

Feasibility Study for Guyana's Offshore Natural Gas Pipeline, NGL separation and LPG production plant, and Related Electricity Infrastructure

Revised Final Report: Appendix C

Natural Gas Production and Offshore Natural Gas Pipeline

Detailed Results Tables

The tables in this Appendix provide detailed annual calculations and results for the 20 year life of the project for each of the Base Case and sensitivity variations described in the main report. The sum of these annual balances were discounted to their present value in 2018 and reported in Table 5-15 and Table 5-18 in Section 5 of the main report.

The tables are organized first by the assumed natural gas volume produced and transported in the pipeline (30 MMscf per day, 50 MMscf per day, and 145 MMscf per day), then by the Case (Base Case, Zero Wellhead Cost, and five sensitivity cases). Nine tables are provided for each Case (87 tables in total): the economic analysis, and for both the natural gas production and natural gas pipeline tables for the financial analysis using Cost+ pricing with a 10% and 12% return, the financial analysis using Net Back pricing with 6 cent and 9 cent electricity generation cost. The Table of Contents below can help locate any specific table of interest.

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1 30 MMcf per day Cases

1.1 Base Case analysis

Table B-1: Natural gas production and offshore natural gas pipeline economic analysis (30 MMcf per day, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	
Monetary Savings																										
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	28	
Utilization Rate	%					15%	20%	21%	20%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	19%	
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
HFO Price	US\$/MMBtu	7.77	8.31	10.58	11.68	12.19	12.58	12.74	13.09	13.24	13.49	13.71	14.00	14.16	14.38	14.56	14.77	14.94	15.14	15.24	15.64	15.82	15.94	16.10	16.10	
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
Saved cost of importing HFO	US\$ million	0	0	0	0	127	173	182	180	189	192	195	200	202	205	208	211	213	216	217	223	225	227	230	214	
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	35	
Benefits	US\$ million	0	0	0	0	155	209	219	216	226	230	233	237	239	242	245	248	250	253	254	260	263	264	267	249	
Present Value of Benefits	US\$ million	\$1,312																								
Costs																										
Upstream NG CAPEX	US\$ million	5	14	41	32																					
Upstream NG OPEX	US\$ million	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Pipeline CAPEX	US\$ million	18	53	160	124																					
Pipeline OPEX	US\$ million	0	0	0	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
Total CAPEX	US\$ million	22	67	201	156																					
Total OPEX	US\$ million	0	0	0	0	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	24	
Costs	US\$ million	22	67	201	156	28	34	35	34	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	33	
Present Value of Costs	US\$ million	\$531																								
Net Benefits																										
Benefits - Costs	US\$ million	-22	-67	-201	-156	127	175	184	182	191	195	198	202	204	207	210	213	215	218	220	225	228	230	232	216	
Economic Net Present Value	US\$ million	\$782																								
Economic Rate of Return	%	30%																								
Benefit/Cost Ratio		2.47																								

Source: Energy Narrative

1.1.1 Natural gas production financial analysis

Table B-2: Natural gas production financial analysis (30 MMcf per day, Cost+ Pricing, 10% IRR, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	5	18	60	92	87	83	78	74	69	64	60	55	51	46	41	37	32	28	23	18	14	9	5	0
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Income (sale of wet NG)	US\$ million					11	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	13
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	4	7	8	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	4	7	8	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7
Plus depreciation and interest expense	US\$ million	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Cash flow from operations	US\$ million	-	-	-	-	9	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11
Less capital investment	US\$ million	(5)	(14)	(41)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(5)	(14)	(41)	(32)	9	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(5)	(13)	(34)	(24)	6	7	7	6	6	5	5	4	4	4	3	3	3	2	2	2	2	2	2	1
Cumulative PV	US\$ million	(5)	(17)	(51)	(76)	(70)	(62)	(55)	(49)	(44)	(38)	(34)	(29)	(25)	(22)	(19)	(16)	(13)	(10)	(8)	(6)	(4)	(3)	(1)	0
Net present value	US\$ million	0																							
IRR	%	10%																							

Source: Energy Narrative

Table B-3: Natural gas production financial analysis (30 MMcf per day, Cost+ Pricing, 12% IRR, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	5	18	60	92	87	83	78	74	69	64	60	55	51	46	41	37	32	28	23	18	14	9	5	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Income (sale of wet NG)	US\$ million	-	-	-	-	12	16	17	16	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	15
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	5	9	10	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	9
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	5	9	10	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	9
Plus depreciation and interest expense	US\$ million	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Cash flow from operations	US\$ million	-	-	-	-	10	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	13
Less capital investment	US\$ million	(5)	(14)	(41)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(5)	(14)	(41)	(32)	10	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	13
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(5)	(13)	(34)	(24)	7	9	8	7	7	6	6	5	5	4	4	3	3	3	3	2	2	2	2	1
Cumulative PV	US\$ million	(5)	(17)	(51)	(76)	(69)	(60)	(52)	(45)	(38)	(32)	(27)	(22)	(17)	(13)	(9)	(6)	(3)	0	3	5	7	9	11	12
Net present value	US\$ million	12																							
IRR	%	12%																							

Source: Energy Narrative

Table B-4: Natural gas production financial analysis (30 MMcf per day, Net Back Pricing, 6 cent Electricity, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	5	18	60	92	87	83	78	74	69	64	60	55	51	46	41	37	32	28	23	18	14	9	5	0
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Income (sale of wet NG)	US\$ million	-	-	-	-	7	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	0	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	0	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2
Plus depreciation and interest expense	US\$ million	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Cash flow from operations	US\$ million	-	-	-	-	5	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Less capital investment	US\$ million	(5)	(14)	(41)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(5)	(14)	(41)	(32)	5	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(5)	(13)	(34)	(24)	3	4	4	4	3	3	3	2	2	2	2	2	2	1	1	1	1	1	1	1
Cumulative PV	US\$ million	(5)	(17)	(51)	(76)	(72)	(68)	(64)	(61)	(57)	(54)	(51)	(49)	(47)	(45)	(43)	(41)	(39)	(38)	(37)	(36)	(35)	(34)	(33)	(32)
Net present value	US\$ million	(32)																							
IRR	%	4%																							

Source: Energy Narrative

Table B-5: Natural gas production financial analysis (30 MMcf per day, Net Back Pricing, 9 cent Electricity, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	5	18	60	92	87	83	78	74	69	64	60	55	51	46	41	37	32	28	23	18	14	9	5	0
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Income (sale of wet NG)	US\$ million	-	-	-	-	11	14	15	14	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	14
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	4	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	4	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7
Plus depreciation and interest expense	US\$ million	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Cash flow from operations	US\$ million	-	-	-	-	9	12	13	12	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	12
Less capital investment	US\$ million	(5)	(14)	(41)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(5)	(14)	(41)	(32)	9	12	13	12	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	12
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(5)	(13)	(34)	(24)	6	8	7	6	6	5	5	4	4	4	3	3	3	2	2	2	2	2	2	1
Cumulative PV	US\$ million	(5)	(17)	(51)	(76)	(70)	(62)	(55)	(49)	(43)	(38)	(33)	(28)	(24)	(21)	(17)	(14)	(12)	(9)	(7)	(5)	(3)	(1)	0	2
Net present value	US\$ million	2																							
IRR	%	10%																							

Source: Energy Narrative

1.1.2 Offshore natural gas pipeline financial analysis

Table B-6: Offshore natural gas pipeline financial analysis (30 MMcf per day, Cost+ Pricing, 10% IRR, Base Case)

Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	
Depreciation (for taxes)					5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91
Income (transportation of wet NG)	US\$ million					41	54	56	54	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	52
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million					(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	15	28	30	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30	26	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	15	28	30	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30	26	
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	33	46	48	46	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	44
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	33	46	48	46	48	48	48	48	48	48	48	48	48	48	48	48	48	48	44	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	23	28	27	23	22	20	18	17	15	14	13	11	10	9	9	8	7	6	6	5
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(269)	(241)	(214)	(190)	(168)	(148)	(130)	(113)	(98)	(84)	(72)	(60)	(50)	(40)	(32)	(24)	(17)	(11)	(5)	0
Net present value	US\$ million	0																							
IRR	%	10%																							

Source: Energy Narrative

Table B-7: Offshore natural gas pipeline financial analysis (30 MMcf per day, Cost+ Pricing, 12% IRR, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47
Income (transportation of wet NG)	US\$ million					47	62	64	62	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	59
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million					(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	21	35	38	35	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	33
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	21	35	38	35	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	33
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	39	53	55	53	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	51
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	39	53	55	53	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	51
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	26	33	31	27	26	23	21	19	18	16	15	13	12	11	10	9	8	7	7	6
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(265)	(232)	(201)	(174)	(148)	(124)	(103)	(84)	(66)	(50)	(35)	(22)	(10)	1	11	20	28	36	42	48
Net present value	US\$ million	48																							
IRR	%	12%																							

Source: Energy Narrative

Table B-8: Offshore natural gas pipeline financial analysis (30 MMcf per day, Net Back Pricing, 6 cent electricity, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48
Income (transportation of wet NG)	US\$ million					26	34	35	34	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	33
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million					(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	1	9	10	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	7
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	1	9	10	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	7
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	18	26	28	26	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	25
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	18	26	28	26	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	25
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	12	16	16	14	13	12	11	10	9	8	7	7	6	5	5	4	4	4	3	3
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(279)	(263)	(247)	(234)	(221)	(209)	(199)	(189)	(180)	(172)	(165)	(158)	(152)	(147)	(142)	(137)	(133)	(130)	(126)	(123)
Net present value	US\$ million	(123)																							
IRR	%	4%																							

Source: Energy Narrative

Table B-9: Offshore natural gas pipeline financial analysis (30 MMcf per day, Net Back Pricing, 9 cent electricity, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99
Income (transportation of wet NG)	US\$ million	-	-	-	-	42	55	57	55	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	53
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million	-	-	-	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	16	29	31	29	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	27
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	16	29	31	29	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	27
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	34	47	49	47	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	45
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	34	47	49	47	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	45
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	23	29	27	24	23	21	19	17	15	14	13	12	11	10	9	8	7	7	6	5
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(268)	(239)	(212)	(188)	(165)	(145)	(126)	(109)	(94)	(79)	(67)	(55)	(44)	(35)	(26)	(18)	(11)	(4)	2	7
Net present value	US\$ million	7																							
IRR	%	10%																							

Source: Energy Narrative

1.2 Zero Wellhead Cost analysis

Table B-10: Natural gas production and offshore natural gas pipeline economic analysis (30 MMcf per day, Zero Wellhead Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Monetary Savings																									
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	28
Utilization Rate	%					15%	20%	21%	20%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	19%
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
HFO Price	US\$/MMBtu	7.77	8.31	10.58	11.68	12.19	12.58	12.74	13.09	13.24	13.49	13.71	14.00	14.16	14.38	14.56	14.77	14.94	15.14	15.24	15.64	15.82	15.94	16.10	16.10
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Saved cost of importing HFO	US\$ million	0	0	0	0	127	173	182	180	189	192	195	200	202	205	208	211	213	216	217	223	225	227	230	214
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	35
Benefits	US\$ million	0	0	0	0	155	209	219	216	226	230	233	237	239	242	245	248	250	253	254	260	263	264	267	249
Present Value of Benefits	US\$ million	\$1,312																							
Costs																									
Upstream NG CAPEX	US\$ million	0	0	0	0																				
Upstream NG OPEX	US\$ million	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline CAPEX	US\$ million	18	53	160	124																				
Pipeline OPEX	US\$ million	0	0	0	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Total CAPEX	US\$ million	18	53	160	124																				
Total OPEX	US\$ million	0	0	0	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	24
Costs	US\$ million	18	53	160	124	26	32	33	32	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	31
Present Value of Costs	US\$ million	\$451																							
Net Benefits																									
Benefits - Costs	US\$ million	-18	-53	-160	-124	129	177	186	184	193	197	200	204	206	209	212	215	217	220	221	227	230	231	234	218
Economic Net Present Value	US\$ million	\$861																							
Economic Rate of Return	%	36%																							
Benefit/Cost Ratio		2.91																							

Source: Energy Narrative

1.2.1 Natural gas production financial analysis

No analysis was done as the wellhead price was set to zero for this analysis.

1.2.2 Offshore natural gas pipeline financial analysis

Table B-11: Offshore natural gas pipeline financial analysis (30 MMcf per day, Cost+ Pricing, 10% IRR, Zero Wellhead Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91	3.91
Income (transportation of wet NG)	US\$ million	-	-	-	-	41	54	56	54	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	52
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million	-	-	-	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	15	28	30	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	26
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	15	28	30	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	26
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	33	46	48	46	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	44
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	33	46	48	46	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	44
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	23	28	27	23	22	20	18	17	15	14	13	11	10	9	9	8	7	6	6	5
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(269)	(241)	(214)	(190)	(168)	(148)	(130)	(113)	(98)	(84)	(72)	(60)	(50)	(40)	(32)	(24)	(17)	(11)	(5)	0
Net present value	US\$ million	0																							
IRR	%	10%																							

Source: Energy Narrative

Table B-12: Offshore natural gas pipeline financial analysis (30 MMcf per day, Cost+ Pricing, 12% IRR, Zero Wellhead Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47
Income (transportation of wet NG)	US\$ million	-	-	-	-	47	62	64	62	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	59
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million	-	-	-	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	21	35	38	35	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	33
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	21	35	38	35	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	33
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	39	53	55	53	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	51
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	39	53	55	53	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	51
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	26	33	31	27	26	23	21	19	18	16	15	13	12	11	10	9	8	7	7	6
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(265)	(232)	(201)	(174)	(148)	(124)	(103)	(84)	(66)	(50)	(35)	(22)	(10)	1	11	20	28	36	42	48
Net present value	US\$ million	48																							
IRR	%	12%																							

Source: Energy Narrative

Table B-13: Offshore natural gas pipeline financial analysis (30 MMcf per day, Net Back Pricing, 6 cent electricity, Zero Wellhead Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78
Income (transportation of wet NG)	US\$ million	-	-	-	-	29	38	40	38	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	37
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million	-	-	-	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	4	13	14	13	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	11
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	4	13	14	13	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	11
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	21	30	32	30	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	29
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	21	30	32	30	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	29
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	15	19	18	16	15	13	12	11	10	9	8	8	7	6	6	5	5	4	4	3
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(277)	(258)	(240)	(225)	(210)	(196)	(184)	(173)	(163)	(154)	(145)	(138)	(131)	(125)	(119)	(114)	(109)	(105)	(101)	(98)
Net present value	US\$ million	(98)																							
IRR	%	5%																							

Source: Energy Narrative

Table B-14: Offshore natural gas pipeline financial analysis (30 MMcf per day, Net Back Pricing, 9 cent electricity, Zero Wellhead Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47	4.47
Income (transportation of wet NG)	US\$ million	-	-	-	-	47	62	64	62	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	59
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million	-	-	-	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	21	36	38	36	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	33
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	21	36	38	36	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	33
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	39	53	55	53	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	51
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	39	53	55	53	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	51
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	26	33	31	27	26	23	21	19	18	16	15	13	12	11	10	9	8	7	7	6
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(265)	(232)	(201)	(173)	(148)	(124)	(103)	(83)	(66)	(50)	(35)	(22)	(10)	1	11	20	28	36	43	48
Net present value	US\$ million	48																							
IRR	%	12%																							

