

- 25.15. The actual Marginal Cost of Gas Supply, which is a component of the Internal Gas Consumption Adjustment, will be calculated based on the same reference price as used to determine the forecast Marginal Cost of Gas Supply at the previous Regulatory Review in accordance with these Guidelines.
- 25.16. The actual Internal Gas Consumption volume, which is a component of the Internal Gas Consumption Adjustment, will be calculated on the same basis as forecast Internal Gas Consumption volume, which was determined at the previous Regulatory Review in accordance with these Guidelines.

END OF SECTION

26. Revenue-Cap Adjustment

Principles of the Revenue-Cap Adjustment

- 26.1. Each year, the Commission will determine the Transportation Licensee's Revenue-Cap Adjustment, which is an input to the Tariff Adjustment.
- 26.2. The Revenue-Cap Adjustment will ensure that:
- (a) any differences between actual tariff revenue and revenue that is allowed based on the Allowed Tariff, arising due to differences between actual Reserved Firm Capacity and forecast Reserved Firm Capacity, will be shared between the Transportation Licensee and User; and
 - (b) any excess of actual tariff revenue over revenue that is allowed based on the Allowed Tariff, arising due to the actual tariff exceeding the Allowed Tariff will be returned to the User.

Revenue-Cap Sharing Factor

- 26.3. The Revenue-Cap Adjustment will be calculated by applying a revenue-cap sharing factor.
- 26.4. At the Regulatory Reviews the Commission will determine a revenue-cap sharing factor, which will be used to calculate the Revenue-Cap Adjustment during the next Regulatory Period.
- 26.5. The revenue-cap sharing factor will be expressed as a percentage and will represent the share of revenues resulting from differences between actual and forecast firm capacity reservations that will be returned to User through Tariff Adjustments, with the balance, i.e. 100% minus the revenue-cap sharing factor, retained by the Transportation Licensee.
- 26.6. Unless otherwise determined by the Commission, a revenue-cap sharing factor of 75% will apply, which means that 75% of revenue differences will be returned to User through Tariff Adjustments.

Application of the Revenue-Cap Adjustment

- 26.7. The Revenue-Cap Adjustment will be calculated based on values two years prior, to ensure that the audited values of actual tariff revenue are available.

- 26.8. The Revenue-Cap Adjustment will be calculated regardless of which Regulatory Period the year, two years prior falls in.
- 26.9. The Revenue-Cap Adjustment will account for the time value of money at the Allowed Rate of Return for the relevant years.

Calculation of the Revenue-Cap Adjustment

- 26.10. The Revenue-Cap Adjustment will be calculated according to the following formula:

$$RCAP_t = (ALLW_m \times pFCAP_m - aAREV_m) \times (1 + RATE_m) / FCAP_t$$

Where:

' $ALLW_m$ ' is the average of the Allowed Tariff in the 12 months ranging from month 1 to month 12 of the year ' $t-2$ ' (expressed in RM/GJ/day)

' $pFCAP_m$ ' is the average of the passed-through Reserved Firm Capacity in the 12 months ranging from month 1 to month 12 of the year ' $t-2$ ' (expressed in GJ/day)

' $aAREV_m$ ' is the average of the actual tariff revenue in the 12 months ranging from month 1 to month 12 of the year ' $t-2$ ' (expressed in RM)

- 26.11. The passed-through Reserved Firm Capacity, which is an input to the Revenue-Cap Adjustment, will be calculated according to the following formula:

$$pFCAP_m = FCAP_m \times RCSF_m + aFCAP_m \times (1 - RCSF_m)$$

Where:

' $aFCAP_m$ ' is the average actual Reserved Firm Capacity in the 12 months ranging from month 1 to month 12 of the year ' $t-2$ ' (expressed in GJ/day)

' $RCSF_m$ ' is the average revenue-cap sharing factor for the 12 months ranging from month 1 to month 12 of the year ' $t-2$ ' (expressed as a percentage)

- 26.12. The actual tariff revenue for a given year, which is an input to the Revenue-Cap Adjustment, will be based on the actual total tariff revenue billed by the Transportation Licensee to User, based on Regulated Tariffs for that year.

