

CARIBBEAN DEVELOPMENT BANK

TWO HUNDRED AND EIGHTY FIFTH MEETING OF THE BOARD OF DIRECTORS

TO BE HELD IN BARBADOS

MARCH 28, 2019

PAPER BD 64/16 Add.2

**GEOTHERMAL DRILLING PROJECT-
VARIATION IN SCOPE AND IN TERMS AND CONDITIONS, ADDITIONAL GRANT AND
ADDITIONAL CONTINGENTLY RECOVERABLE GRANT –
ST. VINCENT AND THE GRENADINES
NOTIFICATION OF APPROVAL BY THE BOARD OF DIRECTORS**

In accordance with Section 15A (which permits decisions by the Board of Directors (BOD) without a Meeting) of the By-Laws of the Caribbean Development Bank, BOD considered Paper BD 64/16 Add.1, entitled “Geothermal Drilling Project – Variation in Scope and in Terms and Conditions, Additional Grant and Additional Contingently Recoverable Grant – St. Vincent and the Grenadines” attached hereto and agreed to approve:

- (a) a variation in scope and in the terms and conditions of the Original Grant;
- (b) an additional grant to the Government of St. Vincent and the Grenadines from CDB’s SFR; and
- (c) an additional contingently recoverable grant to St. Vincent Geothermal Company Limited;

on the terms and conditions set out and referred to in paragraph 13 of the Report attached to the said Paper.

2. Under Section 15A of the By-Laws a decision shall not be regarded as having been taken by BOD pursuant to that Section unless:

- (a) the number of replies received within the period specified by the President in accordance with paragraph (b) of that Section represents a quorum of BOD pursuant to paragraph 2 of Article 31 of the Agreement Establishing the Bank (the Charter); and
- (b) members representing the majority of the voting power of the members replying, vote in favour of the proposal relating to the matter for consideration by BOD.

3. As at November 9, 2018, the date of expiry of the period specified by the President:

- (a) the number of replies received exceeded the quorum pursuant to paragraph 2 of Article 31 of the Charter; and

(ii)

- (b) of those replies, members representing the majority of the voting power of the members replying had voted in favour of the proposal.

4. At its Two Hundred and Eighty-Third Meeting held on October 25, 2018, BOD considered Papers BD 19/99 Add.1 and BD 19/99 Add. 1 Corr. 1 and agreed, subject to the adoption by the Board of Governors (BOG) of certain amendments to CDB's By-Laws, to the use of the procedures set out in the said Papers in connection with proposals regarding matters submitted to BOD for approval without a meeting, The amendments to the By-Laws were approved by BOG on December 10, 2018. In accordance with those procedures, decisions concerning proposals approved without a meeting are to be reported at the next conveniently scheduled meeting of BOD after the approval of such proposals.

5. BOD is therefore asked to note the approval by BOD without a formal meeting of the variation in scope and additional grants, described in the Report attached to the said Paper BD 64/16 Add.1, on the terms and conditions set out and referred to in paragraph 13 of the said Report.

CARIBBEAN DEVELOPMENT BANK

TWO HUNDRED AND EIGHTY-THIRD MEETING OF THE BOARD OF DIRECTORS

TO BE HELD IN BARBADOS

OCTOBER 25, 2018

PAPER BD 64/16 Add.1

GEOTHERMAL DRILLING PROJECT –
VARIATION IN SCOPE AND IN TERMS AND CONDITIONS, ADDITIONAL GRANT AND
ADDITIONAL CONTINGENTLY RECOVERABLE GRANT –
ST. VINCENT AND THE GRENADINES
(President's Recommendation No. 968)

1. On May 16, 2016, the Board of Directors of the Caribbean Development Bank (CDB) considered Papers BD 64/16 and 64/16 Corr.1 entitled *Geothermal Drilling Project, St. Vincent and the Grenadines* and approved from CDB's Special Funds Resources (SFR):

- (a) a grant to the Government of St. Vincent and the Grenadines (GOSVG) comprising an amount of four million Pounds Sterling (GBP4,000,000) allocated from resources provided by the Government of the United Kingdom and Northern Ireland, and an amount not exceeding the equivalent of one hundred and sixty-one thousand United States dollars (USD161,000) allocated from resources provided by the Inter-American Development Bank (IDB) acting as Administrator of the IDB/Global Environment Facility (GEF) (the IDB/GEF), respectively; and
- (b) a contingently recoverable grant to the St. Vincent Geothermal Company Limited (SVGCL) (a joint venture established between GOSVG and the St. Vincent Geothermal Holdings Limited) of an amount not exceeding the equivalent of nine million five hundred thousand United States dollars (USD9,500,000) allocated from resources provided through IDB as the Implementing Entity of the Clean Technology Fund (CTF) under the Sustainable Energy Facility (the IDB/CTF Facility)

(together the Original Grant), to assist in financing a geothermal drilling project in the La Soufrière region in northern St. Vincent (the Project)

2. The attached Report presents an appraisal of requests from GOSVG and SVGCL for a variation in terms and conditions, an additional grant and an additional contingently recoverable grant for the Project.

3. On the basis of the Report, I recommend:

- (a) a variation in scope and of the terms and conditions of the Original Grant;
- (b) an additional grant to GOSVG from the CDB's SFR comprising;

(ii)

- (i) an amount not exceeding the equivalent of four hundred and thirty-one thousand United States dollars (USD431,000) allocated from resources provided to CDB under the IDB/GEF to assist in financing consultancy services with respect to project management services for the Project ;and
- (ii) an amount not exceeding the equivalent of four million nine hundred and fifty-seven thousand Euros (EUR4,957,000) allocated from resources provided to CDB under the European Union - Caribbean Investment Facility for the purpose of a capital contribution to SVGCL to assist with financing the integrated drilling services; and
- (c) an additional contingently recoverable grant to SVGCL of an amount not exceeding the equivalent of six million United States dollars (USD6,000,000) allocated from resources provided to CDB under the IDB/CTF Facility to assist with financing the integrated drilling services; and

on the terms and conditions set out and referred to in paragraph 13 of the attached Report. The total revised additional financing is the equivalent of eleven million six hundred and forty one thousand United States dollars (USD 11,641,000).

4. Funds are available within CDB's existing resources and/or financing programme for the relevant disbursement period.

PUBLIC DISCLOSURE AUTHORISED

CARIBBEAN DEVELOPMENT BANK



**STAFF REPORT ON
GEOTHERMAL DRILLING PROJECT –
VARIATION IN SCOPE AND IN TERMS AND CONDITIONS, ADDITIONAL GRANT AND
ADDITIONAL CONTINGENTLY RECOVERABLE GRANT –
ST. VINCENT AND THE GRENADINES**

**(BD 64/16 Add. 1)
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Considered at the Two Hundred and Eighty-Third Meeting
of the Board of Directors on October 25, 2018

*Director
Projects Department*

Mr. Daniel M. Best

*Division Chief
Economic Infrastructure Division*

Mr. L. O'Reilly Lewis

OCTOBER 2018

This Report was prepared by a Team comprising:

Ken Aldonza Operations Officer (Energy)/Coordinator; Peter Manning, Operations Officer (Analyst); Valerie Isaac, Operations Officer (Environment); Elbert Ellis, Operations Officer (Social Analyst); Christine Dawson, Country Economist; Leah Bobb-Semple, Legal Counsel; Oliver Sieg, Risk Management Officer; and Tracie Richards, Coordinating Secretary.

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CURRENCY EQUIVALENT

[Dollars (\$) throughout refer to United States Dollars (USD) unless otherwise stated.]

ABBREVIATIONS

ADFD	-	Abu-Dhabi Fund for Development
BOD	-	Board of Directors
CDB	-	Caribbean Development Bank
CLO	-	Community Liaison Officer
CTF	-	Clean Technology Fund
CRG	-	Contingently Recoverable Grant
DFID	-	Department for International Development
ECI	-	Emera (Caribbean) Incorporated
EHS	-	Environmental, Health and Safety
ESAP	-	Environmental and Social Action Plan
ESIA	-	Environmental and Social Impact Assessment
ESMP	-	Environment and Social Management Plan
ESMS	-	Environmental and Social Management System
EU-CIF	-	European Union Caribbean Investment Facility
EUR	-	Euros
GDP	-	Gross Domestic Product
GEF	-	Global Environment Facility
GM	-	Gender Mainstreamed
GOSVG	-	Government of St. Vincent and the Grenadines
GRM	-	Grievance Redress Mechanism
IDB	-	Inter-American Development Bank
IFC	-	International Finance Corporation
LIB	-	Limited International Bidding
M&E	-	Monitoring and Evaluation
Mn	-	Million
MM	-	Marginally Mainstreamed
MOU	-	Memorandum of Understanding
N/A	-	Not Available
OCR	-	Ordinary Capital Resources
ORM	-	Office of Risk Management
p.a.	-	per annum
PC	-	Project Coordinator
PCR	-	Project Completion Report
PE	-	Project Engineer
PM	-	Project Manager
PPA	-	Power Purchase Agreement
PPP	-	Public Private Partnership
RAP	-	Resettlement Action Plan
RG	-	Reykjavik Geothermal Limited
RMF	-	Results Monitoring Framework
SEF	-	Sustainable Energy Facility
SEP	-	Stakeholder Engagement Plan
SFR	-	Special Funds Resources
SVG	-	St. Vincent and the Grenadines
SVGCL	-	St. Vincent Geothermal Company Limited

SVGHL	-	St. Vincent Geothermal Holdings Limited
TA	-	Technical Assistance
TOR	-	Terms of Reference
USD	-	United States Dollar
VINLEC	-	St. Vincent Electricity Services Limited

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COUNTRY DATA: ST. VINCENT AND THE GRENADINES

Item	2009	2010	2011	2012	2013	2014	2015	2016	2017
PER CAPITA GDP (current market prices; \$)	16,608	16,749	16,611	17,010	17,690	17,778	18,528	18,729	19,303
GROSS DOMESTIC PRODUCT (GDP)									
GDP (current market prices; \$ mn)	1,822.3	1,839.3	1,825.5	1,870.9	1,947.3	1,959.9	2,043.5	2,070.6	2,102.2
Demand Components:									
Total Consumption	1,912.2	1,862.3	1,884.6	1,964.2	2,061.9	2,084.3	2,007.7	2,056.2	2,116.7
Gross Capital Formation	438.6	533.2	464.3	475.7	523.8	491.2	516.6	553.3	570.0
Goods and Non-Factor Services	(528.5)	(556.2)	(523.3)	(569.0)	(638.4)	(610.1)	(532.5)	(528.3)	(528.7)
Gross domestic savings ratio (%)	(4.9)	(1.3)	(3.2)	(5.0)	(5.9)	(6.4)	1.7	0.5	0.7
Sectoral distribution of current GDP (%)									
Agriculture, Livestock and Forestry	6.5	6.7	7.0	6.8	7.1	7.3	6.9	7.8	7.8
Fishing	0.6	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.6
Mining and Quarrying	0.3	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2
Manufacturing	5.3	5.7	5.1	5.0	5.2	5.8	5.8	5.9	5.8
Electricity and Water	4.1	4.6	4.3	4.2	3.9	3.8	4.2	3.8	3.9
Construction	9.5	9.0	8.8	8.5	8.7	7.7	8.0	7.8	8.1
Wholesale and Retail Trade	14.8	14.3	14.0	14.5	14.4	14.5	13.4	13.4	13.0
Hotels and Restaurants	2.3	2.0	2.5	2.7	2.8	2.7	2.1	1.9	2.1
Transport, Storage and Communications	14.6	14.0	13.9	13.9	13.5	13.3	13.5	13.9	14.2
Financial Intermediation	7.3	7.3	6.1	6.1	5.9	6.1	7.2	6.9	6.9
Real Estate, Renting and Business Activities	15.1	15.2	15.6	15.2	14.7	15.1	14.7	14.8	14.8
Public Administration, Defence and Compulsory Social Security	9.4	10.8	11.5	12.0	12.4	13.1	13.1	13.0	12.6
Education	5.5	5.5	5.9	6.1	5.9	5.7	5.9	5.9	5.9
Health and Social Work	2.9	3.1	3.2	3.4	3.3	3.2	3.2	3.3	3.2
Other Community, Social and Personal Services	2.7	2.2	2.4	2.2	2.3	1.9	2.0	1.8	1.8
Activities of Private Households as Employers	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Gross Value Added (constant 2006 prices; \$ mn)	1,419.6	1,386.5	1,389.9	1,408.0	1,443.1	1,446.6	1,458.7	1,470.8	1,480.9
GDP (constant 2006 prices; \$ mn)	1,695.3	1,638.5	1,631.6	1,654.1	1,684.5	1,700.6	1,731.0	1,753.1	1,762.0
Annual rate of growth in GDP (%)	(2.1)	(3.4)	(0.4)	1.4	1.8	1.0	1.8	1.3	0.5
MONEY AND PRICES (\$ mn)									
Consumer prices (av. annual % change)	0.4	1.5	3.2	2.6	0.8	0.2	(1.7)	(0.1)	2.2
Money supply (M1; annual % change)	(7.0)	(3.8)	(4.1)	8.9	3.7	13.9	2.7	9.6	(0.8)
Total domestic credit(net)	1,029.2	892.0	906.7	959.5	998.9	1,020.2	1,069.4	1,045.4	1,091.0
Estimated Tourism Expenditure (USD mn)	87.5	86.2	91.7	94.1	92.3	92.4	95.7	100.1	95.1
CENTRAL GOVERNMENT FINANCES (\$ mn) /1									
Current Revenue	466.5	483.8	462.5	472.6	462.6	535.2	519.2	592.6	592.2
Current Expenditure	469.8	473.2	495.2	488.9	491.3	508.9	512.9	518.1	564.7