Source: Energy Narrative

1.3 Low Cost Case analysis

Table B-15: Natural gas production and offshore natural gas pipeline economic analysis (30 MMcf per day, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	
Monetary Savings																										
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	28	
Utilization Rate	%					15%	20%	21%	20%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	19%	
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
HFO Price	US\$/MMBtu	7.77	8.31	10.58	11.68	12.19	12.58	12.74	13.09	13.24	13.49	13.71	14.00	14.16	14.38	14.56	14.77	14.94	15.14	15.24	15.64	15.82	15.94	16.10	16.10	
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
Saved cost of importing HFO	US\$ million	0	0	0	0	127	173	182	180	189	192	195	200	202	205	208	211	213	216	217	223	225	227	230	214	
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	35	
Benefits	US\$ million	0	0	0	0	155	209	219	216	226	230	233	237	239	242	245	248	250	253	254	260	263	264	267	249	
Present Value of Benefits	US\$ million	\$1,312																								
Costs																										
Upstream NG CAPEX	US\$ million	4	11	33	26																					
Upstream NG OPEX	US\$ million	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Pipeline CAPEX	US\$ million	14	43	128	99																					
Pipeline OPEX	US\$ million	0	0	0	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
Total CAPEX	US\$ million	18	54	161	125																					
Total OPEX	US\$ million	0	0	0	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	24	
Costs	US\$ million	18	54	161	125	26	32	33	32	33	33	33	33	33	33	33	33	33	33	33	33	33	33	31		
Present Value of Costs	US\$ million	\$454																								
Net Benefits																										
Benefits - Costs	US\$ million	-18	-54	-161	-125	129	177	186	184	193	196	200	204	206	209	212	215	217	220	221	227	230	231	234	218	
Economic Net Present Value	US\$ million	\$859																								
Economic Rate of Return	%	36%																								
Benefit/Cost Ratio		2.89																								

Source: Energy Narrative

1.3.1 Natural gas production financial analysis

Table B-16: Natural gas production financial analysis (30 MMcf per day, Cost+ Pricing, 10% IRR, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	4	15	48	74	70	66	63	59	55	52	48	44	40	37	33	29	26	22	18	15	11	7	4	(0)
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Income (sale of wet NG)	US\$ million					8	11	12	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Less depreciation	US\$ million	-	-	-	-	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	3	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	3	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5
Plus depreciation and interest expense	US\$ million	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cash flow from operations	US\$ million	-	-	-	-	7	9	10	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	9
Less capital investment	US\$ million	(4)	(11)	(33)	(26)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(4)	(11)	(33)	(26)	7	9	10	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	9
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(4)	(10)	(27)	(19)	5	6	6	5	5	4	4	3	3	3	3	2	2	2	2	2	1	1	1	1
Cumulative PV	US\$ million	(4)	(14)	(41)	(60)	(56)	(50)	(44)	(39)	(35)	(31)	(27)	(23)	(20)	(17)	(15)	(12)	(10)	(8)	(7)	(5)	(4)	(2)	(1)	0
Net present value	US\$ million	0																							
IRR	%	10%																							

Source: Energy Narrative

Table B-17: Natural gas production financial analysis (30 MMcf per day, Cost+ Pricing, 12% IRR, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	4	15	48	74	70	66	63	59	55	52	48	44	40	37	33	29	26	22	18	15	11	7	4	(0)
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Income (sale of wet NG)	US\$ million	-	-	-	-	10	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	12
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Less depreciation	US\$ million	-	-	-	-	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	4	7	8	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	4	7	8	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7
Plus depreciation and interest expense	US\$ million	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cash flow from operations	US\$ million	-	-	-	-	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Less capital investment	US\$ million	(4)	(11)	(33)	(26)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(4)	(11)	(33)	(26)	8	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(4)	(10)	(27)	(19)	5	7	6	6	5	5	4	4	4	3	3	3	2	2	2	2	2	2	1	1
Cumulative PV	US\$ million	(4)	(14)	(41)	(60)	(55)	(48)	(42)	(36)	(31)	(26)	(21)	(17)	(14)	(10)	(7)	(5)	(2)	0	2	4	6	7	9	10
Net present value	US\$ million	10																							
IRR	%	12%																							

Source: Energy Narrative

Table B-18: Natural gas production financial analysis (30 MMcf per day, Net Back Pricing, 6 cent Electricity, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	4	15	48	74	70	66	63	59	55	52	48	44	40	37	33	29	26	22	18	15	11	7	4	(0)
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Income (sale of wet NG)	US\$ million	-	-	-	-	7	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Less depreciation	US\$ million	-	-	-	-	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3
Plus depreciation and interest expense	US\$ million	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cash flow from operations	US\$ million	-	-	-	-	5	7	8	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7
Less capital investment	US\$ million	(4)	(11)	(33)	(26)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(4)	(11)	(33)	(26)	5	7	8	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(4)	(10)	(27)	(19)	3	4	4	4	4	3	3	3	2	2	2	2	2	1	1	1	1	1	1	1
Cumulative PV	US\$ million	(4)	(14)	(41)	(60)	(57)	(52)	(48)	(45)	(41)	(38)	(35)	(32)	(30)	(28)	(26)	(24)	(22)	(21)	(19)	(18)	(17)	(16)	(15)	(14)
Net present value	US\$ million	(14)																							
IRR	%	7%																							

Source: Energy Narrative

Table B-19: Natural gas production financial analysis (30 MMcf per day, Net Back Pricing, 9 cent Electricity, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	4	15	48	74	70	66	63	59	55	52	48	44	40	37	33	29	26	22	18	15	11	7	4	(0)
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Income (sale of wet NG)	US\$ million	-	-	-	-	11	14	15	14	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	14
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Less depreciation	US\$ million	-	-	-	-	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	5	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	8
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	5	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	8
Plus depreciation and interest expense	US\$ million	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cash flow from operations	US\$ million	-	-	-	-	9	12	13	12	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	12
Less capital investment	US\$ million	(4)	(11)	(33)	(26)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(4)	(11)	(33)	(26)	9	12	13	12	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	12
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(4)	(10)	(27)	(19)	6	8	7	6	6	6	5	5	4	4	3	3	3	3	2	2	2	2	2	1
Cumulative PV	US\$ million	(4)	(14)	(41)	(60)	(54)	(46)	(39)	(33)	(27)	(21)	(16)	(12)	(7)	(4)	(0)	3	6	8	11	13	15	16	18	19
Net present value	US\$ million	19																							
IRR	%	14%																							

Source: Energy Narrative

1.3.2 Offshore natural gas pipeline financial analysis

Table B-20: Offshore natural gas pipeline financial analysis (30 MMcf per day, Cost+ Pricing, 10% IRR, Low Cost Case)

Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	
Depreciation (for taxes)					5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Net property, plant & equipment	US\$ million	14	57	185	284	270	256	241	227	213	199	185	170	156	142	128	114	99	85	71	57	43	28	14	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13
Income (transportation of wet NG)	US\$ million					33	43	45	43	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	42
Costs (O&M)	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less depreciation	US\$ million					(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)
Less other costs (2% royalty)	US\$ million					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	12	22	24	22	24	24	24	24	24	24	24	24	24	24	24	24	24	24	21	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	12	22	24	22	24	24	24	24	24	24	24	24	24	24	24	24	24	24	21	
Plus depreciation and interest expense	US\$ million	-	-	-	-	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Cash flow from operations	US\$ million	-	-	-	-	26	37	38	37	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	35
Less capital investment	US\$ million	(14)	(43)	(128)	(99)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(14)	(43)	(128)	(99)	26	37	38	37	38	38	38	38	38	38	38	38	38	38	38	38	38	38	35	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(14)	(39)	(106)	(75)	18	23	21	19	18	16	15	13	12	11	10	9	8	8	7	6	6	5	5	4
Cumulative PV	US\$ million	(14)	(53)	(159)	(233)	(215)	(193)	(171)	(152)	(135)	(118)	(104)	(90)	(78)	(67)	(57)	(48)	(40)	(32)	(26)	(19)	(14)	(9)	(4)	0
Net present value	US\$ million	0																							
IRR	%	10%																							

Source: Energy Narrative

Table B-21: Offshore natural gas pipeline financial analysis (30 MMcf per day, Cost+ Pricing, 12% IRR, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	14	57	185	284	270	256	241	227	213	199	185	170	156	142	128	114	99	85	71	57	43	28	14	0
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57	3.57
Income (transportation of wet NG)	US\$ million					37	49	51	49	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	48
Costs (O&M)	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less depreciation	US\$ million					(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)
Less other costs (2% royalty)	US\$ million					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	17	28	30	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	27
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	17	28	30	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	27
Plus depreciation and interest expense	US\$ million	-	-	-	-	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Cash flow from operations	US\$ million	-	-	-	-	31	43	44	43	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	41
Less capital investment	US\$ million	(14)	(43)	(128)	(99)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(14)	(43)	(128)	(99)	31	43	44	43	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	41
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(14)	(39)	(106)	(75)	21	26	25	22	21	19	17	16	14	13	12	11	10	9	8	7	7	6	5	5
Cumulative PV	US\$ million	(14)	(53)	(159)	(233)	(212)	(186)	(161)	(139)	(118)	(99)	(82)	(67)	(53)	(40)	(28)	(18)	(8)	1	9	16	23	28	34	38
Net present value	US\$ million	38																							
IRR	%	12%																							

Source: Energy Narrative

Table B-22: Offshore natural gas pipeline financial analysis (30 MMcf per day, Net Back Pricing, 6 cent electricity, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	14	57	185	284	270	256	241	227	213	199	185	170	156	142	128	114	99	85	71	57	43	28	14	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48
Income (transportation of wet NG)	US\$ million	-	-	-	-	26	34	35	34	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	33
Costs (O&M)	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less depreciation	US\$ million	-	-	-	-	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	6	14	15	14	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	12
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	6	14	15	14	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	12
Plus depreciation and interest expense	US\$ million	-	-	-	-	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Cash flow from operations	US\$ million	-	-	-	-	20	28	29	28	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	27
Less capital investment	US\$ million	(14)	(43)	(128)	(99)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(14)	(43)	(128)	(99)	20	28	29	28	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	27
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(14)	(39)	(106)	(75)	13	17	16	14	14	12	11	10	9	8	8	7	6	6	5	5	4	4	4	3
Cumulative PV	US\$ million	(14)	(53)	(159)	(233)	(220)	(202)	(186)	(172)	(158)	(146)	(135)	(125)	(115)	(107)	(99)	(92)	(86)	(80)	(75)	(70)	(66)	(62)	(59)	(56)
Net present value	US\$ million	(56)																							
IRR	%	7%																							

Source: Energy Narrative

Table B-23: Offshore natural gas pipeline financial analysis (30 MMcf per day, Net Back Pricing, 9 cent electricity, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	14	57	185	284	270	256	241	227	213	199	185	170	156	142	128	114	99	85	71	57	43	28	14	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99
Income (transportation of wet NG)	US\$ million	-	-	-	-	42	55	57	55	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	53
Costs (O&M)	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less depreciation	US\$ million	-	-	-	-	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	21	34	36	34	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	32
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	21	34	36	34	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	32
Plus depreciation and interest expense	US\$ million	-	-	-	-	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Cash flow from operations	US\$ million	-	-	-	-	35	48	50	48	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	46
Less capital investment	US\$ million	(14)	(43)	(128)	(99)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(14)	(43)	(128)	(99)	35	48	50	48	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	46
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(14)	(39)	(106)	(75)	24	30	28	25	23	21	19	18	16	15	13	12	11	10	9	8	7	7	6	5
Cumulative PV	US\$ million	(14)	(53)	(159)	(233)	(209)	(179)	(151)	(126)	(103)	(82)	(62)	(45)	(29)	(14)	(1)	11	22	32	41	49	56	63	69	74
Net present value	US\$ million	74																							
IRR	%	14%																							

Source: Energy Narrative

1.4 High Cost Case analysis

Table B-24: Natural gas production and offshore natural gas pipeline economic analysis (30 MMcf per day, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041		
Monetary Savings																											
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	28	28	
Utilization Rate	%					15%	20%	21%	20%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	19%	
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
HFO Price	US\$/MMBtu	7.77	8.31	10.58	11.68	12.19	12.58	12.74	13.09	13.24	13.49	13.71	14.00	14.16	14.38	14.56	14.77	14.94	15.14	15.24	15.64	15.82	15.94	16.10	16.10	16.10	
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
Saved cost of importing HFO	US\$ million	0	0	0	0	127	173	182	180	189	192	195	200	202	205	208	211	213	216	217	223	225	227	230	214	214	
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	35	
Benefits	US\$ million	0	0	0	0	155	209	219	216	226	230	233	237	239	242	245	248	250	253	254	260	263	264	267	249		
Present Value of Benefits	US\$ million	\$1,312																									
Costs																											
Upstream NG CAPEX	US\$ million	6	17	50	39																						
Upstream NG OPEX	US\$ million	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Pipeline CAPEX	US\$ million	21	64	192	149																						
Pipeline OPEX	US\$ million	0	0	0	0	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
Total CAPEX	US\$ million	27	80	241	188																						
Total OPEX	US\$ million	0	0	0	0	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	24	
Costs	US\$ million	27	80	241	188	30	36	37	36	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	35	
Present Value of Costs	US\$ million	\$608																									
Net Benefits																											
Benefits - Costs	US\$ million	-27	-80	-241	-188	125	174	182	181	189	193	196	200	202	206	208	211	214	216	218	223	226	228	230	214	214	
Economic Net Present Value	US\$ million	\$704																									
Economic Rate of Return	%	26%																									
Benefit/Cost Ratio		2.16																									

Source: Energy Narrative

1.4.1 Natural gas production financial analysis

Table B-25: Natural gas production financial analysis (30 MMcf per day, Cost+ Pricing, 10% IRR, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	6	22	72	110	105	99	94	88	83	77	72	66	61	55	50	44	39	33	28	22	17	11	6	0
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Income (sale of wet NG)	US\$ million					13	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	16
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	5	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	8
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	5	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	8
Plus depreciation and interest expense	US\$ million	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Cash flow from operations	US\$ million	-	-	-	-	10	14	15	14	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	14
Less capital investment	US\$ million	(6)	(17)	(50)	(39)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(6)	(17)	(50)	(39)	10	14	15	14	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	14
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(6)	(15)	(41)	(29)	7	9	8	7	7	6	6	5	5	4	4	4	3	3	3	2	2	2	2	2
Cumulative PV	US\$ million	(6)	(21)	(62)	(91)	(84)	(75)	(66)	(59)	(52)	(46)	(40)	(35)	(30)	(26)	(22)	(19)	(16)	(13)	(10)	(8)	(5)	(3)	(2)	0
Net present value	US\$ million	0																							
IRR	%	10%																							

