

Dominica Geothermal Development Company  
Government of Commonwealth of Dominica

## **Dominica Geothermal Risk Mitigation II Project Construction of Transmission Lines and Substations**



## **Abbreviated Resettlement Action Plan (ARAP)**

November 2023

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## Abbreviation

ARAP	Abbreviated Resettlement Action Plan
CLO	Community Liaison Officer
CoI	Corridor of Impact
DGDC	Dominica Geothermal Development Company
DGRMP	Dominica Geothermal Risk Mitigation Project
DOMLEC	Dominica Electricity Services Ltd.
ESF	Environment and Social Framework
ESS	Environment and Social Standard
GLI	Transmission line network from the geothermal power plant to Laudat substation
GFI	Transmission line network from the geothermal power plant to Fond Cole substation
GoCD	Government of Commonwealth of Dominica
GRM	Grievance Redress Mechanism
GTI	Transmission line network from the geothermal power plant to New Trafalgar substation
kV	kilovolt
O&M	Operation and maintenance
PAP	Project Affected Person
PFI	Transmission line network from Padu substation to Fond Cole substation
RAP	Resettlement Action Plan
RoW	Right of Way
SEP	Stakeholder Engagement Plan
TA	Technical Assistance
UGC	Underground Cable

## Executive Summary

**Project Description.** The Dominica Geothermal Risk Mitigation II Project (DGRMP II) aims to enable the development and integration of renewable geothermal energy capacity in Dominica. DGRMP II will support the construction of transmission line networks from Dominica's first domestic geothermal power plant that is developed by the on-going project (DGRMP I) (Component 1) and project management by the Dominica Geothermal Development Company Ltd. (DGDC) (Component 2). The network expansion will take place in four segments:

- (i) A 69 kilovolt (kV) transmission line of about 7.5 km from the geothermal power plant to the Fond Cole substation (GFI) consists of underground and overhead installation. The underground cables will be installed mostly in a public road, except for a few private plots. Land required for trenching will be acquired. The overhead installation will construct about 30 pole structures on private agriculture and/or forest lands on mountainous terrain. One pole structure will require around 160 to 280 m<sup>2</sup> of land, depending on the type of structure. The land will be acquired for the installation of pole structures. For safety, there will be land use restrictions on right of way, i.e., 31m wide corridor, under the overhead transmission lines. The Project will also develop access roads (3-5m wide) for the construction and O&M of the transmission lines. The length of the access road will vary from 20m to about a kilometer. The land under the transmission corridor and access roads will be under easement.
- (ii) A 33 kV underground transmission line, totaling 10 km that connects between the geothermal power plant and Fond Cole substation. The underground cable will be placed in the major road between Trafalgar and Roseau City.
- (iii) An 11 kV underground transmission line of 0.5 km connecting the geothermal power plant to Laudat substation in public land.
- (iv) Two new 69/33/11 kV substations at the Geothermal power plant and Fond Cole; a new 33/2.2 kV substation at New Trafalgar; and a new 33/11 kV substation at Padu. These new substations will be constructed within the properties of existing power stations.

**Objective.** For the construction of a 69kV transmission line network, about 329,400 sq ft (30,602 m<sup>2</sup>) of land will be affected, about 25% of which will be acquired for trenching and the construction of pole structures (approximately, 75,700 sq ft or 7,032 m<sup>2</sup>). The remaining 75% will be under easement (about 253,700 sq ft or 23,570 m<sup>2</sup>), mostly for the access roads. No land acquisition or easement will be required for other segments. The public roads/lands are free from encroachers or squatters. It is expected that the Project will affect about 27 to 28 PAPs. This ARAP surveyed 25 PAPs who will be affected by the current alignment and assesses the Project impact. There will be two to three additional PAPs who will be affected by the final alignment to be determined by the contractor. An ARAP addendum will be prepared for these PAPs.

**PAP Socioeconomic Profile.** The surveyed 25 PAPs are aged between 31 and 82. Majority of them are in their 60s and 70s. Eight PAPs are women. The 24 affected lands are agriculture and/or forest land (one plot is jointly owned by two PAPs). Seven plots are in agricultural use (three are with forests), but the remaining 17 plots are abandoned agriculture land, three of which are with forest. Seven PAPs said agriculture was their primary source of income. Others are retired or in service sector or government. Eight PAPs have low income, earning less than EC\$1,000 per month on average.

**Land Loss.** While the Project's land requirement is overall small, two PAPs will be affected by substantial loss. One PAP will lose about 40% of the affected plot, and another will lose 15% of the affected plot. The

two affected plots are abandoned agriculture. The PAPs do not derive income from the affected plots or are not vulnerable. Additionally, four PAPs will have about 10 to 28% of the affected plots under easement. Three plots are abandoned agriculture. One plot is in agriculture use, but the affected portion of the land is not cultivated.

**Impact on Structures.** The Project does not anticipate impact on structure.

**Impact on Crops/Trees.** Seven PAPs confirmed they had crops/trees on the affected plots, two of whom indicated they had crops/fruit trees. However, the impact is not yet known, until the exact locations of pole structures are determined by the contractor.

**Impact on Livelihood.** Four PAPs derive income from affected land. One PAP will be affected by small land loss for the construction of a pole structure. He has fruit trees on the plot. The others will be affected by midspan/easement only. The impact is not yet known, until the exact location of pole structures are determined by the contractor.

**Vulnerable PAPs.** Among the eight PAPs with low incomes, three are aged above 70, one of whom has illness. Three PAPs derive income from affected plots. One of two vulnerable female PAPs has disability, and 28% of the affected plot will be under easement. She does not derive income from the affected plots.

**Legal and Institutional Frameworks.** Dominica has the Land Acquisition Act, Chapter 53:02 and the Land Survey Act 53:04. The Lands Department under the Ministry of Housing and Lands conducts public surveys and valuation of lands and structures. ESS5 precedes in case there are gaps with the national laws. DGDC has a cooperation agreement with the Lands Department to formalize the relationship in RAP implementation. DGDC will be responsible for the overall ARAP implementation, including coordination with the Ministry of Agriculture and Fisheries, consultations with PAPs, and monitoring the impact on their livelihoods. The Lands Department will be responsible for the land acquisition and easement, i.e., formal valuation, negotiation with individual PAPs, compensation payment, and redressing grievances related to valuation and compensation. ARAP implementation will be verified by the Owner's Engineer.

**Eligibility.** The household survey was carried out between March and September 2023. The cut-off date for the original alignment is March 14, 2023. DGDC later revised the alignment to divert for the new cable car installation. The cut-off date for the diversion is July 28, 2023. The entitlement matrix indicates the type of loss, affected PAPs, and compensation/detailed support.

**Valuation.** The Lands Department considers all affected lands as agricultural land. The current market value is estimated around EC\$7-9 per sq ft (about US\$3 per sq ft). This is the first time in Dominica that overhead transmission lines as high as 69 kV will be installed and easement related land use restrictions will be compensated. The valuation methodology is being determined by the Lands Department. The crops and trees will be valued by the Ministry of Agriculture and Fisheries.

**Compensation.** Compensation for land acquisition and easement will be provided by the Ministry of Housing and Lands. DGDC will compensate for the loss of crops/trees and provide support for livelihood loss and vulnerable PAPs as per the entitlement matrix.

**Community Participation.** DGDC carried out one-on-one interviews and a number of consultations and joint field visits with PAPs to reduce or minimize the impact of land acquisition/easement. DGDC developed a Stakeholder Engagement Plan (SEP) to continue consultations with PAPs and community

members during preparation, construction, and operation phases. SEP lays out DGDC's well-established grievance redress mechanism (GRM). PAPs can file complaints to DGDC's GRM. The draft ARAP and SEP were disclosed on DGDC website in July 2023. Local and national public consultations were carried out in July and August 2023.

**Costs and Budget.** The costs of ARAP implementation is estimated at US\$1.5 million. This does not include the compensation for trees and crops, which will be identified by the Ministry of Agriculture and Fisheries once the final alignment is determined by the contractor.

**Monitoring and Evaluation.** DGDC's Social Specialist will be responsible for monitoring the ARAP implementation, in close coordination with the Lands Department. Upon completion of ARAP implementation, the Social Risks Management Specialist of the Owner's Engineer will prepare the ARAP implementation completion report to verify the compensation payment, including that for easement, assess livelihood impact, and draw lessons learnt.

## 1. Introduction/Project Description

The Dominica Geothermal Risk Mitigation II Project (DGRMP II) aims to enable the development and integration of renewable geothermal energy capacity in Dominica. DGRMP II will support the construction of transmission line networks from Dominica's first domestic geothermal power plant, which will be built by the ongoing DGRMP (first phase). The geothermal power plant is located in the Laudat community in Roseau Valley, south of the island. Both DGRMP and DGRMP II are implemented by the Dominica Geothermal Development Company Ltd. (DGDC), a private company in which the Government currently owns 100% of the shares.

The proposed DGRMP II comprises two components: (1) Transmission Network Development for Integration of the Geothermal Power Plant and (2) Technical Assistance and Project Implementation Support.

