

  
**strata**

ENERGY CONSULTING

**Draft quantitative CPP information requirements relating to capital expenditure, operating and maintenance expenditure, and demand**

**Gas Transmission**

**For The Commerce Commission**

**June 2010**

## Preface



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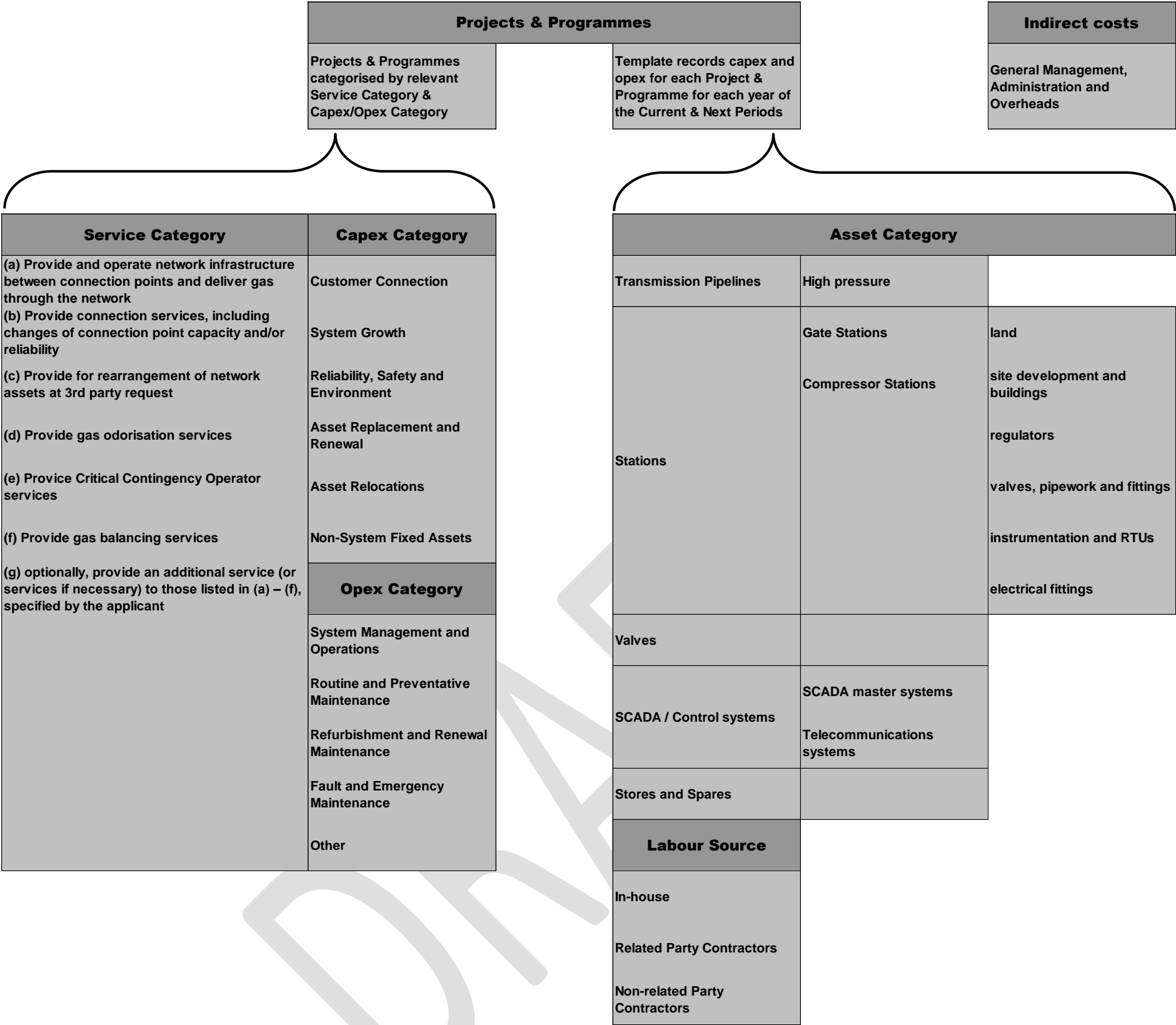
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DRAFT