Source: Energy Narrative

Table B-26: Natural gas production financial analysis (30 MMcf per day, Cost+ Pricing, 12% IRR, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	6	22	72	110	105	99	94	88	83	77	72	66	61	55	50	44	39	33	28	22	17	11	6	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39
Income (sale of wet NG)	US\$ million	-	-	-	-	15	19	20	19	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	18
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	7	11	12	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	10
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	7	11	12	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	10
Plus depreciation and interest expense	US\$ million	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Cash flow from operations	US\$ million	-	-	-	-	12	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	16
Less capital investment	US\$ million	(6)	(17)	(50)	(39)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(6)	(17)	(50)	(39)	12	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	16
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(6)	(15)	(41)	(29)	8	10	10	8	8	7	7	6	5	5	5	4	4	3	3	3	3	2	2	2
Cumulative PV	US\$ million	(6)	(21)	(62)	(91)	(82)	(72)	(62)	(54)	(46)	(39)	(32)	(26)	(21)	(16)	(11)	(7)	(3)	0	3	6	9	11	13	15
Net present value	US\$ million	15																							
IRR	%	12%																							

Source: Energy Narrative

Table B-27: Natural gas production financial analysis (30 MMcf per day, Net Back Pricing, 6 cent Electricity, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	6	22	72	110	105	99	94	88	83	77	72	66	61	55	50	44	39	33	28	22	17	11	6	0
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Income (sale of wet NG)	US\$ million	-	-	-	-	7	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	(1)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(1)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Plus depreciation and interest expense	US\$ million	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Cash flow from operations	US\$ million	-	-	-	-	4	6	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6
Less capital investment	US\$ million	(6)	(17)	(50)	(39)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(6)	(17)	(50)	(39)	4	6	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(6)	(15)	(41)	(29)	3	4	4	3	3	3	3	2	2	2	2	2	1	1	1	1	1	1	1	1
Cumulative PV	US\$ million	(6)	(21)	(62)	(91)	(88)	(84)	(80)	(77)	(73)	(71)	(68)	(66)	(63)	(62)	(60)	(58)	(57)	(55)	(54)	(53)	(52)	(51)	(50)	(50)
Net present value	US\$ million	(50)																							
IRR	%	2%																							

Source: Energy Narrative

Table B-28: Natural gas production financial analysis (30 MMcf per day, Net Back Pricing, 9 cent Electricity, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	6	22	72	110	105	99	94	88	83	77	72	66	61	55	50	44	39	33	28	22	17	11	6	0
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Income (sale of wet NG)	US\$ million	-	-	-	-	11	14	15	14	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	14
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	3	6	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	3	6	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6
Plus depreciation and interest expense	US\$ million	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Cash flow from operations	US\$ million	-	-	-	-	8	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11
Less capital investment	US\$ million	(6)	(17)	(50)	(39)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(6)	(17)	(50)	(39)	8	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(6)	(15)	(41)	(29)	6	7	7	6	6	5	5	4	4	4	3	3	3	2	2	2	2	2	1	1
Cumulative PV	US\$ million	(6)	(21)	(62)	(91)	(85)	(78)	(71)	(65)	(59)	(54)	(49)	(45)	(41)	(38)	(34)	(31)	(29)	(26)	(24)	(22)	(20)	(19)	(17)	(16)
Net present value	US\$ million	(16)																							
IRR	%	8%																							

Source: Energy Narrative

1.4.2 Offshore natural gas pipeline financial analysis

Table B-29: Offshore natural gas pipeline financial analysis (30 MMcf per day, Cost+ Pricing, 10% IRR, High Cost Case)

Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	
Depreciation (for taxes)					5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Net property, plant & equipment	US\$ million	21	85	277	426	405	383	362	341	320	298	277	256	234	213	192	170	149	128	107	85	64	43	21	(0)
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69
Income (transportation of wet NG)	US\$ million					49	65	67	65	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	62
Costs (O&M)	US\$ million	-	-	-	-	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
Less depreciation	US\$ million					(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	18	34	36	34	36	36	36	36	36	36	36	36	36	36	36	36	36	36	31	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	18	34	36	34	36	36	36	36	36	36	36	36	36	36	36	36	36	36	31	
Plus depreciation and interest expense	US\$ million	-	-	-	-	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Cash flow from operations	US\$ million	-	-	-	-	40	55	57	55	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	53
Less capital investment	US\$ million	(21)	(64)	(192)	(149)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(21)	(64)	(192)	(149)	40	55	57	55	57	57	57	57	57	57	57	57	57	57	57	57	57	57	53	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(21)	(58)	(158)	(112)	27	34	32	28	27	24	22	20	18	17	15	14	12	11	10	9	8	8	7	6
Cumulative PV	US\$ million	(21)	(79)	(238)	(350)	(323)	(289)	(257)	(228)	(202)	(178)	(156)	(136)	(118)	(101)	(86)	(72)	(60)	(49)	(38)	(29)	(21)	(13)	(6)	0
Net present value	US\$ million	0																							
IRR	%	10%																							

Source: Energy Narrative

Table B-30: Offshore natural gas pipeline financial analysis (30 MMcf per day, Cost+ Pricing, 12% IRR, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	21	85	277	426	405	383	362	341	320	298	277	256	234	213	192	170	149	128	107	85	64	43	21	(0)
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36	5.36
Income (transportation of wet NG)	US\$ million					56	74	76	74	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	71
Costs (O&M)	US\$ million	-	-	-	-	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
Less depreciation	US\$ million					(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)
Less other costs (2% royalty)	US\$ million					(1)	(1)	(2)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(1)
EBIT	US\$ million	-	-	-	-	25	43	45	43	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	40
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	25	43	45	43	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	40
Plus depreciation and interest expense	US\$ million	-	-	-	-	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Cash flow from operations	US\$ million	-	-	-	-	46	64	66	64	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	61
Less capital investment	US\$ million	(21)	(64)	(192)	(149)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(21)	(64)	(192)	(149)	46	64	66	64	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	61
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(21)	(58)	(158)	(112)	32	40	37	33	31	28	26	23	21	19	17	16	14	13	12	11	10	9	8	7
Cumulative PV	US\$ million	(21)	(79)	(238)	(350)	(318)	(278)	(241)	(208)	(177)	(149)	(124)	(100)	(79)	(60)	(42)	(27)	(12)	1	13	24	34	43	51	58
Net present value	US\$ million	58																							
IRR	%	12%																							

Source: Energy Narrative

Table B-31: Offshore natural gas pipeline financial analysis (30 MMcf per day, Net Back Pricing, 6 cent electricity, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	21	85	277	426	405	383	362	341	320	298	277	256	234	213	192	170	149	128	107	85	64	43	21	(0)
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47
Income (transportation of wet NG)	US\$ million	-	-	-	-	26	34	35	34	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	33
Costs (O&M)	US\$ million	-	-	-	-	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
Less depreciation	US\$ million	-	-	-	-	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	(5)	4	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	2
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(5)	4	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	2
Plus depreciation and interest expense	US\$ million	-	-	-	-	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Cash flow from operations	US\$ million	-	-	-	-	17	25	26	25	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	24
Less capital investment	US\$ million	(21)	(64)	(192)	(149)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(21)	(64)	(192)	(149)	17	25	26	25	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	24
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(21)	(58)	(158)	(112)	11	15	15	13	12	11	10	9	8	8	7	6	6	5	5	4	4	4	3	3
Cumulative PV	US\$ million	(21)	(79)	(238)	(350)	(338)	(323)	(308)	(296)	(283)	(272)	(262)	(253)	(245)	(237)	(231)	(224)	(219)	(214)	(209)	(205)	(201)	(197)	(194)	(191)
Net present value	US\$ million	(191)																							
IRR	%	2%																							

Source: Energy Narrative

Table B-32: Offshore natural gas pipeline financial analysis (30 MMcf per day, Net Back Pricing, 9 cent electricity, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	21	85	277	426	405	383	362	341	320	298	277	256	234	213	192	170	149	128	107	85	64	43	21	(0)
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	3.98	3.98	3.98	3.98	3.98	3.98	3.98	3.98	3.98	3.98	3.98	3.98	3.98	3.98	3.98	3.98	3.98	3.98	3.98	3.98
Income (transportation of wet NG)	US\$ million	-	-	-	-	42	55	57	55	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	53
Costs (O&M)	US\$ million	-	-	-	-	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
Less depreciation	US\$ million	-	-	-	-	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	11	24	26	24	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	22
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	11	24	26	24	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	22
Plus depreciation and interest expense	US\$ million	-	-	-	-	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Cash flow from operations	US\$ million	-	-	-	-	32	45	47	45	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	43
Less capital investment	US\$ million	(21)	(64)	(192)	(149)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(21)	(64)	(192)	(149)	32	45	47	45	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	43
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(21)	(58)	(158)	(112)	22	28	27	23	22	20	18	17	15	14	12	11	10	9	8	8	7	6	6	5
Cumulative PV	US\$ million	(21)	(79)	(238)	(350)	(328)	(300)	(273)	(250)	(228)	(208)	(190)	(173)	(158)	(145)	(132)	(121)	(111)	(101)	(93)	(85)	(78)	(72)	(66)	(61)
Net present value	US\$ million	(61)																							
IRR	%	8%																							

Source: Energy Narrative

1.5 Low Oil Price Case analysis

Table B-33: Natural gas production and offshore natural gas pipeline economic analysis (30 MMcf per day, Low Oil Price Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041		
Monetary Savings																											
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	28	28	
Utilization Rate	%					15%	20%	21%	20%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	19%	19%	
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
HFO Price	US\$/MMBtu	3.43	3.85	4.26	4.73	4.78	4.85	4.89	4.95	4.90	5.04	5.13	5.21	5.30	5.45	5.53	5.64	5.76	5.87	5.98	6.08	6.20	6.37	6.47	6.47	6.47	
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
Saved cost of importing HFO	US\$ million	0	0	0	0	50	67	70	68	70	72	73	74	75	78	79	80	82	84	85	87	88	91	92	86	86	
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	35	
Benefits	US\$ million	0	0	0	0	77	103	107	104	107	109	110	111	113	115	116	118	119	121	122	124	126	128	129	121	121	
Present Value of Benefits	US\$ million	\$630																									
Costs																											
Upstream NG CAPEX	US\$ million	5	14	41	32																						
Upstream NG OPEX	US\$ million	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Pipeline CAPEX	US\$ million	18	53	160	124																						
Pipeline OPEX	US\$ million	0	0	0	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
Total CAPEX	US\$ million	22	67	201	156																						
Total OPEX	US\$ million	0	0	0	0	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	24	
Costs	US\$ million	22	67	201	156	28	34	35	34	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	33	
Present Value of Costs	US\$ million	\$531																									
Net Benefits																											
Benefits - Costs	US\$ million	-22	-67	-201	-156	49	69	72	70	72	74	75	77	78	80	81	83	84	86	88	89	91	93	95	95	88	
Economic Net Present Value	US\$ million	\$99																									
Economic Rate of Return	%	13%																									
Benefit/Cost Ratio		1.19																									

Source: Energy Narrative

1.6 High Oil Price Case analysis

Table B-34: Natural gas production and offshore natural gas pipeline economic analysis (30 MMcf per day, High Oil Price Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	
Monetary Savings																										
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	28	
Utilization Rate	%					15%	20%	21%	20%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	19%	
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
HFO Price	US\$/MMBtu	12.09	16.16	18.62	21.51	22.77	23.76	24.64	25.40	25.96	26.94	27.28	28.34	28.62	29.04	29.45	29.85	30.45	31.00	31.39	31.54	32.04	32.50	32.76	32.76	
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
Saved cost of importing HFO	US\$ million	0	0	0	0	238	327	351	350	370	384	389	404	408	414	420	426	434	442	447	450	457	463	467	436	
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	35	
Benefits	US\$ million	0	0	0	0	265	363	388	386	407	421	426	441	445	451	457	463	471	479	485	487	494	501	504	471	
Present Value of Benefits	US\$ million	\$2,396																								
Costs																										
Upstream NG CAPEX	US\$ million	5	14	41	32																					
Upstream NG OPEX	US\$ million	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Pipeline CAPEX	US\$ million	18	53	160	124																					
Pipeline OPEX	US\$ million	0	0	0	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
Total CAPEX	US\$ million	22	67	201	156																					
Total OPEX	US\$ million	0	0	0	0	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	24	
Costs	US\$ million	22	67	201	156	28	34	35	34	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	33	
Present Value of Costs	US\$ million	\$531																								
Net Benefits																										
Benefits - Costs	US\$ million	-22	-67	-201	-156	237	329	354	352	372	386	391	406	410	416	422	428	436	444	450	452	459	466	469	437	
Economic Net Present Value	US\$ million	\$1,865																								
Economic Rate of Return	%	48%																								
Benefit/Cost Ratio		4.51																								

Source: Energy Narrative

1.7 High Cost + Low Oil Price Case analysis

Table B-35: Natural gas production and offshore natural gas pipeline economic analysis (30 MMcf per day, High Cost + Low Oil Price Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	
Monetary Savings																										
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	28
Utilization Rate	%					15%	20%	21%	20%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	19%
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
HFO Price	US\$/MMBtu	3.43	3.85	4.26	4.73	4.78	4.85	4.89	4.95	4.90	5.04	5.13	5.21	5.30	5.45	5.53	5.64	5.76	5.87	5.98	6.08	6.20	6.37	6.47	6.47	
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Saved cost of importing HFO	US\$ million	0	0	0	0	50	67	70	68	70	72	73	74	75	78	79	80	82	84	85	87	88	91	92	86	
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	35
Benefits	US\$ million	0	0	0	0	77	103	107	104	107	109	110	111	113	115	116	118	119	121	122	124	126	128	129	121	
Present Value of Benefits	US\$ million	\$630																								
Costs																										
Upstream NG CAPEX	US\$ million	6	17	50	39																					
Upstream NG OPEX	US\$ million	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pipeline CAPEX	US\$ million	21	64	192	149																					
Pipeline OPEX	US\$ million	0	0	0	0	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Total CAPEX	US\$ million	27	80	241	188																					
Total OPEX	US\$ million	0	0	0	0	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	24
Costs	US\$ million	27	80	241	188	30	36	37	36	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	35
Present Value of Costs	US\$ million	\$608																								
Net Benefits																										
Benefits - Costs	US\$ million	-27	-80	-241	-188	47	67	70	68	70	72	74	75	76	78	79	81	83	84	86	87	89	91	93	86	
Economic Net Present Value	US\$ million	\$22																								
Economic Rate of Return	%	11%																								
Benefit/Cost Ratio		1.04																								

Source: Energy Narrative

2 50 MMcf per day Cases

2.1 Base Case analysis

Table B-36: Natural gas production and offshore natural gas pipeline economic analysis (50 MMcf per day, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Monetary Savings																									
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	44	49	49	49	49	49	49	49	50	49	49	49	49	46	36	28
Utilization Rate	%					15%	20%	21%	20%	30%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	32%	25%	19%
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.5	1.2
HFO Price	US\$/MMBtu	7.77	8.31	10.58	11.68	12.19	12.58	12.74	13.09	13.24	13.49	13.71	14.00	14.16	14.38	14.56	14.77	14.94	15.14	15.24	15.64	15.82	15.94	16.10	16.10
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Saved cost of importing HFO	US\$ million	0	0	0	0	127	173	182	180	277	314	319	326	330	335	339	344	355	352	355	364	368	348	276	214
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	54	61	61	61	61	61	61	61	62	61	61	61	61	57	45	35
Benefits	US\$ million	0	0	0	0	155	209	219	216	331	375	380	387	391	395	400	405	417	413	416	425	429	405	320	249
Present Value of Benefits	US\$ million	\$1,827																							
Costs																									
Upstream NG CAPEX	US\$ million	5	14	41	32																				
Upstream NG OPEX	US\$ million	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pipeline CAPEX	US\$ million	18	53	160	124																				
Pipeline OPEX	US\$ million	0	0	0	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Total CAPEX	US\$ million	22	67	201	156																				
Total OPEX	US\$ million	0	0	0	0	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.0	0.8
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	38	42	42	42	42	42	42	42	43	42	42	42	42	40	31	24
Costs	US\$ million	22	67	201	156	28	34	35	34	47	51	51	51	51	51	51	51	52	51	51	51	51	49	40	33
Present Value of Costs	US\$ million	\$586																							
Net Benefits																									
Benefits - Costs	US\$ million	-22	-67	-201	-156	127	175	184	182	285	324	329	335	339	344	349	353	365	362	364	374	378	357	280	216
Economic Net Present Value	US\$ million	\$1,241																							
Economic Rate of Return	%	35%																							
Benefit/Cost Ratio		3.12																							

