Republic of the Philippines
DEPARTMENT OF ENERGY
Energy Center, Rizal Drive corner 34th Street
Bonifacio Global City, Taguig City
Metro Manilla

MAPPING REQUIREMENTS FOR RE CONTRACT APPLICATION

A. Common Mapping Requirements

1. Certificate of Geographic and Grid Coordinates of the tie point used in the actual land survey of the project site issued by DENR.
2. Photocopy of PRC Card & Professional Tax Receipt of the geodetic engineer.
3. Certified True Copy of Lot Title/Titles (TCT/OCT) from Registry of Deeds-LRA.
4. Vector files of the lot/project area preferably in shapefile, 2011 or lower version of dwg or dxf format.
5. Excel file containing either the PRS'92 geographic coordinates of all corners for blocking (*see TD Form.xls*) or the Lot Data Computation for non-blocking (*see ISD LDC Form.xls*).

B. Requirements per Type of RE Resource

1. Solar and Biomass Resources

1.1. For applied area /project site covered by the whole titled lot
- 1.1.1. *Survey/Location plan of the lot*
- 1.1.2. *Lot Data Computation of the lot*
- 1.1.3. *Common Mapping Requirements (see list above)*

1.2. For applied area/project site covered by more than two titled lots
- 1.2.1. *Survey/Consolidation plan of the consolidated lots*
- 1.2.2. *Lot Data Computation of each lots and the consolidated boundary*
- 1.2.3. *Common Mapping Requirements (see list above)*

1.3. For applied area/project site within or portion only of titled lot / consolidated lots
- 1.3.1. *All requirements under A or B, depends on the number of lots where the project site is located. The location of the project site and its Technical Description in Bearing-Distance and the equivalent PRS '92 geographic coordinates should also be reflected on A.1 / B.1.*
- 1.3.2. *Lot Data Computation of the project area boundary*
- 1.3.3. *Common Mapping Requirements (see list above)*

1.4. For applied area /project site not covered by TCT/OCT/Permit/Award or with no approved land survey *(Applied/Project Area Within Timberland/Forest Land or Outside Alienable & Disposable land)*
- 1.4.1. *Survey/Location plan of the project site*
- 1.4.2. *Lot Data Computation of the project site*
- 1.4.3. Certificate of Geographic and Grid Coordinates of the tie point used in the determination of the project site location issued by DENR.
- 1.4.4. No. 2, 4 & 5 of Common Mapping Requirements (see list above)

1.5. For applied area/project site not covered by TCT/OCT/Permit/Award but with approved land survey *(Within A & D; not yet titled properties; covered by cadastral survey)*
- 1.5.1. Certified True Copy of approved survey plan of lot/project site
- 1.5.2. *Survey/Location plan of the lot*
- 1.5.3. *Lot Data Computation of the lot*
- 1.5.4. *No. 1, 2, 4, & 5 of Common Mapping Requirements (see list above)*

2. **Wind, Geothermal, Ocean and RE Resource for Offshore Development**
   2.1. Location/Sketch plan of the applied area/project area showing its boundaries in relation to major environmental features using NAMRIA topographic map, nautical chart/bathymetric map (for ocean only) or any available administrative basemap at least 1:50,000 scale with equivalent PRS'92 geographic coordinates of all boundary corners
   2.2. *Lot Data Computation of the project area (if not conforming with the RE blocking system)*
   2.3. *No. 2, 4, & 5 of Common Requirements (see list above).*

3. **Hydropower Resource**
   3.1. Location plan/map of the project site showing its proposed weir/dam and powerhouse location in relation to major environmental features using NAMRIA 1:50,000 scale topographic map or any available basemap of the same map features and scale. The PRS'92 geographic coordinates and elevation for powerhouse and weir/dam must be referenced to a known benchmark and correspondingly plotted or reflected on the location plan/map.
   3.2. *No. 2, 4, & 5 of Common Requirements (see list above).*

NOTES:

Lot - *a parcel of land subject of a land title certificate or subject of DENR approved land survey.*

Applied Area/Project Site/Project Area – *an area subject to RE Contract Application.*

Lot data Computation* – – *accomplish the ISD LDC form using PTM grid coordinates for area computation. Also, the equivalent PRS '92 geographic coordinates of each corner should be provided. Provide printed and soft copy (see sample ISD LDC Form)*

Survey/Location/Sketch Plan* - shall reflect the boundaries of lot/project site and tabulate its Technical Descriptions in Bearing-Distance & the equivalent PRS '92 geographic coordinates of all boundary corners of plotted lot/project site. (see Sample Maps)

Consolidation Plan* - shall reflect all boundaries of consolidated lots/project site and tabulate Technical Descriptions in Bearing-Distance & the equivalent PRS '92 geographic coordinates of all boundary corners of all plotted lots/project area.

Computation of Area - *For project area conforming to the RE blocking system the total area shall be computed as 81 hectares per RE block, otherwise the projected area (PTM-Zone I to V) will be considered.*

* - All Lot Data Computations and Survey Plans should be duly prepared, certified, signed and sealed by a licensed Geodetic Engineer.

ANNEX -J.1

PROJECT NAME: CAGAYAN WIND POWER PROJECT
COMPANY NAME : RE CORPORATION
Number of RE blocks : 2 RE Blocks AREA : 162 HECTARES

Corner	PRS '92 GEOGRAPHIC COORDINATES					
	LATITUDE			LONGITUDE		
	DEG	MIN	SEC	DEG	MIN	SEC
1	14	40	0	121	1	30
2	14	40	0	121	2	0
3	14	39	0	121	2	0
4	14	39	0	121	1	30
5						
6						
7						