**INPUT METHODOLOGIES**  
**QUANTITATIVE INFORMATION HIERARCHY - GAS TRANSMISSION**

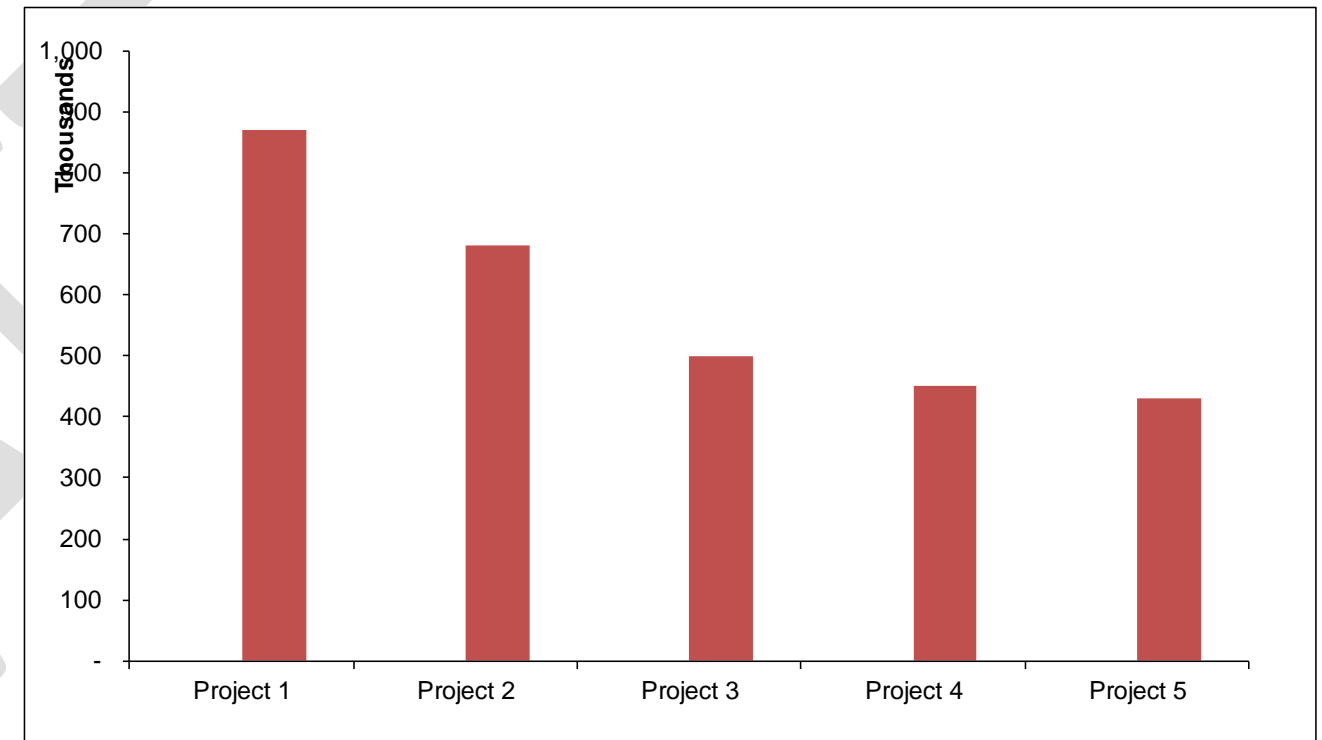
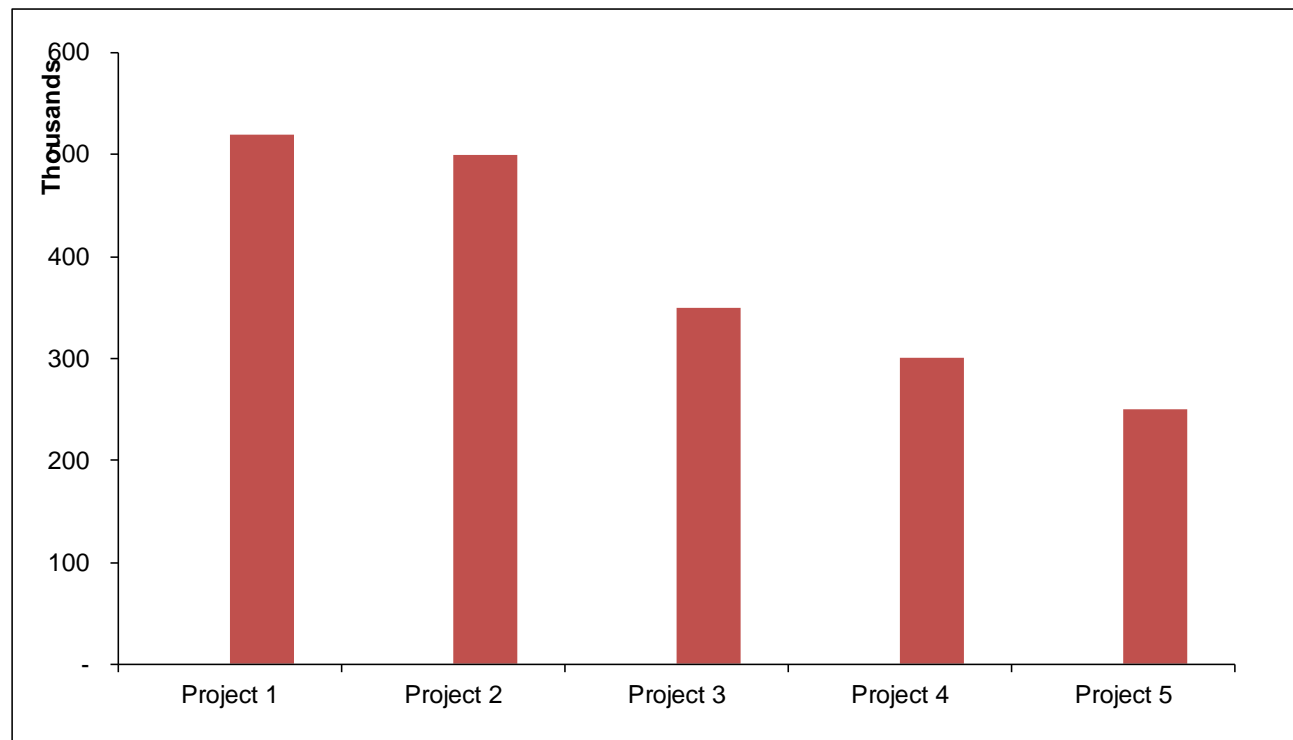