Source: Energy Narrative

2.1.1 Natural gas production financial analysis

Table B-37: Natural gas production financial analysis (50 MMcf per day, Cost+ Pricing, 10% IRR, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	5	18	60	92	87	83	78	74	69	64	60	55	51	46	41	37	32	28	23	18	14	9	5	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Income (sale of wet NG)	US\$ million					8	10	10	10	15	17	17	17	17	17	17	17	17	17	17	17	17	16	13	10
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	1	3	4	3	9	10	10	10	10	10	10	10	11	10	10	10	9	6	3	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	1	3	4	3	9	10	10	10	10	10	10	10	11	10	10	10	9	6	3	
Plus depreciation and interest expense	US\$ million	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Cash flow from operations	US\$ million	-	-	-	-	6	8	8	8	13	15	15	15	15	15	15	15	15	15	15	15	15	14	10	8
Less capital investment	US\$ million	(5)	(14)	(41)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(5)	(14)	(41)	(32)	6	8	8	8	13	15	15	15	15	15	15	15	15	15	15	15	14	10	8	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(5)	(13)	(34)	(24)	4	5	5	4	6	6	6	5	5	4	4	4	3	3	3	2	2	2	1	1
Cumulative PV	US\$ million	(5)	(17)	(51)	(76)	(72)	(67)	(62)	(58)	(52)	(45)	(39)	(34)	(29)	(25)	(21)	(18)	(14)	(11)	(9)	(6)	(4)	(2)	(1)	0
Net present value	US\$ million	0																							
IRR	%	10%																							

Source: Energy Narrative

Table B-38: Natural gas production financial analysis (50 MMcf per day, Cost+ Pricing, 12% IRR, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	5	18	60	92	87	83	78	74	69	64	60	55	51	46	41	37	32	28	23	18	14	9	5	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Income (sale of wet NG)	US\$ million	-	-	-	-	9	12	12	12	18	20	20	20	20	20	20	20	20	20	20	20	20	19	15	11
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	2	5	5	5	11	13	13	13	13	13	13	13	13	13	13	13	12	8	5	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	2	5	5	5	11	13	13	13	13	13	13	13	13	13	13	13	12	8	5	
Plus depreciation and interest expense	US\$ million	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Cash flow from operations	US\$ million	-	-	-	-	7	10	10	10	16	18	18	18	18	18	18	18	18	18	18	18	18	16	12	9
Less capital investment	US\$ million	(5)	(14)	(41)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(5)	(14)	(41)	(32)	7	10	10	10	16	18	18	18	18	18	18	18	18	18	18	18	16	12	9	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(5)	(13)	(34)	(24)	5	6	6	5	7	7	7	6	6	5	5	4	4	3	3	3	3	2	2	1
Cumulative PV	US\$ million	(5)	(17)	(51)	(76)	(71)	(65)	(59)	(54)	(47)	(40)	(33)	(27)	(21)	(16)	(11)	(7)	(3)	0	3	6	9	11	13	14
Net present value	US\$ million	14																							
IRR	%	12%																							

Source: Energy Narrative

Table B-39: Natural gas production financial analysis (50 MMcf per day, Net Back Pricing, 6 cent Electricity, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	5	18	60	92	87	83	78	74	69	64	60	55	51	46	41	37	32	28	23	18	14	9	5	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Income (sale of wet NG)	US\$ million	-	-	-	-	5	7	7	7	11	12	12	12	12	12	12	12	12	12	12	12	12	11	9	7
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	(1)	0	1	0	4	5	5	5	5	5	5	5	5	5	5	5	5	4	2	0
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(1)	0	1	0	4	5	5	5	5	5	5	5	5	5	5	5	5	4	2	0
Plus depreciation and interest expense	US\$ million	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Cash flow from operations	US\$ million	-	-	-	-	3	5	5	5	9	10	10	10	10	10	10	10	10	10	10	10	10	9	7	5
Less capital investment	US\$ million	(5)	(14)	(41)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(5)	(14)	(41)	(32)	3	5	5	5	9	10	10	10	10	10	10	10	10	10	10	10	9	7	5	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(5)	(13)	(34)	(24)	2	3	3	3	4	4	4	3	3	3	3	2	2	2	2	2	1	1	1	1
Cumulative PV	US\$ million	(5)	(17)	(51)	(76)	(73)	(70)	(67)	(65)	(61)	(57)	(53)	(49)	(46)	(44)	(41)	(39)	(37)	(35)	(33)	(31)	(30)	(29)	(28)	(27)
Net present value	US\$ million	(27)																							
IRR	%	5%																							

Source: Energy Narrative

Table B-40: Natural gas production financial analysis (50 MMcf per day, Net Back Pricing, 9 cent Electricity, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	5	18	60	92	87	83	78	74	69	64	60	55	51	46	41	37	32	28	23	18	14	9	5	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Income (sale of wet NG)	US\$ million	-	-	-	-	9	12	12	12	18	20	20	20	20	20	20	20	20	20	20	20	20	18	14	11
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	2	5	5	5	11	13	13	13	13	13	13	13	13	13	13	13	12	8	5	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	2	5	5	5	11	13	13	13	13	13	13	13	13	13	13	13	12	8	5	
Plus depreciation and interest expense	US\$ million	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Cash flow from operations	US\$ million	-	-	-	-	7	10	10	10	15	17	17	17	17	17	17	17	18	17	17	17	17	16	12	9
Less capital investment	US\$ million	(5)	(14)	(41)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(5)	(14)	(41)	(32)	7	10	10	10	15	17	17	17	17	17	17	18	17	17	17	17	16	12	9	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(5)	(13)	(34)	(24)	5	6	6	5	7	7	7	6	6	5	5	4	4	3	3	3	3	2	2	1
Cumulative PV	US\$ million	(5)	(17)	(51)	(76)	(71)	(65)	(59)	(55)	(47)	(40)	(33)	(27)	(22)	(17)	(12)	(8)	(4)	(1)	2	5	8	10	11	12
Net present value	US\$ million	12																							
IRR	%	12%																							

Source: Energy Narrative

2.1.2 Offshore natural gas pipeline financial analysis

Table B-41: Offshore natural gas pipeline financial analysis (50 MMcf per day, Cost+ Pricing, 10% IRR, Base Case)

Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)					5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84
Income (transportation of wet NG)	US\$ million					30	39	40	39	59	66	66	66	66	66	66	67	66	66	66	66	62	49	38
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million					(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	4	13	15	13	33	40	40	40	40	40	40	41	40	40	40	40	36	23	12
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	4	13	15	13	33	40	40	40	40	40	40	41	40	40	40	40	36	23	12
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	22	31	33	31	51	58	58	58	58	58	58	59	58	58	58	58	54	40	30
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	22	31	33	31	51	58	58	58	58	58	58	59	58	58	58	58	54	40	30
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	15	19	18	16	24	24	22	20	18	17	15	14	13	11	10	9	9	7	5
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(277)	(257)	(239)	(223)	(199)	(175)	(152)	(132)	(114)	(97)	(82)	(68)	(55)	(44)	(34)	(24)	(16)	(8)	(3)
Net present value	US\$ million	0																						
IRR	%	10%																						

Source: Energy Narrative

Table B-42: Offshore natural gas pipeline financial analysis (50 MMcf per day, Cost+ Pricing, 12% IRR, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
Income (transportation of wet NG)	US\$ million	-	-	-	-	34	45	47	45	69	76	76	76	76	76	76	76	78	76	76	76	76	72	56	44
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million	-	-	-	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	9	19	21	19	42	50	50	50	50	50	50	50	52	50	50	50	45	30	18	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	9	19	21	19	42	50	50	50	50	50	50	50	52	50	50	50	45	30	18	
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	27	37	39	37	60	68	68	68	68	68	68	68	69	68	68	68	68	63	48	36
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	27	37	39	37	60	68	68	68	68	68	68	68	69	68	68	68	63	48	36	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	18	23	22	19	28	29	26	24	22	20	18	16	15	13	12	11	10	9	6	4
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(273)	(250)	(228)	(209)	(181)	(152)	(126)	(103)	(81)	(61)	(43)	(27)	(12)	1	14	25	35	43	49	53
Net present value	US\$ million	53																							
IRR	%	12%																							

Source: Energy Narrative

Table B-43: Offshore natural gas pipeline financial analysis (50 MMcf per day, Net Back Pricing, 6 cent electricity, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Income (transportation of wet NG)	US\$ million					20	27	28	27	41	45	45	45	45	45	45	45	46	45	45	45	45	43	33	26
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million					(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million					(0)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	(5)	1	2	1	15	20	20	20	20	20	20	20	21	20	20	20	20	17	8	1
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(5)	1	2	1	15	20	20	20	20	20	20	20	21	20	20	20	20	17	8	1
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	13	19	20	19	33	37	37	37	37	37	37	37	38	37	37	37	37	35	26	18
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	13	19	20	19	33	37	37	37	37	37	37	37	38	37	37	37	37	35	26	18
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	9	12	11	10	15	16	14	13	12	11	10	9	8	7	7	6	6	5	3	2
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(283)	(271)	(259)	(250)	(234)	(218)	(204)	(191)	(179)	(168)	(158)	(149)	(141)	(134)	(127)	(121)	(115)	(111)	(108)	(105)
Net present value	US\$ million	(105)																							
IRR	%	5%																							

Source: Energy Narrative

Table B-44: Offshore natural gas pipeline financial analysis (50 MMcf per day, Net Back Pricing, 9 cent electricity, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24
Income (transportation of wet NG)	US\$ million					34	45	46	45	68	75	75	75	75	75	75	75	77	75	75	75	75	71	55	43
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million					(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million					(1)	(1)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	8	19	20	19	42	49	49	49	49	49	49	49	51	49	49	49	49	45	29	17
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	8	19	20	19	42	49	49	49	49	49	49	49	51	49	49	49	49	45	29	17
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	26	37	38	37	59	67	67	67	67	67	67	67	68	67	67	67	67	62	47	35
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	26	37	38	37	59	67	67	67	67	67	67	67	68	67	67	67	62	47	35	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	18	23	22	19	28	28	26	23	21	19	18	16	15	13	12	11	10	8	6	4
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(274)	(251)	(229)	(211)	(183)	(155)	(129)	(105)	(84)	(65)	(47)	(31)	(16)	(3)	9	20	30	38	44	48
Net present value	US\$ million	48																							
IRR	%	12%																							

Source: Energy Narrative

2.2 Zero Wellhead Cost analysis

Table B-45: Natural gas production and offshore natural gas pipeline economic analysis (50 MMcf per day, Zero Wellhead Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	
Monetary Savings																										
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	44	49	49	49	49	49	49	49	50	49	49	49	49	46	36	28	
Utilization Rate	%					15%	20%	21%	20%	30%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	32%	25%	19%	
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.5	1.2	
HFO Price	US\$/MMBtu	7.77	8.31	10.58	11.68	12.19	12.58	12.74	13.09	13.24	13.49	13.71	14.00	14.16	14.38	14.56	14.77	14.94	15.14	15.24	15.64	15.82	15.94	16.10	16.10	
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
Saved cost of importing HFO	US\$ million	0	0	0	0	127	173	182	180	277	314	319	326	330	335	339	344	355	352	355	364	368	348	276	214	
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	54	61	61	61	61	61	61	62	61	61	61	61	61	57	45	35	
Benefits	US\$ million	0	0	0	0	155	209	219	216	331	375	380	387	391	395	400	405	417	413	416	425	429	405	320	249	
Present Value of Benefits	US\$ million	\$1,827																								
Costs																										
Upstream NG CAPEX	US\$ million	0	0	0	0																					
Upstream NG OPEX	US\$ million	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pipeline CAPEX	US\$ million	18	53	160	124																					
Pipeline OPEX	US\$ million	0	0	0	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
Total CAPEX	US\$ million	18	53	160	124																					
Total OPEX	US\$ million	0	0	0	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.0	0.8	
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	38	42	42	42	42	42	42	42	43	42	42	42	42	40	31	24	
Costs	US\$ million	18	53	160	124	26	32	33	32	45	49	49	49	49	49	49	49	50	49	49	49	49	47	38	31	
Present Value of Costs	US\$ million	\$506																								
Net Benefits																										
Benefits - Costs	US\$ million	-18	-53	-160	-124	129	177	186	184	286	326	330	337	341	346	350	355	367	364	366	375	380	359	282	218	
Economic Net Present Value	US\$ million	\$1,320																								
Economic Rate of Return	%	40%																								
Benefit/Cost Ratio		3.61																								

Source: Energy Narrative

2.2.1 Natural gas production financial analysis

No analysis was done as the wellhead price was set to zero for this analysis.