ANNEX -J.2

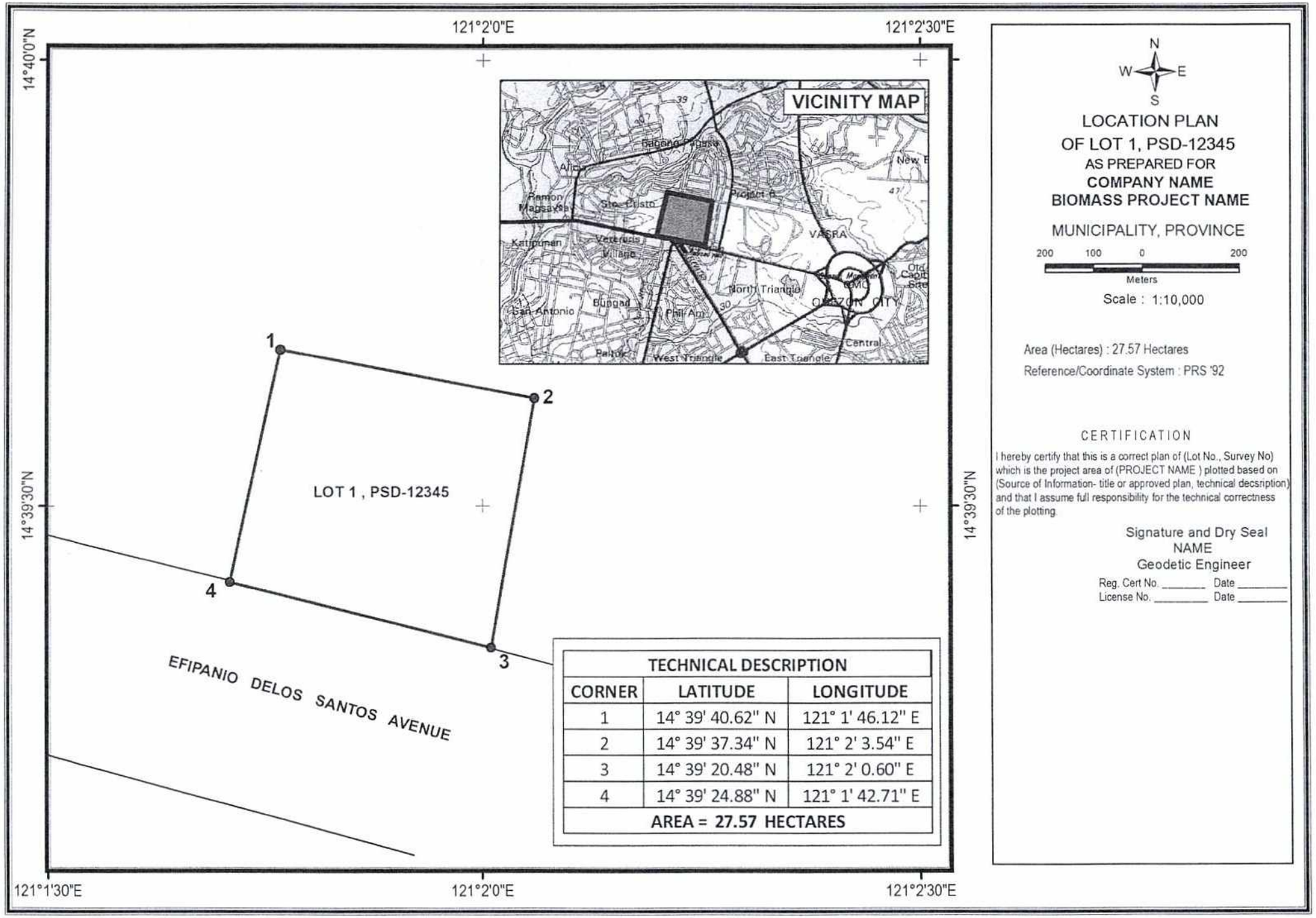
SHEET NO.: 1/1

LOT DATA COMPUTATION / AREA SHEET

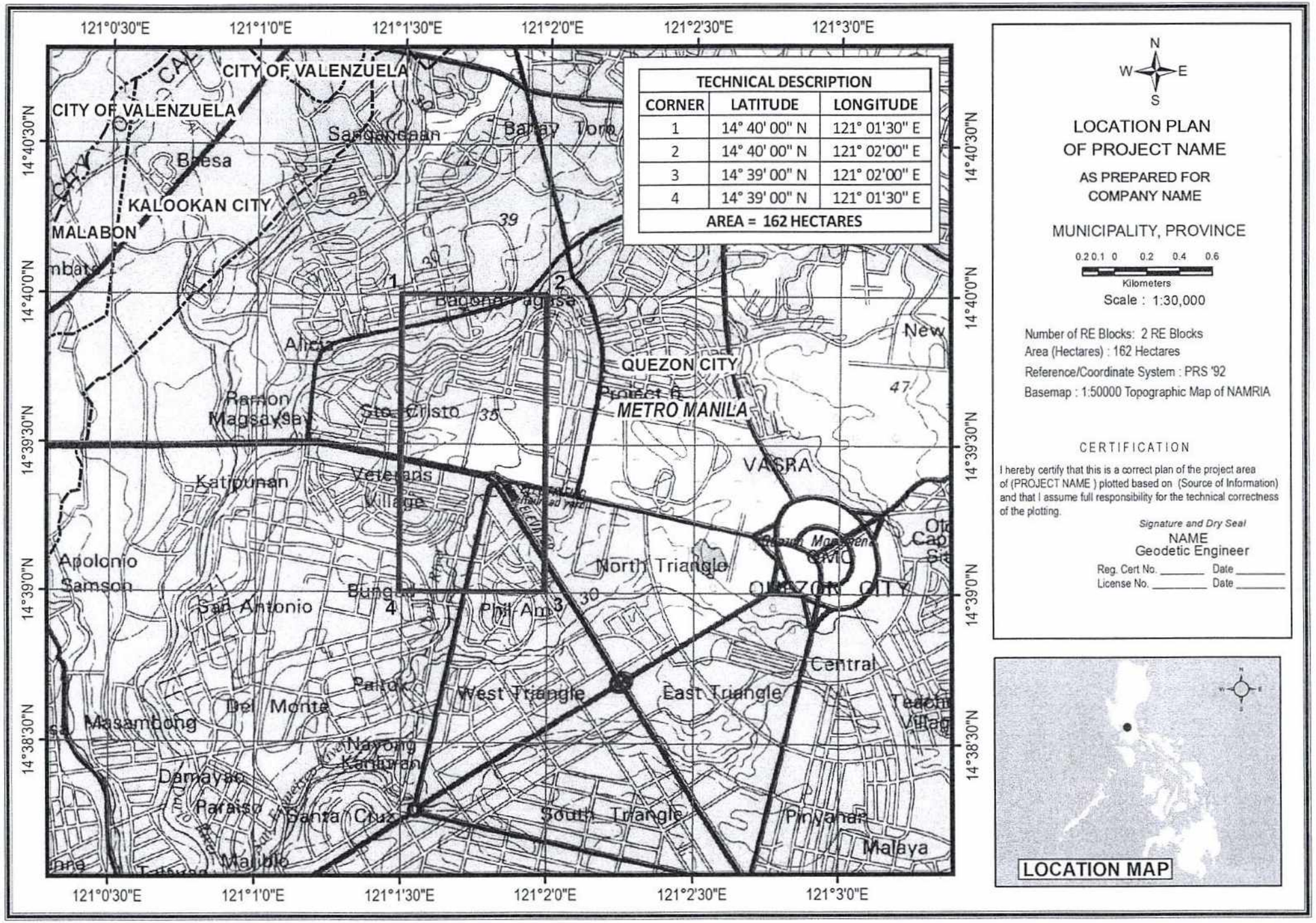
OWNER OF LOT/ RE APPLICANT :	**RE CORPORATION**	BARANGAY :	
LOT/PROJECT NAME :	**Cagayan Wind Power Project**	MUNICIPALITY/CITY:	**Sta. Ana, Gonzaga, and Lal-Lo**
SURVEY NO. :		PROVINCE :	**Cagayan**
TCT No./OCT No.:		ISLAND :	**LUZON**
N.ERROR:	M.	PTM / ZONE NO. :	III
E.ERROR:	M.		
L.ERROR:	M.		
RELATIVE ERROR: 1 :			

LINE	BEARING DEG-MIN-SEC	DISTANCE (METER)	CORNER NO.	GRID COORDINATES NORTHING	GRID COORDINATES EASTING	PRS '92 GEOGRAPHIC COORDINATES LATITUDE (N)	PRS '92 GEOGRAPHIC COORDINATES LONGITUDE (E)	REMARKS
CGY 3144 - PRS'92, Sta. Ana. Cagayan	S 53 6 17 W	3101.08		2,034,513.90900	621,387.30600	18-23-30.695	122-08-55.440	Tie point
1-2	S 72 50 32 E	15,035.21	1	2,032,652.16639	618,907.26446	18-22-30.653	122-07-30.569	
2-3	S 16 20 54 W	24,375.08	2	2,028,216.70207	633,273.34011	18-20-03.343	122-15-38.819	
3-4	N 71 14 12 W	29,695.40	3	2,004,827.16578	626,412.29662	18-07-24.184	122-11-40.000	
4-1	N 48 26 32 E	27,545.86	4	2,014,378.94287	598,295.03641	18-12-40.123	121-55-45.321	