**INPUT METHODOLOGIES**  
**SERVICE EXPENDITURE CATEGORISATION - GAS TRANSMISSION**

Service Categories	Related Capex Categories	Related Opex Categories
(a) Provide and operate network infrastructure between connection points and deliver gas through the network		System Management and Operations
	System Growth	Routine and Preventative Maintenance
	Reliability, Safety and Environment	Refurbishment and Renewal Maintenance
	Asset Replacement and Renewal	
	Asset Relocations	Other
	Non-System Fixed Assets	
(b) Provide connection services, including changes of connection point capacity and/or reliability	Customer Connection	System Management and Operations
		Routine and Preventative Maintenance
	Reliability, Safety and Environment	Refurbishment and Renewal Maintenance
	Asset Replacement and Renewal	Fault and Emergency Maintenance
		Other
(c) Provide for rearrangement of network assets at 3rd party request		
	Asset Relocations	
(d) Provide gas odorisation services		System Management and Operations
		Routine and Preventative Maintenance
	Reliability, Safety and Environment	Refurbishment and Renewal Maintenance
	Asset Replacement and Renewal	
(e) Provide Critical Contingency Operator services		System Management and Operations
	Non-System Fixed Assets	
(f) Provide gas balancing services		System Management and Operations
	Non-System Fixed Assets	
(g) optionally, provide an additional service (or services if necessary) to those listed in (a) – (f), specified by the applicant		
		Other

Top Five Capex Projects		
Rank	Project name	\$000
1	Project 1	520
2	Project 2	500
3	Project 3	350
4	Project 4	300
5	Project 5	250

Top Five Opex Projects		
Rank	Project name	\$000
1	Project 1	870
2	Project 2	680
3	Project 3	500
4	Project 4	450
5	Project 5	430



Service Categories	Related Capex Categories	Assessment Year		Regulatory Year					Total
		Year 1	Year 2	Year 1	Year 2	Year 3	Year 4	Year 5	
(a) Provide and operate network infrastructure between input and offtake connection points and deliver gas through the network	Customer Connection								
	System Growth								
	Reliability, Safety and Environment								
	Asset Replacement and Renewal								
	Asset Relocations								
	Non-System Fixed Assets								
	Subtotal								
(b) Provide connection services, including changes of connection point capacity and/or reliability	Customer Connection								
	System Growth								
	Reliability, Safety and Environment								
	Asset Replacement and Renewal								
	Asset Relocations								
	Non-System Fixed Assets								
	Subtotal								
(c) Provide for rearrangement of network assets at 3rd party request	Customer Connection								
	System Growth								
	Reliability, Safety and Environment								
	Asset Replacement and Renewal								
	Asset Relocations								
	Non-System Fixed Assets								
	Subtotal								
(d) Provide gas odorisation services	Customer Connection								
	System Growth								
	Reliability, Safety and Environment								
	Asset Replacement and Renewal								
	Asset Relocations								
	Non-System Fixed Assets								
	Subtotal								
(e) Provide Critical Contingency Operator services	Customer Connection								
	System Growth								
	Reliability, Safety and Environment								
	Asset Replacement and Renewal								
	Asset Relocations								
	Non-System Fixed Assets								
	Subtotal								
(f) Provide gas balancing services	Customer Connection								
	System Growth								
	Reliability, Safety and Environment								
	Asset Replacement and Renewal								
	Asset Relocations								
	Non-System Fixed Assets								
	Subtotal								
(g) optionally, provide an additional service (or services if necessary) to those listed in (a) – (f), specified by the applicant	Customer Connection								
	System Growth								
	Reliability, Safety and Environment								
	Asset Replacement and Renewal								
	Asset Relocations								
	Non-System Fixed Assets								
	Subtotal								
	<b>Total</b>								