2.2.2 Offshore natural gas pipeline financial analysis

Table B-46: Offshore natural gas pipeline financial analysis (50 MMcf per day, Cost+ Pricing, 10% IRR, Zero Wellhead Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84
Income (transportation of wet NG)	US\$ million	-	-	-	-	30	39	40	39	59	66	66	66	66	66	66	66	67	66	66	66	66	62	49	38
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million	-	-	-	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	4	13	15	13	33	40	40	40	40	40	40	41	40	40	40	40	36	23	12	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	4	13	15	13	33	40	40	40	40	40	40	41	40	40	40	40	36	23	12	
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	22	31	33	31	51	58	58	58	58	58	58	58	59	58	58	58	58	54	40	30
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	22	31	33	31	51	58	58	58	58	58	58	59	58	58	58	58	54	40	30	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	15	19	18	16	24	24	22	20	18	17	15	14	13	11	10	9	9	7	5	3
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(277)	(257)	(239)	(223)	(199)	(175)	(152)	(132)	(114)	(97)	(82)	(68)	(55)	(44)	(34)	(24)	(16)	(8)	(3)	0
Net present value	US\$ million	0																							
IRR	%	10%																							

Source: Energy Narrative

Table B-47: Offshore natural gas pipeline financial analysis (50 MMcf per day, Cost+ Pricing, 12% IRR, Zero Wellhead Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
Income (transportation of wet NG)	US\$ million	-	-	-	-	34	45	47	45	69	76	76	76	76	76	76	76	78	76	76	76	76	72	56	44
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million	-	-	-	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	9	19	21	19	42	50	50	50	50	50	50	50	52	50	50	50	45	30	18	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	9	19	21	19	42	50	50	50	50	50	50	50	52	50	50	50	45	30	18	
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	27	37	39	37	60	68	68	68	68	68	68	68	69	68	68	68	68	63	48	36
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	27	37	39	37	60	68	68	68	68	68	68	69	68	68	68	68	63	48	36	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	18	23	22	19	28	29	26	24	22	20	18	16	15	13	12	11	10	9	6	4
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(273)	(250)	(228)	(209)	(181)	(152)	(126)	(103)	(81)	(61)	(43)	(27)	(12)	1	14	25	35	43	49	53
Net present value	US\$ million	53																							
IRR	%	12%																							

Source: Energy Narrative

Table B-48: Offshore natural gas pipeline financial analysis (50 MMcf per day, Net Back Pricing, 6 cent electricity, Zero Wellhead Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14
Income (transportation of wet NG)	US\$ million	-	-	-	-	22	30	31	30	45	50	50	50	50	50	50	50	51	50	50	50	50	47	37	28
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million	-	-	-	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	(3)	4	5	4	19	24	24	24	24	24	24	24	25	24	24	24	21	11	3	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(3)	4	5	4	19	24	24	24	24	24	24	24	25	24	24	24	21	11	3	
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	15	22	23	22	37	42	42	42	42	42	42	42	43	42	42	42	39	29	21	
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	15	22	23	22	37	42	42	42	42	42	42	43	42	42	42	42	39	29	21	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	10	14	13	11	17	18	16	15	13	12	11	10	9	8	8	7	6	5	4	2
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(281)	(268)	(255)	(244)	(227)	(209)	(193)	(178)	(165)	(153)	(142)	(132)	(122)	(114)	(107)	(100)	(94)	(88)	(85)	(83)
Net present value	US\$ million	(83)																							
IRR	%	6%																							

Source: Energy Narrative

Table B-49: Offshore natural gas pipeline financial analysis (50 MMcf per day, Net Back Pricing, 9 cent electricity, Zero Wellhead Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56	3.56
Income (transportation of wet NG)	US\$ million	-	-	-	-	37	49	51	49	74	83	83	83	83	83	83	83	85	83	83	83	83	83	78	61
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million	-	-	-	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(1)	(1)
EBIT	US\$ million	-	-	-	-	12	23	25	23	48	56	56	56	56	56	56	56	58	56	56	56	51	35	22	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	12	23	25	23	48	56	56	56	56	56	56	56	58	56	56	56	51	35	22	
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	29	41	43	41	66	74	74	74	74	74	74	74	76	74	74	74	74	69	53	39
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	29	41	43	41	66	74	74	74	74	74	74	74	76	74	74	74	69	53	39	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	20	25	24	21	31	31	29	26	24	21	20	18	17	15	13	12	11	9	6	4
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(271)	(246)	(222)	(201)	(170)	(139)	(110)	(84)	(60)	(39)	(19)	(2)	15	30	43	55	66	76	82	86
Net present value	US\$ million	86																							
IRR	%	13%																							

Source: Energy Narrative

2.3 Low Cost Case analysis

Table B-50: Natural gas production and offshore natural gas pipeline economic analysis (50 MMcf per day, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Monetary Savings																									
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	44	49	49	49	49	49	49	49	50	49	49	49	49	46	36	28
Utilization Rate	%					15%	20%	21%	20%	30%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	32%	25%	19%
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.5	1.2
HFO Price	US\$/MMBtu	7.77	8.31	10.58	11.68	12.19	12.58	12.74	13.09	13.24	13.49	13.71	14.00	14.16	14.38	14.56	14.77	14.94	15.14	15.24	15.64	15.82	15.94	16.10	16.10
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Saved cost of importing HFO	US\$ million	0	0	0	0	127	173	182	180	277	314	319	326	330	335	339	344	355	352	355	364	368	348	276	214
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	54	61	61	61	61	61	61	61	62	61	61	61	61	57	45	35
Benefits	US\$ million	0	0	0	0	155	209	219	216	331	375	380	387	391	395	400	405	417	413	416	425	429	405	320	249
Present Value of Benefits	US\$ million	\$1,827																							
Costs																									
Upstream NG CAPEX	US\$ million	4	11	33	26																				
Upstream NG OPEX	US\$ million	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pipeline CAPEX	US\$ million	14	43	128	99																				
Pipeline OPEX	US\$ million	0	0	0	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Total CAPEX	US\$ million	18	54	161	125																				
Total OPEX	US\$ million	0	0	0	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.0	0.8
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	38	42	42	42	42	42	42	42	43	42	42	42	42	40	31	24
Costs	US\$ million	18	54	161	125	26	32	33	32	45	49	49	49	49	49	49	50	49	49	49	49	47	38	31	
Present Value of Costs	US\$ million	\$509																							
Net Benefits																									
Benefits - Costs	US\$ million	-18	-54	-161	-125	129	177	186	184	286	325	330	337	341	346	350	355	367	364	366	375	380	359	282	218
Economic Net Present Value	US\$ million	\$1,318																							
Economic Rate of Return	%	40%																							
Benefit/Cost Ratio		3.59																							

Source: Energy Narrative

2.3.1 Natural gas production financial analysis

Table B-51: Natural gas production financial analysis (50 MMcf per day, Cost+ Pricing, 10% IRR, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	4	15	48	74	70	66	63	59	55	52	48	44	40	37	33	29	26	22	18	15	11	7	4	(0)
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
Income (sale of wet NG)	US\$ million					6	8	8	8	12	14	14	14	14	14	14	14	14	14	14	14	14	13	10	8
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Less depreciation	US\$ million	-	-	-	-	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	1	3	3	3	7	8	8	8	8	8	8	8	9	8	8	8	8	7	5	3
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	1	3	3	3	7	8	8	8	8	8	8	8	9	8	8	8	8	7	5	3
Plus depreciation and interest expense	US\$ million	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cash flow from operations	US\$ million	-	-	-	-	5	6	7	6	11	12	12	12	12	12	12	12	12	12	12	12	12	11	8	6
Less capital investment	US\$ million	(4)	(11)	(33)	(26)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(4)	(11)	(33)	(26)	5	6	7	6	11	12	12	12	12	12	12	12	12	12	12	12	11	8	6	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(4)	(10)	(27)	(19)	3	4	4	3	5	5	5	4	4	3	3	3	3	2	2	2	2	2	1	1
Cumulative PV	US\$ million	(4)	(14)	(41)	(60)	(57)	(53)	(50)	(46)	(41)	(36)	(32)	(27)	(24)	(20)	(17)	(14)	(11)	(9)	(7)	(5)	(3)	(2)	(1)	0
Net present value	US\$ million	0																							
IRR	%	10%																							

Source: Energy Narrative

Table B-52: Natural gas production financial analysis (50 MMcf per day, Cost+ Pricing, 12% IRR, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	4	15	48	74	70	66	63	59	55	52	48	44	40	37	33	29	26	22	18	15	11	7	4	(0)
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Income (sale of wet NG)	US\$ million	-	-	-	-	7	9	10	9	14	16	16	16	16	16	16	16	16	16	16	16	16	15	12	9
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Less depreciation	US\$ million	-	-	-	-	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	2	4	4	4	9	10	10	10	10	10	10	10	11	10	10	10	9	6	4	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	2	4	4	4	9	10	10	10	10	10	10	10	11	10	10	10	9	6	4	
Plus depreciation and interest expense	US\$ million	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cash flow from operations	US\$ million	-	-	-	-	5	8	8	8	12	14	14	14	14	14	14	14	14	14	14	14	14	13	10	7
Less capital investment	US\$ million	(4)	(11)	(33)	(26)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(4)	(11)	(33)	(26)	5	8	8	8	12	14	14	14	14	14	14	14	14	14	14	14	13	10	7	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(4)	(10)	(27)	(19)	4	5	5	4	6	6	5	5	4	4	4	3	3	3	3	2	2	2	1	1
Cumulative PV	US\$ million	(4)	(14)	(41)	(60)	(57)	(52)	(47)	(43)	(38)	(32)	(26)	(21)	(17)	(13)	(9)	(6)	(3)	0	3	5	7	9	10	11
Net present value	US\$ million	11																							
IRR	%	12%																							

Source: Energy Narrative

Table B-53: Natural gas production financial analysis (50 MMcf per day, Net Back Pricing, 6 cent Electricity, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	4	15	48	74	70	66	63	59	55	52	48	44	40	37	33	29	26	22	18	15	11	7	4	(0)
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
Income (sale of wet NG)	US\$ million	-	-	-	-	5	7	7	7	11	12	12	12	12	12	12	12	12	12	12	12	12	11	9	7
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Less depreciation	US\$ million	-	-	-	-	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	0	2	2	2	5	6	6	6	6	6	6	6	7	6	6	6	6	6	3	1
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	0	2	2	2	5	6	6	6	6	6	6	6	7	6	6	6	6	6	3	1
Plus depreciation and interest expense	US\$ million	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cash flow from operations	US\$ million	-	-	-	-	4	5	6	5	9	10	10	10	10	10	10	10	10	10	10	10	10	9	7	5
Less capital investment	US\$ million	(4)	(11)	(33)	(26)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(4)	(11)	(33)	(26)	4	5	6	5	9	10	10	10	10	10	10	10	10	10	10	10	9	7	5	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(4)	(10)	(27)	(19)	3	3	3	3	4	4	4	4	3	3	3	2	2	2	2	2	1	1	1	1
Cumulative PV	US\$ million	(4)	(14)	(41)	(60)	(58)	(55)	(51)	(49)	(45)	(40)	(36)	(33)	(30)	(27)	(24)	(22)	(19)	(17)	(16)	(14)	(12)	(11)	(10)	(10)
Net present value	US\$ million	(10)																							
IRR	%	8%																							

Source: Energy Narrative

Table B-54: Natural gas production financial analysis (50 MMcf per day, Net Back Pricing, 9 cent Electricity, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	4	15	48	74	70	66	63	59	55	52	48	44	40	37	33	29	26	22	18	15	11	7	4	(0)
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Income (sale of wet NG)	US\$ million	-	-	-	-	9	12	12	12	18	20	20	20	20	20	20	20	20	20	20	20	20	18	14	11
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Less depreciation	US\$ million	-	-	-	-	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	3	6	7	6	12	14	14	14	14	14	14	14	14	14	14	14	14	13	9	6
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	3	6	7	6	12	14	14	14	14	14	14	14	14	14	14	14	14	13	9	6
Plus depreciation and interest expense	US\$ million	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cash flow from operations	US\$ million	-	-	-	-	7	10	10	10	16	18	18	18	18	18	18	18	18	18	18	18	18	17	13	10
Less capital investment	US\$ million	(4)	(11)	(33)	(26)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(4)	(11)	(33)	(26)	7	10	10	10	16	18	18	18	18	18	18	18	18	18	18	18	18	17	13	10
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(4)	(10)	(27)	(19)	5	6	6	5	7	8	7	6	6	5	5	4	4	4	3	3	3	2	2	1
Cumulative PV	US\$ million	(4)	(14)	(41)	(60)	(56)	(49)	(44)	(39)	(31)	(24)	(17)	(11)	(5)	0	5	9	13	17	20	23	25	28	29	30
Net present value	US\$ million	30																							
IRR	%	15%																							

Source: Energy Narrative

2.3.2 Offshore natural gas pipeline financial analysis

Table B-55: Offshore natural gas pipeline financial analysis (50 MMcf per day, Cost+ Pricing, 10% IRR, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	14	57	185	284	270	256	241	227	213	199	185	170	156	142	128	114	99	85	71	57	43	28	14	0
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27
Income (transportation of wet NG)	US\$ million					24	31	32	31	47	53	53	53	53	53	53	53	54	53	53	53	53	50	39	30
Costs (O&M)	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less depreciation	US\$ million					(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	3	11	12	11	27	32	32	32	32	32	32	32	33	32	32	32	32	29	18	10
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	3	11	12	11	27	32	32	32	32	32	32	32	33	32	32	32	32	29	18	10
Plus depreciation and interest expense	US\$ million	-	-	-	-	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Cash flow from operations	US\$ million	-	-	-	-	18	25	26	25	41	46	46	46	46	46	46	46	47	46	46	46	46	43	32	24
Less capital investment	US\$ million	(14)	(43)	(128)	(99)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(14)	(43)	(128)	(99)	18	25	26	25	41	46	46	46	46	46	46	46	47	46	46	46	43	32	24	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(14)	(39)	(106)	(75)	12	16	15	13	19	20	18	16	15	13	12	11	10	9	8	8	7	6	4	3
Cumulative PV	US\$ million	(14)	(53)	(159)	(233)	(221)	(206)	(191)	(178)	(159)	(140)	(122)	(106)	(91)	(78)	(66)	(54)	(44)	(35)	(27)	(19)	(12)	(7)	(3)	0
Net present value	US\$ million	0																							
IRR	%	10%																							

Source: Energy Narrative

Table B-56: Offshore natural gas pipeline financial analysis (50 MMcf per day, Cost+ Pricing, 12% IRR, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	14	57	185	284	270	256	241	227	213	199	185	170	156	142	128	114	99	85	71	57	43	28	14	0
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63
Income (transportation of wet NG)	US\$ million					27	36	37	36	55	61	61	61	61	61	61	61	62	61	61	61	61	57	45	35
Costs (O&M)	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less depreciation	US\$ million					(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)
Less other costs (2% royalty)	US\$ million					(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	7	16	17	16	34	40	40	40	40	40	40	40	41	40	40	40	40	36	24	14
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	7	16	17	16	34	40	40	40	40	40	40	40	41	40	40	40	40	36	24	14
Plus depreciation and interest expense	US\$ million	-	-	-	-	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Cash flow from operations	US\$ million	-	-	-	-	21	30	31	30	48	54	54	54	54	54	54	54	55	54	54	54	54	51	38	29
Less capital investment	US\$ million	(14)	(43)	(128)	(99)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(14)	(43)	(128)	(99)	21	30	31	30	48	54	54	54	54	54	54	54	55	54	54	54	54	51	38	29
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(14)	(39)	(106)	(75)	14	18	17	15	22	23	21	19	17	16	14	13	12	11	10	9	8	7	5	3
Cumulative PV	US\$ million	(14)	(53)	(159)	(233)	(219)	(200)	(183)	(167)	(145)	(122)	(101)	(82)	(65)	(49)	(35)	(22)	(10)	1	11	20	28	34	39	42
Net present value	US\$ million	42																							
IRR	%	12%																							

Source: Energy Narrative

Table B-57: Offshore natural gas pipeline financial analysis (50 MMcf per day, Net Back Pricing, 6 cent electricity, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	14	57	185	284	270	256	241	227	213	199	185	170	156	142	128	114	99	85	71	57	43	28	14	0
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Income (transportation of wet NG)	US\$ million	-	-	-	-	20	27	28	27	41	45	45	45	45	45	45	45	46	45	45	45	45	43	33	26
Costs (O&M)	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less depreciation	US\$ million	-	-	-	-	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	0	7	7	7	20	25	25	25	25	25	25	25	26	25	25	25	22	13	6	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	0	7	7	7	20	25	25	25	25	25	25	25	26	25	25	25	22	13	6	
Plus depreciation and interest expense	US\$ million	-	-	-	-	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Cash flow from operations	US\$ million	-	-	-	-	14	21	22	21	34	39	39	39	39	39	39	39	40	39	39	39	39	36	27	20
Less capital investment	US\$ million	(14)	(43)	(128)	(99)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(14)	(43)	(128)	(99)	14	21	22	21	34	39	39	39	39	39	39	39	40	39	39	39	36	27	20	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(14)	(39)	(106)	(75)	10	13	12	11	16	16	15	14	12	11	10	9	9	8	7	6	6	5	3	2
Cumulative PV	US\$ million	(14)	(53)	(159)	(233)	(223)	(211)	(198)	(188)	(172)	(155)	(140)	(127)	(114)	(103)	(93)	(83)	(75)	(67)	(60)	(54)	(48)	(43)	(40)	(37)
Net present value	US\$ million	(37)																							
IRR	%	8%																							