END OF SECTION

OTHER MATTERS

The following sections specify other matters related to application of the IBR framework.

27. Regulatory reporting

Principles of the Regulatory Reporting Statements (RRS)

- 27.1. For each year, the Transportation Licensee will submit its RRS to the Commission.
- 27.2. The purposes of the RRS are to allow the Commission:
- (a) to identify how the Transportation Licensee is performing relative to forecast outcomes, and the reasons for any differences; and
 - (b) to make consistent assessments over time of the Transportation Licensee's cost efficiency and productivity, which will inform regulatory determinations.

Content of the RRS

- 27.3. The RRS will comprise of the following:
- (a) **Financial Report** which will provide detailed information on actual costs and revenues compared to allowed costs and revenues, in a format determined by the Commission;
 - (b) **Physical Report** which will provide information on physical system outputs and key indicators, in a format determined by the Commission; and
 - (c) **Explanatory document** which contains description of the underlying calculations and assumptions used to prepare the Financial Report and Physical Report, including an explanation of significant variances between actual and allowed costs and revenues. The document will also include a detailed commentary about the operational performance of the Transportation Licensee, encompassing any relevant network performance and performance against customer service standards.

RRS submission timing and formats

- 27.4. The Transportation Licensee will submit its RRS, relating to the previous year, to the Commission no later than 31 May.
- 27.5. The Financial Report and Physical Report will be submitted using a template that is issued and updated from time to time by the

Commission, in consultation with the Transportation Licensee. This template will be broadly consistent with the inputs to the Allowed Revenue Model issued by the Commission.

Publication of the RRS

- 27.6. The RRS may be published by the Commission on its official website, except for:
- (a) a description of the underlying calculations and assumptions used to prepare the RRS; and
 - (b) any other material identified as being confidential by the Transportation Licensee and accepted as such by the Commission.
- 27.7. The Transportation Licensee will employ best endeavours to draw the attention of User to the availability of the published RRS in a manner appropriate to ensure awareness as deemed necessary.

Preparation of the RRS

- 27.8. The RRS shall be prepared in a manner that is consistent with these Guidelines and the Allowed Revenue Model which includes applying the same principles and methodologies relating to Tariff Adjustments, cost and asset allocation, and cost calculations.
- 27.9. Any inconsistency between these Guidelines and the preparation of the RRS shall be clearly documented and explained, including detailing the implication of the inconsistency.
- 27.10. In cases where information is included in the RRS and these Guidelines do not provide any guidance on preparation of that information, the RRS shall be prepared in a manner that is generally in accordance with the accounting principles and policies used to prepare the Transportation Licensee's audited financial statements.
- 27.11. In preparing the RRS, the Transportation Licensee shall submit the relevant financial data that shows the actual transactions and reports, emphasizing on the purpose and the effects of such transaction. Individual transactions that achieve or are designed to achieve a common commercial effect will be treated in aggregate.

Reporting across Regulatory Periods

- 27.12. Where possible, the RRS should be prepared using consistent methodologies over time. This particularly applies to:
- (a) the capitalisation policies; and
 - (b) the measurement of physical outputs.
- 27.13. Where any significant change is made within a Regulatory Period to a methodology that is used to prepare the RRS and as approved by the Commission, then:
- (a) the Transportation Licensee will clearly identify and describe the changes made, the justification for the changes, and the impacts of the changes;
 - (b) the Transportation Licensee will submit two versions of the Financial Report and Physical Report, as applicable:
 - (i) one version based on the methodologies applied prior to the change; and
 - (ii) one version based on the new methodologies;for the remainder of the Regulatory Period; and
 - (c) the Transportation Licensee to submit the versions of the Financial Report and Physical Report that was prepared based on the new methodologies, for each year of the previous Regulatory Period as required by the Commission.