Component 1 will entail the construction of new transmission lines and three substations connecting the geothermal power plant with the national electric system load centers in Fond Cole (near Roseau City in the southwest). Network expansion will take place in four segments:

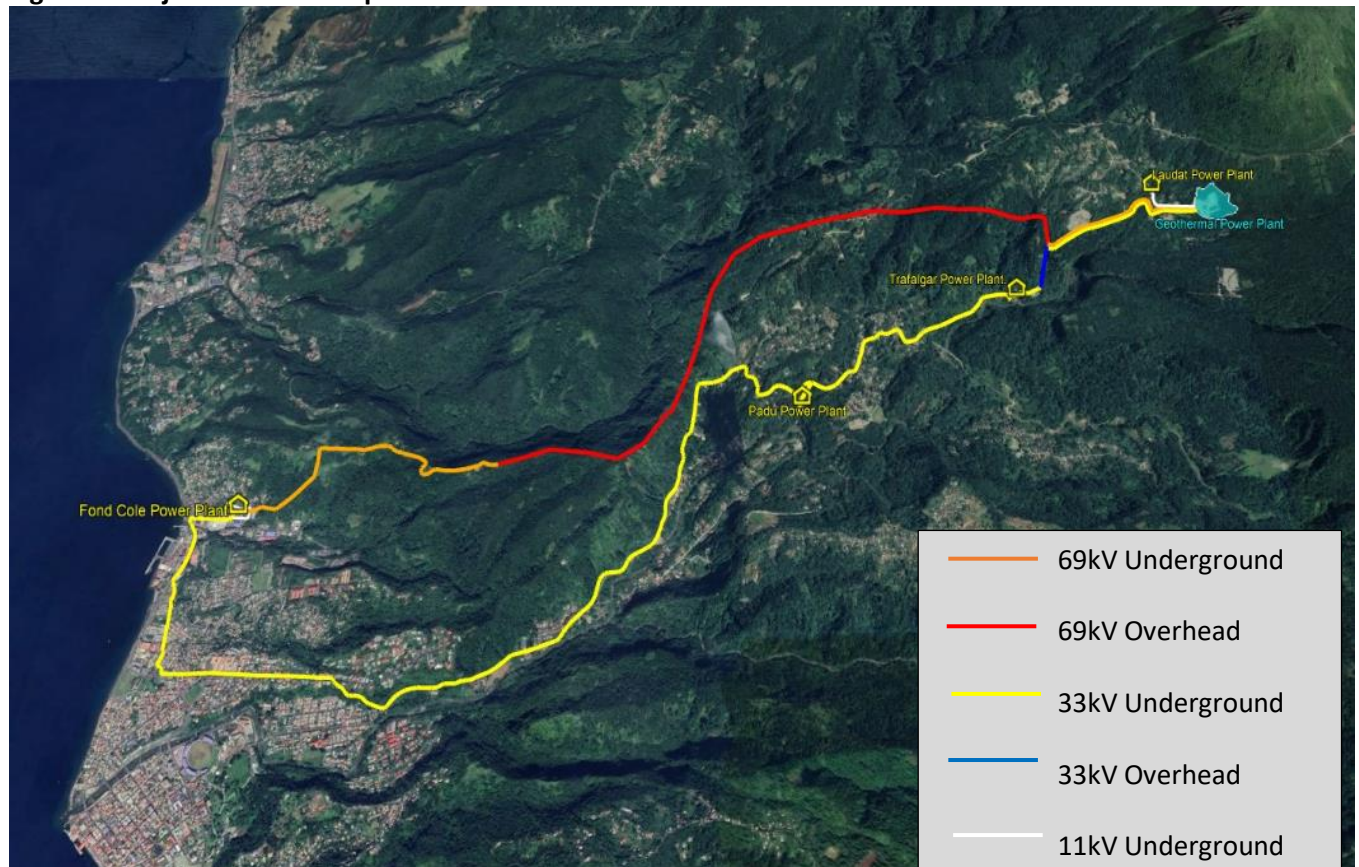
- (v) A 69 kilovolt (kV) transmission line of about 7.5 km from the geothermal power plant to the Fond Cole substation (GFI) consists of underground and overhead installation. To reduce land acquisition and easement in the Glasgow community, a part of GFI transmission line will be installed underground in a public road from the Fond Cole sub-station up to Glasgow community. Thereafter, GFI will switch to an overhead installation with about 20 pole structure sites. The tail-end connection to the geothermal powerplant will switch back to underground.
- (vi) A 33 kV underground transmission line, totaling 10 km that connects between the geothermal power plant and New Trafalgar substation (GTI), between Trafalgar and Padu substations (TPI), and between Padu and Fond Cole substations (PFI). TPI and PFI will be placed under the major road between Trafalgar and Roseau City.
- (vii) An 11 kV underground transmission line of 0.5 km connecting the geothermal power plant to Laudat substation (GLI).
- (viii) Two new 69/33/11 kV substations at the Geothermal powerplant and Fond Cole; a new 33/2.2 kV substation at New Trafalgar; and a new 33/11 kV substation at Padu.

Figure 1 provides the project location map with the transmission line network.

Component 2 will finance project management by DGDC and capacity building of Dominica Electricity Services Ltd. (DOMLEC) in operating new 33kV and 69kV networks.



**Figure 1: Project Location Map.**



## 2. Potential Impact

The Project will require small land acquisition and easement for the construction of a 69kV transmission line network, connecting the geothermal power plant and the Fond Cole substation (GFI). Under the current alignment, 25 Project Affected Persons (PAPs) will be affected by GFI: 22 PAPs by the construction of the overhead transmission line and 3 PAPs by the installation of the underground cable from Glasgow to the Fond Cole substation. The total number of PAPs would reach 27-28, as there will be 2-3 additional PAPs, who can be identified only when the contractor determines the final alignment. An ARAP addendum will be prepared for these PAPs. No civil work will start until all PAPs receive compensations.

For the identified 25 PAPs, the details of the land requirements and impacts are discussed below. The Project will not require any land acquisition for the construction of the 11 kV line and substations, as they will be built within the land already acquired by DGDC. The Project will also not require any land acquisition and easement for constructing 33 kV transmission lines as they will be built within the right-of-way of the existing roads. The right-of-way is free and clear of encroachers and squatters.

### 2.1 GFI Overhead Transmission Line

The overhead segment of GFI traverses from the geothermal power plant to the Glasgow community. Figure 2 provides the original pole structure locations in the red line with the cable car diversion in white (detailed in Section 2.1.4). With the diversion, GFI will require the construction of about 30 pole structures



in total.

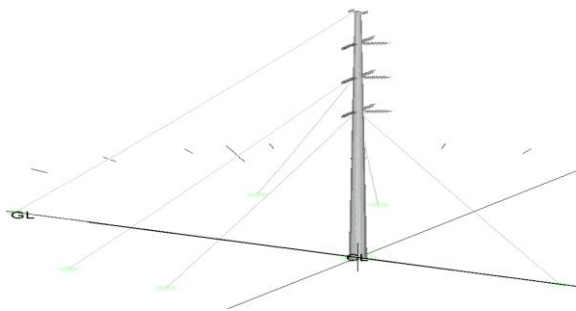
**Figure 2. GFI Overhead Transmission Line from Geothermal to Glasgow**



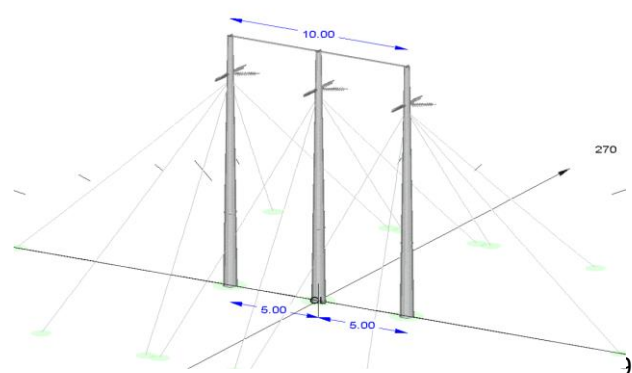
### 2.1.1 Pole Structure

Small land acquisition will be required for the footprint of pole structures. The land acquisition per footprint is estimated between  $160 \text{ m}^2$  and  $280 \text{ m}^2$ , depending on the type of structure (single or three-pole structure). See Figures 3 and 4). The pole height will be 20m. For the single pole structure, the footprint is estimated at around  $160 \text{ m}^2$  (straight) or  $210 \text{ m}^2$  (angled). For the three-pole structure, the footprint would be around  $280 \text{ m}^2$ . The footprint means the pole structure plus the area under several wires to support the structure(s) with stays. The three estimates are calculated based on the assumption that the stays would roughly cover the wire zone (6.5m from the center line) and fall within the border zone (additional 9m from the end of border zone). Figure 5 describes the zones and land use restrictions. Because the transmission line network between the geothermal power plant and the Glasgow community will be constructed in mountainous areas, slopes are built in the footprint estimates.

**Figure 3. Single pole structure with stays**



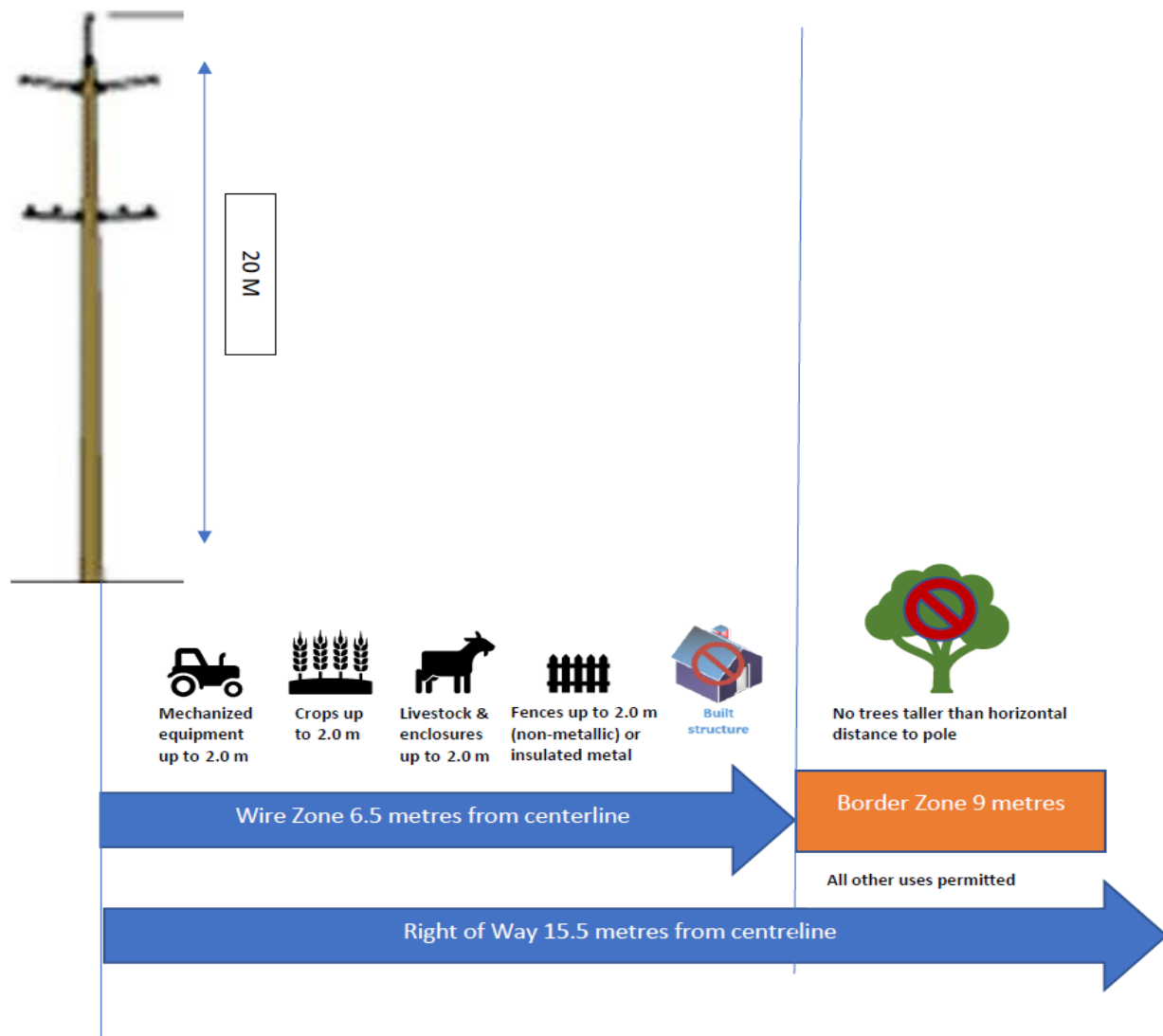
**Figure 4. Three-pole structure with stays**



