Attachment 2

1.1 MONITORING PLAN

Construction period

Environmental item	Item to be monitored	Monitoring site	Frequency	Method	Party in charge
Air quality	H_2S - CO_2	Borinquen Hotel and 4 sites (north, south, east and west) on the well base boundary	During testing period (weeks-one month): every three month (quarterly) and permanent monitoring station	Field measurement	ICE

Calidad del Aire - CAMPO GEOTERMICO BORINQUEN

Sitio	CO2 Min	CO2 Prm	CO2 Max	CO2 Std	H2S Min	H2S Prm	H2S Max	H2S Std
CAÑAS DULCES	252	333	404	5,000	0.000	0.000	0.002	0.010
CASA MAQUINAS BORINQUEN	232	318	389	5,000	0.000	0.000	0.002	0.010
HOTEL BORINQUEN	239	318	381	5,000	0.000	0.000	0.001	0.010
HOTEL BUENA VISTA	244	318	382	5,000	0.000	0.000	0.002	0.010
PLB-02	235	320	378	5,000	0.000	0.001	0.005	0.010
PLB-03	235	317	375	5,000	0.000	0.000	0.003	0.010
PLB-05	235	327	395	5,000	0.000	0.002	0.012	0.010
PLB-09	237	315	374	5,000	0.000	0.000	0.001	0.010
POBLADO BUENA VISTA	234	321	390	5,000	0.000	0.000	0.001	0.010

Environmental item	Item to be monitored	Monitoring site	Frequency	Method	Party in charge
Noise	Noise level	Borinquen Hotel, one site on the well base boundary (in the hotel direction), and 4 sites (north, south, east and west) in the vicinity of the power plant site.	During testing period (weeks-one month): once/week During power plant construction: monthly (with peak time for each construction job taken into account)	Field measurement	ICE

Attachment 2

Ruido - CAMPO GEOTERMICO BORINQUEN

Sitio	Ruido Min	Ruido Prm	Ruido Max	Ruido Std
CAÑAS DULCES	31	41	46	65
CASA MAQUINAS BORINQUEN	29	37	68	65
HOTEL BORINQUEN	30	35	48	65
HOTEL BUENA VISTA	30	34	39	65
PLB-02	31	47	80	65
PLB-03	31	36	64	65
PLB-05	30	47	88	65
PLB-09	30	36	57	65
POBLADO BUENA VISTA	31	35	39	65

Environmental item	Item to be monitored	Monitoring site	Frequency	Method	Party in charge
Water quality	1) pH, Electric conductivity (EC), Chlorides (Cl-)	Upper and lower streams of the Salitral rivers, upper and lower streams within the project area (AP) of the creek running.	1) During testing period: twice/testing period (weeks-one month)	Laboratory analysis of collected samples	ICE and External laboratory to hire by ICE

Attachment 2

Geothermal Field	CG-BRQ
Monitored variable	pH Lab.

Site	Max.	Min.	Avg.
CG-BRQ --- NACIENTE DOS QUEBRADAS	7.86	5.99	6.9
CG-BRQ --- NACIENTE NAVARIT	7.83	5.71	6.8
CG-BRQ --- QUEBRADA GATA	8.12	5.36	7.3
CG-BRQ --- QUEBRADA TENCHA (PBR11)	7.81	5.76	6.9
CG-BRQ --- RIO SALITRAL	8.34	6.04	7.5
CG-BRQ --- RIO TIZATE	8.39	6.72	7.8
CG-BRQ --- TERMAL LOS PEDERNALES	7.28	5.95	6.6
CG-BRQ --- TOMA AGUA LAS LILAS	7.01	5.9	6.7
CG-BRQ --- TOMA DE AGUA PLB-02	7.97	4.66	7.3
CG-BRQ --- TOMA DE AGUA PLB-05	8.21	5.8	7.1
CG-BRQ --- LAGUNA DE ALMACENAMIENTO	7.84	3.02	7.1

Geothermal Field	CG-BRQ
Monitored variable	Cond. (µS/cm)