Item	2009	2010	2011	2012	2013	2014	2015	2016	2017
Current Account Balance	(3.2)	10.7	(32.7)	(16.3)	(28.7)	26.3	6.3	74.5	27.5
Capital Revenue and Grants	78.4	15.2	46.6	31.9	60.3	40.9	54.1	27.2	50.5
Capital Expenditure	106.0	78.4	63.0	54.2	151.8	107.6	99.2	78.2	122.6
Primary Balance (after grants)	20.1	(0.2)	(3.1)	5.9	(72.2)	5.2	6.0	66.2	5.1
Primary Balance as a % of GDP	1.1	0.0	-0.2	0.3	-3.7	0.3	0.3	3.2	0.2
Overall Balance (after grants)	(30.9)	(52.6)	(49.1)	(38.5)	(120.1)	(40.4)	(38.8)	23.5	(44.6)
Overall Balance as a % of GDP	(1.7)	(2.9)	(2.7)	(2.1)	(6.2)	(2.1)	(1.9)	1.1	(2.1)
BALANCE OF PAYMENTS (USD mn)									
Merchandise Total Exports (f.o.b)	50.1	41.1	38.3	42.6	49.2	48.0	45.8	46.7	42.5
Merchandise Total Imports (c.i.f)	333.6	338.0	331.7	356.0	370.0	361.5	333.7	334.8	330.0
Trade balance	(283.5)	(296.9)	(293.4)	(313.4)	(272.1)	(265.9)	(265.9)	(265.9)	(265.9)
TOTAL PUBLIC DEBT (USD mn)									
Total public debt	409.8	445.8	462.1	501.0	535.5	576.9	590.1	628.6	608.0
Domestic debt outstanding	160.6	171.8	173.4	225.4	235.7	249.9	248.8	201.7	212.0
External debt outstanding	249.2	274.0	288.7	275.6	299.8	327.0	341.3	426.9	396.0
Total Public Debt as a % of GDP	60.7	65.4	68.4	72.3	74.2	79.5	78.0	82.0	78.1
Debt Service	25.8	26.5	45.1	46.1	50.9	52.0	50.0	53.4	60.7
Amortisation	17.4	20.6	19.3	19.1	18.4	15.7	16.6	18.6	23.9
Interest Payments	8.4	7.9	25.8	27.0	17.7	16.9	16.6	15.8	18.0
Total debt service as % of current revenue	26.5	29.1	26.3	25.7	29.7	27.9	26.0	24.3	28.1
AVERAGE EXCHANGE RATE									
Dollar(s) per US dollar	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
POPULATION									
Mid-Year Population ('000)	109.7	109.8	109.9	110.0	110.1	110.2	110.3	110.3	110.4
Population Growth Rate (%)	0.9	0.9	0.9	0.9	...	...	...	...	...
Crude Birth Rate	17.4	16.2	15.7	16.7	15.8	16.7	16.4	15.7	13.9
Crude Death Rate	7.1	7.5	8.0	7.8	8.4	9.1	8.0	8.2	...
Infant Mortality Rate	17.8	20.7	22.0	13.6	18.4	15.8	14.3	(p)	...
EDUCATION									
Net School Enrolment Rate (%)									
Primary	87.4	89.4	...	...	74.0	97.0	96.2	95.9	94.0
Secondary	77.3	98.0	...	...	69.0	96.0	90.1	88.9	94.4
Pupil-Teacher Ratio									
Primary	17.0	16.0	16.0	16.0	16.0	16.0	15.0	15.0	14.0
Secondary	17.0	18.0	17.0	15.0	15.0	15.0	15.0	14.0	14.0
LABOUR FORCE									
Unemployment Rate							24.9		25.8
Male							20.7		21.5
Female							30.1		30.6
Participation Rate							67.9		67.8

Item	2009	2010	2011	2012	2013	2014	2015	2016	2017
Male							73.7		72.4
Female							61.8		63.3
INDICATORS OF HUMAN DEVELOPMENT									
HEALTH									
Life Expectancy at Birth (years)	67.1	70.4	69.6	73.4	72.2	71.4	73.2	72.9	...
Male	65.0	68.0	...	71.9	69.8	68.6	70.5	75.2	...
Female	70.4	72.0	...	76.4	75.1	74.5	76.3	70.9	...
Dependency Ratio	1.0	0.8	...	51.1	...	...	...	...	...
Male	1.0	0.8	...	49.9	...	...	...	...	...
Female	0.9	0.8	...	52.2	...	...	...	...	...
Human Development Index	...	0.7	0.7	0.7	0.7	0.7	...	...	...
HOUSING AND ENVIRONMENT									
Households with piped water (%)	37.8	53.8	...	80.5	...	...	...	...	...
Households with access to flush toilets (%)	24.0	33.2	...	68.4	...	...	...	...	...
Households with electricity (%)	37.3	66.8	...	88.9	...	...	...	...	...
Environmental strategy or action plan (year prepared): 2004									
Source(s): ECCB, GOSVG, CDB									
/1: As of 2014, public finance data classified according to the Government Finance Statistics Manual 2014.									
... not available									
Data as at June, 2018									

REVISED PROJECT SUMMARY

Financial Terms and Conditions			
Beneficiaries:	(i) the Government of St. Vincent and the Grenadines (GOSVG); and (ii) the St. Vincent Geothermal Company Limited (SVGCL)	Funding Sources:	Special Funds Resources (SFR) allocated from funds provided by: (i) Inter-American Development Bank (IDB through the Clean Technology Fund (CTF) under the Sustainable Energy Facility (SEF); (ii) IDB through the Global Environment Facility (GEF); (iii) United Kingdom Department for International Development (UK - DFID) (iv) European Union – Caribbean Investment Facility (EU-CIF)
		Amortisation Period (on conversion of contingently recoverable grant [CRG])	12 years (following grace period)
Executing Agency:	SVGCL	Grace Period (on conversion of CRG):	SFR: 2 years
		Disbursement Period	July 20, 2018 – March 31, 2020
Source: Caribbean Development Bank (CDB) SFR	Amount ('000)		
Original:		Interest Rate (on conversion of CRG):	1.75% per annum (p.a.)
CTF	9,500		
GEF	161		
UK-DFID (GBP 4 mn) ¹	5,658		
Sub-Total	15,319		
Counterpart	15,136		
Total	30,454		
Additional:		Commitment Fee:	N/A
CTF	6,000		
GEF	431		
UK - DFID (GBP 4 mn)	(527) ²		
EU-CIF	5,737		
Sub-Total	11,641		
Counterpart	(4,654)		
Total	6,987		
Revised			
CTF	15,500		
GEF	592		
UK - DFID (GBP 4 mn) ³	5,131		
EU-CIF	5,737		
Sub-Total	26,960		
Counterpart	10,482		
Total	37,442		

¹ GBP 1 = \$1.415 as at April 16, 2016

² Due to change in GBP exchange rate

³ GBP 1 = \$1.2828 as at Sept 04, 2018

Risk Management
<p>Office of Risk Management (ORM) Commentary:</p> <p>N/A</p>
Revised Project Summary
<p>Project Outcome and Description:</p> <p>The expected outcome of the Project is enhanced capability of SVGCL to make an evidenced-based determination of the feasibility of continuing geothermal resource development in the La Soufrière region for electricity production. The Project will comprise the following components:</p> <ul style="list-style-type: none"> (a) Project Preparation. (b) Offsite Infrastructure. (c) Integrated Drilling Services. (d) Land, Crop Compensation and Resettlement. (e) Project Management. (f) Engineering Services. (g) Technical Assistance (TA). <p>The additional CRG and grant financing will be applied to: (a) Integrated Drilling Services; (b) Project Management Services; and (c) TA.</p>
<p>Exceptions to Caribbean Development Bank's (CDB) Policies:</p> <p>N/A</p>

Gender Marker Summary:						
Gender Marker	Analysis	Design	Implementation	Monitoring and Evaluation	Score	Code
	0.75	0.5	0.5	0	1.75	MM ⁴

⁴ MM: The Project has limited potential to contribute significantly to gender equality.

1. BACKGROUND

1.01 On May 16, 2016, the Board of Directors of the Caribbean Development Bank (CDB) considered Papers BD 64/16 and 64/16 Corr.1 entitled *Geothermal Drilling Project, St. Vincent and the Grenadines* and approved from CDB's SFR:

- (a) a grant to the Government of St. Vincent and the Grenadines (GOSVG) comprising an amount of four million Pounds Sterling (GBP4,000,000) allocated from resources provided by the Government of the United Kingdom and Northern Ireland, and an amount not exceeding the equivalent of one hundred and sixty-one thousand United States dollars (USD161,000) allocated from resources provided by the IDB acting as Administrator of the IDB/GEF (the IDB/GEF), respectively; and
- (b) a contingently recoverable grant to the SVGCL [a joint venture established between GOSVG and the St. Vincent Geothermal Holdings Limited (SVGHL)] of an amount not exceeding the equivalent of nine million five hundred thousand United States dollars (USD9,500,000) allocated from resources provided through IDB as the Implementing Entity of the CTF under the Sustainable Energy Facility (the IDB/CTF Facility),

(together the Original Grant), to assist in financing a geothermal drilling project in the La Soufrière region in northern St. Vincent (the Project).

1.02 The full amount of the Original CRG will be converted to a Loan to SVGCL once the adequacy of the geothermal resources is proven and independently certified. This Loan would be re-payable over a period of up to twelve (12) years, following a grace period of two (2) years at an interest rate of 1.75% p.a.

1.03 The expected outcome of the Project is the enhanced capability of SVGCL to make an evidenced-based determination of the feasibility of continuing geothermal resource development in the La Soufrière region for electricity production. The financing will be used to assess the geothermal resource through exploratory drilling in the vicinity of the La Soufrière volcano in the north of St. Vincent and provide the requisite information to make a determination regarding its exploitation for use by a proposed geothermal power plant. The original terms and conditions are presented at Appendix 1.1 The Original Grant was to finance 50% of the appraised estimated project cost of \$30.454 mn with SVGCL providing the remaining 50%.

1.04 The Project components are:

- (a) Project Preparation.
- (b) Land, Crop Compensation and Resettlement.
- (c) Integrated Drilling Services: includes civil works and drilling services.
- (d) Offsite Infrastructure.
- (e) Project Management.
- (f) Engineering Services.
- (g) TA.

1.05 The Original Grant Agreement with GOSVG was signed on April 17, 2018; conditions precedent to first disbursement were satisfied on May 15, 2018; and the date of the first disbursement was June 29, 2018. The Original CRG with SVGCL was signed on October 4, 2018, and the conditions precedent are to be satisfied within sixty (60) days of the date of the Loan Agreement.

1.06 ECI (a shareholder of SVGHL) has made a decision in consultation with RG and GOSVG to reduce its role in SVGHL. This change resulted in the contribution by SVGHL to SVGCL and therefore by

SVGCL to the Project being reduced by \$7,785,000. GOSVG will provide the financial resources required to complete the drilling project. SVGHL will continue to actively provide resources to the Project, primarily through RG.

2. REQUEST

2.01 Due to the reduced availability of resources for the Project as discussed in 1.07, by letter dated September 28, 2018, GOSVG formally requested an additional grant for geothermal drilling project management services. The additional grant will be used to assist in financing additional project management capacity through the services of three geothermal project management consultants to support the function of the Energy Unit for a period of 15 months

2.02 GOSVG further requested additional grant resources be provided for use as an equity contribution to the Project for partially covering the cost of the drilling services contract and fuel consumption. This latter cost was not included in the costs to be funded by CDB under the Original Project. It is proposed that both these amounts of EUR4,957,000 and \$1,250,000, respectively, be provided by way of grant.

2.03 By letter dated September 27, 2018, SVGCL formally requested an additional CRG to replace the funds withdrawn from the Project and that CDB consider a change in the Project's Terms and Conditions to adjust the trigger for converting the CRG to a loan. The Original CRG was approved to be converted to a loan on successful proving and certification of the geothermal resource by a third party. SVGCL has requested that the conversion trigger be changed from successfully proving the geothermal resource to the signing of a financing agreement with CDB or any other financier for the construction of the geothermal plant. The total CRG resources will be subject to the revised terms and conditions found in paragraph 13. CDB considers the request to be reasonable and proposes that the condition be amended accordingly.

3. SOCIAL AND ECONOMIC CONTEXT

3.01 The social and economic context remains unchanged from the date of appraisal of the original project. An overview of the social and economic context can be found at Appendix 3.1 and Appendix 3.2, respectively.

4. STATUS OF PROJECT IMPLEMENTATION

4.01 The overall progress of the Project Components is as follows:

- (a) **Project Preparation:** This component covers the following key activities which were completed prior to the start of the construction works:
 - (i) Environmental and Social Impact Assessment.
 - (ii) Surface exploratory works such as light detection and ranging and various geological studies.
 - (iii) Land lease signed in May 2018 between GOSVG and SVGCL for the lands required for the geothermal project. Consultation sessions have been held with affected stakeholder groups from the communities, government and civil society.
- (b) **Land, Crop Compensation and Resettlement:** Two directly-affected persons (farmers) were displaced as a result of the Geothermal Energy Project. The compensation process for both farmers was completed in October 2018. A Stakeholder Engagement Plan (SEP) inclusive of a Grievance Redress Mechanism (GRM) has also been developed. The SEP is in use and is being updated as necessary. The GRM has been publicised and discussed

at all community consultations. To facilitate access, the GRM is strategically placed at three locations – Energy Unit, Kingstown, and police stations in Georgetown and Sandy Bay. In addition, those affected by the Project can also submit grievances through an online facility.

- (c) **Integrated Drilling Services (includes civil works and drilling services):** The civil works commenced in June 2018 and are expected to be completed by October 31, 2018. Mobilisation of the drill rig is expected to be completed by December 31, 2018.
- (d) **Offsite Infrastructure:** Preliminary off-site work to access the geothermal site has been completed.
- (e) **Project Management:** This is an ongoing service being provided to SVGCL through ECI resources allocated to the project.
- (f) **Engineering Services:** This is an ongoing service being provided by an engineering consultant contracted by SVGCL. Drawings for the drill well pads have been completed by the consultant and provided to the civil engineering contractors for construction.
- (g) **Technical Assistance:** Procurement of the Community Liaison Officer (CLO) has been completed. Additional *Project Management* team members are being added to provide technical support and capacity building for the geothermal drilling Project to the GOSVG Energy Unit. Terms of Reference for these consultancy services can be found at Appendices 4.1, 4.2 and 4.3.

4.02 During the ongoing PPA negotiations, a financial model was developed for evaluating the tariff to be expected from the planned geothermal plant. SVGCL, St. Vincent Electricity Services Ltd (VINLEC) and GOSVG have agreed that this model will be used to set a tariff for the electricity generated from the geothermal energy resource on the Commercial Operations Date of the geothermal plant. CDB staff are satisfied that this approach and the proposed financial model are adequate to determine the applicable tariff. A copy of the structure of the financial model will be appended to the PPA on signing.

5. REVISED PROJECT COST AND FINANCING

Project Costs

5.01 The revised Project cost is estimated at \$37.4 mn, which will be financed with resources from CDB, SVGCL and GOSVG. The revised costing represents an increase of \$7.0 mn (23%) over the original cost. The increased costs are the result of the following:

- (a) **Drilling services:** The civil works and drilling services costs have been revised upwards. The revised costs are based on accepted bids whereas the original costs were based on engineering estimates (\$3.7 mn). The cost for fuel consumed by the drilling equipment will be for the GOSVG's account and is now included as a separate contract (\$1.2 mn).
- (b) **Project Management resources:** (i) Increased cost for Project Management provided by SVGCL (\$1.5 mn) due to the longer project duration; and (ii) three additional Geothermal Project Management consultants to support the function of the Energy Unit in GOSVG (\$0.4 mn).

- (c) **Revised physical contingencies:** Increase in physical contingencies to 15% on all components of the drilling services contract with time based costs (\$1.0 mn).

These increases are partially offset by lower land crop compensation costs (\$0.7 mn) and lower price contingencies (\$0.1 mn).

5.02 Costs for Project preparation, land, crop compensation and resettlement and offsite infrastructure are based on actual costs incurred to-date, plus costs estimated by SVGCL to complete these components. Costs estimates for civil works and drilling services are based on bids received, whilst rig fuel consumption costs are based on the expected quantity of fuel to be consumed by the drilling equipment as provided by SVGCL and prevailing fuel costs. Project management, engineering services and technical assistance costs are based on rates typical for those works. Appropriate contingencies were applied to each Project component based on the nature of the works involved. CDB is satisfied that these costs and contingencies are satisfactory. The summaries of the original and revised Project cost and financing plans are shown in Table 5.1 below, with the Revised Project Cost, Phasing and Financing Plan presented at Appendix 5.1.