Source: Energy Narrative

Table B-58: Offshore natural gas pipeline financial analysis (50 MMcf per day, Net Back Pricing, 9 cent electricity, Low Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	14	57	185	284	270	256	241	227	213	199	185	170	156	142	128	114	99	85	71	57	43	28	14	0
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25
Income (transportation of wet NG)	US\$ million	-	-	-	-	34	45	46	45	68	76	76	76	76	76	76	77	76	76	76	76	71	56	43	
Costs (O&M)	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less depreciation	US\$ million	-	-	-	-	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	13	24	25	24	47	54	54	54	54	54	54	54	56	54	54	54	50	35	22	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	13	24	25	24	47	54	54	54	54	54	54	54	56	54	54	54	50	35	22	
Plus depreciation and interest expense	US\$ million	-	-	-	-	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Cash flow from operations	US\$ million	-	-	-	-	28	38	40	38	61	68	68	68	68	68	68	68	70	68	68	68	64	49	37	
Less capital investment	US\$ million	(14)	(43)	(128)	(99)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(14)	(43)	(128)	(99)	28	38	40	38	61	68	68	68	68	68	68	68	70	68	68	68	64	49	37	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(14)	(39)	(106)	(75)	19	24	22	20	28	29	26	24	22	20	18	16	15	14	12	11	10	9	6	4
Cumulative PV	US\$ million	(14)	(53)	(159)	(233)	(214)	(191)	(168)	(149)	(120)	(91)	(65)	(41)	(19)	1	19	35	50	64	76	87	98	106	112	116
Net present value	US\$ million	116																							
IRR	%	15%																							

Source: Energy Narrative

2.4 High Cost Case analysis

Table B-59: Natural gas production and offshore natural gas pipeline economic analysis (50 MMcf per day, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	
Monetary Savings																										
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	44	49	49	49	49	49	49	49	50	49	49	49	49	46	36	28	
Utilization Rate	%					15%	20%	21%	20%	30%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	32%	25%	19%	
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.5	1.2	
HFO Price	US\$/MMBtu	7.77	8.31	10.58	11.68	12.19	12.58	12.74	13.09	13.24	13.49	13.71	14.00	14.16	14.38	14.56	14.77	14.94	15.14	15.24	15.64	15.82	15.94	16.10	16.10	
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
Saved cost of importing HFO	US\$ million	0	0	0	0	127	173	182	180	277	314	319	326	330	335	339	344	355	352	355	364	368	348	276	214	
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	54	61	61	61	61	61	61	61	62	61	61	61	61	57	45	35	
Benefits	US\$ million	0	0	0	0	155	209	219	216	331	375	380	387	391	395	400	405	417	413	416	425	429	405	320	249	
Present Value of Benefits	US\$ million	\$1,827																								
Costs																										
Upstream NG CAPEX	US\$ million	6	17	50	39																					
Upstream NG OPEX	US\$ million	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Pipeline CAPEX	US\$ million	21	64	192	149																					
Pipeline OPEX	US\$ million	0	0	0	0	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
Total CAPEX	US\$ million	27	80	241	188																					
Total OPEX	US\$ million	0	0	0	0	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.0	0.8	
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	38	42	42	42	42	42	42	42	43	42	42	42	42	40	31	24	
Costs	US\$ million	27	80	241	188	30	36	37	36	49	53	53	53	53	53	53	54	53	53	53	53	50	42	35		
Present Value of Costs	US\$ million	\$663																								
Net Benefits																										
Benefits - Costs	US\$ million	-27	-80	-241	-188	125	174	182	181	283	322	327	334	338	342	347	352	363	360	363	372	376	355	278	214	
Economic Net Present Value	US\$ million	\$1,164																								
Economic Rate of Return	%	31%																								
Benefit/Cost Ratio		2.76																								

Source: Energy Narrative

2.4.1 Natural gas production financial analysis

Table B-60: Natural gas production financial analysis (50 MMcf per day, Cost+ Pricing, 10% IRR, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	6	22	72	110	105	99	94	88	83	77	72	66	61	55	50	44	39	33	28	22	17	11	6	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Income (sale of wet NG)	US\$ million					9	12	13	12	18	21	21	21	21	21	21	21	21	21	21	21	21	19	15	12
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	1	4	5	4	10	12	12	12	12	12	12	12	13	12	12	12	12	11	7	4
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	1	4	5	4	10	12	12	12	12	12	12	12	13	12	12	12	12	11	7	4
Plus depreciation and interest expense	US\$ million	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Cash flow from operations	US\$ million	-	-	-	-	7	10	10	10	16	18	18	18	18	18	18	18	18	18	18	18	18	17	13	9
Less capital investment	US\$ million	(6)	(17)	(50)	(39)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(6)	(17)	(50)	(39)	7	10	10	10	16	18	18	18	18	18	18	18	18	18	18	18	17	13	9	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(6)	(15)	(41)	(29)	5	6	6	5	7	8	7	6	6	5	5	4	4	4	3	3	3	2	2	1
Cumulative PV	US\$ million	(6)	(21)	(62)	(91)	(86)	(80)	(74)	(69)	(62)	(54)	(47)	(41)	(35)	(30)	(25)	(21)	(17)	(14)	(10)	(7)	(5)	(3)	(1)	0
Net present value	US\$ million	0																							
IRR	%	10%																							

Source: Energy Narrative

Table B-61: Natural gas production financial analysis (50 MMcf per day, Cost+ Pricing, 12% IRR, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	6	22	72	110	105	99	94	88	83	77	72	66	61	55	50	44	39	33	28	22	17	11	6	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Income (sale of wet NG)	US\$ million	-	-	-	-	11	14	15	14	21	24	24	24	24	24	24	24	24	24	24	24	24	22	17	14
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	3	6	7	6	13	16	16	16	16	16	16	16	16	16	16	16	16	14	9	6
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	3	6	7	6	13	16	16	16	16	16	16	16	16	16	16	16	16	14	9	6
Plus depreciation and interest expense	US\$ million	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Cash flow from operations	US\$ million	-	-	-	-	8	12	12	12	19	21	21	21	21	21	21	21	22	21	21	21	21	20	15	11
Less capital investment	US\$ million	(6)	(17)	(50)	(39)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(6)	(17)	(50)	(39)	8	12	12	12	19	21	21	21	21	21	21	22	21	21	21	21	21	20	15	11
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(6)	(15)	(41)	(29)	6	7	7	6	9	9	8	7	7	6	6	5	5	4	4	3	3	3	2	1
Cumulative PV	US\$ million	(6)	(21)	(62)	(91)	(85)	(78)	(71)	(65)	(56)	(47)	(39)	(32)	(25)	(19)	(14)	(8)	(4)	0	4	8	11	13	15	17
Net present value	US\$ million	17																							
IRR	%	12%																							

Source: Energy Narrative

Table B-62: Natural gas production financial analysis (50 MMcf per day, Net Back Pricing, 6 cent Electricity, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	6	22	72	110	105	99	94	88	83	77	72	66	61	55	50	44	39	33	28	22	17	11	6	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Income (sale of wet NG)	US\$ million	-	-	-	-	5	7	7	7	11	12	12	12	12	12	12	12	12	12	12	12	12	11	9	7
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	(3)	(1)	(1)	(1)	3	4	4	4	4	4	4	4	4	4	4	4	3	1	(1)	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(3)	(1)	(1)	(1)	3	4	4	4	4	4	4	4	4	4	4	4	3	1	(1)	
Plus depreciation and interest expense	US\$ million	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Cash flow from operations	US\$ million	-	-	-	-	3	5	5	5	8	9	9	9	9	9	9	9	10	9	9	9	9	9	6	4
Less capital investment	US\$ million	(6)	(17)	(50)	(39)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(6)	(17)	(50)	(39)	3	5	5	5	8	9	9	9	9	9	9	9	10	9	9	9	9	6	4	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(6)	(15)	(41)	(29)	2	3	3	2	4	4	4	3	3	3	2	2	2	2	2	2	1	1	1	0
Cumulative PV	US\$ million	(6)	(21)	(62)	(91)	(89)	(86)	(83)	(81)	(77)	(73)	(69)	(66)	(63)	(61)	(58)	(56)	(54)	(52)	(50)	(49)	(47)	(46)	(45)	(45)
Net present value	US\$ million	(45)																							
IRR	%	3%																							

Source: Energy Narrative

Table B-63: Natural gas production financial analysis (50 MMcf per day, Net Back Pricing, 9 cent Electricity, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	6	22	72	110	105	99	94	88	83	77	72	66	61	55	50	44	39	33	28	22	17	11	6	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Income (sale of wet NG)	US\$ million	-	-	-	-	9	12	12	12	18	20	20	20	20	20	20	20	20	20	20	20	20	18	14	11
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
EBIT	US\$ million	-	-	-	-	1	4	4	4	9	11	11	11	11	11	11	11	12	11	11	11	11	10	6	3
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	1	4	4	4	9	11	11	11	11	11	11	11	12	11	11	11	11	10	6	3
Plus depreciation and interest expense	US\$ million	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Cash flow from operations	US\$ million	-	-	-	-	6	9	10	9	15	17	17	17	17	17	17	17	17	17	17	17	17	16	12	9
Less capital investment	US\$ million	(6)	(17)	(50)	(39)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(6)	(17)	(50)	(39)	6	9	10	9	15	17	17	17	17	17	17	17	17	17	17	17	16	12	9	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(6)	(15)	(41)	(29)	4	6	5	5	7	7	7	6	5	5	4	4	4	3	3	3	3	2	1	1
Cumulative PV	US\$ million	(6)	(21)	(62)	(91)	(86)	(81)	(75)	(71)	(64)	(56)	(50)	(44)	(39)	(34)	(29)	(25)	(21)	(18)	(15)	(12)	(10)	(8)	(6)	(5)
Net present value	US\$ million	(5)																							
IRR	%	9%																							

Source: Energy Narrative

2.4.2 Offshore natural gas pipeline financial analysis

Table B-64: Offshore natural gas pipeline financial analysis (50 MMcf per day, Cost+ Pricing, 10% IRR, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	21	85	277	426	405	383	362	341	320	298	277	256	234	213	192	170	149	128	107	85	64	43	21	(0)
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.40
Income (transportation of wet NG)	US\$ million					36	47	49	47	71	79	79	79	79	79	79	79	81	79	79	79	79	74	58	45
Costs (O&M)	US\$ million	-	-	-	-	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
Less depreciation	US\$ million					(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	5	16	18	16	40	48	48	48	48	48	48	48	49	48	48	48	43	27	15	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	5	16	18	16	40	48	48	48	48	48	48	48	49	48	48	48	43	27	15	
Plus depreciation and interest expense	US\$ million	-	-	-	-	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Cash flow from operations	US\$ million	-	-	-	-	26	37	39	37	61	69	69	69	69	69	69	69	71	69	69	69	64	49	36	
Less capital investment	US\$ million	(21)	(64)	(192)	(149)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(21)	(64)	(192)	(149)	26	37	39	37	61	69	69	69	69	69	69	69	71	69	69	69	64	49	36	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(21)	(58)	(158)	(112)	18	23	22	19	29	29	27	24	22	20	18	17	15	14	12	11	10	9	6	4
Cumulative PV	US\$ million	(21)	(79)	(238)	(350)	(332)	(309)	(287)	(267)	(239)	(209)	(183)	(159)	(137)	(117)	(98)	(82)	(66)	(53)	(40)	(29)	(19)	(10)	(4)	0
Net present value	US\$ million	0																							
IRR	%	10%																							

Source: Energy Narrative

Table B-65: Offshore natural gas pipeline financial analysis (50 MMcf per day, Cost+ Pricing, 12% IRR, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	21	85	277	426	405	383	362	341	320	298	277	256	234	213	192	170	149	128	107	85	64	43	21	(0)
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94
Income (transportation of wet NG)	US\$ million					41	54	56	54	82	92	92	92	92	92	92	92	94	92	92	92	92	86	67	52
Costs (O&M)	US\$ million	-	-	-	-	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
Less depreciation	US\$ million					(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)
Less other costs (2% royalty)	US\$ million					(1)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(1)	(1)	
EBIT	US\$ million	-	-	-	-	11	23	25	23	51	60	60	60	60	60	60	62	60	60	60	60	55	36	22	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	11	23	25	23	51	60	60	60	60	60	60	62	60	60	60	60	55	36	22	
Plus depreciation and interest expense	US\$ million	-	-	-	-	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Cash flow from operations	US\$ million	-	-	-	-	32	45	47	45	72	81	81	81	81	81	81	81	83	81	81	81	81	76	58	43
Less capital investment	US\$ million	(21)	(64)	(192)	(149)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(21)	(64)	(192)	(149)	32	45	47	45	72	81	81	81	81	81	81	81	83	81	81	81	81	76	58	43
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(21)	(58)	(158)	(112)	22	28	26	23	34	35	31	29	26	24	21	19	18	16	15	13	12	10	7	5
Cumulative PV	US\$ million	(21)	(79)	(238)	(350)	(328)	(300)	(274)	(251)	(217)	(183)	(152)	(123)	(97)	(74)	(52)	(33)	(14)	2	16	30	42	52	59	64
Net present value	US\$ million	64																							
IRR	%	12%																							

Source: Energy Narrative

Table B-66: Offshore natural gas pipeline financial analysis (50 MMcf per day, Net Back Pricing, 6 cent electricity, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	21	85	277	426	405	383	362	341	320	298	277	256	234	213	192	170	149	128	107	85	64	43	21	(0)
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94
Income (transportation of wet NG)	US\$ million	-	-	-	-	20	27	28	27	41	45	45	45	45	45	45	45	46	45	45	45	45	42	33	26
Costs (O&M)	US\$ million	-	-	-	-	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
Less depreciation	US\$ million	-	-	-	-	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	(10)	(4)	(3)	(4)	10	15	15	15	15	15	15	15	15	15	15	15	12	3	(4)	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(10)	(4)	(3)	(4)	10	15	15	15	15	15	15	15	15	15	15	15	12	3	(4)	
Plus depreciation and interest expense	US\$ million	-	-	-	-	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Cash flow from operations	US\$ million	-	-	-	-	11	18	19	18	31	36	36	36	36	36	36	36	37	36	36	36	36	33	24	17
Less capital investment	US\$ million	(21)	(64)	(192)	(149)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(21)	(64)	(192)	(149)	11	18	19	18	31	36	36	36	36	36	36	37	36	36	36	36	33	24	17	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(21)	(58)	(158)	(112)	8	11	11	9	15	15	14	13	11	10	9	9	8	7	6	6	5	4	3	2
Cumulative PV	US\$ million	(21)	(79)	(238)	(350)	(342)	(331)	(321)	(311)	(297)	(282)	(268)	(255)	(244)	(234)	(224)	(216)	(208)	(200)	(194)	(188)	(183)	(178)	(175)	(174)
Net present value	US\$ million	(174)																							
IRR	%	3%																							