Service Categories	Related Opex Categories	Assessment Year		Regulatory Year					Total
		Year 1	Year 2	Year 1	Year 2	Year 3	Year 4	Year 5	
(a) Provide and operate network infrastructure between input and offtake connection points and deliver gas through the network	System Management and Operations								
	Routine and Preventative Maintenance								
	Refurbishment and Renewal Maintenance								
	Fault and Emergency Maintenance								
	Other								
	Subtotal								
(b) Provide connection services, including changes of connection point capacity and/or reliability	System Management and Operations								
	Routine and Preventative Maintenance								
	Refurbishment and Renewal Maintenance								
	Fault and Emergency Maintenance								
	Other								
	Subtotal								
(c) Provide for rearrangement of network assets at 3rd party request	System Management and Operations								
	Routine and Preventative Maintenance								
	Refurbishment and Renewal Maintenance								
	Fault and Emergency Maintenance								
	Other								
	Subtotal								
(d) Provide gas odorisation services	System Management and Operations								
	Routine and Preventative Maintenance								
	Refurbishment and Renewal Maintenance								
	Fault and Emergency Maintenance								
	Other								
	Subtotal								
(e) Provide Critical Contingency Operator services	System Management and Operations								
	Routine and Preventative Maintenance								
	Refurbishment and Renewal Maintenance								
	Fault and Emergency Maintenance								
	Other								
	Subtotal								
(f) Provide gas balancing services	System Management and Operations								
	Routine and Preventative Maintenance								
	Refurbishment and Renewal Maintenance								
	Fault and Emergency Maintenance								
	Other								
	Subtotal								
(g) optionally, provide an additional service (or services if necessary) to those listed in (a) – (f), specified by the applicant	System Management and Operations								
	Routine and Preventative Maintenance								
	Refurbishment and Renewal Maintenance								
	Fault and Emergency Maintenance								
	Other								
	Subtotal								
<b>Total</b>									

**INPUT METHODOLOGIES  
QUANTITATIVE INFORMATION TEMPLATE - GAS  
TRANSMISSION**

<b>Project/Programme Name</b>	
<b>Project/Programme Description</b>	
<b>Policy reference</b>	
<b>Service Category</b>	
<b>Capex Category</b>	

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Asset Category	Current Period					Assessment Year			Regulatory Year					Total		
	Year -4	Year -3	Year -2	Year -1	Year 0	Year 1			Year 2	Year 1	Year 2	Year 3	Year 4		Year 5	
						Direct	Non-direct	Total								
Transmission Pipelines	High Pressure								\$ -							\$ -
									\$ -							\$ -
	<b>Sub-total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Stations	Gate Stations								\$ -							\$ -
	Compressor Stations								\$ -							\$ -
	<b>Sub-total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Valves									\$ -							\$ -
									\$ -							\$ -
	<b>Sub-total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SCADA / Control Systems	SCADA master systems								\$ -							\$ -
	Telecommunications systems								\$ -							\$ -
	<b>Sub-total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Stores and Spares									\$ -							\$ -
									\$ -							\$ -
	<b>Sub-total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	<b>Sub-total - Controllable</b>															
	<b>Sub-total - Uncontrollable</b>															
	<b>Total Project/Programme</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

<sup>1</sup> Break down may be replaced with asset types in use by the applicant and expanded to include other asset types

Labour source	Current Period					Assessment Year			Regulatory Year						
	Year -4	Year -3	Year -2	Year -1	Year 0	Year 1			Year 2	Year 1	Year 2	Year 3	Year 4	Year 5	
						Direct	Non-direct	Total							
In-house															
Related party contractors															
Non-related party contractors															
<b>Total Labour</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**INPUT METHODOLOGIES  
QUANTITATIVE INFORMATION TEMPLATE - GAS  
TRANSMISSION**

<b>Project/Programme Name</b>	
<b>Project/Programme Description</b>	
<b>Policy reference</b>	
<b>Service Category</b>	
<b>Opex Category</b>	