Financing

5.03 The increased Project costs will be financed by:

- (a) The provision of additional grant funds to GOSVG from CDB's SFR comprising:
 - (i) an amount not exceeding the equivalent of four hundred and thirty-one thousand United States dollars (USD431,000) allocated from resources provided to CDB under the IDB/GEF to assist in financing consultancy services of CLO and Geothermal Drilling Project Management services; and
 - (ii) an amount not exceeding the equivalent of four million, nine hundred and fifty-seven thousand Euros (EUR 4,957,000) (equivalent to \$5.737 mn) from resources provided by the EU-CIF to assist in financing the integrated drilling services and the cost of fuel to be used by the drilling equipment. These resources will be made available to GOSVG for a capital injection into SVGCL.
- (b) An additional CRG to SVGCL of an amount not exceeding the equivalent of six million United States dollars (USD6,000,000) allocated from resources provided to CDB under the ICB/CTF Facility to assist in financing the integrated drilling services.

5.04 While the EU-CIF grant funds noted in 5.03 (a) (ii) will be disbursed in USD equivalent at the conversion rate applicable at the time of disbursement, the total amount available is based on the currency of origin (i.e. EUR) and is therefore subject to exchange rate fluctuation. The EU-CIF grant amount shown in table 5.1 below has been converted to USD based on the exchange rate as at September 04, 2018 for consistency with other funding sources. The risk of exchange rate fluctuation related to the EU-CIF grant funds is a risk that is borne by GOSVG.

5.05 Total CDB financing has increased by \$11.6 mn from \$15.3 mn (50% of the original Project cost) to \$26.9 mn (72% of the revised Project cost).

5.06 Counterpart funding from SVGCL has decreased by \$7.7 mn to \$7.5 mn due to the reduced availability of funds from ECI following the impact of Hurricane Maria on Dominica in 2017. This decrease has been partially offset by additional counterpart resources from GOSVG of \$3.0 mn provided by grant support from the Abu Dhabi Fund for Development (ADFD) (\$2.5 mn) and in-kind contribution from

Government of New Zealand (\$0.5 mn). Total counterpart funding has been reduced from 50% as per the Original Project to 28% of the revised Project cost.

5.07 It is proposed, as noted in paragraph 2.03 above, that the condition for conversion of the CRG to a loan be contingent upon the construction phase of the Geothermal plant reaching financial close, rather than upon geothermal resources being proven to be commercially viable to support the construction and operation of at least a 7.5 megawatt geothermal plant.

TABLE 5.1: ORIGINAL AND REVISED PROJECT COST AND FINANCING PLAN
(\$'000)

Item	ORIGINAL					REVISED								
	CDB SFR			SVGCL	TOTAL	CDB SFR				Sub-Total	SVGCL	GOSVG		TOTAL
	CTF	GEF Funds	DFID ¹			GOSVG Equity Contribution	EU-CIF ²	ADFD	GONZ					
												DFID ¹	EU-CIF ²	
1. Project Preparation	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Land, Crop Compensation and Resettlement	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. Integrated Drilling Services (Total)														
3.1 Civil Works	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.2 Drilling Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.3 Rig fuel consumption	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. Offsite Infrastructure	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Project Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. Engineering Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. Technical Assistance	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BASE COSTS	8,467	153	5,055	14,027	27,702	13,675	506	4,645	4,960	23,786	7,195	2,194	427	33,602
8. Physical Contingency ²														
Sub-total														
9. Price Contingency ³			-											
TOTAL FINANCING COST	9,500	161	5,658	15,136	30,454	15,500	592	5,131	5,737	26,960	7,482	2,500	500	37,442
Percentage Contribution (%)	3	0.5	18.5	50	100	41	2	14	15	72	20	7	1	100

¹ Original Exchange Rate: GBP1=\$1.4145

¹ Revised Exchange Rate: GBP1= \$1.2828

² Exchange rate of EUR 1=\$1.1573

³ Physical Contingencies applied as follows: ██████████

³ Physical Contingencies applied as follows: ██████████

⁴ Price Contingencies: ██████████

⁴ Price Contingencies: ██████████

This information is withheld in accordance with one or more of the exceptions to disclosure under the Bank's Information Disclosure Policy.

6. REVISED IMPLEMENTATION

6.01 The original Project was scheduled to be completed by August 2017. The Revised Project is now scheduled to be completed by December 2019. Implementation activities are forecasted for completion by the end of October 2019, with communications activities by the CLO continuing through December 2019. A Revised Project Implementation Schedule is presented at Appendix 6.1.

Revised Project Management Structure

6.02 The project management structure as set out in Appendix 6.1 to Paper BD 64/16 has been revised to reflect current arrangements. The most significant adjustments include the addition of the Chief Executive Officer of VINLEC to the Decision Board of SVGCL and the inclusion of a Project Director, and a Project Coordinator who reports directly to the CDB Project Coordinator/Manager (PC/PM), within the management of SVGCL. The PC/MP reports to the Decision Board of SVGCL. The additional resources and corresponding responsibilities are highlighted below:

- (a) Project Director: Acts as the face of the Project locally, supports activities in the Stakeholder Management Plan and supporting Communication Plan, and provides local advocacy for the Project by representing the Project at local meetings or fora.
- (b) SVGCL Project Coordinator: Assigned from ECI staff; reports to and provides project controls support for the CDB PC/PM (e.g. making updates to various project registers); acts in the role of Technical Team Lead, directing discussions with facilitation support from the PC/PM as required; provides backup and support to the PC/PM and provides SVGCL oversight of construction works in St. Vincent as required; and coordinates progress reporting inputs and draft project status reports.
- (c) Accountant: Maintains accounting system(s) for invoices and journal entries; prepares financial statements; develops and maintains cash flow projections and supporting Project budget; and manages and supports local tax (e.g. payments and recoveries) and Customs processes.
- (d) Project Administrator: Manages the online Document Control Centre for the Project; provides general support for the Project Team (setting up meetings, taking minutes, coordinating local events, etc.); sets-up and manages a system for filing and archiving hard copies of technical documentation; manages time reporting processes (e.g. indirect costs) as required; and develops and maintains information management training plans.
- (e) Health Safety and Environment Coordinator: – Conducts safety meetings, Health, Safety and Environment (HSE) work site observations and completes Incident Reports as required; facilitates new employee orientations as needed; reviews and assists in the administration of the Occupational HSE Policies and Procedures; organises training for employees as required; responds to inquiries from employees regarding HSE policies and company programs; and assists in management of sub-contractor works.

6.03 The changes and reporting relationships are reflected in the revised Project Management Structure set out in Appendix 6.2. The Geothermal Drilling Project Management Services detailed at Appendices 4.1, 4.2 and 4.3 cover the responsibilities at (c), (d), and (e) which are integrated into the SVGCL management structure with reporting to the PC/PM.

Revised Institutional Assessment

6.04 SVGHL remains committed to the drilling project and will continue to provide project management services. The current shareholding arrangement of SVGCL is presented at Appendix 6.3.

7. REVISED DISBURSEMENT

7.01 Disbursement of the CDB additional Grant and additional CRG will be made in accordance with CDB's standard procedures and those specified in the Grant Agreement. It is expected that disbursements will be made over a period of 17 months from Board approval with the terminal disbursement to be made by March 31, 2020.

7.02 A Revised Estimated Quarterly Disbursement Schedule is presented at Appendix 7.1.

8. MONITORING AND REPORTING REQUIREMENTS

8.01 Monitoring and reporting provisions remain unchanged for the Project. The Revised Results Monitoring Framework is presented at Appendix 8.1.

9. PERFORMANCE ASSESSMENT SYSTEM

9.01 Under CDB's Project Performance Evaluation System, the original Project was accorded a composite rating of 5.3 which is satisfactory. Under CDB's new Performance Assessment System (PAS) rating the score remains satisfactory at 3.25. The PAS Table is provided at Appendix 9.1. This satisfactory score suggests that the Project will adequately meet its stated objective of successful implementation.

10. PROCUREMENT

10.01 The procurement arrangements detailed under the original project continue to apply, however, with the addition of EU-CIF resources to the project, where contracts are financed by EU-CIF, procurement eligibility shall be extended to countries eligible for procurement under EU-funded projects which are not CDB Member Countries. This is in keeping with the measures approved by BOD at its 278th Meeting on October 19, 2017 pursuant to Paper BD140/17, *Geothermal Risk Mitigation Programme for the Eastern Caribbean: Contribution by European Union-Caribbean Investment Facility*, for contracts financed by those resources. A revised Procurement Plan is set out at Appendix 10.1.

11. RISK ASSESSMENT AND MITIGATION

11.01 The risks identified in Chapter 5 of Paper BD 64/16 have been re-assessed and the updated risk table is below.

TABLE 11.1: RISK ASSESSMENT AND MITIGATION

Risk Category	Risk Type	Description of Risk	Mitigation Measures
Operational	Sustainability	Resource Risk: Risk that the geothermal resource will be inadequate to support the proposed size of power plant (7.5MW)	Extensive preliminary studies and surface exploration were undertaken by internationally renowned industry leaders to identify the drilling sites and minimise this risk.
		Drilling Risk: Financial risk relating to the probability of realising dry wells during exploration.	Utilisation of CDB’s CRG and other concessionary resources to provide an adequate level of project risk reduction.
	Budgetary	Cost Overrun Risk: Risk of longer than anticipated drilling times per well and/or the need to drill more wells resulting in implementation delays and increased costs.	The cost of the civil works and drilling services contracts have been agreed. These costs and any variations thereof can be evaluated using the tariff calculation model to verify that the expected tariff remains below the ceiling of \$0.18/kWh.
	Environmental	Environmental and Social Risk: Residual adverse environmental and social impacts associated with noise; economic displacement; water resources quality and abstraction; and disturbance of terrestrial and aquatic biodiversity.	Identified adverse environmental and social impacts are addressed in the Environment and Social Management Plan (ESMP). The ESMP references conformance to performance standards and details environmental monitoring requirements. Supervision of the implementation of social and environmental safeguards is ongoing.
	Performance	Natural hazard risks to the Project e.g. seismic events, storms and extreme weather events.	An Emergency Response plan is included in the ESMP. The contractors are required to take out the necessary insurance to offset losses from such occurrences.
Developmental	Institutional Capacity	Weak capacity on part of GOSVG to satisfactorily oversee and monitor all on-site and off-site aspects of the Project.	The Project includes TA to support GOSVG in capacity building.

12. ENVIRONMENTAL, SOCIAL AND GENDER ASSESSMENTS

Environmental Assessment

12.01 There has been no change in the design of the civil works for the Project. The project works are associated with: (a) exploration drill pad sites; (b) a water system (including a water intake, pipeline, and storage pond); (c) mud pond and geothermal fluid pond; (d) reinjection well pads; and (e) upgrading of access roads remain unchanged. As a consequence, no additional environmental impacts are anticipated. Vegetation clearing will be required for the Project. The relevant environmental impacts remain those which were identified during the original appraisal. A summary of the Environmental and Social Impact Assessment (ESIA) and the ESMP required under the original Project are presented at Appendix 12.1 and Appendix 12.2 respectively.

12.02 The monitoring of the environmental requirements of the Works contract will be in accordance with the original appraisal. SVGCL is responsible for overall project monitoring, ensuring compliance with environmental and social policies and obligations in the ESMP, and ensuring that its commitments are incorporated as contractual specifications. SVGCL prepared and is monitoring implementation of the following documents in conformance with the environment and social action plan outlined in the original Project: (a) Stakeholder Engagement Plan; (b) Environmental and Social Management System; (c) Resettlement Action Plan consistent with the International Finance Corporation (IFC) Performance Standards; (d) Erosion and Sediment Control Plan; (e) Worker Code of Conduct to minimise conflicts with local communities; and (f) Journey Management Plan to minimise traffic and safety issues associated with transported construction equipment and materials. SVGCL will submit the required monitoring reports in accordance with the frequencies identified in the ESMP to the appropriate authorities in SVG, currently the Physical Planning Board.

12.03 The Engineering Consultants will continue to monitor the contractors' environmental performance and compliance with the mitigation measures stipulated in the contract documents and provide routine reports to CDB. CDB staff will carry out supervision visits in collaboration with IDB and may also utilise services of independent consultants if deemed necessary.

Social and Gender Impact Assessment

12.04 The Project is located within the Georgetown and Sandy Bay Census Districts and is still expected to affect 1,209 households within associated communities. The Project has the potential, during implementation to impact residents, businesses, and commuters along the North Windward Highway from Kingstown, to the drilling site at Mount Soufriere. The following primary impacts identified during the original appraisal, remain relevant:

- (a) Tourists and other recreational users will be impacted by increasing noise levels and the changing visual landscape near Site W1 – located along the access road to the Bamboo Range Hiking Base Station, where hikers ascend the La Soufriere Volcano, one of the most popular tourist attractions in SVG;
- (b) Noise levels arising from the continuous use of drilling equipment, the changing visual landscape near site W1, located along the access road to the Bamboo Range Hiking base Station, where hikers ascend the La Soufriere Volcano, - one of the most popular tourist attractions in SVG; and

- (c) Temporary traffic disruption for commuters along the windward highway and the Project access roads during transport of project equipment and materials from Kingstown Port to site W1.

12.05 An SEP, inclusive of a GRM was developed to support stakeholder participation and to date, a number of community consultations have taken place along the North Windward Corridor in areas including Georgetown, Layou, North Union and Diamond. Churches, schools and community centres were effectively utilised to engage stakeholders in discussions about the Project and strengthen buy-in for its implementation. Consultations have also taken place with Government Ministries, *inter alia*, Economic Planning and Sustainable Development, Health, Housing, Tourism, Transport and Works, and agencies including the Forestry Department, Lands and Surveys, National Emergency Management Organisation, Port Authority, and National Parks Authority. As required under CDB's Environmental and Social Review Procedures, the SEP and Resettlement Action Plan (RAP) have been publicly disclosed. GOSVG has recruited a CLO, who will be required to utilise differential participatory techniques to engage all categories of stakeholders to discuss and receive timely feedback during project implementation.

12.06 At appraisal, it was expected that construction and drilling works would generate more jobs for men than women. However, there may be opportunities for increased employment for women as skilled and semi-skilled workers. A key responsibility of CLO will be to sensitise contractors to available skills of women and men in the community in an effort to enhance employment of women, where possible. Women are also likely to benefit from income-generating activities by providing support services to the Project, given demands for food and housing during implementation. Based on the Bank's Gender Marker, the revised Project is assessed as Marginally Gender Mainstreamed, the results of which are shown in Appendix 12.3. The original Gender Action Plan remains relevant and will assist the PC/PM, CLO and CDB staff to monitor and assess progress throughout the Project cycle.