Source: Energy Narrative

Table B-67: Offshore natural gas pipeline financial analysis (50 MMcf per day, Net Back Pricing, 9 cent electricity, High Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	21	85	277	426	405	383	362	341	320	298	277	256	234	213	192	170	149	128	107	85	64	43	21
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24
Income (transportation of wet NG)	US\$ million	-	-	-	-	34	45	46	45	68	75	75	75	75	75	75	75	77	75	75	75	75	71	55
Costs (O&M)	US\$ million	-	-	-	-	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
Less depreciation	US\$ million	-	-	-	-	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(1)	(1)
EBIT	US\$ million	-	-	-	-	3	14	15	14	37	44	44	44	44	44	44	44	46	44	44	44	40	24	
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	3	14	15	14	37	44	44	44	44	44	44	44	46	44	44	44	40	24	
Plus depreciation and interest expense	US\$ million	-	-	-	-	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Cash flow from operations	US\$ million	-	-	-	-	25	35	37	35	58	65	65	65	65	65	65	65	67	65	65	65	65	61	46
Less capital investment	US\$ million	(21)	(64)	(192)	(149)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(21)	(64)	(192)	(149)	25	35	37	35	58	65	65	65	65	65	65	65	67	65	65	65	61	46	
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%
PV of cash flow	US\$ million	(21)	(58)	(158)	(112)	17	22	21	18	27	28	25	23	21	19	17	16	15	13	12	11	10	8	6
Cumulative PV	US\$ million	(21)	(79)	(238)	(350)	(333)	(311)	(290)	(272)	(245)	(218)	(193)	(170)	(149)	(130)	(113)	(97)	(82)	(70)	(58)	(47)	(37)	(29)	(24)
Net present value	US\$ million	(20)																						
IRR	%	9%																						

Source: Energy Narrative

2.5 Low Oil Price Case analysis

Table B-68: Natural gas production and offshore natural gas pipeline economic analysis (50 MMcf per day, Low Oil Price Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Monetary Savings																									
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	44	49	49	49	49	49	49	49	50	49	49	49	49	46	36	28
Utilization Rate	%					15%	20%	21%	20%	30%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	32%	25%	19%
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.5	1.2
HFO Price	US\$/MMBtu	3.43	3.85	4.26	4.73	4.78	4.85	4.89	4.95	4.90	5.04	5.13	5.21	5.30	5.45	5.53	5.64	5.76	5.87	5.98	6.08	6.20	6.37	6.47	6.47
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Saved cost of importing HFO	US\$ million	0	0	0	0	50	67	70	68	102	117	119	121	123	127	129	131	137	137	139	142	144	139	111	86
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	54	61	61	61	61	61	61	61	62	61	61	61	61	57	45	35
Benefits	US\$ million	0	0	0	0	77	103	107	104	157	178	180	182	184	188	189	192	199	197	200	202	205	196	155	121
Present Value of Benefits	US\$ million	\$874																							
Costs																									
Upstream NG CAPEX	US\$ million	5	14	41	32																				
Upstream NG OPEX	US\$ million	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pipeline CAPEX	US\$ million	18	53	160	124																				
Pipeline OPEX	US\$ million	0	0	0	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Total CAPEX	US\$ million	22	67	201	156																				
Total OPEX	US\$ million	0	0	0	0	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.0	0.8
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	38	42	42	42	42	42	42	42	43	42	42	42	42	40	31	24
Costs	US\$ million	22	67	201	156	28	34	35	34	47	51	51	51	51	51	51	51	52	51	51	51	51	49	40	33
Present Value of Costs	US\$ million	\$586																							
Net Benefits																									
Benefits - Costs	US\$ million	-22	-67	-201	-156	49	69	72	70	110	127	129	131	133	136	138	141	147	146	149	151	154	148	115	88
Economic Net Present Value	US\$ million	\$289																							
Economic Rate of Return	%	18%																							
Benefit/Cost Ratio		1.49																							

Source: Energy Narrative

2.6 High Oil Price Case analysis

Table B-69: Natural gas production and offshore natural gas pipeline economic analysis (50 MMcf per day, High Oil Price Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Monetary Savings																									
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	44	49	49	49	49	49	49	49	50	49	49	49	49	46	36	28
Utilization Rate	%					15%	20%	21%	20%	30%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	32%	25%	19%
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.5	1.2
HFO Price	US\$/MMBtu	12.09	16.16	18.62	21.51	22.77	23.76	24.64	25.40	25.96	26.94	27.28	28.34	28.62	29.04	29.45	29.85	30.45	31.00	31.39	31.54	32.04	32.50	32.76	32.76
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Saved cost of importing HFO	US\$ million	0	0	0	0	238	327	351	350	543	627	635	660	667	676	686	695	724	722	731	735	746	711	560	436
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	54	61	61	61	61	61	61	61	62	61	61	61	61	57	45	35
Benefits	US\$ million	0	0	0	0	265	363	388	386	597	688	696	721	727	737	747	756	786	783	792	795	807	768	605	471
Present Value of Benefits	US\$ million	\$3,352																							
Costs																									
Upstream NG CAPEX	US\$ million	5	14	41	32																				
Upstream NG OPEX	US\$ million	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pipeline CAPEX	US\$ million	18	53	160	124																				
Pipeline OPEX	US\$ million	0	0	0	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Total CAPEX	US\$ million	22	67	201	156																				
Total OPEX	US\$ million	0	0	0	0	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.0	0.8
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	38	42	42	42	42	42	42	42	43	42	42	42	42	40	31	24
Costs	US\$ million	22	67	201	156	28	34	35	34	47	51	51	51	51	51	51	51	52	51	51	51	51	49	40	33
Present Value of Costs	US\$ million	\$586																							
Net Benefits																									
Benefits - Costs	US\$ million	-22	-67	-201	-156	237	329	354	352	550	637	645	670	676	686	695	705	733	731	740	744	756	719	565	437
Economic Net Present Value	US\$ million	\$2,766																							
Economic Rate of Return	%	52%																							
Benefit/Cost Ratio		5.72																							

Source: Energy Narrative

2.7 High Cost + Low Oil Price Case analysis

Table B-70: Natural gas production and offshore natural gas pipeline economic analysis (50 MMcf per day, High Cost + Low Oil Price Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Monetary Savings																									
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	44	49	49	49	49	49	49	49	50	49	49	49	49	46	36	28
Utilization Rate	%					15%	20%	21%	20%	30%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	32%	25%	19%
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.5	1.2
HFO Price	US\$/MMBtu	3.43	3.85	4.26	4.73	4.78	4.85	4.89	4.95	4.90	5.04	5.13	5.21	5.30	5.45	5.53	5.64	5.76	5.87	5.98	6.08	6.20	6.37	6.47	6.47
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Saved cost of importing HFO	US\$ million	0	0	0	0	50	67	70	68	102	117	119	121	123	127	129	131	137	137	139	142	144	139	111	86
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	54	61	61	61	61	61	61	61	62	61	61	61	61	57	45	35
Benefits	US\$ million	0	0	0	0	77	103	107	104	157	178	180	182	184	188	189	192	199	197	200	202	205	196	155	121
Present Value of Benefits	US\$ million	\$874																							
Costs																									
Upstream NG CAPEX	US\$ million	6	17	50	39																				
Upstream NG OPEX	US\$ million	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pipeline CAPEX	US\$ million	21	64	192	149																				
Pipeline OPEX	US\$ million	0	0	0	0	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Total CAPEX	US\$ million	27	80	241	188																				
Total OPEX	US\$ million	0	0	0	0	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.0	0.8
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	38	42	42	42	42	42	42	42	43	42	42	42	42	40	31	24
Costs	US\$ million	27	80	241	188	30	36	37	36	49	53	53	53	53	53	53	53	54	53	53	53	53	50	42	35
Present Value of Costs	US\$ million	\$663																							
Net Benefits																									
Benefits - Costs	US\$ million	-27	-80	-241	-188	47	67	70	68	108	125	127	129	131	135	136	139	145	144	147	149	152	146	114	86
Economic Net Present Value	US\$ million	\$212																							
Economic Rate of Return	%	15%																							
Benefit/Cost Ratio		1.32																							

Source: Energy Narrative

3 145 MMcf per day Cases

3.1 Base Case analysis

Table B-71: Natural gas production and offshore natural gas pipeline economic analysis (145 MMcf per day, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Monetary Savings																									
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	44	49	49	130	140	145	145	145	145	145	145	145	145	145	145	145
Utilization Rate	%					15%	20%	21%	20%	30%	34%	34%	90%	97%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.8	2.0	2.0	5.4	5.8	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
HFO Price	US\$/MMBtu	7.77	8.31	10.58	11.68	12.19	12.58	12.74	13.09	13.24	13.49	13.71	14.00	14.16	14.38	14.56	14.77	14.94	15.14	15.24	15.64	15.82	15.94	16.10	16.10
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Saved cost of importing HFO	US\$ million	0	0	0	0	127	173	182	180	277	314	319	865	942	991	1004	1017	1030	1043	1050	1078	1090	1099	1110	1110
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	54	61	61	161	173	180	180	180	180	180	180	180	180	180	180	180
Benefits	US\$ million	0	0	0	0	155	209	219	216	331	375	380	1026	1116	1170	1183	1197	1209	1223	1230	1257	1269	1278	1289	1289
Present Value of Benefits	US\$ million	\$3,798																							
Costs																									
Upstream NG CAPEX	US\$ million	5	14	41	32																				
Upstream NG OPEX	US\$ million	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Pipeline CAPEX	US\$ million	18	53	160	124																				
Pipeline OPEX	US\$ million	0	0	0	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Total CAPEX	US\$ million	22	67	201	156																				
Total OPEX	US\$ million	0	0	0	0	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	1.3	1.4	1.4	3.7	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	38	42	42	112	121	125	125	125	125	125	125	125	125	125	125	125
Costs	US\$ million	22	67	201	156	28	34	35	34	47	51	51	121	130	134	134	134	134	134	134	134	134	134	134	134
Present Value of Costs	US\$ million	\$790																							
Net Benefits																									
Benefits - Costs	US\$ million	-22	-67	-201	-156	127	175	184	182	285	324	329	905	986	1036	1049	1063	1075	1089	1096	1123	1135	1144	1155	1155
Economic Net Present Value	US\$ million	\$3,008																							
Economic Rate of Return	%	41%																							
Benefit/Cost Ratio		4.81																							

Source: Energy Narrative

3.1.1 Natural gas production financial analysis

Table B-72: Natural gas production financial analysis (145 MMcf per day, Cost+ Pricing, 10% IRR, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	5	18	60	92	87	83	78	74	69	64	60	55	51	46	41	37	32	28	23	18	14	9	5	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
Income (sale of wet NG)	US\$ million					4	5	5	5	8	8	8	22	24	25	25	25	25	25	25	25	25	25	25	25
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	(3)	(2)	(1)	(2)	1	2	2	16	17	18	18	18	18	18	18	18	18	18	18	18
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(3)	(2)	(1)	(2)	1	2	2	16	17	18	18	18	18	18	18	18	18	18	18	18
Plus depreciation and interest expense	US\$ million	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Cash flow from operations	US\$ million	-	-	-	-	2	3	3	3	6	6	6	20	22	23	23	23	23	23	23	23	23	23	23	23
Less capital investment	US\$ million	(5)	(14)	(41)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(5)	(14)	(41)	(32)	2	3	3	3	6	6	6	20	22	23	23	23	23	23	23	23	23	23	23	23
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(5)	(13)	(34)	(24)	1	2	2	2	3	3	2	7	7	7	6	5	5	4	4	4	3	3	3	3
Cumulative PV	US\$ million	(5)	(17)	(51)	(76)	(74)	(72)	(71)	(69)	(66)	(64)	(61)	(54)	(47)	(40)	(34)	(29)	(24)	(20)	(15)	(12)	(8)	(5)	(3)	0
Net present value	US\$ million	0																							
IRR	%	10%																							

Source: Energy Narrative

Table B-73: Natural gas production financial analysis (145 MMcf per day, Cost+ Pricing, 12% IRR, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	5	18	60	92	87	83	78	74	69	64	60	55	51	46	41	37	32	28	23	18	14	9	5	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
Income (sale of wet NG)	US\$ million	-	-	-	-	5	6	6	6	9	10	10	27	29	30	30	30	30	30	30	30	30	30	30	30
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	(2)	(1)	(0)	(1)	3	4	4	20	22	23	23	23	23	23	23	23	23	23	23	23
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(2)	(1)	(0)	(1)	3	4	4	20	22	23	23	23	23	23	23	23	23	23	23	23
Plus depreciation and interest expense	US\$ million	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Cash flow from operations	US\$ million	-	-	-	-	3	4	4	4	7	8	8	25	27	28	28	28	28	28	28	28	28	28	28	28
Less capital investment	US\$ million	(5)	(14)	(41)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(5)	(14)	(41)	(32)	3	4	4	4	7	8	8	25	27	28	28	28	28	28	28	28	28	28	28	28
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(5)	(13)	(34)	(24)	2	3	2	2	3	3	3	9	9	8	7	7	6	6	5	5	4	4	3	3
Cumulative PV	US\$ million	(5)	(17)	(51)	(76)	(74)	(71)	(69)	(67)	(63)	(60)	(57)	(48)	(40)	(31)	(24)	(17)	(11)	(6)	(1)	4	8	12	15	18
Net present value	US\$ million	18																							
IRR	%	12%																							

Source: Energy Narrative

Table B-74: Natural gas production financial analysis (145 MMcf per day, Net Back Pricing, 6 cent Electricity, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	5	18	60	92	87	83	78	74	69	64	60	55	51	46	41	37	32	28	23	18	14	9	5	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Income (sale of wet NG)	US\$ million	-	-	-	-	4	5	5	5	8	9	9	24	26	27	27	27	27	27	27	27	27	27	27	27
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	(2)	(1)	(1)	(1)	1	2	2	17	19	20	20	20	20	20	20	20	20	20	20	20
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(2)	(1)	(1)	(1)	1	2	2	17	19	20	20	20	20	20	20	20	20	20	20	20
Plus depreciation and interest expense	US\$ million	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Cash flow from operations	US\$ million	-	-	-	-	2	3	4	3	6	7	7	21	23	24	24	24	24	24	24	24	24	24	24	24
Less capital investment	US\$ million	(5)	(14)	(41)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(5)	(14)	(41)	(32)	2	3	4	3	6	7	7	21	23	24	24	24	24	24	24	24	24	24	24	24
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(5)	(13)	(34)	(24)	1	2	2	2	3	3	3	8	7	7	6	6	5	5	4	4	4	3	3	3
Cumulative PV	US\$ million	(5)	(17)	(51)	(76)	(74)	(72)	(70)	(68)	(65)	(63)	(60)	(52)	(45)	(38)	(32)	(26)	(21)	(16)	(11)	(7)	(4)	(1)	2	5
Net present value	US\$ million	5																							
IRR	%	11%																							