Verification and auditing of the RRS

- 27.14. The Transportation Licensee will ensure that the RRS is adequately and independently audited by a reputable, independent, and licensed auditor, which will be notified by the Transportation Licensee to the Commission.
- 27.15. The same auditor may be retained from previous years or Regulatory Periods, without requiring a re-approval by the Commission.
- 27.16. The Transportation Licensee should endeavour to propose an accredited auditor for approval by the Commission. However, where a Transportation Licensee can demonstrate that an accredited auditor is unwilling or unable or unsuitable to conduct the audit, the

Transportation Licensee may propose an independent consultant that specialises in regulatory matters and has the requisite expertise.

- 27.17. The approved auditor must prepare an auditor's regulatory report to be submitted to the Commission with the RRS.
- 27.18. This report shall include the opinion of the auditor on whether the input data and underlying calculations and assumptions are consistent with these Guidelines.
- 27.19. In particular, the auditor should include:
- (a) any deficiency in record keeping that may make the information contained in the RRS of uncertain reliability;
 - (b) any significant deviation from the Guidelines applied in the preparation of the RRS;
 - (c) methods on expenditures and revenues for Regulated Services have been separated from non-regulated services;
 - (d) justification of related party transactions; and
 - (e) any other matter that may mean that the RRS do not provide a true and fair view of the costs, revenues, and assets of the Transportation Licensee.
- 27.20. The provision of the auditor's regulatory report does not remove the responsibility of the Transportation Licensee for the preparation and submission of RRS, nor does it require the auditor rather than the Transportation Licensee to assume liability in any form for any error or omission in the RRS.
- 27.21. The Transportation Licensee must make appropriate provision for the Commission to require from the auditor further explanation or clarification of the auditor's regulatory report and further information on the matters covered by the auditor's regulatory report. Such requirements are subject to the requirement that they must not impose unreasonable obligations on the auditor.

Related party transactions

- 27.22. Related party transactions involve a Transportation Licensee buying or selling goods or services to or from an entity which is related to it by a common shareholding or other common control.

- 27.23. In preparing and submitting information in the Financial Report, the Transportation Licensee will separately identify and justify all significant related party transactions.
- 27.24. A significant related party transaction will be defined as one where the annual value of payments for the supply of goods or services exceeds 0.5% of the Allowed Revenue of the Transportation Licensee in that year.
- 27.25. Where significant related party transactions occur, the Transportation Licensee will demonstrate in its RRS that:
- (a) the prices paid or received for these goods or services are reasonable and at fair market value;
 - (b) the goods or services are provided at no extra cost than if they were provided from within the Transportation Licensee's business; and
 - (c) there are no cross-subsidy exists between the Transportation Licensee and other parts of the related entity's business.
- 27.26. At a minimum, this demonstration requires one of the following:
- (a) the contract for the supply of goods or services to be awarded through a fair and non-discriminatory competitive tendering process in which three or more bids were received; and
 - (b) the price paid for the supply of goods and services should be based on actual costs of supply plus an appropriate rate of return on the capital employed.
- 27.27. Asset transfers between licensees and related parties will be reported at the depreciated value implied in the Regulated Asset Base, calculated based on:
- (a) the year(s) the associated Allowed Capex entered the Regulated Asset Base; and
 - (b) the asset life used to calculate depreciation of the associated Allowed Capex, based on its applicable Asset Category in the Regulated Asset Base.

Contents of the Financial Report

- 27.28. The Financial Report will report on the following:
- (a) the Opex;

- (b) the Capex;
- (c) the Revenues; and
- (d) the Regulated Asset Base.

Reporting of Opex

- 27.29. In preparing and submitting information on Opex in the Financial Report, the Transportation Licensee will:
- (a) distinguish between categories of Opex advised by the Commission;
 - (b) separately identify related party Opex;
 - (c) separately identify Opex related to services that are contracted out, as opposed to arising from the use of the Transportation Licensee's own resources; and
 - (d) separately identify Unpredictable Opex.
- 27.30. No expenses based on provisions for depreciation or impairment of fixed assets will be included as Opex.
- 27.31. The Transportation Licensee will explain any significant variances between Actual Opex and Allowed Opex in its explanatory document. The Commission will determine the level of significance and inform the Transportation Licensee sufficiently in advance of the relevant reporting year. Such explanations should include, but not be limited to, descriptions of any efficiency gains or losses and identification of any step changes and other non-trended components of Opex.