13. RECOMMENDATIONS

13.01 It is recommended that, with respect to the Grant and Contingently Recoverable Grant to GOSVG and SVGCL respectively, approved by BOD (the Original Grant and Original CRG), pursuant to Papers BD 64/16 and BD 64/16 Corr.1 entitled "Geothermal Drilling Project – St. Vincent and the Grenadines", (the Original Paper) BOD approve:

- (a) variation in scope as described in paragraphs 2.03, 5.01 and 6.02 of this paper;
- (b) a variation in the financing arrangements to permit the provision of:
 - (i) an additional grant to GOSVG from the SFR of the CDB comprising:
 - (aa) an amount, by way of additional TA, not exceeding the equivalent of four hundred and thirty-one thousand United States dollars (USD431,000) allocated from resources provided to CDB under the IDB/GEF to assist in financing the Geothermal Drilling Project Management services;
 - (bb) an amount not exceeding the equivalent of four million, nine hundred and fifty-seven thousand Euros (EUR4,957,000) allocated from resources provided to CDB under the EU-CIF to be used by GOSVG to contribute to the capital of SVGCL to assist with financing the integrated drilling services; and

- (ii) an additional contingently recoverable grant to SVGCL from CDB's SFR of an amount not exceeding the equivalent of six million United States dollars (USD6,000,000) allocated from resources provided to CDB under the IDB/CTF Facility; and
- (c) a variation of the terms and conditions as set out in the Original Paper (copy attached at Appendix 1) to address the consequential changes, as follows:
 - (i) The deletion of paragraph 7.02 (a) and (b) in its entirety and the substitution thereof of the following:

“7.02 It is recommended that CDB makes a grant to GOSVG from CDB's SFR comprising:

 - (a) an amount of four million Pounds Sterling (GBP4,000,000), allocated from resources provided to CDB by DFID and an amount not exceeding the equivalent of four million, nine hundred and fifty-seven thousand Euros (EUR4,957,000) allocated from resources provided to CDB under EU-CIF, to be used by GOSVG to contribute to the capital of SVGCL, for the purpose of assisting SVGCL in financing a portion of the integrated drilling services; and
 - (b) an amount by way of TA not exceeding the equivalent of five hundred and ninety-two United States dollars (USD592,000) allocated from resources provided to CDB under IDB/GEF, to assist in financing the Community Liaison Officer consultancy and Geothermal Drilling Project Management services,

(together the GOSVG Grant);”
 - (ii) The deletion of paragraph 7.02 (1)(b)(i)(aa) in its entirety and the substitution thereof of the following:

“(i) the first payment pursuant to paragraph (1)(a) above until:

 - (aa) CDB has received a signed copy of the respective consultancy contract for which the payment is being made; and”
 - (iii) The deletion of paragraph 7.02 (1)(b)(ii)(aa) in its entirety and the substitution thereof of the following:

“(ii) any other payment pursuant to paragraph (1)(a) above until CDB shall have received:

 - (aa) the requisite number of copies of the reports or other deliverables, in form and substance acceptable to CDB, to be furnished for the time being by the consultants to CDB in accordance with the respective TOR in relation to which the payment is being made; and”

- (iv) The deletion of paragraph 7.02 (1)(c)(ii) in its entirety and the substitution therefor of the following:
 - “(ii) total disbursements shall not exceed in the aggregate thirty-one percent (31%) of the cost of the Project.”
- (v) The deletion of paragraph 7.02 (1)(e) in its entirety and the substitution therefor, of the following:
 - “(e) The first disbursement of the GOSVG Grant shall be made by December 31, 2016 and the GOSVG Grant shall be fully disbursed by March 31, 2020, or such later dates as CDB may from time to time specify in writing.”
- (vi) The deletion of paragraph 7.02 (7)(f) in its entirety and the substitution therefor, of the following:
 - “(f) GOSVG shall, in accordance with the procurement procedures applicable to the GOSVG Grant, select and engage consultants to carry out the CLO and Geothermal Drilling Project Management services set out in the TORs at Appendix 2.2, and 2.2(A); 2.2 (B) and 2.2 (C)”
- (vii) The deletion of paragraph 7.02 (7)(h) in its entirety and the substitution therefor, of the following:
 - “(h) GOSVG and SVGCL shall insert, as applicable, the CDB, UKaid, GEF and EU logos on all documents and publications and on all equipment financed with the GOSVG Grant; and make reference to CDB, UKaid, GEF and EU, as applicable, as the source of financing in any event, meeting, press conference or communication or website in which reference is made to the Project.”
- (viii) The deletion of paragraph 7.02 (7)(k) in its entirety and the substitution therefor, of the following:
 - “(k) CDB shall be entitled to suspend, cancel or require a refund of the GOSVG Grant, or any part thereof, if the DFID funding, the GEF funding or the EU funding, allocated for the GOSVG Grant, or if the SVGCL Grant, or any part thereof is suspended, cancelled or required to be refunded, and if at any time CDB determines that any representative of GOSVG or SVGCL has engaged in Prohibited Practices in connection with the use of the GOSVG Grant without GOSVG or SVGCL having taken timely and appropriate action satisfactory to CDB to address such practices when they occur, except that GOSVG and SVGCL shall not be required to refund any amount of the GOSVG Grant already expended in connection with the Project and not recoverable by GOSVG or SVGCL.”
- (ix) The deletion of the opening umbrella words in paragraph 7.03 in their entirety and the substitution therefor, of the following:
 - “7.03 It is recommended that CDB makes a CRG to SVGCL from CDB’s SFR of an amount not exceeding the equivalent of fifteen million five hundred

thousand United States dollars (USD15,500,000) (the SVGCL Grant), allocated from resources provided to CDB under the IDB/CTF Facility , to assist in financing a portion of the integrated drilling services (the CRG Component), on CDB's standard terms and conditions, on the following terms and conditions, and on such other terms and conditions as CDB's Management may consider to be appropriate, should the contingency referred to below occur:"

- (x) The deletion of paragraph 7.03(1)(a)(ii) in its entirety and the substitution therefor, of the following:
 - “(ii) total disbursements shall not exceed in the aggregate forty-one percent (41%) of the cost of the Project.”
- (xi) The deletion of paragraph 7.03(1)(b) in its entirety and the substitution therefor, of the following:
 - “(b) The first disbursement of the SVGCL Grant shall be made by December 31, 2016 and the SVGCL Grant shall be fully disbursed by March 31, 2020, or such later dates as CDB may from time to time specify in writing.”
- (xii) The deletion of paragraph 7.03(2)(a) in its entirety and the substitution therefor, of the following:
 - “(a) Except as CDB may otherwise agree, and except as provided for in paragraph 7.03 (2) (d) below, and contingent upon the execution of a financing agreement with CDB or any other financier for the construction of the geothermal plant (Financial Close), the SVGCL Grant shall convert to a loan to SVGCL (the Contingent Loan).”
- (xiii) The deletion of paragraph 7.03(2)(b) in its entirety and the substitution therefor of the following:
 - “(b) The Contingent Loan shall be of an amount not exceeding the equivalent of fifteen million, five hundred thousand United States dollars (USD15,500,000) which shall be re-payable over a period of up to twelve (12) years following a grace period of two (2) years at an interest rate of 1.75% per annum.”
- (xiv) The deletion of paragraph 7.03(2)(d) in its entirety and the substitution therefor, of the following:
 - “(d) Except as CDB shall otherwise agree, in the event that SVGCL obtains funds to assist with , financing the construction of the geothermal plant from sources other than CDB, the amount of the SVGCL Grant in full, shall, at Financial Close, be converted to a loan to SVGCL in an amount not exceeding eighteen million six hundred thousand United States dollars (USD18,600,000), representing the amount of the SVGCL Grant plus a twenty percent (20%) premium and shall be re-payable immediately in a single payment.”

(xv) The deletion of paragraph 7.03(8)(b)(i) in its entirety and the substitution therefor, of the following:

“(i) contribute to the Project an amount of not less than the equivalent of seven million four hundred and eighty-two thousand United States dollars (USD7,482,000) which shall be expended in a timely manner on the components of the Project designated for financing by SVGCL as shown in the Financing Plan for the Project, unless CDB shall otherwise specify in writing;”

(xvi) The deletion of paragraph 7.03 (8)(f) in its entirety and the substitution therefor, of the following:

“(f) CDB shall be entitled to suspend, cancel or require a refund of the SVGCL Grant, or any part thereof, if the CTF funds allocated for the SVGCL Grant, or if the GOSVG Grant or any part thereof is suspended, cancelled or required to be refunded, and if at any time CDB determines that any representative of SVGCL has engaged in Prohibited Practices in connection with the use of the SVGCL Grant without SVGCL having taken timely and appropriate action satisfactory to CDB to address such practices when they occur, except that SVGCL shall not be required to refund any amount of the SVGCL Grant already expended in connection with the Project and not recoverable by SVGCL.”

TERMS AND CONDITIONS OF THE ORIGINAL GRANT

(Paper BD 64/16 and 64/16 Corr.1)

“7.01 The proposed funding for the Project is as follows:

- (a) a grant to GOSVG, for use by SVGCL, comprising:
 - (i) an amount of four million Pounds Sterling (GBP4,000,000) to assist in financing a portion of the integrated drilling services; and
 - (ii) an amount not exceeding the equivalent of one hundred and sixty-one thousand United States dollars (USD161,000), to assist in financing the CLO consultancy.
- (b) a contingently recoverable grant to SVGCL of an amount not exceeding the equivalent of nine million five hundred thousand United States dollars (USD9,500,000), to assist in financing a portion of the integrated drilling services,

(together the Project).

7.02 It is recommended that CDB makes a grant to GOSVG from CDB's SFR comprising:

- (c) an amount of four million Pounds Sterling (GBP4,000,000), allocated from resources provided to CDB by DFID to support geothermal development in the Eastern Caribbean, to be used by GOSVG to contribute to the capital of SVGCL, for the purpose of assisting SVGCL in financing a portion of the integrated drilling services (the Equity Component); and
- (d) an amount not exceeding the equivalent of one hundred and sixty-one thousand United States dollars (USD161,000) allocated from resources provided to CDB by IDB (acting as an administrator of the IDB/GEF Fund) under SEF, to assist in financing the CLO consultancy (the TA Component),

(together the GOSVG Grant);

on CDB's standard terms and conditions, and on the following terms and conditions:

(1) **Disbursement**

- (a) Except as CDB may otherwise agree, and subject to paragraph (b) below, disbursement of the TA Component shall be made periodically on receipt of:
 - (i) a request in writing from GOSVG for the funds; and
 - (ii) documentation, satisfactory to CDB, with respect to the TA Component.
- (b) Provided, however, that CDB shall not be under any obligation to make:

- (i) the first payment pursuant to paragraph (1)(a) above until:
 - (aa) CDB has received a copy of the signed CLO consultancy contract; and
 - (bb) CDB has been provided with evidence, acceptable to CDB, that the condition precedent to first disbursement of the GOSVG Grant set out in paragraph (3) below shall have been satisfied
- (ii) any other payment pursuant to paragraph (1)(a) above CDB shall have received:
 - (aa) the requisite number of copies of the reports or other deliverables, in form and substance acceptable to CDB, to be furnished for the time being by CLO to CDB in accordance with the TOR at Appendix 2.2.; and
 - (bb) an account and documentation satisfactory to CDB in support of expenditures financed by GOSVG for the resources of the immediately preceding payment.
- (c) Except as CDB may otherwise agree, disbursement of the Equity Component shall be as follows:
 - (i) the Equity Component shall be used to finance the components of the Project allocated for financing by CDB as shown in the Project Cost and Financing Plan for the Project at Appendix 3.1 (the Financing Plan) up to the respective limits specified therein; and
 - (ii) total disbursements shall not exceed in the aggregate eighteen decimal five percent (18.5%) of the cost of the Project.
- (d) The Equity Component shall not be used to meet any part of the cost of the Project which consist of identifiable taxes and duties.
- (e) The first disbursement of the GOSVG Grant shall be made by December 31, 2016 and the GOSVG Grant shall be fully disbursed by October 30, 2017, or such later dates as CDB may from time to time specify in writing.

(2) **Procurement**

- (a) Except as provided in sub-paragraphs (b) and (c) below, procurement shall be in accordance with the procedures set out and/or referred to in the Agreement between CDB and GOSVG providing for the GOSVG Grant, or such other procedures as CDB may from time to time specify in writing. The Procurement Plan approved by CDB is set out at Appendix 6.7. Any revisions to the Procurement Plan shall require CDB's prior approval in writing.

- (b) Procurement of the CLO consultancy shall be extended to IDB member countries.
- (c) Procurement of goods, works and services in respect of the integrated drilling services shall be without restriction as to country eligibility.

(3) **Condition Precedent to First Disbursement of the GOSVG Grant:**

PM/PC referred to in sub-paragraph 7(e) below shall have been assigned.

(4) **Conditions Precedent to Disbursement in respect of the Works at each Site:**

CDB shall not be obliged to disburse any amount in respect of the works at each Site until GOSVG shall have submitted to CDB, through SVGCL evidence, satisfactory to CDB, that the lands required for that Site have been vested in SVGCL, free of encumbrances, covenants, conditions and stipulations, or alternatively, arrangements acceptable to CDB have been made for the entry by SVGCL into possession of such lands for the purposes of the Project.

(5) **Conditions Precedent to Disbursement in respect of the Works at Site W1:**

CDB shall not be obliged to disburse any amount in respect of Site W1 until GOSVG shall have provided to CDB, through SVGCL evidence, acceptable to CDB, that the actions outlined in Section A of the Environmental and Social Action Plan (ESAP) Table 1 in Appendix 4.3 have been satisfied.

(6) **Conditions Precedent to Disbursement in respect of the Works at Site W3:**

CDB shall not be obliged to disburse any amount in respect of Site W3 until GOSVG shall have provided to CDB, through SVGCL evidence, acceptable to CBD, that the actions outlined in Section C of the ESAP Table 1 in Appendix 4.3 have been satisfied.

(7) **Other Conditions:**

- (a) Except as CDB may otherwise agree, GOSVG shall execute the TA and Equity Components through SVGCL.
- (b) The proceeds of the Equity Component shall be recognised as, and appropriately accounted for, as a portion of GOSVG's equity contribution to SVGCL. CDB shall be provided with evidence acceptable to CDB that GOSVG is the legal and beneficial owner of shares in the capital of SVGCL.
- (c) GOSVG shall make the proceeds of the GOSVG Grant available to SVGCL for the financing of the TA Component and shall take all necessary steps to facilitate and ensure the performance by SVGCL of its obligations herein.
- (d) As a condition of GOSVG making the Grant available to SVGCL, SVGCL shall undertake to observe and perform the obligations on its part to be observed and performed, as set out and required herein.