### 2.1.2 Land Use Restriction on Midspan

This is the first time an overhead transmission line network as high as 69kV will be installed in Dominica. Considering safety and based on international good practices, there will be land use restrictions under overhead transmission lines. No buildings are permitted within the wire zone under the overhead transmission lines. At the pole sites in the **wire** zone, i.e. within a radius of 6.5m around each pole, no structure (e.g., livestock enclosures, fences), mechanized equipment and trees/crops taller than 2m are permitted. At the pole sites in the **border** zone, i.e., in a radius of between 6.5m and 9m around each pole, no tree or structure taller than 6m is permitted (see Figure 5). In addition, along the right-of-way, i.e., midspan between one pole site and another, no structure or tree is allowed within 18m below the conductors.

Figure 5. Right of Way Land Use Restriction



Because of the land use restrictions posed by the 69kv overhead transmission lines, the lands under the transmission lines will be under easement. An easement will be applied to the width of 31m within the right of way, from one pole structure location to another.

### 2.1.3 Land Use Restriction on Access Roads

Majority of pole structure sites will require new access roads for civil work and operation/maintenance (O&M). The access roads will be earthen roads built with locally available *tarish* materials from volcanic gravels. The road width will be between 3 and 5m, and the length will vary from 20m to about a kilometer.

The lands for the access roads will be under easement. All affected lands are forest and/or agriculture lands in mountainous terrain. The access roads would facilitate landowners' easy access to their own lands in the mountains and would have a limited impact on assets and livelihoods. It is, therefore, considered appropriate the land required for access roads would be under easement.

### 2.1.4 Cable Car Bypass

There will be an installation of cable car, and its property has been extended in 2023. The expansion would interfere the pole structure locations that were originally planned by DGDC. To avoid the interference, DGDC is diverting the overhead transmission line. See the white line in Figure 6 below. Note that the locations of pole structures 23b and 24a will be determined by the contractor, thus, 2-3 PAPs are yet to be identified.

Through this diversion, DGDC also avoids the potential impact on business structures (i.e., a cottage/tourism facility and pig pens) and livelihoods of two persons, who would otherwise be affected by the original alignment. The alignment has been shifted slightly to northwest to avoid these structures, thus, these people will no longer be affected by the Project.<sup>1</sup>

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<sup>1</sup> The household survey found the original alignment would affect business structures owned by two households around the original pole structure location 23 (see Figure 6). DGDC had one-on-one consultations and joint field visits with the two owners. Taking the opportunity of the cable car diversion, DGDC is shifting the pole structure location 23 to northwest (23b) to avoid the loss of structure and livelihoods. The location of pole structure 23b will be determined by the contractor.



**Figure 6. Diversion Due to Cable Car Installation**

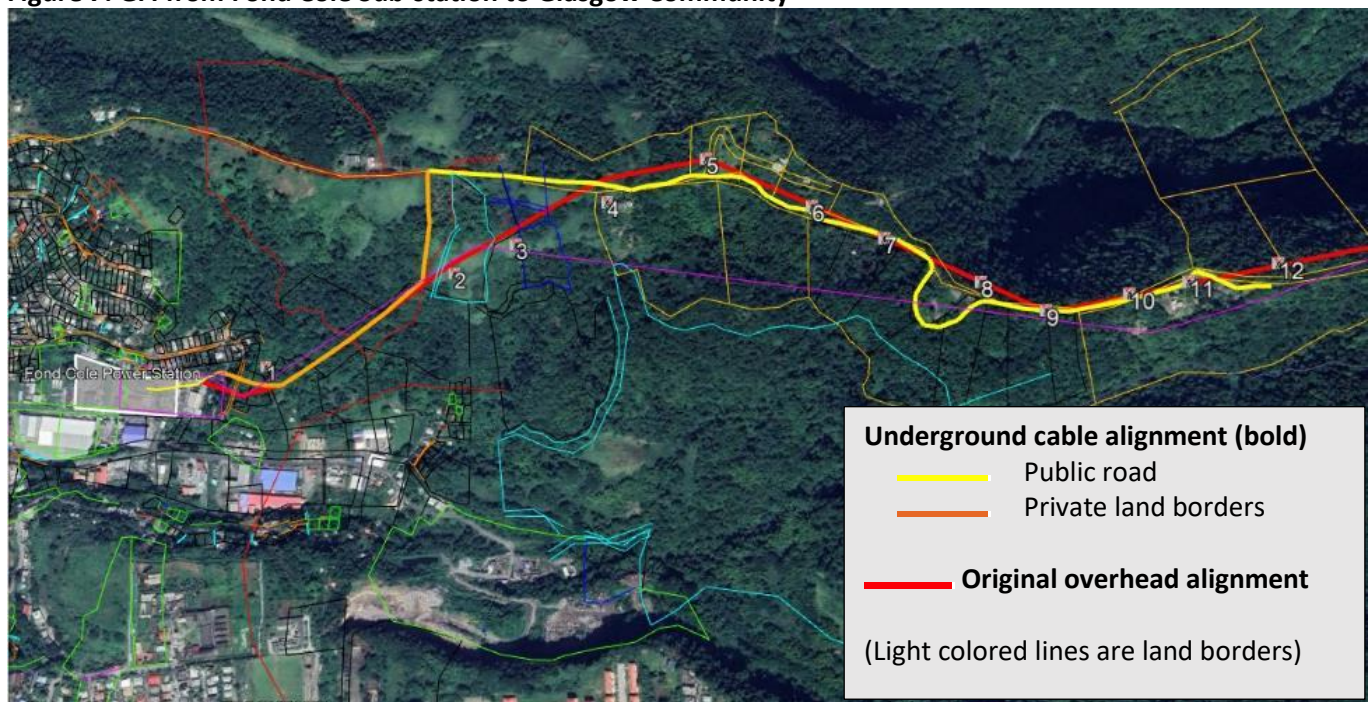


## 2.2 Glasgow Underground Cable

GFI was originally planned to be installed overhead from the geothermal power plant to Fond Cole substation. However, the household survey and field visits found the overhead installation would have an impact on their plans to develop property. To avoid potential social distress associated with routing an overhead transmission line through the Glasgow area as well as high land acquisition costs, DGDC decided to switch to an underground cable from the Fond Cole substation to Glasgow community.

The underground cable installation from Fond Cole to Glasgow will be about 550m. 5m wide corridor will be required for trenching. Total land requirement for this segment will be about 2,750 m<sup>2</sup> (or 29,600.75 sq ft). The underground cable will be installed mostly in public road (bold yellow line in Figure 7). The public road is free from encroachers or squatters. However, there will be a diversion from the public road to connect the cable to the Fond Cole substation (bold orange line in Figure 7). Four land plots will be affected by permanent as well as temporary land acquisition for the diversion towards Fond Cole. To minimize the impact of land acquisition, the diversion (bold orange line in Figure 7) will pass through the land borders. Three affected land plots are privately owned, and one plot is owned by the Government. There is no encroacher or squatter on the public land.

**Figure 7. GFI from Fond Cole Sub-station to Glasgow Community**



### 2.3 Impact from 11 KV and 33 KV Lines and Substations

There will be no land acquisition or easement required for the installation of the 33kV or 11 kV underground cable or the construction/upgradation of four substations. The 33kV underground cable will be installed on the public road, and the 11kV underground cable will be installed on the public land owned by DOMLEC and DGDC. The four substations will be built/upgraded within the boundary of the existing substations. There is no encroacher or squatter on the public lands.

### 2.4 DGRMP II Land Requirements

It is estimated that about 329,430 sq ft of land will be affected by the Project by land acquisition or easement. About 25% of the total land requirement will be acquired for trenching and pole structure locations. The remaining 75% of the land will be under easement, affected by midspan or access roads. Majority of the land under easement will be for access roads (about 75%) (detailed in Table 1):

**Table 1. DGRMP II Land requirements**

	Land Acquisition		Easement		Total
	Trenching	Pole Structure	Span	Access Roads	
<b>Land required (sq ft)</b>	17,715.89	57,979.26	64,337.00	189,398.92	
<b>Total (sq ft)</b>	75,695.15		253,735.92		329,431.07

It is estimated that about 30 lands will be affected by land acquisition and/or easement by the Project. Of the plots affected by the current alignment, 24 lands are privately owned, while two are owned by the Government. It is expected that additional two to three privately owned plots will be affected by the final alignment to be determined by the contractor.



Under the current alignment, the Project will affect 25 PAPs by land acquisition and/or easement. The majority of the PAPs will be affected by both land acquisition and easement. The household survey indicates that there are no tenants, squatters, or encroachers on these plots. The impact on PAPs is summarized in the table below:

**Table 2. Civil Work Impact on PAPs**

	Land Acquisition & Easement	Easement Only	Total
Pole Structure, Midspan, and Access Road	13	-	13
Pole Structure and Midspan	2	-	2
Pole Structure and Access Road	1	-	1
Midspan Only	-	6	6
Trenching and Access Road	1	-	1
Trenching Only	2	-	2
<b>Total</b>	<b>19</b>	<b>6</b>	<b>25</b>

### 3. Objectives

The Project will have small land acquisition and easement, affecting about 27-28 PAPs in total. The objectives of this Abbreviated Resettlement Action Plan (ARAP) are to plan, implement, and monitor land acquisition and easement in accordance with the following ESS5 objectives:

- To avoid involuntary resettlement or, when unavoidable, minimize involuntary resettlement by exploring project design alternatives.
- To avoid forced eviction.
- To mitigate unavoidable adverse social and economic impacts from land acquisition or restrictions on land use by: (a) providing timely compensation for loss of assets at replacement cost; and (b) assisting displaced persons in their efforts to improve, or at least restore their livelihoods and living standards in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.
- To improve living conditions of poor or vulnerable persons who are physically displaced, through provision of adequate housing, access to services and facilities, and security of tenure.
- To conceive and execute resettlement activities as sustainable development programs, providing sufficient investment resources to enable displaced persons to benefit directly from the project, as the nature of the project may warrant.
- To ensure that resettlement activities are planned and implemented with appropriate disclosure of information, meaningful consultation, and the informed participation of those affected.