Reporting of Capex

- 27.32. In preparing and submitting information on Capex in the Financial Report, the Transportation Licensee will report on Capex included in the Transportation Licensee's proposed Investment Plan, as well as Capex from any other projects and programmes undertaken, including new Unpredictable Capex.
- 27.33. The Transportation Licensee will report capex in the following different formats:
- (a) **by each significant Capex project.** Significant projects are defined as projects on which aggregate capex exceeds 5% of the Transportation Licensee's total Allowed Capex in the

Regulatory Period. If a project is not deemed to be a significant project, then it should be reported as part of a programme of work;

- (b) **by asset category**, as approved by the Commission and used to calculate Allowed Depreciation;
- (c) **by cost driver category**, as advised by the Commission and where applicable to the Transportation Licensee. These categories will broadly differentiate between but not be limited to:
 - (i) the investment in new system assets to accommodate new demand and customer connections;
 - (ii) the upgrade of existing system assets to accommodate demand growth and to improve performance or compliance; and
 - (iii) the repair of defects in existing system assets through replacement or refurbishment of assets; and
- (d) **by physical output category**, as advised by the Commission and where applicable to the Transportation Licensee. These categories will be consistent with those in the Physical Report submission.

27.34. The Transportation Licensee will clearly document and explain the allocation of capex between each category, where applicable including separating out any Capex reallocation or asset transfer between licensees and/or related parties and separately identifying Unpredictable Capex.

27.35. The Transportation Licensee will explain any significant variances between Actual Capex and Allowed Capex, for each significant Capex project, in its explanatory document.

27.36. Where the Actual Capex is significantly below Allowed Capex, the Transportation Licensee's explanatory document will include an estimate of the share of this negative variance attributable to the main potential causes, which may include:

- (a) deferral, de-scoping or cancellation of projects or programs by the Transportation Licensee;
- (b) deferral, non-payment of charges or cancellation by the customer

- (c) delays in obtaining access to customer sites;
- (d) delays in obtaining wayleaves or contractor failure;
- (e) delays due to the Transportation Licensee;
- (f) delays in approval by relevant authorities or land owners, including but not limited to road concessionaires and rail services; and
- (g) delays due to circumstances beyond the Transportation Licensee's control.

Reporting of revenues

27.37. In preparing and submitting information on revenues in the Financial Report, the Transportation Licensee will report on:

- (a) the actual tariff revenue; and
- (b) the Excluded Services Income, separated out by category.

27.38. In preparing and submitting information on revenues in the Financial Report, the Transportation Licensee will also report on:

- (a) the forecast Reserved Firm Capacity and actual Reserved Firm Capacity by customer category;
- (b) the total and average actual tariff revenue billed by the Transportation Licensee to User, by customer category; and
- (c) the Transportation Licensee will explain any significant variances between the total actual tariff revenue billed to User and the total allowed tariff revenue, calculated based on Allowed Tariff. Such explanations should include, but not be limited to:
 - (i) the differences between forecast Reserved Firm Capacity and actual Reserved Firm Capacity; and
 - (ii) the changes in the customer mix (the share of sales by customer category).

Reporting of the Regulated Asset Base

27.39. In preparing and submitting information on the Regulated Asset Base in the Financial Report, the Transportation Licensee will:

- (a) roll forward the Regulated Asset Base in a manner that is consistent with these Guideline, including showing Actual Capex, Actual Disposals, Actual Contributions, and Actual Depreciation, calculated based on asset lives; and
- (b) roll forward the Regulated Asset Base separately for each Asset Category.