- (e) SVGCL shall ensure that, for the duration of the Project, a person with qualifications and experience acceptable to CDB has been appointed as Project Manager, SVGCL. The PM, SVGCL, shall also function as PC for the Project, and shall be assigned accordingly. PM/PC shall be responsible for coordinating and monitoring all aspects of the Project, with the duties and responsibilities set out in Appendix 6.2. The PM/PC shall report to the Management Committee of SVGCL. The qualifications and experience of any person subsequently assigned to the position of PM/PC, SVGCL, shall be acceptable to CDB.
- (f) GOSVG shall, in accordance with the procurement procedures applicable to the GOSVG Grant, select and engage a consultant to carry out the services of CLO set out in the TOR at Appendix 2.2.
- (g) Except as CDB may otherwise agree, GOSVG shall, by December 31, 2016, have submitted to CDB a copy of the gazetted Proclamation of the appointed day notice of the Geothermal Resources Development Act, 2015.
- (h) GOSVG and SVGCL shall insert, as applicable, the CDB, UKaid and GEF logos on all documents and publications and on all equipment financed with the GOSVG Grant; and make reference to CDB, UKaid and GEF, as applicable, as the source of financing in any event, meeting, press conference or communication or website in which reference is made to the Project.
- (i) SVGCL shall:
 - (i) maintain the project management and organisation structure outlined in paragraph 6.03 above, the positions shall be held by persons whose qualifications and experience are acceptable to CDB;
 - (ii) except as CDB may otherwise agree, furnish or cause to be furnished to CDB the reports listed in Appendix 6.9 in the forms specified, or in such form or forms as CDB may require, not later than the times/periods specified therein for so doing;
 - (iii) collect and maintain available information, indicators and parameters needed to carry out the final evaluation of the Project for the purposes of preparing a report of the final evaluation of the Program referred to in the Operations Manual of SEF;
 - (iv) preserve the original records of the Project for a minimum period of three (3) years after the expiration date of the period of disbursement referred to in sub-paragraph 1(e) or any extension thereof. Such documents and records shall be maintained adequately in order to:
 - (aa) substantiate Project-related activities, decisions and transactions, including all expenditures incurred; and
 - (bb) show the correlation of the expenditures incurred under the Project to the respective disbursements made by CDB;

- (v) include in all bidding documents, requests for proposals and contracts financed with the proceeds of the GOSVG Grant that they enter into, respectively, a provision requiring that providers of goods or services, contractors, subcontractors, consultants and their agents, personnel, sub-consultants, sub-contractors or concessionaires contracted by them, keep all documents and records related to activities financed with the proceeds of the GOSVG Grant for a period of seven (7) years after completion of the work contemplated in the relevant contract;
- (vi) permit CDB, its investigators, agents, auditors and experts it engages, to inspect, at any time, the Project and the facilities, equipment and materials involved therein, and to examine such systems, records and documents as CDB may deem pertinent. In addition, GOSVG and SVGCL shall ensure that their agents fully cooperate with the personnel which CDB sends or designates for this purpose. All the costs relating to transportation, salaries, and other expenses of such personnel shall be borne by CDB; and
- (vii) include a provision in bidding documents, requests for proposals and contracts entered into by them relating to the execution of the Project in order to:
 - (aa) allow CDB, its investigators, agents, auditors or experts, to inspect accounts, records and other documents relating to the submission of bids and to the performance of the corresponding contract or agreement; and
 - (bb) provide that such accounts, records, and documents may be submitted to the auditors designated by CDB for an opinion.
- (j) Except as CDB may otherwise agree, GOSVG and SVGCL shall meet or cause to be met:
 - (i) any amount by which the cost of the TA Component exceeds the estimated cost shown; and
 - (ii) the cost of any other items needed for the purpose of, or in connection with, the TA Component;

and shall provide, or cause to be provided, all other inputs required for the punctual and efficient carrying out of the TA Component not being financed by the GOSVG Grant.

- (k) CDB shall be entitled to suspend, cancel or require a refund of the GOSVG Grant, or any part thereof, if the DFID funding or the GEF funding, allocated for the GOSVG Grant, or the SVGCL Grant, or any part thereof is suspended, cancelled or required to be refunded, and if at any time CDB determines that any representative of GOSVG or SVGCL has engaged in Prohibited Practices in connection with the use of the GOSVG Grant without GOSVG or SVGCL having taken timely and appropriate action satisfactory to CDB to address such practices when they occur, except that GOSVG and SVGCL shall not be required to refund any amount of the

GOSVG Grant already expended in connection with the Project and not recoverable by GOSVG or SVGCL.

7.03 It is recommended that CDB makes a CRG to SVGCL from CDB's SFR of an amount not exceeding the equivalent of nine million five hundred thousand United States dollars (USD9,500,000) (the SVGCL Grant), allocated from resources provided to CDB by IDB (acting as the implementing entity of IDB/CTF) under SEF, to assist in financing a portion of the integrated drilling services (the CGR Component), on CDB's standard terms and conditions, on the following terms and conditions, and on such other terms and conditions as CDB's Management may consider to be appropriate, should the contingency referred to below occur:

(1) **Disbursement:**

- (a) Except as CDB may otherwise agree, disbursement of the SVGCL Grant shall be:
 - (i) used to finance the components of the Project allocated for financing by CDB under the CGR Component as shown in the Project Cost Phasing and Financing Plan for the Project at Appendix 3.1 (the Financing Plan) up to the respective limits specified therein; and
 - (ii) total disbursements shall not exceed in the aggregate thirty-one percent (31%) of the cost of the Project.
- (b) The first payment of the SVGCL Grant shall be made by December 31, 2016, and the CRG shall be fully disbursed by October 30, 2017, or such later dates as CDB may specify in writing.
- (c) The SVGCL Grant shall not be used to meet any part of the cost of the Project which consist of identifiable taxes and duties.

(2) **Contingent Conditions:**

- (a) Except as CDB may otherwise agree, and contingent upon the success of the Project outlined in paragraph 3.04 above, the SVGCL Grant shall convert to a loan to SVGCL (the Contingent Loan).
- (b) The Contingent Loan shall be of an amount not exceeding the equivalent of nine million five hundred thousand United States dollars (USD9,500,000) which shall be re-payable over a period of up to twelve (12) years following a grace period of two (2) years at an interest rate of 1.75% per annum.
- (c) In the event that the construction of a geothermal plant is pursued, SVGCL shall apply for, and shall use its best efforts to secure, funds from CDB to assist in financing the construction phase of the geothermal plant.
- (d) Except as CDB shall otherwise agree, in the event that SVGCL obtains funds to assist in financing the construction of a geothermal plant resulting from the Project from sources other than CDB, the amount of the SVGCL Grant, in full, shall, at financial close for the construction phase of the geothermal plant, be converted to a loan to SVGCL in an amount not exceeding eleven million four hundred

thousand United States dollars (USD11,400,000), representing the amount of the SVGCL Grant plus a twenty percent (20%) premium and shall be re-payable immediately in a single payment.

(3) **Procurement**

- (a) Except as provided in sub-paragraph (b) below, procurement shall be in accordance with the procedures set out and/or referred to in the SVGCL Grant, or such other procedures as CDB may from time to time specify in writing. The Procurement Plan approved by CDB is set out at Appendix 6.7. Any revisions to the Procurement Plan shall require CDB's prior approval in writing.
- (b) The procurement of goods, works and services in respect of the integrated drilling services shall be without restriction as to country eligibility.

(4) **Conditions Precedent to First Disbursement of the SVGCL Grant:**

- (a) The PM/PC referred to in sub-paragraph 8(b)(x) shall have been appointed.
- (b) The Heads of Agreement for the proposed Power Purchase Agreement between SVGCL and VINLEC shall have been executed.
- (c) The engineering consultants referred to in sub-paragraph 8(b)(xi) shall have been engaged.
- (d) SVGCL shall have furnished or caused to be furnished to CDB a legal opinion, in form and substance acceptable to CDB, showing that:
 - (i) SVGCL is in good standing under the laws of St. Vincent and the Grenadines; and
 - (ii) the execution and delivery of the agreement on behalf of SVGCL have been duly authorised by all necessary corporate actions and the grant agreement constitutes a valid and legally binding obligation of SVGCL enforceable in accordance with its terms.

(5) **Condition Precedent to Disbursement in respect of the Works at each Site:**

CDB shall not be obliged to disburse any amount in respect of the works at each Site until SVGCL shall have submitted to CDB, evidence satisfactory to CDB that the lands required for the Site have been vested in SVGCL, free of encumbrances, covenants, conditions and stipulations, or alternatively, arrangements acceptable to CDB have been made for the entry by SVGCL into possession of such lands for the purposes of the Project.

(6) **Condition Precedent to Disbursement in respect of the Works at Site W1:**

CDB shall not be obliged to disburse any amount in respect of Site W1 until SVGCL shall have provided CDB, evidence acceptable to CDB that the actions outlined in Section A of the ESAP Table 1 in Appendix 4.3 have been satisfied.

(7) **Condition Precedent to Disbursement in respect of the Works at Site W3:**

CDB shall not be obliged to disburse any amount in respect of Site W3 until SVGCL shall have provided CDB, evidence acceptable to CDB that the actions outlined in Section C of the ESAP Table 1 in Appendix 4.3 have been satisfied.

(8) **Other Conditions:**

- (a) Except as CDB may otherwise agree, the CRG Component shall be executed through SVGCL.
- (b) SVGCL shall:
 - (i) contribute to the Project an amount of not less than the equivalent of fifteen million one hundred and thirty-six thousand United States dollars (USD15,136,000) which shall be expended in a timely manner on the components of the Project designated for financing by SVGCL as shown in the Financing Plan for the Project, unless CDB shall otherwise specify in writing;
 - (ii) carry out the Project at all times:
 - (aa) with due diligence and efficiency, with management personnel whose qualifications and experience are acceptable to CDB, and in accordance with sound technical, environmental, financial and managerial standards and practices;
 - (bb) in accordance with the Operations Manual under the SEF approved by CDB from time to time; and
 - (cc) in accordance with the ESAP and the ESMP set out in Appendix 4.3 and Appendix 4.6, respectively;
 - (iii) institute and maintain organisational, administrative, accounting and auditing arrangements acceptable to CDB;
 - (iv) comply with any applicable law, rule or regulation of the laws of St. Vincent and the Grenadines, which is binding upon SVGCL;
 - (v) have received all requisite statutory, planning, building and environmental permits, licences and/or other approvals in respect of the Project;
 - (vi) not engage in any business unrelated to the carrying out of the Project without the prior written consent of CDB;
 - (vii) not change its corporate structure or ownership without the prior written consent of CDB, if such amendment has or is reasonably likely to have a material adverse effect on the ability of SVGCL to carry out its operations, or any interests of CDB or of contributors to the Project;

- (viii) not amend or restate its articles of incorporation or by-laws, if such amendment or restatement has or is reasonably likely to have a material adverse effect on the ability of SVGCL to carry out its operations, or any interests of CDB or of contributors to the Project;
- (ix) promptly notify CDB in the event that the legal instruments establishing, and/or granting the concession to, SVGCL have been amended, suspended, terminated, supplemented, replaced, abrogated, repealed or waived, if such amendment, suspension, termination, supplement, replacement, abrogation, repeal or waiver has or is reasonably likely to have a material adverse effect on, the ability of SVGCL to carry out its operations, or any interests of CDB or contributors to the Project;
- (x) ensure that, for the duration of the Project, a person with qualifications and experience acceptable to CDB has been appointed as Project Manager, SVGCL. The PM, SVGCL, shall also function as the PC for the Project, and shall be assigned accordingly. PM/PC shall be responsible for coordinating and monitoring all aspects of the Project, with the duties and responsibilities set out in Appendix 6.2. The PM/PC shall report to the Management Committee of SVGCL. The qualifications and experience of any person subsequently assigned to the position of PM/PC, SVGCL shall be acceptable to CDB;
- (xi) engage competent and experienced engineering consultants to provide the services set out in Appendix 6.4;
- (xii) at the request of CDB, ensure that its management meet with CDB representatives at a mutually acceptable time and place as often as determined by CDB to be necessary, but at least annually, and exchange views with regard to the progress of the Project, the performance by SVGCL of its obligations relating to the Project and any other matters relating to the Project;
- (xiii) maintain the project management and organisation structure outlined in paragraph 6.03 above, the positions shall be held by persons whose qualifications and experience are acceptable to CDB;
- (xiv) except as CDB may otherwise agree, furnish or cause to be furnished to CDB the reports listed in Appendix 6.9 in the forms specified or in such form or forms as CDB may require, not later than the times/periods specified therein for so doing;
- (xv) collect and maintain available information, indicators and parameters needed to carry out the final evaluation of the Project for the purposes of preparing a report of the final evaluation of the Project referred to in the Operations Manual of SEF;
- (xvi) preserve the original records of the Project for a minimum period of three (3) years after the expiration date of the period of disbursement

referred to in sub-paragraph 1(b) or any extension thereof. Such documents and records shall be maintained adequately in order to:

- (aa) substantiate Project-related activities, decisions and transactions, including all expenditures incurred; and
 - (bb) show the correlation of the expenditures incurred under the Project to the respective disbursement made by CDB;
- (xvii) include in all bidding documents, requests for proposals and contracts financed with the SVGCL Grant that they enter into, respectively, a provision requiring that providers of goods or services, contractors, subcontractors, consultants and their agents, personnel, sub-consultants, sub-contractors or concessionaires contracted by them, keep all documents and records related to activities financed with the SVGCL Grant for a period of seven (7) years after completion of the work contemplated in the relevant contract;
- (xviii) permit CDB, its investigators, agents, auditors and experts it engages, to inspect, at any time, the Project and the facilities, equipment and materials involved therein, and to examine such systems, records, and documents as CDB may deem pertinent. In addition, SVGCL shall ensure that their agents fully cooperate with the personnel which CDB sends or designates for this purpose. All the costs relating to transportation, salaries and other expenses of such personnel shall be borne by CDB; and
- (xix) include a provision in bidding documents, requests for proposals and contracts entered into by them relating to the execution of the Project in order to:
- (aa) allow CDB, its investigators, agents, auditors or experts, to inspect accounts, records and other documents relating to the submission of bids and to the performance of the corresponding contract or agreement; and
 - (bb) provide that such accounts, records, and documents may be submitted to the auditors designated by CDB for an opinion.
- (c) SVGCL shall and in accordance with IFC guidelines, decommission Site W1, if Site W1 is determined to be unsuitable for production.
- (d) SVGCL shall submit monitoring reports to the appropriate GOSVG authorities, on, but not limited to, air emissions, ambient air quality, noise and vibrations, effluent quality, groundwater quality and solid waste, in accordance with the frequency identified in the ESMP set out at Appendix 4.6
- (e) SVGCL shall insert the CDB and the CTF logos on all documents and publications and on all equipment financed with the SVGCL Grant; and make reference to CDB and CTF as the source of financing in any event, meeting, press conference or communication or website in which reference is made to the Project.

- (f) CDB shall be entitled to suspend, cancel or require a refund of the SVGCL Grant, or any part thereof, if the CTF funds allocated for the SVGCL Grant, or the GOSVG Grant or any part thereof is suspended, cancelled or required to be refunded, and if at any time CDB determines that any representative of SVGCL has engaged in Prohibited Practices in connection with the use of the SVGCL Grant without SVGCL having taken timely and appropriate action satisfactory to CDB to address such practices when they occur, except that SVGCL shall not be required to refund any amount of the SVGCL Grant already expended in connection with the Project and not recoverable by SVGCL.”

SOCIAL CONTEXT

1. The Project area (including drill pad, injection pads at two sites, feeder roads and support infrastructure) is located within the Georgetown and Sandy Bay census districts. Project-affected communities within these two census districts and others along the North Windward Corridor *inter alia*, Overland, Waterloo and Orange Hill consist of 1,209 households with a population of 4,300 people: 2,207 males and 2,093 females, as shown in Table 2.1. The communities comprise residents and farmers located in proximity to the exploration drill and injection pads at site W1, as well as others residing and working along secondary roads leading from the Windward Highway to the project site. These coastal settlements are located in reasonably close proximity to the project area.