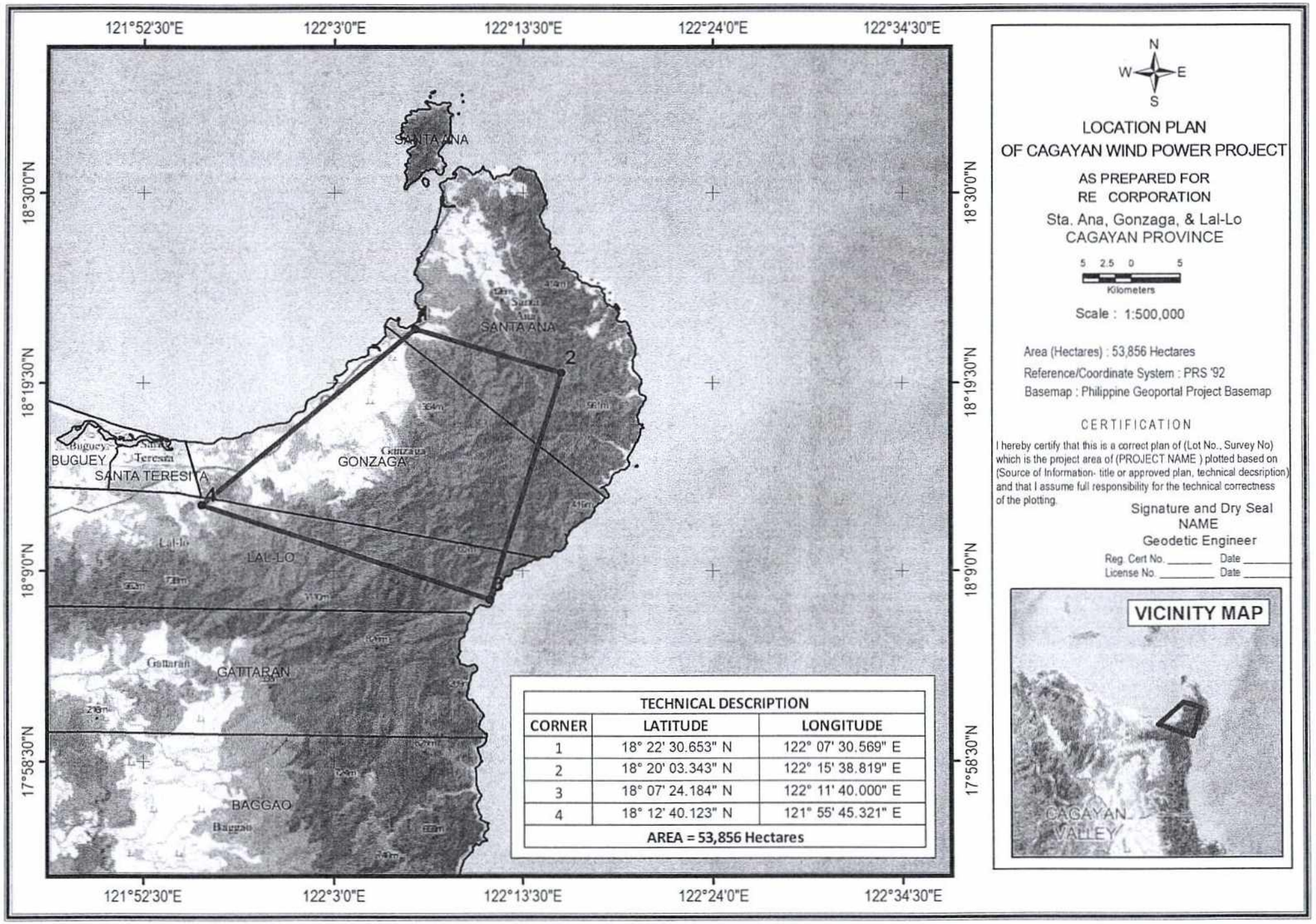
Sample Map A - For Solar and Biomass



Sample Map B - For Project Area Conforming with RE Blocking System



Sample Map C - For Project Area Not Conforming with RE Blocking System



TECHNICAL DESCRIPTION		
CORNER	LATITUDE	LONGITUDE
1	18° 22' 30.653" N	122° 07' 30.569" E
2	18° 20' 03.343" N	122° 15' 38.819" E
3	18° 07' 24.184" N	122° 11' 40.000" E
4	18° 12' 40.123" N	121° 55' 45.321" E
AREA = 53,856 Hectares		

Sample Map D - For Hydro