Physical Report

27.40. The Physical Report will at a minimum contain the following:

- (a) the actual Reserved Firm Capacity and forecast Reserved Firm Capacity;
- (b) the actual volumes of gas delivered; and
- (c) the Internal Gas Consumption volumes in each month, disaggregated by different categories as may be determined by the Commission which shall include, but not limited to the following:
 - (i) Fuel Gas;
 - (ii) Maintenance Gas; and
 - (iii) Unaccounted for Gas.

END OF SECTION

28. Expansion projects

Principles

- 28.1. This part provides for the deferral of part of the recovery of the costs of the expansion in the event a Transportation Licensee undertakes a major expansion of capacity or expands coverage to a currently unsupplied area or both, with initially low levels of utilisation.
- 28.2. The purpose of the deferral is to avoid such expansions leading to large increases in Regulated Tariffs for all User, whether or not they are User of the expansion, and to provide incentives for the Transportation Licensee to only undertake expansions that are commercially viable.
- 28.3. Where a Transportation Licensee undertakes expands coverage to a currently unsupplied area, this section will not supersede the process set out in the previous Section. However, in the case that the Commission determines that the Transportation Licensees' demand and revenue forecast are credible and costs are efficient, and there are concerns about initially low levels of utilisation, then the process set out in this section may also apply.

Definition of a major expansion

- 28.4. For the purposes of this section, a major expansion is defined as being a project the investment costs of which represents 5% or more of the existing Regulated Asset Base of the Transportation Licensee.

Deferral of cost recovery for a major expansion

- 28.5. As part of the submission of a major expansion for approval, whether as part of an investment plan or under the open season provisions in the relevant Third-Party Access Code for Malaysian Transmission Pipelines or for ex-post approval for inclusion in the Regulated Asset Base, the Transportation Licensee must provide the following information:
- (a) the forecast utilisation of the assets comprising the major expansion over its lifetime and an explanation of this forecast;
 - (b) the resulting expected incremental revenues from the major expansion, assuming a continuation of current Regulated Tariffs and allowing for any reductions in utilisation of existing assets resulting from the expansion; and

- (c) the estimated incremental costs of the major expansion calculated as the sum of estimated increases in Opex, working capital, return on capital and depreciation resulting from the expansion less any reductions in Opex for the existing system resulting from the expansion.

28.6. The Commission may:

- (a) reject the expansion if it is found that the incremental revenues from the major expansion are insufficient to recover the incremental increase in Opex and working capital; or
- (b) approves the expansion, if it is found that the major expansion are sufficient to recover the incremental increase in Opex and working capital but not to also recover the return on capital and depreciation allowance associated with the expansion (capital costs), with deferral for a part or a whole of the recovery of such capital costs.

28.7. In general, a deferral will be required where the Commission considers that the increase in capital resulting from the inclusion of investment costs of the major expansion into the Regulated Asset Base will result in an increase in Regulated Tariffs for User that is unacceptable. In assessing acceptability, the Commission will have particular regard to the impacts on User who are not expected to be User of the major expansion and so do not benefit from it.

Impacts of a deferral

28.8. Where a deferral is required, the following shall apply:

- (a) the expansion assets will not be included in the Regulated Asset Base for the period of deferral;
- (b) the Transportation Licensee will maintain separate records of all the following during the period of deferral:
 - (i) the depreciated historical cost of the expansion assets;
 - (ii) the capital costs (depreciation and return) associated with the expansion; and
 - (iii) the incremental revenues generated by the expansion, calculated using the current Base Tariff.
- (c) Where the annual capital costs exceed the annual incremental revenues, the difference will be accrued in a notional deferred

recovery account. The Transportation Licensee will be allowed to earn a return on this notional account, calculated at the Allowed Rate of Return.

- 28.9. The calculation of the deferred recovery account will be according to the following formula:

$$DEFA_t = [DEFA_{t-1} \times (1 + RATE_{t-1})] + CAPT_{t-1}$$

Where:

' $DEFA_t$ ' is the deferred recovery account opening balance in year 't'.