Site	Max.	Min.	Avg.
CG-BRQ --- NACIENTE DOS QUEBRADAS	210.9	97	154.7
CG-BRQ --- NACIENTE NAVARIT	245.4	148.9	183.5
CG-BRQ --- QUEBRADA GATA	348	115.4	214.4
CG-BRQ --- QUEBRADA TENCHA (PBR11)	263	74.5	140.4
CG-BRQ --- RIO SALITRAL	328	80.8	170.4
CG-BRQ --- RIO TIZATE	306.5	127.4	220.3
CG-BRQ --- TERMAL LOS PEDERNALES	189.2	138.7	163.4
CG-BRQ --- TOMA AGUA LAS LILAS	189	141.5	178.1
CG-BRQ --- TOMA DE AGUA PLB-02	432.3	70.6	124.6
CG-BRQ --- TOMA DE AGUA PLB-05	674	78.8	144.8
CG-BRQ --- LAGUNA DE ALMACENAMIENTO	885	92	355.7

Attachment 2

Geothermal Field	CG-BRQ
Monitored variable	Cl- (ppm)

Site	Max.	Min.	Avg.
CG-BRQ --- NACIENTE DOS QUEBRADAS	8	2.46	4.3
CG-BRQ --- NACIENTE NAVARIT	7.8	2	4.2
CG-BRQ --- QUEBRADA GATA	12.2	1.31	5.7
CG-BRQ --- QUEBRADA TENCHA (PBR11)	11.3	1.33	4.5
CG-BRQ --- RIO SALITRAL	27.94	1.35	6.5
CG-BRQ --- RIO TIZATE	16.1	5.2	8.9
CG-BRQ --- TERMAL LOS PEDERNALES	4.72	2.64	3.2
CG-BRQ --- TOMA AGUA LAS LILAS	11.5	3.79	5.6
CG-BRQ --- TOMA DE AGUA PLB-02	7.49	2.75	4.5
CG-BRQ --- TOMA DE AGUA PLB-05	13.1	1.42	4.4
CG-BRQ --- LAGUNA DE ALMACENAMIENTO	8.18	0.97	4.5

Water quality	2) Oils and grease,	Outlet of the settling basin (construction work effluents). Only in the presence of machinery in the project area (AP)	2) Oils and grease, every six months (semester) After 2 years, the continuation of monitoring will be reconsidered based on opinions of professional experts.)	Laboratory analysis of collected samples	ICE and External laboratory to hire by ICE

Attachment 2

Site	Oils and grease (mg/L)	
Standard 50 mg/L	**Min**	**Max**
Q. Gata Abajo	<0,2	8
Q. Gata Arriba	<0,2	<1
Río Salitral Abajo	<0,2	4
Río Salitral Arriba	<0,2	<1
Río Tizate Abajo	<0,2	<1
Río Tizate Arriba	<0,2	<1
Tencha Abajo	<0,2	<1
Tencha Arriba	<0,2	<1
Toma PLB-02	<0,2	<1
Toma PLB-05	<0,2	<1

Water quality	3) Hexavalent chrome (Cr+6), and Mercury (Hg) and COD	NOT APPLICABLE (NA)	NOT APPLICABLE (NA)	--------	
Water quality	4) Arsenic (As)	Only in drinking water intakes	every six months (semester) After 2 years, the continuation of monitoring will be reconsidered based on opinions of professional experts.)	Laboratory analysis of collected samples	ICE and External laboratory to hire by ICE

Site	Arsenic (mg/L)	
Standard 0,01 mg/L	**Min**	**Max**
Plantel Curubandé	<1	<2

Environmental item	**Item to be monitored**	**Monitoring site**	**Frequency**	**Method**	**Party in charge**

Attachment 2

Soil	Complete analysis - Cadmium (Cd), Lead (Pb), As, Cr^{+6}, Hg, etc.	Four points in the vicinity of a representative geothermal field	One year before construction starts, and once five years after operation starts	Laboratory analysis of collected samples	ICE
		Four points in the vicinity of the power plant site	One year before construction starts, and once five years after operation starts		
	Not applicable for this period. Monitoring in 2022.				

Environmental item	Item to be monitored	Monitoring site	Frequency	Method	Party in charge
Fauna and flora	Plants and animals (birds, amphibians, reptiles, and mammals)	Area in the vicinity of wells and power plant site, the project site side of the national park, and gallery forest along the Salitral river	Monthly (with rainy and dry seasons, breeding seasons, etc. taken into account)	Visual observation records and photographs	ICE

Attachment 2

Results of monitoring and state of conservation of species. January, february and march 2022.