This ARAP assesses the impact of the current alignment, affecting 25 PAPs. The Project anticipates two to three more PAPs will be affected by the final alignment to be determined by the contractor. Additional PAPs will be identified and surveyed as soon as the final alignment is determined. DGDC will prepare an addendum to the ARAP for Bank approval.

## 4. Census Survey and Baseline Socioeconomic Studies.

A census survey is conducted between March and September 2023 to ascertain land ownership and capture demographic information, assets on lands, details of livelihoods and income, and vulnerabilities. The survey was conducted in English, which was the language of all surveyed. Below is a summary of socioeconomic baseline of the 25 PAPs. Annex 1-A provides the details of land requirements by PAP, and Annex 1-B provides socioeconomic baseline.

### 4.1 Demography

PAPs are aged between 31 and 82, while the majority are in their 70s and 60s (nine and seven PAPs, respectively). Eight PAPs are women. All PAPs completed at least primary education. 11 of them completed tertiary education. Nine PAPs are retired. Other PAPs work in service sector/government (nine PAPs) and agriculture (seven PAPs). The household size is between one and three persons, except for one household with six persons.

### 4.2 Land Use

All affected lands are/were used for agriculture, with or without forest. The majority of agriculture land is abandoned/not in use. The current land use details are given in Table 3.

**Table 3. Current Land Use of the Affected Plots**

	In Use	Abandoned (Agriculture)
Agriculture	4*	14
Agriculture and Forest	3	3
<b>Total</b>	<b>7</b>	<b>17</b>

\*One plot is owned by two PAPs. Ownership is 50/50. See Annex 1.

### 4.3 Land Loss

The land loss or impact by easement is small for most of PAPs. However, two PAPs will lose more than 10% of the affected parcels through land acquisition, and four PAPs will be affected more than 10% of their land plot by easement. Table 4 provides impact details:

**Table 4. % Land Loss**

PAP ID	Land Acquisition	Easement		Total Plot Size	% Acquired	% Easement	Land Use	Derive income from the plot?
	Trenching/ Pole Structure (sq ft)	Span (sq ft)	Access Road (sq ft)					
GFI 1	2,362.10	-	-	5,861.00	40.3%	-	Abandoned Agriculture	No
GFI 6	2,254.75	3,081.00	17,608.52	214,237.50	1.1%	9.7%	Agriculture	No
GFI 9	3,006.30	10,478.00	22,440.10	227,287.50	1.3%	14.5%	Abandoned Agriculture	No



GFI 21	3,006.30	1,053.00	1,288.40	19,810.00	15.2%	11.8%	Abandoned Agriculture	No
GFI 25	11,273.75	7,995.00	50,195.01	210,105.00	5.4%	27.7%	Abandoned Agriculture & Forest	No

PAP GFI 1 will lose 40% of the plot. He does not derive income from the land, and the land is not cultivated. He made no complaint during the household survey. Likewise, PAP GFI 21 will lose 15% of the plot. She does not derive income or cultivate the land. Meanwhile, PAP GFI 6 cultivates the affected plot. DGDC confirmed through field visit and consultations the PAP did not cultivate where the pole structure would be constructed (thus, not deriving income). PAP GFI 6 anticipates loss of forest trees by midspan but no impact on crops or fruit trees. The remaining three PAPs do not derive income from the land or cultivate the affected plot.

Note there are PAPs whose plot sizes are not yet provided by the Lands Department (see Annex 1). There are three of them, but none of these PAPs derive income from the affected land or are vulnerable. Regardless of land use or vulnerability, DGDC will assess the impact as soon as the Lands Department provides information and monitor impact on their livelihood.

#### *4.4 Impact of Structure*

The current alignment does not anticipate any impact on structures. Through field visits and consultations, DGDC avoided the impact on commercial structures that belong to two people (see Section 2.1.4).

#### *4.5 Impact on Crops/Trees*

Seven PAPs have crops/trees on the affected lands. Two PAPs have crops/fruit trees on their lands (i.e., PAPs GFI 8 and 26), while three PAPs have forest trees on their lands (i.e., PAPs GFI 6, 7, and 12). Two PAPs confirm there are crops/trees on the affected lands but do not know the type of crops/trees (i.e., PAPs GFI 10 and 25). Once the exact location of pole structures and midspan is determined, the valuation of affected crops/trees will be carried out by the Ministry of Agriculture and Fisheries.

#### *4.6 Impact on Livelihood*

Four PAPs derive agriculture income from affected lands (i.e., PAPs GFI 11, 17, 19, and 26). PAP GFI 26 will be affected by a pole structure and span (affected by both land acquisition and easement). He has orange trees. PAPs GFI 11, 17, and 19 will be affected by midspan/easement only. PAPs GFI 11 and 17 confirmed the midspan would not interfere with the cultivated area (or residence, in case of GFI 17). As the exact location of transmission corridor is not yet known, PAP GFI 19 cannot confirm the impact. However, his primary source of income is not from the affected land. DGDC will have continued consultations with four PAPs during preparation and monitor the impact on their livelihood.

#### 4.7 Vulnerable PAPs.

Eight PAPs have low income, earning less than EC\$1,000 (about US\$370) per month on average.<sup>2</sup> Table 5 provides their profile.

**Table 5. Profile of Vulnerable PAPs**

PAP No.	Gender	>70 yrs old	Disability	Occupation	Income from affected plot?	>10% of plot affected
GFI 3	M	√	√ (illness)	Service (retired)		
GFI 7	M			Agriculture		
GFI 15	M			Agriculture		
GFI 17	M			Agriculture	√	
GFI 18	F	√		Service		
GFI 19	M			Agriculture	√	
GFI 25	F		√ (disability)	Service		√ (28% of plots by easement)
GFI 26	M	√		Agriculture	√	

While none of vulnerable PAPs will have substantial loss of land by land acquisition, DGDC will have regular consultations with these PAPs, support them through GoCD social programmes (elderly pension, health care services, etc.), and monitor the Project's impact on their livelihoods. The household survey confirms there is no tenant or informal user on abandoned agriculture lands. There is no encroacher or squatter on the government owned land.

## 5. Legal Framework

The section summarizes Dominica's national legal framework related to land acquisition, identifies gaps with the World Bank ESS5 requirements, and describes gap filling measures.

### 5.1 National Requirements

Dominica has the Land Acquisition Act, Chapter 53:02<sup>3</sup>, the Land Survey Act 53:04<sup>4</sup>, and the Electricity Supply Act (No. 10 of 2006)<sup>5</sup>. The Land Acquisition Act deals with the acquisition of land by the State and outlines procedures for acquiring private lands for state use. The Land Survey Act allows the Lands and Survey Division under the Ministry of Housing and Urban Development to conduct public surveys. The Act makes a provision for the licensing and professional conduct of land surveyors in the State and regulating the execution of land surveys. The Electricity Supply Act is to regulate the generation, transmission, distribution, and supply of electricity services. While it is not relevant to land acquisition, the Electricity Supply Act will be relevant to land access during the operation phase (a summary of relevant sections on land access in Annex 2).

<sup>2</sup> Current minimum wage in Dominica is EC\$7.5 per hour, which roughly translates to EC\$1,320 per month.

<sup>3</sup> <https://dominica.gov.dm/laws/chapters/chap53-02.pdf>

<sup>4</sup> <https://dominica.gov.dm/laws/chapters/chap53-04.pdf>

<sup>5</sup> <https://www.domlec.dm/download/electricity-supply-act/>

The most relevant sections of the Land Acquisition Act are summarized below, including compulsory acquisition, compensation, valuation, timing of payment, and grievance redressal:

#### **Acquisition of Land and Abandonment of Acquisition**

- Sections 3. If the Minister considers land should be acquired for public purposes, a declaration should be published in two *Gazette*. The owner or occupier of the land will be served with the *Gazette* prior to publication. Upon the second publication of the *Gazette*, the land shall vest absolutely in the State.
- Section 4. If a preliminary survey is required to the land to be acquired, a notification will be published in *Gazette*. The survey should be conducted by an authorized officer. The officer should give at least seven days' notice in writing to access the property.
- Section 5 has a provision for compulsory acquisition and empowers the Minister to apply land to purposes of acquisition, without waiting for formal vesting.
- Section 6. As soon as any declaration is published, the authorized offer shall enter into negotiation without delay.

#### **Appointment and Powers of the Board of Assessment**

- Section 11. All questions and claims relating to the payment of compensation shall be submitted to a board of assessment.
- Section 12 provides the composition of the Board. The Board shall be chaired by the Resident Judge (the Judge of the High Court) and include a member appointed by the Minister (not a public officer) and another member nominated by the affected landowner.

#### **Provisions Governing Assessment of Compensation, etc.**

- Section 19. The value of the land shall be taken to the amount which the land, in its conditions at the time of acquisition, if sold in the open market by a willing seller, might have been expected to have realized at a date twelve months prior to the date of the second publication in the *Gazette* of the declaration.