' $CAPT_{t-1}$ ' is the capital costs of the major expansion (sum of return on capital and depreciation of the value of the asset/s included in the expansion) in year 't-1'.

- 28.10. A separate deferred recovery account will be calculated for each individual major expansion.

Inclusion in the Regulated Asset Base

- 28.11. When the annual incremental revenues exceed the annual capital costs of the expansion, the following shall apply:

- (a) at the start of the immediately following Regulatory Period, the expansion assets will be added to the opening Regulated Asset Base at their depreciated historical cost. From this date, a depreciation allowance and a return on the expansion assets will be included in the calculation of the Allowed Revenue;
- (b) at the start of the immediately following Regulatory Period, the deferred recovery account balance will be added to the opening Regulated Asset Base as a separate asset. From this date, a depreciation allowance and a return on this balance will be included in the calculation of the Allowed Revenue. The balance will be depreciated over the remaining life of the associated expansion assets at the time these are added to the Regulated Asset Base; and
- (c) the requirement to maintain separate records of annual capital costs and incremental revenues associated with the expansion assets will cease.

- 28.12. Where an expansion project appears unlikely to generate sufficient incremental revenues to recover its capital costs then the Commission may, at its own discretion, direct that the associated assets and the deferred recovery account balance are to be added to the Regulated Asset Base at the start of the next Regulatory Period. However, no such

addition will take place until a minimum of two full Regulatory Periods have passed since the date of commissioning of the assets, unless otherwise agreed by the Commission and the Transportation Licensee.

Expansions under Open Season arrangements

- 28.13. Where a major expansion has been prepared under the open season provisions in the relevant Third Party Access Code for Malaysian Transmission Pipelines then the Transportation Licensee may adopt either of the following approaches to financing the major expansion:
- (a) a capacity expansion charge may be levied on all User using the expansion to recover the difference between its costs and the expected revenues from Regulated Tariffs. The calculation of the capacity expansion charge is subject to review and approval by the Commission as part of the Transportation Licensee's submission on the open season expansion; or
 - (b) the Regulated Tariffs may be applied to User using the expansion and the difference between costs and expected revenues will be deferred in accordance with the provisions of this section.
- 28.14. If a capacity expansion charge is applied then this will be treated as a customer contribution which is deducted from the Regulated Asset Base. This reduces the asset value of the major expansion which enters into the Regulated Asset Base by the difference between its total investment cost and the share of this cost that is expected to be recovered from Regulated Tariffs.
- 28.15. The deemed customer contribution representing the capacity expansion charge will be applied on a one-time basis in the same year as the associated asset enters the Regulated Asset Base. The deemed customer contribution will be calculated as the expected present value of revenues from the capacity expansion charge, discounted at the Allowed Rate of Return over the lifetime of the asset.

END OF SECTION

29. Non-application

Grounds for non-application

- 29.1. The Commission may, at its sole discretion, determine the non-application of these Guidelines in relation to a Transportation Licensee in instances including, but not limited to as follows:
- (a) the costs of complying with the full requirements are excessive relative to the size of the market served by the transmission pipeline or facility; or
 - (b) the Transportation Licensees and User share common ownership:
 - (i) no third parties require access to the facility; and
 - (ii) the Transportation Licensees and User do not have control over the level of final gas prices charged to consumers; and
 - (c) any other circumstances where there is no compelling public interest requiring the application of the full requirements in these Guidelines.
- 29.2. A Transportation Licensee whose facility supplies less than 2.11 GJ/day (equivalent to 2.0 MMSCFD), measured as a daily average over the previous 24 months, may apply for non-application of these Guidelines on the grounds of small size.
- 29.3. For newly-constructed facilities, the Transportation Licensees may apply for non-application of these Guidelines using evidence of forecast supply from the facility.
- 29.4. A Transportation Licensee which shares common ownership with all User using a facility may apply for non-application of these Guidelines.
- 29.5. For the purpose of section 29.4, an existing common ownership means two entities where:
- (a) the first entity controls the second entity;
 - (b) the second entity controls the first entity; or
 - (c) the second entity is controlled by an entity that also controls the first entity.