Group	State of conservation		
Amphibian	CITES	IUCN	MINAE N° 40548-Regulations
Craugastor bransfordii			
Craugastor fitzingeri			
Craugastor megacephalus			
Diasporus diastema			
Engystomops pustulosus			RP
Lithobates forreri			
Lithobates taylori			
Lithobates warszewitschii			
Pristimantis ridens			
Rhinella horribilis			
Sachatamia albomaculata			
Smilisca baudinii			
Smilisca sordida			
Birds			
Amazilia rutila	II		RP
Amazilia saucerrottei	II		RP
Amazona albifrons	II		RP
Antrostomus carolinensis			RP
Archilochus colubris	II		RP
Arremon aurantiirostris			
Arremonops conirostris			
Arremonops rufivirgatus			
Basileuterus rufifrons			
Brotogeris jugularis	II		RP
Burhinus bistriatus	III		
Buteo plagiatus	II		RP
Calocitta formosa			
Campephilus guatemalensis			
Campylorhynchus rufinucha			
Cantorchilus modestus			
Caracara cheriway	II		RP

Cathartes aura			
Catharus ustulatus			
Chiroxiphia linearis			
Chlorophanes spiza			
Ciccaba virgata	II		RP
Coragyps atratus			
Crax rubra	III	VU	RP
Crotophaga sulcirostris			
Crypturellus cinnamomeus			
Dendrocolaptes sanctithomae			
Elaenia flavogaster			
Empidonax flaviventris			
Eumomota superciliosa			
Euphonia hirundinacea			
Eupsittula canicularis	II		RP
Eurypyga helias			RP
Falco rufigularis	II		RP
Galbula ruficauda			
Geothlypis poliocephala			
Habia fuscicauda			
Heliomaster constantii	II		RP
Heliomaster longirostris	II		RP
Henicorhina leucophrys			
Henicorhina leucosticta			
Herpetotheres cachinnans	II		RP
Hylocharis eliciae	II		RP
Hylocichla mustelina			NT
Hylophylax naevioides			
Icterus galbula			
Leiothlypis peregrina			
Lepidocolaptes souleyetii			
Leptotila verreauxi			
Megarynchus pitangua			
Melanerpes hoffmannii			
Microcerculus philomela			
Mniotilta varia			
Momotus lessonii			

Morococcyx erythropygus				
Myiarchus nuttingi				
Myiarchus tuberculifer				
Myiarchus tyrannulus				
Myiobius sulphureipygius				
Myiodynastes luteiventris				
Myiothlypis fulvicauda				
Myiozetetes similis				
Nyctidromus albicollis				
Ortalis cinereiceps				
Pachysylvia decurtatus				
Parkesia noveboracensis				
Passerina ciris				
Patagioenas flavirostris				
Penelope purpurascens	III		RP	
Peucaea ruficauda				
Phaethornis striigularis	II		RP	
Piaya cayana				
Piranga ludoviciana				
Piranga rubra				
Pitangus sulphuratus				
Platyrinchus cancrominus				
Polioptila plumbea				
Psarocolius montezuma				
Psilorhinus morio				
Pteroglossus torquatus				
Ramphastos sulfuratus	II		RP	
Ramphocaenus melanurus				
Sarcoramphus papa	III		RP	
Seiurus aurocapilla				
Setophaga petechia				
Thraupis episcopus				
Thryophilus pleurostictus				
Thryophilus rufalbus				
Tiaris olivaceus				
Tigrisoma mexicanum				
Tityra semifasciata				
Trogon melanocephalus				

Attachment 2

Turdus assimilis			
Turdus grayi			
Tyrannus melancholicus			
Tyto alba			
Vireo flavifrons			
Vireo olivaceus			
Vireo philadelphicus			
Vireo solitarius			
Volatinia jacarina			
Zenaida asiatica			
Mammals (Visual, Sherman, Mist nets and Camera trap)			
Alouatta palliata	I		EN
Artibeus jamaicensis			RP
Artibeus lituratus			
Artibeus phaeotis			
Artibeus tolteca			
Ateles geoffroyi	I	EN	EN
Canis latrans			
Carollia castanea			
Carollia perspicillata			
Carollia sowelli			
Carollia subrufa			
Cebus imitator	II		RP
Conepatus semistriatus			
Dasypus novemcinctus			
Glossophaga commissarisi			
Glossophaga soricina			
Marmosa mexicana			
Myotis albescens			
Myotis keaysi			
Myotis oxyotus			
Nasua narica	III		
Odocoileus virginianus	III		
Platyrrhinus helleri			
Potos flavus	III		
Puma concolor	I		EN
Saccopteryx bilineata			