Denotes a user input cell

Asset Category	Current Period					Assessment Year			Regulatory Year					Total		
	Year -4	Year -3	Year -2	Year -1	Year 0	Year 1			Year 2	Year 1	Year 2	Year 3	Year 4		Year 5	
						Direct	Non-direct	Total								
Transmission Pipelines	High Pressure								\$ -							\$ -
									\$ -							\$ -
	<b>Sub-total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Stations	Gate Stations								\$ -							\$ -
	Compressor Stations								\$ -							\$ -
	<b>Sub-total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Valves									\$ -							\$ -
									\$ -							\$ -
	<b>Sub-total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SCADA / Control Systems	SCADA master systems								\$ -							\$ -
	Telecommunications systems								\$ -							\$ -
	<b>Sub-total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Stores and Spares									\$ -							\$ -
									\$ -							\$ -
	<b>Sub-total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	<b>Sub-total - Controllable</b>															
	<b>Sub-total - Uncontrollable</b>															
	<b>Total Project/Programme</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

<sup>1</sup> Break down may be replaced with asset types in use by the applicant and expanded to include other asset types

Labour source	Current Period					Assessment Year			Regulatory Year						
	Year -4	Year -3	Year -2	Year -1	Year 0	Year 1			Year 2	Year 1	Year 2	Year 3	Year 4	Year 5	
						Direct	Non-direct	Total							
In-house															
Related party contractors															
Non-related party contractors															
<b>Total Labour</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**INPUT METHODOLOGIES  
QUANTITATIVE INFORMATION TEMPLATE**

<b>Opex Category</b>	<b>General Management, Administration and Overheads</b>
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Denotes a user input cell

Expenditure Type <sup>1</sup>		Current Period					Next Period									
		Year -4	Year -3	Year -2	Year -1	Year 0	Year 1			Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	
							Direct	Non-direct	Total							
<b>Corporate management</b>	Controllable								\$ -							
	Uncontrollable								\$ -							
	<b>Total</b>								\$ -							
<b>Human resources</b>	Controllable								\$ -							
	Uncontrollable								\$ -							
	<b>Total</b>								\$ -							
<b>Accounting</b>	Controllable								\$ -							
	Uncontrollable								\$ -							
	<b>Total</b>								\$ -							
<b>Finance</b>	Controllable								\$ -							
	Uncontrollable								\$ -							
	<b>Total</b>								\$ -							
<b>Information Technology</b>	Controllable								\$ -							
	Uncontrollable								\$ -							
	<b>Total</b>								\$ -							
<b>Procurement</b>	Controllable								\$ -							
	Uncontrollable								\$ -							
	<b>Total</b>								\$ -							
<b>Property</b>	Controllable								\$ -							
	Uncontrollable								\$ -							
	<b>Total</b>								\$ -							
<b>Legal</b>	Controllable								\$ -							
	Uncontrollable								\$ -							
	<b>Total</b>								\$ -							
<b>Regulation</b>	Controllable								\$ -							
	Uncontrollable								\$ -							
	<b>Total</b>								\$ -							
<b>Occupational Health and Safety</b>	Controllable								\$ -							
	Uncontrollable								\$ -							
	<b>Total</b>								\$ -							
<b>Insurance paid to an insurance entity</b>	Controllable								\$ -							
	Uncontrollable								\$ -							
	<b>Total</b>								\$ -							
	<b>Total - Controllable</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	<b>Total - Uncontrollable</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	<b>Total Opex Category</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

<sup>1</sup> Break down may be replaced with categories in use by the applicant but within the definition of the opex category for indirect expenditures

**INPUT METHODOLOGIES  
UNIT COST ESCALATOR TEMPLATE**

<b>Escalator Name</b>	[Name]
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<b>Escalator Description</b>	[Description]
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<b>Key Assumption Reference</b>	[Reference]
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**Denotes a user input cell**

Unit Cost Item	Base Year	Assessment Year		Regulatory Year				
		Year 1	Year 2	Year 1	Year 2	Year 3	Year 4	Year 5
	2011	2012	2013	2014	2015	2016	2017	2018
[Name]	\$ 1.00	\$ 1.02	\$ 1.04	\$ 1.07	\$ 1.08	\$ 1.10	\$ 1.12	\$ 1.14
Quantity	\$ 1,000.00	\$ 1,020.00	\$ 1,040.40	\$ 1,066.41	\$ 1,082.41	\$ 1,098.64	\$ 1,115.12	\$ 1,137.42
Escalator (% p.a.)		2.0%	2.0%	2.5%	1.5%	1.5%	1.5%	2.0%

**Sample data shown**