#### **Absentee Owners**

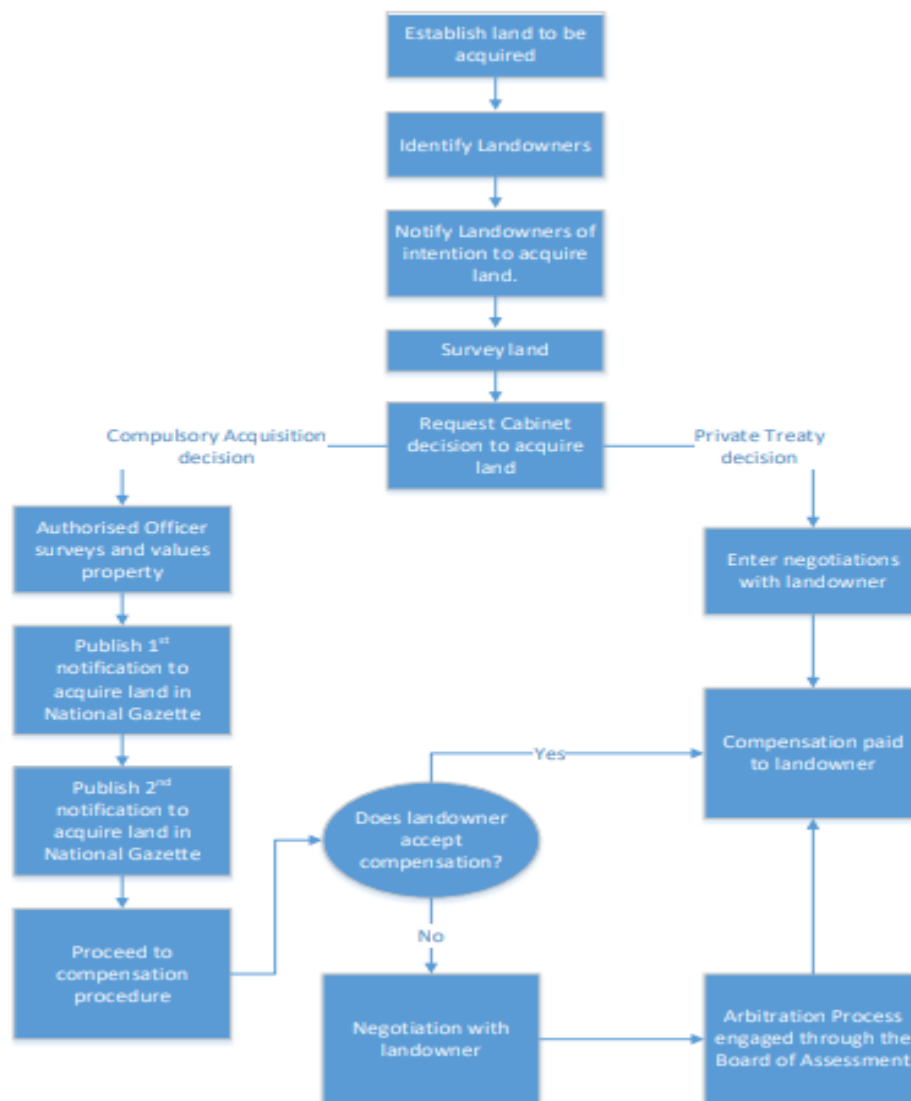
- Section 23. If the owner is absent from the State with no representation and cannot be found after diligent inquiry, the authorized officer shall pay the compensation into the High Court to the credit of the person entitled thereto. If remained unclaimed for twelve years after the payment, the fund shall be transferred to the Treasury as revenue.

#### **Limitation of Time for Making Claims**

- Section 31. No claim for compensation which may be made under the provisions of this Act shall be admitted or entertained unless the claim is made within twelve months after the date on which entry has been made on the land under Section 4.

Figure 8 describes the general process of compulsory land acquisition under the national law:

**Figure 8: The General Process of Acquiring Land through Compulsory Acquisition in Dominica**



## 5.2 Gaps between the National Framework and ESS5 Requirements and Gap Filling Measures

Table 5 identifies gaps between the national law and ESS5 requirements and indicates gap filling measures. ESS5 precedes where gaps exist.

**Table 5: Gap Analysis between Dominica's National Law and ESS5**

Topic/Issue	ESS5 Requirements	National Requirements	Gap
<b>Requirement to prepare Resettlement Plans</b>	ESS5 para 21. Where land acquisition or restrictions on land use are unavoidable, the Borrower will prepare a plan proportionate to the risks and impacts associated with the project.	There is no national requirement to prepare a resettlement plan.	ESS5 precedes. ARAP is prepared.
<b>Census and baseline information</b>	ESS5 para 20. The Borrower will conduct a census to identify the persons who will be affected by the project, to establish an inventory of land and assets to be affected, to determine who will be eligible for compensation and assistance and discourage ineligible persons. The census survey will also provide baseline information on affected persons (ESS5 Annex 1 para 6)	There is no national requirement for census.	ESS5 precedes. A household survey is carried out.
<b>Cut-off dates</b>	ESS5 para 20. In conjunction with the Census, the Borrower will establish a cut-off date for eligibility, which will be well-documented and disseminated throughout the project area.	There is no national requirement.	ESS5 precedes. Cut-off date is the day survey commenced (see Section 7).
<b>Valuation methodologies – full replacement cost</b>	ESS5 footnote 163. Replacement cost is defined as a method of valuation yielding compensation sufficient to replace assets, plus necessary transaction costs associated with asset replacement.	There is no provision in the national law.	ESS5 precedes. Compensation will be paid at replacement cost.
<b>Compensation for easement</b>	ESS5 footnote 158. Land acquisition refers to all methods of obtaining land for project purposes including acquisition of access rights such as easements.  ESS5 footnote 159. Restrictions on land use refers to limitations or prohibitions on the use of land and include those within utility easements or safety zones.	The easement approach is a well established part of Dominica's General Law. Government is free to engage in easements with landowners.	ESS5 precedes. PAPs affected by easement will be compensated.
<b>Addressing loss of livelihoods</b>	ESS5 para 12. In addition to compensation at full replacement cost, displaced persons must be assisted in their efforts to improve, or at least restore, their livelihoods and living standards.	There is no provision in the national law.	ESS5 precedes. The project will involve minor land acquisition/easement, thus, does not anticipate

Topic/Issue	ESS5 Requirements	National Requirements	Gap
			impact on livelihoods. However, DGDC will monitor the impact during RAP implementation.
<b>Compensation prior to land take/ displacement</b>	ESS5 para 15. The Borrower will take possession of acquired land and related assets only after compensation in accordance with ESS5 has been made available and, where applicable, displaced people have been resettled and moving allowances have been provided to the displaced persons in addition to compensation.	There is no indication of the timing of payment in the national law. Upon the issuance of 2 <sup>nd</sup> Gazette, the land belongs to the State.	ESS5 precedes. DGDC will coordinate with the Lands Department for compensation payment. Civil work will commence after all PAPs receive compensations.
<b>Escrow accounts for absentee owners</b>	ESS5 para 16. If there are significant difficulties related to the payment of compensation to particular affected persons, on an exceptional basis, with prior agreement of the Bank, the Borrower may deposit compensation funds as required by the plan (plus contingencies) into an interest-bearing escrow or other deposit account.	The national law has a provision for absentee owners. Compensation is kept by the High Court.	No gap.
<b>Treatment of squatters/ informal land users</b>	ESS5 para 3 d. People without formal, traditional or recognizable usage rights, who are occupying or utilizing land prior to the cut-off date, are also entitled to compensation and assistance.	While squatters do not have legal rights, the national law allows them to gain legal rights after 12 years of undisturbed occupation.	ESS5 precedes.
<b>Measures for vulnerable persons</b>	ESS5 para 7. Adverse economic and social impacts, especially those that affect poor and vulnerable groups have to be minimized and mitigated.  ESS5 Objectives, bullet 4. Living conditions of poor or vulnerable persons who are physically displaced should be improved, through provision of adequate housing, access to services and facilities and security of tenure.	There is no provision in the national law.	ESS5 precedes.

<b>Topic/Issue</b>	<b>ESS5 Requirements</b>	<b>National Requirements</b>	<b>Gap</b>
<b>Transitional support</b>	ESS5 para 36. Transitional support will be provided as necessary to all economically displaced persons, based on a reasonable estimate of the time required to restore their income-earning capacity, production levels, and standards of living.	There is no provision in the national law.	ESS5 precedes.
<b>Monitoring and Evaluation</b>	ESS5 para 23. The Borrower will establish procedures to monitor and evaluate the implementation of the plan and will take corrective action as necessary during implementation to achieve the objectives of ESS5.	There is no provision in the national law.	ESS5 precedes. Internal and external monitoring by DGDC and third party
<b>Level and timing of community engagement and participation</b>	ESS5 para 17. Community engagement and participation will take place during the consideration of alternative project designs, throughout the planning, implementation, monitoring, and evaluation of the compensation process, livelihood restoration activities, and relocation process.	The national law has a provision for negotiation with landowners but not community engagement.	ESS5 precedes. DGDC regularly engages/consults PAPs and affected communities, as per SEP.
<b>Information disclosure</b>	ESS5 para 17. Information disclosure will take place during the consideration of alternative project designs, throughout the planning, implementation, monitoring, and evaluation of the compensation process, livelihood restoration activities, and relocation process.	No provision in the national law	ESS5 precedes. DGDC will disclose project information, as per SEP.
<b>GRM</b>	ESS5, para 19. The Borrower will ensure that a grievance mechanism for the project is in place, in accordance with ESS10 as early as possible in project development to address specific concerns about compensation, relocation or livelihood restoration measures raised by displaced persons (or others) in a timely fashion.	The national law has a provision to redress claims related compensation for landowners.	ESS5 precedes. DGDC has an external GRM and accepts grievances related to RAP implementation.



## 6. Institutional Framework

Given the commitment of the Government to comply with the Bank's policy, the DGDC has been delegated with the authority to act on behalf of the Ministry of Energy to provide support to the Lands Department in RAP implementation. A cooperation agreement was signed between DGDC and the Department of Lands and Surveys in November 2019 to formalize the relationship in RAP implementation for the on-going project (DGRMP I). The agreement outlines the roles and responsibilities of each party with respect to lands. In DGRMP II, DGDC continues to be responsible for the overall ARAP implementation. The Department of Lands and Surveys will be responsible for the land acquisition and easement, i.e., formal valuation, negotiation with individual PAPs, and compensation payment. Grievances related to land valuation and compensation will be addressed by the Lands Department, while other grievance related to ARAP implementation, such as impact on livelihoods, will be addressed by DGDC. The Owner's Engineer will verify the ARAP implementation.

DGRMP II includes a TA component to support DOMLEC in operating and managing the 69kV transmission line network. DOMLEC workers will have to enter PAPs' properties to access pole structures, overhead transmission lines, and/or underground cables for maintenance. DOMLEC indicates that landowners are given three-day notice of maintenance, except in case of emergency. TA component will review the current undertaking and support DOMLEC to develop/strengthen a land entry protocol, Code of Conduct, and GRM by building on the Electricity Supply Act (see Annex 2) and the Customer Service Charter.