Attachment 2

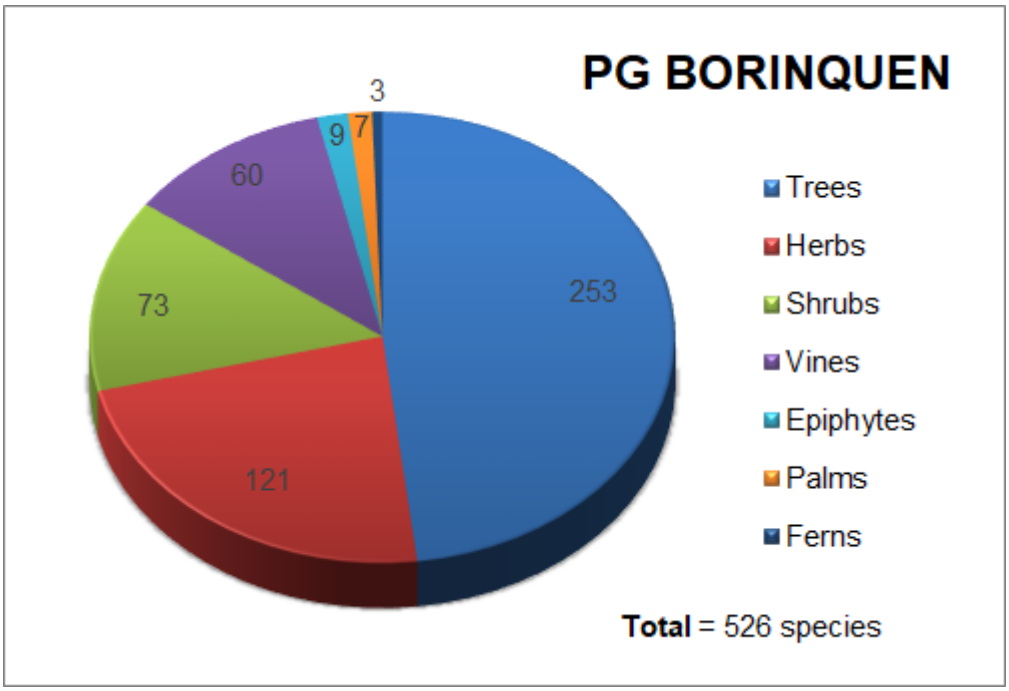
Sciurus variegatoides			
Sturnira parvidens			
Sylvilagus floridanus			
Tapirus bairdii	I	EN	EN
Tylomys watsoni			
Uroderma bilobatum			
Vampyriscus nymphaea			RP
Leopardus pardalis	I		EN
Puma yagouaroundi	I		EN
Reptiles			
Boa imperator			
Bothrops asper	II		RP
Coleonyx mitratus			RP
Corytophanes cristatus			
Ctenosaura similis			
Enulius flavitorques			
Holcosus festivus			
Holcosus undulatus			
Imantodes cenchoa			
Ninia sebae			
Norops biporcatus			
Norops cupreus			
Norops oxylophus			
Scolecophis atrocinctus			
Senticolis triaspis			
Sibon nebulatus			
Sphenomorphus cherriei			
Tantilla armillata			
Tantilla vermiformis			
Trimorphodon quadruplex			

I=Appendix I CITES, II=Appendix II CITES, III=Appendix III CITES, IUCN= The International Union for Conservation of Nature, CITES=The Convention on International Trade in Endangered Species of Wild Fauna and Flora, NT= Near Threatened, EN= endangered species, RP= species with reduced or threatened populations, VU= Vulnerable.

Attachment 2

Wild animals monitoring. March 2022.
Night monitoring

Distribution of flora species by habits registered in the Borinquen Geothermal Field. March 2014 – March 2022.



Environmental item	Item to be monitored	Monitoring site	Frequency	Method	Party in charge
Waste*	Generated amount	Power plant construction site	Monthly	Total of generated amount (weight or volume)	Construction contractor
	Not applicable for this period. In 2023 starts the construction of plant.				

Attachment 2

*Appropriate waste management including disposal of sludge will be implemented in accordance with Law for the Integrated Management of Residues (Law 8839), and in reference to Resolution No. 1948-2008-SETENA17 (page26).