Source: Energy Narrative

Table B-75: Natural gas production financial analysis (145 MMcf per day, Net Back Pricing, 9 cent Electricity, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	5	18	60	92	87	83	78	74	69	64	60	55	51	46	41	37	32	28	23	18	14	9	5	0
Natural Gas Sales Price	US\$/MMBtu	-	-	-	-	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Income (sale of wet NG)	US\$ million	-	-	-	-	6	8	9	8	13	14	14	38	41	42	42	42	42	42	42	42	42	42	42	42
Costs (NG wellhead purchases, O&M)	US\$ million	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Less depreciation	US\$ million	-	-	-	-	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
EBIT	US\$ million	-	-	-	-	(0)	2	2	2	6	7	7	30	33	35	35	35	35	35	35	35	35	35	35	35
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(0)	2	2	2	6	7	7	30	33	35	35	35	35	35	35	35	35	35	35	35
Plus depreciation and interest expense	US\$ million	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Cash flow from operations	US\$ million	-	-	-	-	4	6	7	6	11	12	12	35	38	39	39	39	39	39	39	39	39	39	39	39
Less capital investment	US\$ million	(5)	(14)	(41)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(5)	(14)	(41)	(32)	4	6	7	6	11	12	12	35	38	39	39	39	39	39	39	39	39	39	39	39
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(5)	(13)	(34)	(24)	3	4	4	3	5	5	5	12	12	11	10	9	9	8	7	6	6	5	5	4
Cumulative PV	US\$ million	(5)	(17)	(51)	(76)	(73)	(69)	(65)	(62)	(57)	(51)	(47)	(35)	(22)	(11)	(1)	9	17	25	32	39	44	50	55	59
Net present value	US\$ million	59																							
IRR	%	16%																							

Source: Energy Narrative

3.1.2 Offshore natural gas pipeline financial analysis

Table B-76: Offshore natural gas pipeline financial analysis (145 MMcf per day, Cost+ Pricing, 10% IRR, Base Case)

Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)					5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
Income (transportation of wet NG)	US\$ million					15	19	20	19	29	33	33	87	93	97	97	97	97	97	97	97	97	97	97
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million					(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million					(0)	(0)	(0)	(0)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
EBIT	US\$ million	-	-	-	-	(10)	(6)	(5)	(6)	4	7	7	60	67	70	70	70	70	70	70	70	70	70	70
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(10)	(6)	(5)	(6)	4	7	7	60	67	70	70	70	70	70	70	70	70	70	70
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	7	12	13	12	22	25	25	78	84	88	88	88	88	88	88	88	88	88	88
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	7	12	13	12	22	25	25	78	84	88	88	88	88	88	88	88	88	88	88
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	5	7	7	6	10	11	10	27	27	25	23	21	19	17	16	14	13	12	11
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(287)	(279)	(272)	(266)	(256)	(245)	(236)	(208)	(182)	(156)	(133)	(112)	(93)	(76)	(60)	(45)	(32)	(21)	(10)
Net present value	US\$ million	0																						
IRR	%	10%																						

Source: Energy Narrative

Table B-77: Offshore natural gas pipeline financial analysis (145 MMcf per day, Cost+ Pricing, 12% IRR, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69
Income (transportation of wet NG)	US\$ million	-	-	-	-	18	23	24	23	35	39	39	105	113	117	117	117	117	117	117	117	117	117	117	117
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million	-	-	-	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
EBIT	US\$ million	-	-	-	-	(8)	(2)	(1)	(2)	10	14	14	78	86	89	89	89	89	89	89	89	89	89	89	89
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(8)	(2)	(1)	(2)	10	14	14	78	86	89	89	89	89	89	89	89	89	89	89	89
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	10	16	17	16	28	32	32	95	103	107	107	107	107	107	107	107	107	107	107	107
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	10	16	17	16	28	32	32	95	103	107	107	107	107	107	107	107	107	107	107	107
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	7	10	9	8	13	13	12	33	33	31	28	26	23	21	19	18	16	14	13	12
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(285)	(275)	(265)	(257)	(244)	(231)	(219)	(185)	(153)	(121)	(93)	(68)	(44)	(23)	(4)	14	30	44	57	69
Net present value	US\$ million	69																							
IRR	%	12%																							

Source: Energy Narrative

Table B-78: Offshore natural gas pipeline financial analysis (145 MMcf per day, Net Back Pricing, 6 cent electricity, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Income (transportation of wet NG)	US\$ million					16	21	21	21	31	35	35	93	100	103	103	103	103	103	103	103	103	103	103	103
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million					(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million					(0)	(0)	(0)	(0)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
EBIT	US\$ million	-	-	-	-	(10)	(5)	(4)	(5)	6	9	9	66	73	76	76	76	76	76	76	76	76	76	76	76
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(10)	(5)	(4)	(5)	6	9	9	66	73	76	76	76	76	76	76	76	76	76	76	76
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	8	13	14	13	24	27	27	84	91	94	94	94	94	94	94	94	94	94	94	94
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	8	13	14	13	24	27	27	84	91	94	94	94	94	94	94	94	94	94	94	94
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	6	8	8	7	11	11	10	29	29	27	25	23	20	19	17	15	14	13	12	10
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(286)	(278)	(270)	(263)	(252)	(241)	(230)	(201)	(172)	(145)	(120)	(98)	(77)	(59)	(42)	(26)	(12)	0	12	22
Net present value	US\$ million	22																							
IRR	%	11%																							

Source: Energy Narrative

Table B-79: Offshore natural gas pipeline financial analysis (145 MMcf per day, Net Back Pricing, 9 cent electricity, Base Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37	2.37
Income (transportation of wet NG)	US\$ million					25	33	34	33	50	55	55	146	158	163	163	163	163	163	163	163	163	163	163	163
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million					(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million					(0)	(1)	(1)	(1)	(1)	(1)	(1)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
EBIT	US\$ million	-	-	-	-	(1)	7	8	7	24	29	29	119	130	135	135	135	135	135	135	135	135	135	135	135
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(1)	7	8	7	24	29	29	119	130	135	135	135	135	135	135	135	135	135	135	135
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	17	25	26	25	41	47	47	136	147	153	153	153	153	153	153	153	153	153	153	153
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	17	25	26	25	41	47	47	136	147	153	153	153	153	153	153	153	153	153	153	153
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	12	15	15	13	19	20	18	48	47	44	40	37	33	30	28	25	23	21	19	17
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(280)	(264)	(250)	(237)	(218)	(198)	(179)	(132)	(85)	(40)	(0)	36	70	100	128	153	175	196	215	232
Net present value	US\$ million	232																							
IRR	%	16%																							

Source: Energy Narrative

3.2 Zero Wellhead Cost analysis

Table B-80: Natural gas production and offshore natural gas pipeline economic analysis (145 MMcf per day, Zero Wellhead Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Monetary Savings																									
NG Pipeline capacity	MMscf per day					145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
NG Flow rate	MMscf per day	0	0	0	0	22	29	30	29	44	49	49	130	140	145	145	145	145	145	145	145	145	145	145	145
Utilization Rate	%					15%	20%	21%	20%	30%	34%	34%	90%	97%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Avoided HFO CO ₂ emissions	million short tons CO ₂					0.9	1.2	1.2	1.2	1.8	2.0	2.0	5.4	5.8	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
HFO Price	US\$/MMBtu	7.77	8.31	10.58	11.68	12.19	12.58	12.74	13.09	13.24	13.49	13.71	14.00	14.16	14.38	14.56	14.77	14.94	15.14	15.24	15.64	15.82	15.94	16.10	16.10
CO ₂ price	US\$/ton	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Saved cost of importing HFO	US\$ million	0	0	0	0	127	173	182	180	277	314	319	865	942	991	1004	1017	1030	1043	1050	1078	1090	1099	1110	1110
Saved cost of HFO CO ₂ emissions	US\$ million	0	0	0	0	27	36	37	36	54	61	61	161	173	180	180	180	180	180	180	180	180	180	180	180
Benefits	US\$ million	0	0	0	0	155	209	219	216	331	375	380	1026	1116	1170	1183	1197	1209	1223	1230	1257	1269	1278	1289	1289
Present Value of Benefits	US\$ million	\$3,798																							
Costs																									
Upstream NG CAPEX	US\$ million	0	0	0	0																				
Upstream NG OPEX	US\$ million	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline CAPEX	US\$ million	18	53	160	124																				
Pipeline OPEX	US\$ million	0	0	0	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Total CAPEX	US\$ million	18	53	160	124																				
Total OPEX	US\$ million	0	0	0	0	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
NG CO ₂ emissions	million short tons CO ₂					0.6	0.8	0.9	0.8	1.3	1.4	1.4	3.7	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Cost of NG CO ₂ emissions	US\$ million	0	0	0	0	19	25	26	25	38	42	42	112	121	125	125	125	125	125	125	125	125	125	125	125
Costs	US\$ million	18	53	160	124	26	32	33	32	45	49	49	119	128	132	132	132	132	132	132	132	132	132	132	132
Present Value of Costs	US\$ million	\$710																							
Net Benefits																									
Benefits - Costs	US\$ million	-18	-53	-160	-124	129	177	186	184	286	326	330	907	988	1038	1051	1065	1077	1090	1097	1125	1137	1146	1157	1157
Economic Net Present Value	US\$ million	\$3,088																							
Economic Rate of Return	%	46%																							
Benefit/Cost Ratio		5.35																							

Source: Energy Narrative

3.2.1 Natural gas production financial analysis

No analysis was done as the wellhead price was set to zero for this analysis.

3.2.2 Offshore natural gas pipeline financial analysis

Table B-81: Offshore natural gas pipeline financial analysis (145 MMcf per day, Cost+ Pricing, 10% IRR, Zero Wellhead Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
Income (transportation of wet NG)	US\$ million	-	-	-	-	15	19	20	19	29	33	33	87	93	97	97	97	97	97	97	97	97	97	97	97
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million	-	-	-	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
EBIT	US\$ million	-	-	-	-	(10)	(6)	(5)	(6)	4	7	7	60	67	70	70	70	70	70	70	70	70	70	70	70
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(10)	(6)	(5)	(6)	4	7	7	60	67	70	70	70	70	70	70	70	70	70	70	70
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	7	12	13	12	22	25	25	78	84	88	88	88	88	88	88	88	88	88	88	88
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	7	12	13	12	22	25	25	78	84	88	88	88	88	88	88	88	88	88	88	88
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	5	7	7	6	10	11	10	27	27	25	23	21	19	17	16	14	13	12	11	10
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(287)	(279)	(272)	(266)	(256)	(245)	(236)	(208)	(182)	(156)	(133)	(112)	(93)	(76)	(60)	(45)	(32)	(21)	(10)	0
Net present value	US\$ million	0																							
IRR	%	10%																							

Source: Energy Narrative

Table B-82: Offshore natural gas pipeline financial analysis (145 MMcf per day, Cost+ Pricing, 12% IRR, Zero Wellhead Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.69
Income (transportation of wet NG)	US\$ million	-	-	-	-	18	23	24	23	35	39	39	105	113	117	117	117	117	117	117	117	117	117	117	117
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million	-	-	-	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
EBIT	US\$ million	-	-	-	-	(8)	(2)	(1)	(2)	10	14	14	78	86	89	89	89	89	89	89	89	89	89	89	89
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(8)	(2)	(1)	(2)	10	14	14	78	86	89	89	89	89	89	89	89	89	89	89	89
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	10	16	17	16	28	32	32	95	103	107	107	107	107	107	107	107	107	107	107	107
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	10	16	17	16	28	32	32	95	103	107	107	107	107	107	107	107	107	107	107	107
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	7	10	9	8	13	15	12	33	33	31	28	26	23	21	19	18	16	14	13	12
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(285)	(275)	(265)	(257)	(244)	(231)	(219)	(185)	(153)	(121)	(93)	(68)	(44)	(23)	(4)	14	30	44	57	69
Net present value	US\$ million	69																							
IRR	%	12%																							

Source: Energy Narrative

Table B-83: Offshore natural gas pipeline financial analysis (145 MMcf per day, Net Back Pricing, 6 cent electricity, Zero Wellhead Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
Income (transportation of wet NG)	US\$ million	-	-	-	-	17	22	23	22	33	37	37	99	106	110	110	110	110	110	110	110	110	110	110	110
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million	-	-	-	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(0)	(0)	(0)	(0)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
EBIT	US\$ million	-	-	-	-	(8)	(3)	(3)	(3)	8	12	12	72	79	83	83	83	83	83	83	83	83	83	83	83
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	(8)	(3)	(3)	(3)	8	12	12	72	79	83	83	83	83	83	83	83	83	83	83	83
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	9	14	15	14	26	29	29	90	97	101	101	101	101	101	101	101	101	101	101	101
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	9	14	15	14	26	29	29	90	97	101	101	101	101	101	101	101	101	101	101	101
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	6	9	9	7	12	12	11	31	31	29	27	24	22	20	18	16	15	14	12	11
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(285)	(276)	(268)	(260)	(248)	(236)	(224)	(193)	(162)	(133)	(106)	(82)	(60)	(40)	(22)	(6)	9	23	35	47
Net present value	US\$ million	47																							
IRR	%	11%																							

Source: Energy Narrative

Table B-84: Offshore natural gas pipeline financial analysis (145 MMcf per day, Net Back Pricing, 9 cent electricity, Zero Wellhead Cost Case)

	Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Depreciation (for taxes)						5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Outstanding Debt	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net property, plant & equipment	US\$ million	18	71	231	355	337	320	302	284	266	249	231	213	195	178	160	142	124	107	89	71	53	36	18	-
Natural Gas Pipeline Tariff	US\$/MMBtu	-	-	-	-	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53
Income (transportation of wet NG)	US\$ million	-	-	-	-	26	35	36	35	53	59	59	156	168	174	174	174	174	174	174	174	174	174	174	174
Costs (O&M)	US\$ million	-	-	-	-	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Less depreciation	US\$ million	-	-	-	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
Less other costs (2% royalty)	US\$ million	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
EBIT	US\$ million	-	-	-	-	1	9	10	9	27	33	33	128	140	146	146	146	146	146	146	146	146	146	146	146
Less interest expense	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less taxes	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
After Tax Earnings	US\$ million	-	-	-	-	1	9	10	9	27	33	33	128	140	146	146	146	146	146	146	146	146	146	146	146
Plus depreciation and interest expense	US\$ million	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Cash flow from operations	US\$ million	-	-	-	-	19	27	28	27	45	51	51	146	158	164	164	164	164	164	164	164	164	164	164	164
Less capital investment	US\$ million	(18)	(53)	(160)	(124)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Less capitalized interest	US\$ million	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash flow	US\$ million	(18)	(53)	(160)	(124)	19	27	28	27	45	51	51	146	158	164	164	164	164	164	164	164	164	164	164	164
Present value factor	%	100%	91%	83%	75%	68%	62%	56%	51%	47%	42%	39%	35%	32%	29%	26%	24%	22%	20%	18%	16%	15%	14%	12%	11%
PV of cash flow	US\$ million	(18)	(48)	(132)	(93)	13	17	16	14	21	21	20	51	50	47	43	39	36	32	29	27	24	22	20	18
Cumulative PV	US\$ million	(18)	(66)	(198)	(292)	(279)	(262)	(246)	(232)	(211)	(190)	(170)	(119)	(69)	(21)	22	61	97	129	159	185	210	232	252	270
Net present value	US\$ million	270																							
IRR	%	17%																							

Source: Energy Narrative