Table 6 details roles and responsibilities in ARAP implementation:

**Table 6. ARAP Implementation Roles and Responsibilities**

Stakeholder	Roles and Responsibilities	Timeline
Lands Department, GoCD	<ul style="list-style-type: none"> <li>Responsible for carrying out GoCD's land acquisition procedures, including formal valuation, negotiation, compensation payment, and grievance redressal related to GoCD procedures</li> <li>Establish valuation methodology for easement</li> <li>Complete formal land valuation for each affected land</li> <li>Complete compensation negotiations with each PAP</li> <li>Disburse compensation to each PAP. Ensure the receipt of the financial compensation of the parties</li> <li>Facilitate the establishment of an escrow account, as required</li> <li>Manage grievances related to valuation and compensation for land acquisition/easement</li> </ul>	Prior to construction

Stakeholder	Roles and Responsibilities	Timeline
DGDC	<ul style="list-style-type: none"> <li>• Responsible for ARAP preparation and its overall implementation. Ensure ARAP is implemented as per ESS5 requirements.</li> <li>• Closely coordinate with the Lands Department in preparing and implementing the ARAP. Support the Lands Department in managing easement.</li> <li>• Engage PAPs and affected communities in ARAP implementation, including consultations and communication outreach. Ensure PAPs and the affected communities are aware of land use restrictions, safety of high voltage transmission lines, and emergency plan.</li> <li>• Support DOMLEC in developing/implementing land entry protocol for O&amp;M. Consult with PAPs in developing the land entry protocol.</li> </ul>	Throughout Project implementation
DGDC Social Specialist	<ul style="list-style-type: none"> <li>• Responsible for the overall ARAP implementation</li> <li>• Coordinate with the Lands Department. Support the easement management. Facilitate PAPs' communication with the Lands Department, as required</li> <li>• Track the progress in the land acquisition procedure. Monitor the compensation payment to PAPs.</li> <li>• Consult regularly with PAPs, with special attention to vulnerable PAPs.</li> <li>• Monitor ARAP implementation, including the livelihood impact of land acquisition/easement on PAPs.</li> <li>• Prepare monthly report during ARAP implementation.</li> <li>• Support CLO in managing the project GRM.</li> <li>• Provide additional support as required.</li> </ul>	Throughout Project implementation
DGDC Community Liaison Officer (CLO)	<ul style="list-style-type: none"> <li>• Responsible for overall communication activities under the Project.</li> <li>• Carry out communication outreach to the affected communities on the land use restrictions and high voltage overhead transmission line safety.</li> <li>• Support communication outreach and consultations with PAPs on land use restrictions, safety, and emergency plan</li> <li>• Manage the Project GRM</li> <li>• Provide additional support as required.</li> </ul>	Throughout Project implementation

Stakeholder	Roles and Responsibilities	Timeline
Owner's Engineer Social Risks Management Specialist	<ul style="list-style-type: none"> <li>• Verify ARAP implementation, including compensation payment to PAPs, impact on livelihoods, and impact on vulnerable PAPs</li> <li>• Prepare an ARAP implementation completion report</li> </ul>	Upon completion of ARAP implementation
DOMLEC	<ul style="list-style-type: none"> <li>• Develop/implement a land entry protocol, Code of Conduct, and GRM (TA component).</li> <li>• Train staff on the land entry protocol and Code of Conduct (TA component)</li> <li>• Develop and disseminate communication materials on easement, land use restrictions, land entry protocol, and GRM (TA component)</li> </ul>	Throughout Project implementation and during operation phase

## 7. Eligibility

The household survey is conducted between March and September 2023. For the original alignment, the cut-off date is March 14, 2023, on which the household survey commenced. For the cable car diversion, the cut-off date is July 28, 2023. After the cut-off date, it is considered that the affected parties have been appropriately informed not to make improvements to, or settle on, the identified project land. Because the number of PAP is small (i.e., 25 landowners), the cut-off date was communicated directly to PAPs during the household survey. Table 7 provides the entitlement matrix.

**Table 7. Entitlement Matrix**

PAP Category	Type of Loss	Eligibility Criteria	Entitlement	PAPs Affected	Details of Support/ Compensation
Landowners affected by pole structures and/or trenching	Permanent loss of land	Land title or other document establishing ownership in case of unregistered land to affected property, those without legal rights to the land at time census begins but with a recognizable claim to the land, those with no recognizable claim to the land they are occupying.	Compensation at replacement cost <sup>6</sup> Valuations done using market value including improvements to the land plus all transaction costs and statutory fees. If the land becomes uncultivable because of the Project, PAP can request acquisition of entire plot.	19 PAPs (GFI 1, 3, 4, 5, 6, 7, 8, 9, 12, 15, 16, 18, 21, 22, 23, 24, 25, 26, 28). They are also affected by easement.	Appropriate price/compensation as mutually agreed with the landowners. The value agreed will be based upon the individual valuations completed by the Dominica Lands and Surveys Division, and meeting replacement costs per ESS5
Landowners affected by trenching	Temporary loss of land	Land title or other document establishing ownership in case of unregistered land to affected property, those without legal rights to the land at time census begins but with a recognizable claim to the land, those with no recognizable claim to the land they are occupying.	Land lease agreement with the contractor, based on the market rate.	3 PAPs (GFI 1, 3, 4)	During construction phase. Upon completion of the construction, the contractor shall return the land restored to the original condition.
Landowners affected by midspan	Easement	Land title or other document establishing ownership in case of unregistered land to affected	Easement value to be determined by the	23 PAPs (4 PAPs are	The access roads will avoid structures, trees, crops, etc. However, in case the access roads

<sup>6</sup> Replacement cost is defined as a method of valuation yielding compensation sufficient to replace assets, plus necessary transaction costs associated with asset replacement.

PAP Category	Type of Loss	Eligibility Criteria	Entitlement	PAPs Affected	Details of Support/ Compensation
and/or access roads		property, those without legal rights to the land at time census begins but with a recognizable claim to the land, those with no recognizable claim to the land they are occupying.	Dominica Lands and Surveys Division	affected by easement only: GFI 10, 11, 17, and 27)	have substantial impacts on livelihoods, the land may be acquired by GoCD.
Owners of trees/ crops	Permanent loss of trees and crops	Owners/users of trees/crops affected by land acquisition/ easement. Users mean encroacher/ squatters on public lands cultivating trees/crops.	Cash compensation for the loss of trees, crops, and perennials based on 2023 estimate by the Ministry of Agriculture.	TBD (potentially, 7 PAPs, i.e., GFI 6, 7, 8, 10, 12, 25, 26)	Affected trees/crops to be determined once the alignment is finalized. Compensation will be paid prior to the commencement of civil work.
Owners of residential structures	Loss of residential structure	Permanently residing on the affected property prior to land acquisition/easement	Cash compensation valued by the property valuation unit of the Lands Department  Moving/transitional allowance	None	Compensation based on the Government valuation asset values, adjusted to replacement value. No devaluation for salvaged materials.  Moving/transitional allowance at market rate in lump sum payment.
Owners of commercial structures	Loss of commercial structure	Commercial structure on the affected property prior to land acquisition/easement.	Cash compensation valued by the property valuation unit of the Lands Department  Moving allowance	None	Loss to be determined once the alignment is finalized. Compensation based on the Government valuation asset values, adjusted to replacement value. No devaluation for salvaged materials. Compensation will be paid prior to the commencement of civil work.

PAP Category	Type of Loss	Eligibility Criteria	Entitlement	PAPs Affected	Details of Support/ Compensation
					Moving allowance at market rate in lump sum payment.
Loss of livelihood due to loss of land use	Loss of livelihood	Farmers or business owners operating on affected property at the time of the cut-off date	Assistance for livelihood restoration by providing access to GoCD's social or skills training programme	None. However, DGDC will monitor 4 PAPs, i.e., GFI 11, 17, 19, 26.	GoCD social programmes, such as elderly pension/health care services and skills training programmes. For informal users, DGDC may support to find replacement land.
Vulnerable PAHs		Low income	Providing access to GoCD's social programme	8 PAPs (GFI 3, 7, 15, 17, 18, 19, 25, 26)	GoCD social programmes, such as elderly pension/health care services.

## 8. Valuation and Compensation for Losses

### *8.1 Valuation of Land*

In ascertaining the market value of land, the property valuation unit of the Ministry of Housing and Lands relies on the individuality of each property. Physical inspection of the sites is carried out and factors such as services, access, topography, land use, size and market demand are taken into consideration. The Department of Lands and Survey will be responsible for formal property valuations, negotiations, and compensation. No lands are accessed before payments are complete. The valuation methodology is detailed in Annex 3.

All affected lands are considered as agricultural land by the Lands Department. The current market value of the agricultural land is estimated around EC\$7-9 per sq ft.

### *8.2 Easement Valuation*

This is the first time 69kV overhead transmission lines will be installed in Dominica. Considering the land use restrictions to be imposed within RoW and access roads, the lands will be under easement, and the affected landowners will be compensated. The valuation methodology is being determined by the Lands Department.

### *8.3 Valuation of Crops/Trees*

Seven affected lands are currently in use as agriculture lands. Eight PAPs indicate they have crops/trees on the affected lands. The exact impact on trees and crops will be determined when the alignment is finalized and the exact pole structure locations are known. The Ministry of Agriculture and Fisheries will carry out valuations of affected trees and crops and determine the actual compensation payment. Valuations will be completed by extension officers of the Ministry of Agriculture & Fisheries who have intimate knowledge and understanding of the holdings. The values assigned to crops are specified as a range and are set by a committee of technical experts who take into consideration factors, such as species, location, production cost, market value, climate and environmental influences. The applicable range for each crop is documented in the Ministry's "Crop Valuation Guide".

Where crops are being valued for displacement from the land or removal of the crop, the economic life of the crop is considered (particularly for tree crops). When a valuation is required for an assessment of damage to the crop, where the crop continues to grow but growth is retarded, the age at the time of damage is considered. The aforementioned provisions are generally in keeping with World Bank policy. The compensation is provided at full replacement cost.

### *8.4 Structure Valuation*

There will be no impact on structures. However, if any structure is affected by the Project, the value of structures will be determined by the Department of Lands and Surveys, and compensation will be provided accordingly.