TABLE 2.1: POPULATION OF COMMUNITIES IN THE PROJECT AREA BY SEX

District	Households	Males	Females	Total
Georgetown	314	465	427	892
Sandy Bay	231	484	461	945
Overland hill and Big Level	342	734	706	1,440
Waterloo, Orange Hill and Tourama	106	180	146	326
Chapman's and Langley	216	344	353	697
TOTAL	1,209	2,207	2,093	4,300

Source: St. Vincent and the Grenadines National Population and Housing Census, 2012

2. These communities are home to descendants of the indigenous Garifuna People and despite being overly represented in the poverty, inequality and vulnerability statistics, exhibit a strong sense of community cohesion. High unemployment levels characterise communities along the North Windward Corridor to be 26% (2016 Population and Housing Census Report) and in excess of 35% by the 2015 Labour Force Survey. According to the CDB-supported Country Gender Assessment (2016), women are inordinately represented in the unemployment statistics given labour market segmentation and male- domination in agriculture, fisheries and construction, the main economic sectors along the Corridor.

3. In addition to project-affected communities, commuters using the Windward Highway from Kingstown to Sandy Bay and those traversing areas within the Project's sphere of influence for traditional and recreational activities such as fishing or hiking will be affected. In particular, hikers using the popular trail to the volcano will be affected.

ECONOMIC CONTEXT

1. In recent years, the growth of the SVG's economy has been slow, real per capita income has stagnated, and unemployment has inched upward. Following negative growth in Gross Domestic Product (GDP) during 2009 to 2011, growth returned positive in 2012, but has subsequently remained low at an average annual growth rate of 1.3%. In 2017, growth slowed to a mere 0.5% (see Table 1) as a result of a sharp 18.2% fall-off in the GDP of the Hotel and Restaurants sector, following the closure of a large, British-owned hotel on mainland St. Vincent). In the last decade, per capita income has increased by a mere 1% to \$5,909.60 from \$5,850.00 in 2008, reflecting the country's sluggish growth.

TABLE 1: SELECTED ECONOMIC INDICATORS, 2013-2017

	2013	2014	2015	2016	2017
Real GDP Growth (%)	1.8	1.0	1.8	1.3	0.5
Average Inflation (%)	0.8	0.2	(1.7)	(0.1)	2.2
Primary Balance (% of GDP)	(3.7)	0.3	0.3	3.2	0.2
Public Sector Debt (% of GDP)	74.2	79.5	78.0	82.0	78.1

Source: GOSVG.

2. SVG's economic recovery from the global financial crisis of 2007, has been hampered by a series of natural disasters, sluggish global demand, lower domestic construction activity following the completion of works on the International Airport at Argyle and the slow implementation of other key public infrastructure Projects. In recent years, GOSVG's economic policy agenda has focused on implementing measures to address continuing structural vulnerabilities, human capital constraints and infrastructural deficiencies that serve as barriers to stronger economic growth, higher incomes and reduced poverty. Government has allocated significant capital to developing the country's transportation and utility infrastructure base, aimed at providing quality and efficient infrastructure systems that can improve the business environment, facilitate production, transportation and trade, and help spur growth and diversification in areas such as tourism, agro-business and fish-processing, among others. In addition to the recently completed international airport, GOSVG has planned investments to modernise port facilities and upgrade other key transportation infrastructure.

3. SVG's economy is highly open. Economic activity is heavily reliant on imported energy. Imported energy cost is also identified as a key bottleneck to doing business and private investment growth, and is a significant component influencing domestic price movements and economic volatility in SVG. Maximising exploitation of domestic primary, renewable energy resources such as geothermal energy to secure reliable and more affordable energy is also a key component of the Government's growth and poverty reduction strategies.

DRAFT TERMS OF REFERENCE
PROJECT ADMINISTRATOR

1. OBJECTIVE

1.01 The objective of the consultancy is to provide project administrative services for the Geothermal Drilling Project.

2. SCOPE OF WORK

2.01 The Consultant shall undertake the following tasks:

- (a) manage the online Document Control Centre for the Project;
- (b) provide general support for the Project Team (setting up meetings, taking minutes, coordinating local events, etc);
- (c) set-up and manage a system for filing and archiving hard copies of technical documentation;
- (d) manage time reporting processes (e.g. indirect costs) as required;
- (e) develop and maintain information management training plans; and
- (f) support the preparation reports on project activities.

3. QUALIFICATIONS AND EXPERIENCE

3.01 The selected individual should have at least a Bachelor's Degree in a relevant field and at least 7 years of administrative experience.

BUDGET
(USD)

Item	CDB	GOSVG	Total
Consultancy Services:			
1. Professional Fees		-	
2. Report Preparation and Reproduction	60,000	-	
3. Gratuity		-	
Counterpart Contribution:			
4. Local Transportation	-		
5. Professional, Technical and Administrative Support	-	55,500	
6. Office Accommodation and Communications	-		
Sub-total	60,000	55,500	115,500
7. Contingencies	9,000	8,325	17,325
Total	69,000	63,825	132,825

DRAFT TERMS OF REFERENCE
HEALTH, SAFETY AND ENVIRONMENT COORDINATOR

1. OBJECTIVE

1.01 The objective of the consultancy is to provide project management in the area of health, safety and environment for the Geothermal Drilling Project.

2. SCOPE OF WORK

2.01 The Consultants shall undertake the following tasks:

- (a) conduct safety meetings, Health, Safety and Environment (HSE) work site observations and complete Incident Reports as required;
- (b) facilitate new employee orientations as needed;
- (c) review and assist in the administration of the Occupational HSE Policies and Procedures;
- (d) organise training for employees as required;
- (e) ensure compliance to CDB's and IDB's environmental safeguards;
- (f) provide reports on HSE project issues;
- (g) respond to inquiries from employees regarding HSE policies and company programs; and
- (h) assist in HSE training of sub-contractors and management of sub-contractor works.

3. QUALIFICATIONS AND EXPERIENCE

3.01 The selected individual should have at least a Bachelor's Degree in a relevant field and at least 5 years of experience working as a health, safety and environment coordinator.

BUDGET
(USD)

Item	CDB	GOSVG	Total
Consultancy Services:			
1. Professional Fees		-	
2. Air Travel		-	
3. Accommodations	146,400	-	
4. Report Preparation and Reproduction		-	
5. Gratuity		-	201,900
Counterpart Contribution:			
6. Local Transportation	-		
7. Professional, Technical and Administrative Support	-	55,500	
8. Office Accommodation and Communications	-		
Sub-total	146,400	55,500	201,900
9. Contingencies	21,960	8,325	30,285
Total	168,360	63,825	232,185

DRAFT TERMS OF REFERENCE
PROJECT ACCOUNTANT

1. OBJECTIVE

1.01 The objective of the consultancy is to provide accounting services for the Geothermal Drilling Project and to prepare disbursement request documentation for submission to the CDB.

2. SCOPE OF WORK

2.01 The Consultants shall undertake the following tasks:

- (a) maintain accounting system(s) for invoices and journal entries;
- (b) prepare financial statements;
- (c) monitor project expenditures and keep project accounting information up to date;
- (d) develop and maintain cash flow projections and supporting Project budget;
- (e) manage and support local tax (e.g. payments and recoveries) and Customs processes;
- (f) prepare documentation for submission of disbursement requests to the CDB;
- (g) review tariff evaluations and input data using agreed tariff financial model; and
- (h) prepare and maintain documentation to accommodate CDB financial audits.

3. QUALIFICATIONS AND EXPERIENCE

3.01 The selected individual should have at least a Bachelor's Degree in Accounting, at least 5 years of accounting experience and should be certified by an accredited and recognised accounting authority.

BUDGET
(USD)

Item	CDB	GOSVG	Total
Consultancy Services:			
1. Professional Fees		-	
2. Air Travel		-	
3. Accommodations	146,400	-	
4. Report Preparation and Reproduction		-	
5. Gratuity		-	201,900
Counterpart Contribution:			
6. Local Transportation	-		
7. Professional, Technical and Administrative Support	-	55,500	
8. Office Accommodation and Communications	-		
Sub-total	146,400	55,500	201,900
9. Contingencies	21,960	8,325	30,285
Total	168,360	63,825	232,185

REVISED PROJECT COST, PHASING AND FINANCING PLAN
(\$'000)

Item	2016 - 2017								2018								
	CDB SFR				SVGCL	GOSVG			Total	CDB SFR				SVGCL	GOSVG		Total
	CTF	GEF Funds	DFID ¹	EU-CIF ²		ADFD	GONZ	CTF		GEF Funds	DFID ¹	EUCIF ²	ADFD		GONZ		
1. Project Preparation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2. Land, Crop Compensation and Resettlement	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3. Integrated Drilling Services (Total)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3.1 Civil Works	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3.2 Drilling Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3.3 Rig fuel consumption	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4. Offsite Infrastructure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5. Project Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6. Engineering Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7. TA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BASE COSTS	-	-	-	-	4,645	-	-	4,645	4,700	26	4,645	349	1,379	-	-	11,099	
8. Physical Contingency ³	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sub-total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9. Price Contingency ⁴	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total Financing Costs	-	-	-	-	4,645	-	-	4,645	5,276	29	5,131	419	1,523	-	-	12,378	
Percentage Contribution (%)	-	-	-	-	100	-	-	-	43	-	41	3	12	-	-	1	

¹ Revised Exchange Rate: GBP1= \$1.2828

² Exchange rate of EUR 1=\$1.1573

³ Physical Contingencies applied as follows:

⁴ Price Contingencies:

This information is withheld in accordance with one or more of the exceptions to disclosure under the Bank's Information Disclosure Policy.

REVISED PROJECT COST, PHASING AND FINANCING PLAN CONT'D
(\$'000)

Item	2019							
	CDB SFR				SVGCL	GOSVG		Total
	CTF	GEF Funds	DFID ¹	EU-CIF ²		ADFD	GONZ	
1. Project Preparation	-	-	-	-	-	-	-	-
2. Land, Crop Compensation and Resettlement	-	-	-	-	-	-	-	-
3. Integrated Drilling Services (Total)	8,974	-	-	-	-	-	-	-
3.1 Civil Works	-	-	-	-	-	-	-	-
3.2 Drilling Services	-	-	-	-	-	-	-	-
3.3 Rig fuel consumption	-	-	-	-	-	-	-	-
4. Offsite Infrastructure	-	-	-	-	-	-	-	-
5. Project Management	-	-	-	-	-	-	-	-
6. Engineering Services	-	-	-	-	-	-	-	-
7. Technical Assistance	-	-	-	-	-	-	-	-
BASE COSTS	8,974	384	-	4,611	1,171	2,194	342	17,676
8. Physical Contingency ³			-					
Sub-total			-					
9. Price Contingency ⁴			-					
Total Financing Costs	10,224	449	-	5,319	1,314	2,500	399	20,203
Percentage Contribution (%)	51	2	-	26	6	12	2	-

¹ Revised Exchange Rate: GBP1= \$1.2828

² Exchange rate of EUR 1=\$1.1573

³ Physical Contingencies applied as follows

⁴ Price Contingencies:

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REVISED PROJECT COST, PHASING AND FINANCING PLAN CONT'D
(\$'000)

Item	2020								TOTAL									
	CDB SFR				SVGCL	GOSVG			Total	CDB SFR					SVGCL	GOSVG		Total
	CTF	GEF Funds	DFID ¹	EU-CIF ²		ADFD	GONZ	CTF		GEF Funds	DFID ¹	EU-CIF ²	Sub-Total	ADFD		GONZ		
1. Project Preparation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2. Land, Crop Compensation and Resettlement	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3. Integrated Drilling Services (Total)	-	-	-	-	-	-	-	-	13,675	-	-	-	-	-	-	-	-	
3.1 Civil Works	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3.2 Drilling Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3.3 Rig fuel consumption	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4. Offsite Infrastructure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5. Project Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6. Engineering Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7. Technical Assistance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BASE COSTS	-	96	-	-	-	-	85	181	13,675	506	4,645	4,980	23,786	7,195	2,194	427	33,602	
8. Physical Contingency ³	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sub-total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9. Price Contingency ⁴	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total Financing Costs	-	113	-	-	-	-	101	215	15,500	592	5,131	5,737	26,960	7,482	2,500	500	37,442	
Percentage Contribution (%)	-	53	-	-	-	-	47	-	41	2	14	15	72	20	7	1	-	

¹ Revised Exchange Rate: GBP1= \$1.2828

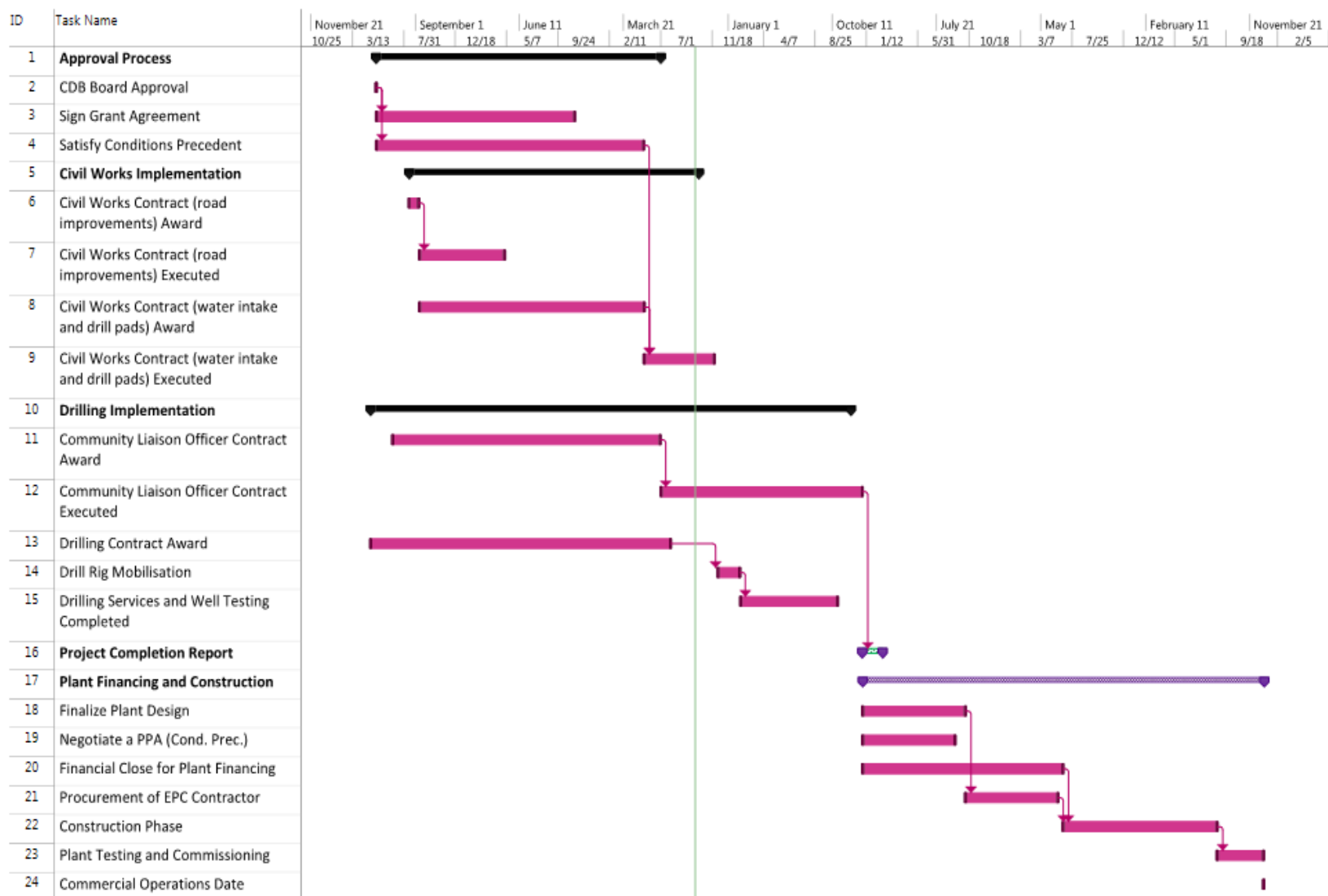
² Exchange rate of EUR 1=\$1.1573

³ Physical Contingencies applied as follows:

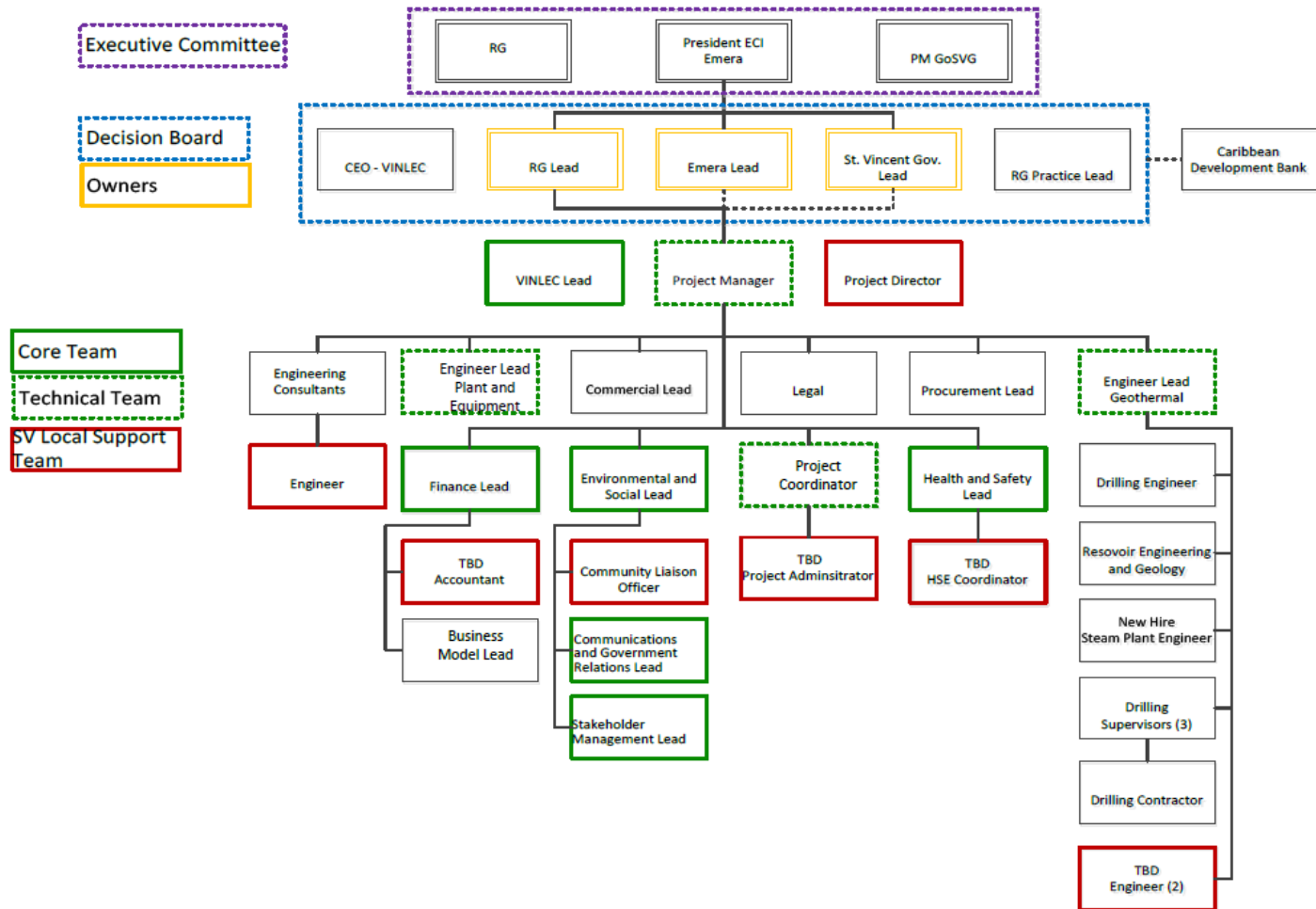
⁴ Price Contingencies:

This information is withheld in accordance with one or more of the exceptions to disclosure under the Bank's Information Disclosure Policy.

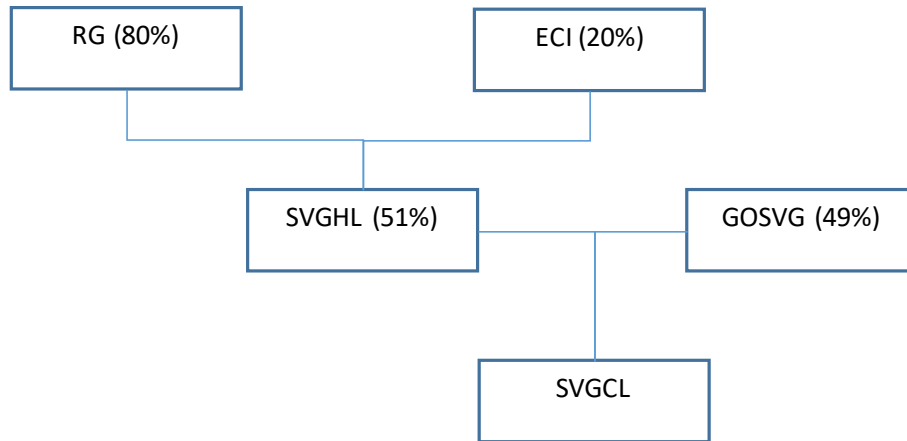
REVISED PROJECT IMPLEMENTATION SCHEDULE



REVISED PROJECT MANAGEMENT STRUCTURE



**CURRENT SHAREHOLDING STRUCTURE OF
ST. VINCENT GEOTHERMAL COMPANY LIMITED**



REVISED ESTIMATED QUARTERLY DISBURSEMENT SCHEDULE
 (\$'000)

Year	Quarters	CTF	GEF	DFID	EU-CIF	Total Disbursements	Cumulative Disbursements
2018	4	5,276	29	5,029	471	10,855	10,855
Sub-Total		5,276	28	5,029	471	10,855	
2019	1	2,556	112	25	1,343	3,998	14,853
	2	2,556	112	25	1,343	3,998	18,851
	3	2,556	112	25	1,343	3,998	22,848
	4	2,556	112	25	1,343	3,998	26,846
Sub-Total		10,224	448	102	5,370	16,432	
2020	1	0	114	0	0	114	26,960
Sub-Total		0	114	0	0	114	
Grand Total		15,500	592	5,131	5,841	26,960	

REVISED RESULTS MONITORING FRAMEWORK

Project Impact				
Improved ability to reach financial close for a geothermal plant, if exploratory drilling results are favourable.				
Outcome	Indicator	Baseline	Target	Data Sources, Reporting Mechanisms and Report Frequency
Enhanced capability of SVGCL to make an evidenced-based determination of the feasibility of continuing geothermal resource development in the La Soufrière region for electricity production.	Acceptance by SVGCL of a report with recommendations including information on reservoir performance and other new data from the exploratory drilling	No	Yes	<ol style="list-style-type: none"> 1. SVGCL's records. 2. SVGCL's revised Business Plans. 3. CDB/IDB independent verification reports.
Assumptions for achieving Outcomes				
Test results and analysis of well characteristics are conclusive.				
Output	Indicator	Baseline	Target	Data Sources, Reporting Mechanisms and Report Frequency
1. Three exploratory wells completed.	Number of wells completed	0; 30/06/2016	3; 31/12/2019	Field visits/Engineering consultant reports/monthly
2. Well log and test results.	Independent verification of test results.	No; 30/06/2016	Yes; 31/12/2019	Project Completion Report (PCR). SVGCL's records.
3. Stakeholder consultations on project implementation completed.	Average percentage of consultation participants that are women.	NA; 30/06/2016	20; 31/12/2019	PC reports/quarterly/Stakeholder consultation reports
Assumptions for achieving Outputs				
No natural hazard events or severe weather conditions occur during the construction period.				

PERFORMANCE ASSESSMENT SYSTEM

PAS	Criteria	Score	Justification
4	Relevance	Highly Satisfactory	The Project is consistent with GOSVG’s policy objectives of reducing dependence on imported fossil fuel and expanding exploitation of indigenous energy sources. The Project is consistent with CDB’s strategic objective of “supporting inclusive and sustainable growth and development”, the corporate priority to “promote environmental sustainability” and the cross-cutting theme of energy security. The project is in the form of a Public Private Partnership and is implemented jointly by GOSVG and the private sector.
3	Effectiveness	Satisfactory	The outcome of the project is expected to be fully achieved on completion and testing of the geothermal wells. The approach being taken for evaluating the geothermal resource is consistent with standard industry practice. The private sector partners contribute specialist knowledge and experience that will ensure successful completion.
3	Efficiency	Satisfactory	The civil works contract is progressing on schedule and within budget. Revised project costs are in line with prevailing market rates for the works and services to be provided.
3	Sustainability	Satisfactory	Once the viability of the geothermal resource is proven and a commercial plant is built to convert the steam resource into electricity, SVG will have a reliable source of electricity which will displace a large volume of imported fossil fuels. The wells are expected to remain in production for the life of the geothermal plant, i.e. 25 years. A satisfactory tariff calculating model has been agreed by the stakeholders. GOSVG has demonstrated commitment to driving the project to completion.
3.25	Overall Score	Satisfactory	

REVISED PROCUREMENT PLAN

A. General

1. Project information:

Country: St. Vincent and the Grenadines

Project Name: Geothermal Project – St. Vincent and the Grenadines

Beneficiary: SVGCL and GOSVG

Project Executing Agency: SVGCL

2. Bank’s Approval Date of the revised Procurement Plan: October 24, 2018

3. Period covered by this Procurement Plan: October 24, 2018 to October 31, 2019

B. Goods and Works

1. Prior Review Threshold: Procurement Decisions subject to Prior Review by the Bank as stated in Appendix 2 to the Guidelines for Procurement.

	Procurement Method	Prior Review Threshold	Comment
1.	Limited International Bidding (LIB)	■	.
2.	Regional Competitive Bidding (RCB)	■	
3.	Non-Bank Funded	No review	Procurement procedures of SVGCL apply.

2. Prequalification: Yes – for integrated drilling services contract and drilling works contact

3. Reference to Project Operational/Procurement Manual: CDB’s Guidelines for Procurement (2006).

4. Any Other Special Procurement Arrangements:

- (i) Given the limited number of appropriately qualified and experienced drilling contractors the procurement method of limited international bidding shall be employed and country eligibility shall be unrestricted;
- (ii) Where CTF and GEF resources are used, procurement eligibility shall be extended to IDB member countries which are not CDB member countries; and
- (iii) Where EU CIF resources are used, procurement eligibility shall be extended to countries eligible for procurement under EU-funded projects which are not CDB member countries.

This information is withheld in accordance with one or more of the exceptions to disclosure under the Bank’s Information Disclosure Policy.

5. Procurement Packages with Methods and Time Schedule:

1	2	3	4	5	6	7	8
Ref No.	Contract (Description)	Estimated Cost	Procurement Method	Prequalification (Yes/No)	Bank Review (Prior/Post)	Expected/Actual Bid-Opening Date	Comments
1.1	Integrated Drilling Services –Drilling Contract	█	LIB	Yes	Prior	February 12, 2016	
1.2	Integrated Drilling Services –Civil Works Contract	█	LIB	Yes	Prior	February 12, 2016	Contracted
1.3	Drilling Fuel	█	RCB	Yes	Prior	January 31, 2019	
2.	Off Site Infrastructure	█	NBF	No	N/A	N/A	

C. Consultancy Services

- 1. Prior Review Threshold:** Procurement decision subject to prior review by the Bank as stated in Appendix 1 to the Guidelines for the Selection and Engagement of Consultants:

	Procurement Method	Prior Review Threshold	Comment
1.	ICS	█	

- 2. Shortlist comprising entirely of national consultants:** N/A

- 3. Reference to (if any) Project Operational/Procurement Manual:** CDB Guidelines for Selection and Engagement of Consultants 2011

- 4. Any Other Special Procurement Arrangements:** Where GEF resources are used, procurement eligibility shall be extended to IDB member countries which are not CDB member countries;

5. Procurement Packages with Selection Methods and Time Schedule:

Ref No.	Contract (Description)	Estimated Cost	Selection Method	Review by Bank (Prior/Post)	Expected/Actual Bid-Opening Date	Comments
1	Engineering Services - Supervision	█	NBF	N/A	N/A	
2	SVGCL Project Management	█	NBF	N/A	N/A	
2.1	Geothermal Drilling Project Management Services - Accountant	█	ICS	Prior	29-Mar-19	
2.2	Geothermal Drilling Project Management Services - Project Administrator	█	ICS	Prior	29-Mar-19	
2.3	Geothermal Drilling Project Management Services - HSE Coordinator	█	ICS	Prior	29-Mar-19	
2.4	Geothermal Project Management Services - GONZ	█	NBF	NA	NA	
3	Technical Assistance - CLO	█	ICS	Prior	29-Jul-16	Contracted

This information is withheld in accordance with one or more of the exceptions to disclosure under the Bank's Information Disclosure Policy.

D. Implementing Agency Capacity Building Activities with Time Schedule

N/A

E. Summary of Proposed Procurement Arrangement

Project Component	CDB (\$'000)				NBF (\$'000)		Total Cost (\$'000)
	LIB	RCB	ICS	QCBS	Country	SVGCL	
1. Integrated Drilling Services – Drilling Services			-	-		-	
2. Integrated Drilling Services – Civil Works			-	-	-	-	
3. Integrated Drilling Services – Drilling Fuel			-	-	-	-	
4. Off Site Infrastructure			-	-	-		
5. TA - CLO				-	-	-	
6. Engineering Services			-	-	-		
7. Project Management			-				
Total							

- | | | | | | |
|-----|---|-----------------------------------|------|---|--------------------------------------|
| CQS | - | Consultant Quality Selection | NCB | - | National Competitive Bidding |
| DC | - | Direct Contracting | UCP | - | Unrestricted Competitive Procurement |
| FA | - | Force Account | QCBS | - | Quality and Cost-Based Selection |
| FBS | - | Fixed Budget Selection | QBS | - | Quality-Based Selection |
| ICB | - | International Competitive Bidding | RCB | - | Regional Competitive Bidding |
| IS | - | Individual Selection | SSS | - | Single Source Selection |
| NBF | - | Non-Bank Financed | | - | |

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SUMMARY OF THE ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

BACKGROUND

1. SVGCL is proposing about 10-15 megawatts geothermal power development in northern St. Vincent, on the southern slopes of the La Soufrière Volcano. The Project would be the first of its kind in SVG and consists of the exploratory drilling and testing of three geothermal wells on 1-2 well pads and associated project facilities (e.g., water system, road improvements).