For the purpose of this section, “control” is defined as being able to determine financial and operating policies. This might, for example, be through holding the majority of voting rights or through having the right to appoint a majority of the Board of Directors or through having requirements in an entity’s articles of association requiring approval of major decisions by another entity.

- 29.6. A Transportation Licensee applying for non-application of these Guidelines on the grounds of shared common ownership must demonstrate that User of its facility with common ownership are unable to control prices to downstream consumers of products or services which make use of gas supplied by the facility. This would include where downstream products or services are delivered in a competitive market or where downstream products or services are separately regulated or where the prices of gas supplied by the facility are otherwise controlled by regulation or contract.

Application for non-application of these Guidelines

- 29.7. For the purpose of non-application of these Guidelines, a Transportation Licensee shall submit an application within six (6) months after the licence has been granted.
- 29.8. The Commission may request additional information to be provided by the Transportation Licensee in order to make full consideration of the application and shall issue an approval or rejection of such an application based on the information contained in the application as supplemented by any additional information provided.
- 29.9. The Commission may approve the non-application of these Guidelines for a full Regulatory Period or a longer duration and on such terms and conditions as the Commission may specify.
- 29.10. Nothing in this section prevents a Transportation Licensee to make an application if the previous application was rejected.

Impacts of non-application

- 29.11. Where a Transportation Licensee’s application is granted under this section, the Transportation Licensee may set tariffs for Regulated Services without the requirement to have an Allowed Revenue.
- 29.12. The tariffs set by the Transportation Licensee referred to in section 29.11 must conform to the principles set out in section 5 of these Guidelines and also to the following principles:

- (a) **Reasonableness.** The revenues to be recovered from the facility tariffs must not be excessive relative to costs and, in particular, must only allow a reasonable return on capital to be earned; and
 - (b) **Efficiency.** The revenues to be recovered from the facility tariffs must be consistent with efficient operation and capital investments.
- 29.13. A Transportation Licensee in respect of which his application is granted under this section will inform the Commission within 30 days if the grounds for the non-application of these Guidelines become invalid.
- 29.14. A Transportation Licensee whose previously was granted the non-application of these Guidelines by the Commission and wishes to extend such non-application must submit a new application, on or six (6) months before the period of non-application ended, provided the grounds for the non-application of these Guidelines under sections 29.1 until 29.6 is still applicable to the Transportation Licensee.

Review of non-application

- 29.15. At any time, a User who is either using or proposes to use any facility in which these Guidelines are not applicable to it may request the Commission to investigate whether the existing facility tariffs comply with these requirements.
- 29.16. If the Commission concludes that they do not do so, then the Commission will:
 - (a) remove the non-application of these Guidelines and require the Transportation Licensee to fully comply with all parts of these Guidelines, including the immediate submission of a compliant set of facility tariffs; or
 - (b) allow the Transportation Licensee to retain the non-application of these Guidelines but impose conditions relating to the amendment or replacement of the existing facility tariffs to ensure these comply with the requirements set out in this section.
- 29.17. The conclusions of any such investigation, the supporting analysis and the resulting decision of the Commission will be published on the Commission's website.

- 29.18. In the interests of reducing frivolous or unsubstantiated requests for investigations, the Commission may, at its discretion, require the party requesting the investigation to pay a deposit to the Commission to cover part or all of the estimated incremental costs of the investigation if:
- (a) this deposit may be required prior to the investigation commencing or may be paid in instalments over the period of the investigation;
 - (b) the investigation concludes that the Transportation Licensee has failed to comply with the requirements set out in this section, then the deposit will be returned in full, including any accrued interest, to the party requesting the investigation; or
 - (c) the investigation concludes that the Transportation Licensee has complied with the requirements set out in this section, then part or all of the deposit may be retained by the Commission to offset the incremental costs of the investigation.

END OF SECTION

Annex: Formula terms and notations

This annex lists the terms and notations used in the various formula contained in these Guidelines for ease of reference.