### 8.5 Compensation Payment Procedures

Formal property evaluations for all the affected properties will be completed by the GoCD Department of Lands and Surveys prior to construction, followed by negotiations with PAPs. On the basis of these negotiations, and completion of internal processes, the Ministry of Housing & Lands will disburse compensation to the affected parties for lands (for both acquisition and easement) and structures. DGDC will compensate for crops/trees and provide allowances (moving and transition). Prior to the disbursement of compensation, each eligible PAP will sign a compensation certificate which sets out the mutual commitments for each party. The format of the certificates will be easily understandable to affected people. The certificate will include easement terms and conditions, including land use restrictions and DOMLEC assessment during the operation phase. The certificate will be countersigned by the Ministry of Housing & Lands and representatives of DGDC will be present for this process.

Following the agreement and signing of the certificates, compensation will be disbursed as indicated, and the PAPs will be requested to vacate the site. DGDC will, in collaboration with the Division of Lands and Survey, be responsible for reporting on the receipt of the financial compensation of the PAPs and will arrange in-kind compensation for any follow-up training.

In the case of absentee owners who cannot be contacted, it may not be feasible to pay compensation before taking possession of the land. Under such circumstances, compensation funds shall be made available for each party through a deposit into an individual escrow account for that PAP.

## 9. Community Participation

PAPs and community members were closely engaged in finalizing the project design. The GFI alignment has been consulted during the household survey and local public consultations. DGDC also had a number of field visits to consult with PAPs the alignment and the planned location(s) of pole structures on their lands. The engagements with PAPs have been one-on-one, with additional group consultations and several joint site visits with PAPs in efforts to avoid or minimize the Project impact on land and livelihoods. Originally, GFI was planned as an overhead installation from the geothermal power plant to the Fond Cole substation, traversing through private lands in the Glasgow community. In one-on-one interview during household survey and joint field visit by a group of PAPs and DGDC, PAPs voiced concerns that the overhead installation would interfere with their plans to build a house or develop the property as the pole structures and RoW would restrict unfettered access to the plots. As a result, DGDC decided to switch to the underground cable installation from the geothermal power plant to Glasgow. As the underground cable will be installed mostly on public roads, the number of PAPs was reduced from 12 to three, who will be affected by trenching of the final stretch connecting the cable in the public road to the Fond Cole substation.

During the household survey and follow-on consultations by DGDC, concerns were also raised by the two owners of business structures (a tourism cottage and pig pens, respectively). Taking the opportunity of the cable car diversion, the original pole locations were altered so that the two owners will not lose their structures, livelihoods, or lands.

In March 2023, DGDC had public consultations with affected communities in Roseau Valley. Draft ARAP was disclosed on DGDC website on July 10, 2023 and consulted with affected communities at local public consultations on July 26 and 27 and at national public consultation on August 1. In these consultations,

PAPs and community members were informed of the project design, including the 69kV overhead/underground transmission line network (GFI), land requirements, and land use restrictions/easement. DGDC has developed a Stakeholder Engagement Plan (SEP) for DGRMP II. SEP lays out a plan for DGDC to continue its engagement with PAPs and affected communities throughout project implementation and during the operation phase.

## 10. Implementation Schedule

Table 8 indicates ARAP implementation schedule:

**Table 8. ARAP Implementation Schedule**

Tasks	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8
DGDC to finalize the alignment	x							
DGDC to complete ARAP preparation	x							
ARAP approval by the Bank. DGDC to disclose		x						
DGDC to consult PAPs and affected communities	x	x	x	x	x	x	x	x
Lands Department to value, negotiate, and compensate PAPs			x	x	x	x		
Contractor to determine final alignment. DGDC to prepare ARAP addendum for Bank approval				x	x			
DGDC to monitor compensation and ARAP implementation			x	x	x	x		
DGDC to manage project GRM	x	x	x	x	x	x	x	x
DGDC Site Clearance							x	
Construction Begins								x
ARAP implementation completion report by the Owner's Engineer								x

## 11. Costs and Budget

The cost of ARAP implementation is estimated as follows. The compensation to PAPs will be borne by GoCD, including permanent land acquisition and easement. DGDC will provide compensation for trees/crops. The Project does not anticipate loss of structures. However, in case there is a loss of structure, the compensation for the structure will be borne by GoCD, while moving/transition allowances will be

provided by DGDC. The Project does not anticipate a substantial livelihood impact through land acquisition or easement. The livelihood impact will be monitored during the ARAP implementation, in particular, on the vulnerable PAPs. In case there is a substantial impact on livelihood, DGDC will provide additional assistance to restore livelihoods as indicated in the entitlement matrix.

Table 9 provides an indicative cost of ARAP implementation. The cost of land acquisition is based on an estimate of land requirement for trenching and 30 pole structure locations as per the current alignment, including the cable car diversion. Additionally, the cost of easement is estimated by applying the similar easement valuation in the region. The easement valuation methodology is currently being determined by the Lands Department. The cost of compensation for trees/crops will be determined by the Ministry of Agriculture when the exact location of the pole structures is identified on affected lands.

**Table 9. Estimated Cost of ARAP Implementation**

	<b>Project requirements</b>	<b>Unit cost</b>	<b>Total</b>	<b>Note</b>
Land Acquisition (pole structures, trenching)	75,695.15 sq ft	EC\$7-9 per sq ft or about US\$2.96 per sq ft	US\$209,198	At full replacement cost
Easement (midspan, access roads)	253,735.92 sq ft	See note	US\$1,310,498	Estimate based on regional experience. <sup>7</sup> Final valuation to be determined by Lands Department
Loss of trees/crops	TBI	TBI	TBI	Valuation by the Ministry of Agriculture when the exact location of pole structures is known
ARAP implementation completion report				Owner's Engineer
<b>Total</b>			<b>US\$1,526,606</b>	

## 12. Grievance Redress Mechanism

DGDC has an established project GRM, which was set up under the on-going project (i.e., DGRMP I). The GRM has been accepting grievances related to RAP implementation and will also be used under the proposed DGRMP II. PAPs can submit grievances by the following channels:

<sup>7</sup> In Belize, under the World Bank-financed Energy Resilience for Climate Adaptation Project (ERCAP), the valuation for easement was carried out by an independent valuation expert. Accordingly, the easement value was determined at 45% of the land value.

- On-line form: <https://www.geodominica.dm/grievance/reporting/>
- Email: [Allan.toussaint@geodominica.com](mailto:Allan.toussaint@geodominica.com)
- Phone: (767) 448 6178/79; 275 7392
- Address: DGDC, Floors 1&2, 18 Kennedy Avenue, Roseau
- Grievances Mailbox placed at community centres. More grievance mailboxes will be placed in Roseau Valley.

DGDC's GRM is detained in SEP.

### 13. Monitoring and Evaluation

DGDC will monitor the inputs, outputs, and outcomes of the ARAP implementation. Monitoring indicators include:

- Number of PAPs whose land, crops, and/or trees have been valued
- Number of PAPs who completed negotiation with Lands Department
- Number of PAPs who have received compensation for land
- Number of PAPs who have received compensation for crops/trees
- Sq ft of land acquired
- Sq ft land under easement
- Amount of compensations disbursed
- Impact on livelihoods observed/reported among PAPs
- Number of land acquisition/easement related grievances
- Number of land acquisition/easement related grievances resolved

DGDC's Social Specialist will be responsible for monitoring the ARAP implementation in close coordination with the Lands Department. Monthly progress reports will be prepared during ARAP implementation.

Upon completion of ARAP implementation, the Owner's Engineer will verify the compensation payment, assess livelihood impact, and draw lessons learnt from ARAP implementation. It is important to have the Owner's Engineer prepare a completion report, considering that the easement with compensation is new in Dominica, the final alignment is yet to be determined by the contractor, and the loss of trees is not yet identified until the exact pole locations are determined. The ARAP implementation completion report is to assess the easement implementation and facilitate the development/ implementation of a land entry protocol by DOMLEC during the operation phase.

## Annex 1-A. Impact Details by PAP

PAP #	Structure #	Structure Type/ Span	Total Plot Size (sq ft)	Purpose for Project Use	Nature of Interest and Affected Plot Size (sq ft)			Land Loss % by Land Acquisition	Land Loss % by Easement	Current Land Use	Trees/ Crops
					Trenching/ Structures (Acquisition)	Spans (Easement)	Access Roads (Easement)				
GFI001		UGC trench	5,861.0	Tr	2,362.1			40.3%	0.0%	Abandoned Agriculture	N
GFI002			Government owned land	Tr, AR	17,125.4			N/A	N/A	N/A	N
GFI003			84,390.0	Tr	1,879.0			2.2%	0.0%	Abandoned Agriculture	N
GFI004			957,000.0	Tr, AR	13,474.8			1.4%	0.0%	Abandoned Agriculture	N
GFI005	12a	C	166,387.5	St, Sp, AR	3,006.3	4,082.0	5,153.7	1.8%	5.6%	Abandoned Agriculture	N
GFI006	13	B	214,237.5	St, Sp, AR	2,254.7	3,081.0	17,608.5	1.1%	9.7%	Agriculture	Forest trees
GFI007	14	A	375,405.0	St, Sp, AR	1,717.9	2,652.0	13,313.8	0.5%	4.3%	Abandoned Agriculture	Forest trees
GFI007	15	B	375,405.0	St, Sp, AR	2,254.7	2,483.0	13,421.1	0.6%	4.2%	Abandoned Agriculture	Forest trees
GFI008	16	B	6,437,782.5	St, Sp, AR	2,254.7	4,056.0	11,542.2	0.0%	0.2%	agriculture & forest	Sugarcane, christophene, forest trees
GFI009	17	C	227,287.5	St, Sp, AR	3,006.3	871.0	22,440.1	1.3%	10.3%	Abandoned Agriculture	N
GFI010		Span	440,437.5	Sp		1,690.0		0.0%	0.4%	Abandoned Agriculture	Yes (don't know)
GFI011			187,050.0	Sp		3,445.0		0.0%	1.8%	agriculture & forest	N