2. The Project's objective is to confirm La Soufrière Volcano geothermal reservoir characteristics and suitability for production through exploratory drilling. After confirmation, SVGCL intends to continue to power production¹.

3. The Project must adhere to National guidelines as well as IFC's PS on Environmental and Social Sustainability (2012) and applicable IFC Environmental, Health, and Safety Guidelines. An Environmental and Social Impact Assessment (ESIA) of the Project, covering only drilling exploration/production wells was prepared by consultants. An Environmental and Social Action Plan (ESAP) also prepared by the consultants identifying and prioritising actions needed to address gaps in the project design to bring a Project in line with IFC's PS is at Table 1 below.

PROJECT DESCRIPTION

4. The Project consists of the exploratory drilling and testing of three geothermal wells on 1-2 well pads and associated project facilities (e.g., water system, road improvements). Activities involve drilling deep wells (between 1,000 to 3,000 meters [m] deep) in the earth's crust to characterise the thermal heat resource contained in underground reservoirs of geothermal water or steam. The wells are drilled in clusters within drill pads or platforms. Exploratory drill wells bring to the surface a mixture of steam, gas, and water, known as brine. Drilling wells are allowed to let brine out (i.e., blow testing) to confirm the well production capacity. Injection wells return the brine and other geothermal fluids from the exploratory wells back underground.

5. SVGCL has requested approval for two exploratory drill pads, referred to as W1 and W3. SVGCL has indicated that they will construct the drill pads in sequence: first W1 and, if exploratory blow testing does not result in favourable results, then W3. If W1 blow testing results in favourable results, W3 will not be required. The main project components include the exploratory drill pads (W1 and W3), a water system (including a water intake, water supply pipeline, and a water storage pond), and injection well pads (one for each site).

KEY PROJECT IMPACTS AND MITIGATION MEASURES

6. The following are the key project impacts and mitigation measures:

- (a) **Soil Erosion:** The Project will disturb steep slopes in a relatively wet climate, and so has the potential for significant soil erosion. A Soil and Erosion Control Plan will be developed and implemented to adequately manage this potential risk.
- (b) **Noise:** Drilling and blow testing could generate noise levels of up to 120 dBA. This intensity of noise, combined with 24-hour drilling, although temporary, results in exceedances of international night-time noise standards (45 dBA) at distances of

¹ A separate ESIA will be prepared if the geothermal characteristics are determined suitable for power production.

approximately 200 m (steam blow testing) to 500 m (drilling). As drilling noise can vary by drill rig, noise levels will be monitored immediately upon the initiation of drilling and a Corrective Action Plan implemented (e.g., additional noise mitigation or physical resettlement) if noise levels exceed standards. Necessary personal protective equipment will be provided for employees and possibly ear protection for nearby farmers. Implementation of these measures, and at the worst case limited additional physical resettlement, should adequately manage these risks.

- (c) **Water Resources:** - SVGCL proposes to withdraw water from the Rabacca River to meet the Project's exploratory drilling water demands which primarily involves mixing water with bentonite (a clay) to serve as a lubricant. For the initial stages of drilling, there should be sufficient water in the Rabacca River to meet the Project's estimated water needs (0.2 L/s) and still leave sufficient water to support aquatic life in the river. During the final stage of drilling, however, the Project's water demand increases to 40 L/s for approximately 20 days. Construction will be scheduled to avoid the final stage of drilling coinciding with the end of the dry season (January – March) to adequately manage these risks.
- (d) **Aquatic Biodiversity:** - The proposed water withdrawals from the Rabacca River, depending on the time of year, could result in the loss of some aquatic habitat. Migratory shrimps and the Sirajo goby fish rely on increased freshwater inputs from the river as a cue to begin migrating upstream. Proposed water withdrawals will decrease the volume of freshwater thereby reducing the strength of this migratory cue. These species also require a connected river system in order to reach upstream spawning habitat and for larvae to descend to the coast. Some of these species could be entrained at the Project water intake or be susceptible to unplanned hazardous material spills. Avoiding/minimising large water withdrawals during the end of the dry season, minimise the water intake velocity to the extent possible, and install wedge wire screens on the water intake to minimise entrainment, and implement spill control plans. These measures should adequately manage these risks to aquatic biodiversity.
- (e) **Terrestrial Biodiversity:** - The Project will only directly impact a small area of modified habitat (e.g., banana plantation). The Project will also not directly impact any protected areas, but will result in the temporary degradation of habitat quality as a result of noise, light, and increased human activity within the nearby La Soufrière National Park and Mount Pleasant Forest Reserve. Two of the species are expected to occur in the project area are listed on the IUCN Red List of Endangered Species: the St. Vincent Parrot (listed as Vulnerable) and the St. Vincent Whistling Frog (listed as Endangered). Pre-clearing surveys will be conducted immediately prior to construction to flush wildlife from areas to be disturbed, relocate sessile/limited mobility species to undisturbed sites to the extent practicable, and enforce a strict no hunting/collecting policy for Project workers. As operationally possible construction will be avoided during the St. Vincent Parrot breeding season to avoid disturbing nesting birds. Minimise noise from drilling and steam blow testing as described below. Implementation of these measures should adequately manage these risks.
- (f) **Waste Management:** - The Project will generate drill muds, drill cuttings, domestic wastewater, and small quantities of other miscellaneous solid wastes. Neither the drill muds nor cuttings are hazardous, and will be stored in a lined mud pond, where the muds will be reused as a drilling lubricant and the cuttings (mostly rock) will settle to the bottom of the pond. After drilling is completed, the mud pond will be properly closed. The Project

will also generate geothermal liquids, which are typically composed of various dissolved minerals. SVGCL proposes to collect and inject these liquids back underground. A latrine with a septic system will be provided to handle worker domestic wastewater. Miscellaneous solid waste will be disposed of in accordance with SVG waste management regulations.

- (g) **Land Acquisition and Economic Displacement:** - The Project design has not advanced sufficiently at this time to completely assess the Project's land acquisition, physical resettlement, and economic displacement requirements. A draft Resettlement Action Plan (RAP) which identifies people subject to physical or economic displacement. Once the project design is finalised (at least for Site W1), and all people identified SVGCL will complete a compensation program and continue to implement the RAP. Based on field review of the general locations for the Project components, physical resettlement is expected to be limited to one family. However, there are small farmers who farm lands in the project area that may lose some crops. Implementing the RAP and negotiating with the affected people regarding compensation in accordance with the IFC Performance Standards should adequately address these issues.

- (h) **Worker Code of Conduct and Grievance Mechanism:** - The Project will require up to 40 workers, about 70% (approximately 28 workers) will be foreign labor. These workers will most likely be housed in nearby communities and will be working at the project site for several months (more if drilling at Site W3 is required). There is always the potential for conflict between foreign workers and local communities and for an increased incidence of negative or harmful practices such as prostitution, gender-based violence. A Worker Code of Conduct will be developed to help manage these potential conflicts and made a contract requirement. In addition, SVGCL will implement the Grievance Mechanism that provides a process to review and address any community complaints (e.g., worker conduct, noise, traffic). Implementation of these measures should adequately manage these risks.

- (i) **Recreation and Tourism:** - The preferred drill pad site, W1, is located along the feeder road to the Bamboo Range Hiking Base Station, where hikers ascend the La Soufrière Volcano, one of the most popular tourist attractions in SVG. The Project will affect these recreational users by increasing noise levels and changing the visual landscape as they pass Site W1. These impacts are considered minor as the noise and visual effects are quickly reduced to negligible levels as hikers leave the Base Station and ascend the volcano.

- (j) **Cultural Heritage:** - The Project has the potential to affect the Byera Tunnel, the Orange Hill Aqueduct, and potentially other culturally important sites along the transport route to the pad sites. A Journey Management Plan will be developed to help ensure measures are in place to protect these historic resources. There is also the potential that unanticipated discoveries may occur during construction, given the number of other archaeological sites known to occur in the project area. A Chance Finds Plan will be adopted and implemented. Implementation of these plans should adequately manage these risks.

CONCLUSIONS

7. The ESIA concludes that the proposed St. Vincent Geothermal Project will result in environmental and social impacts, but these impacts can be readily mitigated and managed. The Project should comply with the requirements of the IFC Performance Standards as long as actions identified in the Environmental and Social Action Plan (ESAP) and the measures included in ESMP are implemented.

8. As a condition precedent to disbursement for the construction works at site W1, SVGCL is required to provide evidence acceptable to CDB that the key actions from the ESAP such as stakeholder engagement, GRM; RAP update and disclosure; erosion and sediment control measures; worker code of conduct; and CLO have been satisfied.

9. As a condition of the CRG, SVGCL will submit monitoring reports in accordance with the frequencies identified in the ESMP for: air emissions, ambient air quality, noise and vibrations, effluent quality, groundwater quality, and solid waste, to the appropriate authority in SVG².

10. It will be a condition of the CRG that if Site W1 is determined to be unsuitable for production that SVGCL decommission the Site in accordance with IFC guidelines.

11. The Engineering Consultants will monitor the contractors' environmental performance and compliance with the mitigation measures stipulated in the contract documents and provide routine reports to CDB. CDB staff will carry out at least two supervision visits in collaboration with IDB and may also utilise services of independent consultants if deemed necessary.

² The Physical Planning Board.

TABLE 1: PROJECT ENVIRONMENTAL AND SOCIAL ACTION PLAN

No.	Action Plan Item	Objectives/Comments	Responsible Party	Timetable for Action to be Completed
Section A: Prior to Construction at Site W1				
1	Stakeholder Engagement	Complete, disclose, and implement a Stakeholder Engagement Plan (SEP) to ensure a) consultation and disclosure of ESIA/ESMP documentation, and b) ongoing community engagement during Construction, Drilling, and Testing.	SVGCL	Prior to Construction at Site W1
2	Grievance Redress Mechanism	Establish an understandable and transparent grievance mechanism that is culturally- appropriate and readily accessible, and at no cost and without retribution for Project Affected Communities, and people who would be physically or economically displaced by the Project.	SVGCL	Prior to CDB Board Approval
3	GOSVG approval.	Secure Government of SVG approval of the Project.	SVGCL	Prior to CDB Board Approval
4	Environmental and Social Management System (ESMS)	Prepare, for lender review and approval, an ESMS for the Project to ensure ongoing compliance with requisite environmental, health and safety and social standards (i.e., adopted environmental, social, health and safety standards, Company commitments as outlined in ESIA) and to meet SVG legal requirements, IFC Performance Standards, and Environmental, Health and Safety Guidelines.	SVGCL	30 days prior to start of construction
5	RAP	Finalise Project land acquisition and economic displacement requirements, finalise RAP consistent with IFC Performance Standards, develop a compensation strategy, and implement the RAP.	SVGCL	Prior to land acquisition and construction
6	Erosion and Sediment Control Plan	Prepare detailed Erosion and Sediment Control Plan for all construction at Site W1, including the water system, drill pad, and injection pad.	SVGCL	Prior to construction at Site W1
7	Worker Code of Conduct	Prepare a Worker Code of Conduct to minimise conflicts with local communities.	SVGCL	Prior to construction at Site W1
8	Journey Management Plan	Prepare Journey Management Plan to minimise traffic and safety issues associated with transported construction equipment and materials to Site W1 for review and approval by the SVG.	SVGCL	Prior to the transport of equipment or materials to Site W1
9	CLO	Hire a CLO to help keep the community informed about the Project and to manage the Grievance Mechanism.	SVGCL	Prior to construction at Site W1
Section B: During Project Construction, Drilling, and Testing at Site W1				
10	Environmental and Social Management Plan (ESMP)	Implement the ESMP.	SVGCL	Throughout Phase I

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLANS

1. The ESMP of the Project will be implemented to prevent, minimise, and offset loss or damage from the proposed Project. ESMP addresses the project activities and issues identified in the ESIA, and set out management strategies in accordance with proposed performance criteria for specified acceptable levels of environmental and social performance. The plans identify:

- (a) Potential impacts on environmental receptors and social values.
- (b) Mitigation strategies.
- (c) Performance monitoring.
- (d) Key Performance Indicators.
- (e) Appropriate corrective actions should an undesirable impact or unforeseen level of impact occur.

2. SVGCL is committed to providing resources essential to the implementation and control of the ESMP. This ESMP is comprised of the following plans:

- (a) Drill Mud and Cuttings Management.
- (b) Noise Management.
- (c) Soil and Erosion Control.
- (d) Water Resources Management.
- (e) Spill Prevention Control and Countermeasures.
- (f) Decommissioning and Restoration.
- (g) Biodiversity.
- (h) Socioeconomic and Health Management.
- (i) Cultural Heritage Resources.
- (j) Transportation and Traffic Management.
- (k) Environmental and Social Monitoring Plan.

3. In addition, SVGCL will develop and ensure implementation of the following plans:

- (a) Emergency Response Plan – defines the procedures to be implemented in a forecasted event (e.g., hurricane or tropical storm) or an unanticipated event (e.g., earthquake, volcano eruptions).
- (b) Journey Management Plan - defines the process all project staff and contractors will follow for planning and undertaking road transport journeys to ensure compliance with community and worker health and safety requirements.
- (c) Local Employment and Supplier Development Plan - outlines the local employment strategies and opportunities for workers and suppliers, and the process by which locals can participate in the bidding and application process.

GENDER MARKER ANALYSIS

Project Cycle Stage	Criteria	Score
Analysis: Introduction/ Background/ Preparation	Consultations with relevant categories of males and females and relevant gender-related public/private sector organisations and Non-Governmental/Community-Based Organisations will take/have taken place.	0.5
	Social analysis identifies gender issues and priorities	0.25
Design: Project Proposal/ Definition/ Objective/ Description	Project interventions/policies address existing gender disparities.	0.5
Implementation: Execution	Active participation of representatives of gender-relevant stakeholders in project execution.	0
	Terms of Reference of consultancy/project coordinating unit/project management unit includes responsibilities and resources, including budgets for gender mainstreaming.	0.5
Monitoring and Evaluation: Results- Monitoring- Framework (RMF)	Sex-disaggregated data included in the baselines, indicators and targets of the RMF	0
Score:		1.75

Scoring Code

Gender Specific (GS) and Gender Mainstreamed (GM): if 3 to 4 points
Marginally Mainstreamed (MM): if 1.5 to 2.5 points.
NO: if projects score zero or 1; if NO please give a justification why

Marginally Mainstreamed: The Project has limited potential to contribute to gender equality.