Terms

aAREV	Transportation Licensee Actual Tariff Revenue
aCONT	Actual Contributions
aCPEX	Actual Capital Expenditure
aDEPN	Actual Depreciation of the Regulated Asset Base
aDISP	Actual Disposals
ADJT	Tariff Adjustment
aEXSI	Actual Excluded Services Income
aFCAP	Actual Reserved Firm Capacity
aIGCV	Actual Internal Gas Consumption Volume
ALLW	Allowed Tariff
ANNF	Annuity Factor
aOPEX	Actual Opex
APRF	Average KPI Performance
aRAB	Actual Regulated Asset Base
AREV	Allowed Revenue
aUPOX	Actual Unpredictable Opex
BASE	Base Tariff
BETA	Equity Beta
CAPA	Capital Allowance
CAPT	Capital Costs of Major Expansion
CASH	Cash Working Capital Requirement
CONT	Allowed Contributions
CPEX	Allowed Capex
CPXE	Allowed Capex Efficiency Carry-Over
CXSF	Capex Sharing Factor
CXUS	Capex Underspend
DEBT	Pre-Tax Cost of Debt
DEFA	Deferred Recovery Account

DEPN	Allowed Depreciation
DFRA	Deferral Adjustment
DISP	Allowed Disposals
ECSX	Capex ECS adjustment
EQTY	Post-Tax Cost of Equity
EUSB	Earned Underspend Benefit
EUUB	Earned Unpredictable Capex Underspend Benefit
EXAJ	Excluded Services Adjustment
EXSF	Excluded Services Sharing Factor
FCAP	Forecast Reserved Firm Capacity
GAIN	Incremental Efficiency Gain (or loss)
GEAR	Gearing (share of net debt in the sum of net debt and equity)
IGC	Allowed Cost of Internal Gas Consumption
IGCA	Internal Gas Consumption Adjustment
IGCPA	Internal Gas Consumption Price Adjustment
IGCV	Forecast Internal Gas Consumption Volume
IGCVA	Internal Gas Consumption Volume Adjustment
IPSF	Internal Gas Consumption Price Adjustment Sharing Factor
IVSF	Internal Gas Consumption Volume Adjustment Sharing Factor
KPIW	KPI Weight
MCGS	Forecast Marginal Cost of Gas Supply
MQSI	Maximum Quality of Service Incentive
MRKP	Market Risk Premium
OPEX	Allowed Opex
OPXE	Allowed Opex Efficiency Carry-Over
PBLE	Average Days Payable
PERF	KPI Performance
pFCAP	Passed-Through Reserved Firm Capacity
RAB	Regulated Asset Base
RATE	Allowed Rate of Return
RBLE	Average Days Receivables
RCAP	Revenue-Cap Adjustment
RCSF	Revenue-Cap Sharing Factor
RKFR	Risk-Free Rate

RRSK	Revenue At Risk
RTOC	Allowed Return on Capital
SERV	Allowed Quality of Service Incentive
SQTU	Quality of Service True-Up
TAXR	Average Statutory Corporation Tax Rate
TAXZ	Allowed Tax and Zakat
TSUS	Total Shared Underspend
UCAJ	Unpredictable Capex Adjustment
UOAJ	Unpredictable Opex Adjustment
UPOX	Estimated Unpredictable Opex
WCRR	Working Capital Remuneration Rate
WORK	Allowed Cost of Working Capital

Notation

m	Calendar month, expressed in relation to the month in which an adjustment takes effect
M	Calendar month, expressed in relation to the preceding month in which an adjustment takes effect
n	Year (1 January to 31 December) in the current Regulatory Period ' <i>P-1</i> '
N	Total number of years in the current Regulatory Period ' <i>P-1</i> '
P	Next Regulatory Period
P-1	Current Regulatory Period
q	Individual quality of service KPI
Q	Total number of quality of service KPIs
t	Year (1 January to 31 December) in the next Regulatory Period ' <i>P</i> '
T	Total number of years in the next Regulatory Period ' <i>P</i> '