GFI012	18a	C		St, Sp, AR	3,006.3	4,745.0				agriculture & forest	N
	19a	B		St, Sp, AR	2,254.7	1,183.0	31,190.7			agriculture & forest	Forest trees
	20a	A		St, Sp, AR	1,717.9	1,612.0				agriculture & forest	Forest trees
	21a	B		St, Sp, AR	2,254.7	1,378.0				agriculture & forest	Forest trees
	22a	A		St, Sp, AR	1,717.9	3,510.0				agriculture & forest	Forest trees
GFI015 & GFI016	25a	B	300,715.5	St, Sp, AR	2,254.7	2,015.0	9,985.3	0.7%	4.0%	Agriculture	N
GFI017		Span	55,245.0	Sp		611.0		0.0%	1.1%	abandoned Agriculture and Forest	N
GFI018	25b	B	658,677.0	St, Sp, AR	2,254.7	2,938.0	2,737.9	0.3%	0.9%	abandoned Agriculture and Forest	N
GFI019		Span	178,132.5	Sp		858.0		0.0%	0.5%	Agriculture	N
GFI020		Span	87,652.5	Sp		572.0		0.0%	0.7%	abandoned Agriculture	N
GFI021	26a	A,Span	19,810.0	St,Sp, AR	3,006.3	1,053.0	1,288.4	15.2%	11.8%	abandoned Agriculture	N
GFI022	26b	C	107,880.0	St, Sp	3,006.3	1,365.0		2.8%	1.3%	Abandoned agriculture	N
GFI023	26b	C	50,590.5	St, Sp, AR	3,006.3	1,027.0	3,167.4	5.9%	8.3%	Abandoned agriculture	N
GFI024	26b	C	232,290.0	St, Sp, AR	3,006.3	1,027.0	-	1.3%	0.4%	Abandoned agriculture	N
GFI025	27b	C	210,105.0	St, Sp, AR	3,006.3	3,445.0	46,544.5	5.4%	27.7%	abandoned Agriculture and Forest	N
	28c	B		St, Sp, AR	2,254.7					abandoned Agriculture and Forest	Yes (don't know)

	29a	C		St, Sp, AR	3,006.3					Forest	N
	29b	C		St, Sp, AR	3,006.3	4,550.0	3,650.5			Forest	N
GFI026	30	C	43,500.0	St, Sp	3,006.3	-	1,717.9	6.9%	3.9%	Agriculture	Yes (don't know)
GFI027	30	Span		Sp		2,587.0		N/A	TBI	Abandoned Agriculture	N
GFI028	31	A		St, AR	1,717.9		5,636.9	TBI	TBI	Abandoned Agriculture	N



## Annex 1-B. PAP Socioeconomic Baseline

PAP #	Structure #	Primary Occupation	Gender	Age	Marital Status	Number in Household	Highest Education level 1: Primary 2: Secondary 3: Tertiary	Illness/ Disability	Average Monthly Income	Derives Income from Property Y/N	Ownership share in property %
GFI001		Videographer - Gov't	M	59	Married	2	2	2	<\$3,000	N	100
GFI002		Government owned land	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100
GFI003		Retired business person	M	72	Married	3	1	1	<\$1,000	N	100
GFI004		IT Engineer	M	50+	Single	1	3	2	\$3,000<	N	100
GFI005	12a	Retired	M	82	Married	3	2	1	<\$3,000	N	100
GFI006	13	Businessman	M	64	Married	2	3	1	\$3,000<	N	100
GFI007	14, 15	Farmer	M	53	Divorced	2	2	2	<\$1,000	N	100
GFI008	16	Accountant	M	49	Single	1	3	2	<\$3,000	N	100
GFI009	17	Contractor	M	60	Divorced	2	3	2	\$3,000<	N	100
GFI010	span	Retired	M	64	Married	2	3	1	<\$2,000	N	100
GFI011	span	Retired	M	73	Widowed	6	3	1	<\$2,000	Y	100
GFI012	18a, 19a, 20a, 21a, 22a	Retired	M	76	Divorced	1	2	1	<\$3,000	N	100
GFI015	25a	Agriculture	M	31	Single	3	2	2	<\$1,000	N	50
GFI016	25a	Agriculture	M	41	Married	3	2	2	<\$2,000	N	50

PAP #	Structure #	Primary Occupation	Gender	Age	Marital Status	Number in Household	Highest Education level 1: Primary 2: Secondary 3: Tertiary	Illness/ Disability	Average Monthly Income	Derives Income from Property Y/N	Ownership share in property %
GFI017	span	Agriculture	M	61	Single	1	1	2	<\$1,000	Y	100
GFI018	25b	Business person	F	77	Married	2	1	2	<\$1,000	N	100
GFI019	span	Agriculture	M	54	Married	3	2	2	<\$1,000	Y	100
GFI020	span	Retired	F	62	Married	3	3	2	<\$3,000	N	100
GFI021	26a, span	Lawyer	F	60+	Married	2	3	2	\$3,000<	N	100
GFI022	26b	Vendor	F	65	Single	1	1	1	<\$2,000	N	100
GFI023	26b	Farmer/ Hairdresser	F	73	Widowed	1	2	2	<\$3,000	N	100
GFI024	26b	Retired	M	75	Married	3	3	2	<\$3,000	N	100
GFI025	27b, 28c, 29a, 29b	Cleaner/Cook	F	64	Single	2	1	1	<\$1,000	N	100
GFI026	30	Agriculture	M	75	Single	1	1	1	<\$1,000	Y	100
GFI027	span	Retired	F	74	Widowed	1	3	2	\$3,000<	N	100
GFI028	31	Retired	F	74	Widowed	1	3	2	\$3,000<	N	100

## Annex 2. Electricity Supply Act (No. 10 of 2006)

The Electricity Supply Act<sup>8</sup> is to regulate the generation, transmission, distribution and supply of electricity services and for purposes connected therewith, to establish an independent regulatory commission. Below is an extraction of the section related to land entry that will be relevant during the operation phase. The Act will be further assessed under the TA component.

### **Section 48. Licencee may enter lands**

- 1) In the course of construction and for the more effective working of the undertaking, a licensee may enter upon and remove from any public or private land, any tree, branch, or part of a tree growing on such land which is within one hundred feet of any electric line and which may interfere with, endanger or otherwise prejudicially affect the working of its operations.
- 2) Notwithstanding subsection (1), a licensee may not, except with the consent of the owner or occupier of any land, enter upon the land before the expiration of fifteen days' notice in writing given to the owner or occupier thereof or posted thereon in a conspicuous position
- 3) Where the owner or occupier, within seven days from the service or posting up of a notice, gives written notice of his objection to the proposed entry, the matter shall be referred by the Licencee to the Commission.
- 4) Within fifteen days of the referral of the matter to the Commission, the Commission shall afford the owner or occupier of the land and opportunity to be heard on the objection and shall have the power to overrule the objection and direct the Licencee to enter upon the private land or property in question for the purpose set out in subsection (1).
- 5) A licensee may, for the purpose of erecting, fixing, altering, substituting, repairing or removing any pipe, electrical line or other apparatus, enter upon any land and may - (a) clear the land; (b) dig the soil and remove the surface of the land; (c) temporarily close or obstruct the land; and (d) generally do all acts and things necessary for its purposes.

### **Section 49. Power of entry for ascertaining electricity consumed**

- A licensee may at all reasonable times enter upon any land or premises to which electricity is or has been supplied by the Licencee for the purpose of inspecting, testing or maintaining the electric lines, meters, accumulators, fittings and other works and apparatus thereon belonging to the Licencee, or of ascertaining the quantity of electricity consumed or supplied in or to such premises or, where a supply of electricity is no longer required or where the Licencee is entitled to take away and cut off the supply of electricity from any such land or premises, for the purpose of removing any electric lines, meters, accumulators, fittings, or other works or apparatus belonging to the Licencee and the Licencee shall repair all damages caused by an entry, inspection, maintenance or removal.

### **Section 79. Powers of Technical Inspector.**

- The Technical Inspector shall enforce any Regulations under this Act and he may at all reasonable times enter, for the purpose of inspecting or testing any electrical line or any electrical apparatus or works, upon any land or premises to which electricity is supplied or upon which electricity is generated, transmitted or distributed.

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<sup>8</sup> <https://www.domlec.dm/download/electricity-supply-act/>

## Annex 3. Valuation Methodology

### 1. Lands

Lands are valued at replacement cost by the Property Valuations Unit (PVU) of the Department of Lands & Surveys using the following approach:

- Market Value + transactions cost

Market Value is defined as ‘the estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm’s length transaction after property marketing and where the parties had each acted knowledgeably, prudently and without compulsion’.

- Each property is seen as unique;
- Inspection of each property is done and evaluated using the following factors:
  - Services;
  - Access;
  - Topography;
  - Land use;
  - Market (supply & demand); and
  - Size.

Transaction Cost include all fees and costs associated with the transaction. These include:

- Assurance Fund: 1%
- Judicial Fee: 2.5%
- Stamp Duty: 4%
- Solicitor’s Fees: 3%
- Vendor’s Fees: 3%

In instances where properties are acquired by the Government, provision is made in the Land Acquisition Surveyors fees and other costs incurred are also paid.

### 2. Structures

The valuation of structures is driven by the market. Given that underdeveloped nature of market forces in Dominica, the PVU uses a ‘cost of construction’ approach. A full inspection of the structure is done by experienced officers of the unit and the following factors are taken into account:

- Age of structure;
- Quality of finishing; and
- Type of structure, i.e., intended use and materials used in construction.

The 2021 rates used by the PVU range from EC\$250-\$275 per square foot. Straight line depreciation (age of building/anticipated life) is applied.

### 3. Crops

Crop valuation is done by officers of the Extension Unit of the Ministry of Agriculture using a combination of the following:

- **Cost of Production of a crop.** An assessment is done to ascertain what stage in the production cycle the affected crops are at and known costs are apportioned based on field size and location. Activities include land clearing, ploughing and hoeing, planting, weed control & fertilizing, pest and disease management, transportation, harvesting, and marketing. This method is best employed when farm records exist.
- **Appearance of crop.**
- **Selling price at time of valuation.** Where insufficient records exist, crops are valued at a reasonable/average selling price of the finished product at the time of valuation.
- **Bearing Capacity.** In addition to costs of production, the valuation considers the number of years/cycles for which the farmer could have reasonably expected to gain returns from the current crop.

Crops are classified as follows:

- A. Musa Species: a. Bananas; b. Plantains
- B. Tree Crops: a. Citrus (grapefruit, oranges, limes, easy peelers); b. Coconut
- C. Roots and Tubers: a. Dasheen; b. Ginger

One of the following two formulas are used in the valuation:

I. For non-bearing crops

Crop value = establishment cost + the sum of maintenance cost during development stage  
 $CV = EC + MC$

II. For bearing crops

Crop value = farm price \* estimated marketable yield \* age of crop till replacement  
(sustained production)  
 $CV = FP * EMY * ATR$

Plant bearing unit costs in 2021 were:

- Avocado: EC\$150
- Tangerine: EC\$125
- Orange: EC\$150-200