Appendix 5-3

Main Power Transformer Specification Sheet

Exhibit R Geronimo Energy MPT Detail Sheet								
GERONIMO' Brookside Solar								
Transformer Classification: Transmission Transformer Winding Configuration: Three Winding 3-Phase, 60 Hertz Elevation: Full MVA at 1000 m					Operation: Step-up or Step-down HV: Wye LV: Wye LV: Wye LV: Open Delta - Lags HV by 30 degrees Winding Insulation: Graded to the neutral			
Rating: ONAN/ONA	F/ONAF 650	2	75 / 100		MVA, Main MVA minimum, Tertiary top 65C rating	Minimur		<u>Minimum</u> Bushing
Nominal Vo	oltage (kV): HV:	115.00	Winding/Intern (kV): HV:	al BIL 450		Bushing/Exter (kV) HV:	mal BIL	Rating (Amperes) 800
	LV: TV:	34.50 13.80	LV: TV: H0: X0:	200 110 150 150		LV: TV: H0: XO:	200 200 150 150	3000 Note 1 1900 Note 1
NOTES: 1 When LV bushing BIL matches the neutral bushing BIL, bushing ampacities shall match. 2 One tertiary bushing CT required on one of the two corner bushings. 3 In 0.625% steps, line drop compensation is required.								
DETC: Not Required LTC: Required Note 3 Impedance: HV – LV 9.0 % +/- 7.5% ONAN rating Note 3 minus 10 % Oil preservation System: Conservator Design Surge Arresters LV 24.4 kV MCOV Oil preservation System: Conservator Design HV 84 kV MCOV Sound Level: 72 dBA No-Load w/all cooling								
					CT Requirements/phase			
Loss Evaluation: The following penalties will be assigned to transformer losses for evaluation: \$8,000 /kW No-Load at 100% voltage rating and 20C \$2,600 /kW Load at 85C (65C ONAN losses) \$2,600 /kW Auxiliary, second stage cooling rating					Location HV (top) HV (middle-1) HV (middle-2) HV (bottom) LV (top) LV (middle-1) LV (middle-2)	Current (A) 1200:5 2000:5 400:5 Space only 3000:5 3000:5	TRF 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	Accuracy C400 MR C800 MR SR 0.15B-1.8 C800 MR C800 MR C800 MR
Site Conditions					LV (bottom)	Space only	2.0	COULINK
Elevation Average Annual Temperature Average High Temperature	42 52	Feet above mean sea level Deg F Deg F			TV (Top) see Note 2 TV (Bottom) HV Neutral CT	2000:5 Space only 1200:5	2.0 2.0 2.0	C800 MR C400 MR
Extreme High Temperature Average Low Temperature Extreme Low Temperature Ambient Temperature Rating	99 42 -30 -45	Deg F Deg F Deg F Deg C to +40 Deg C			LV Neutral CT Quantity:	3000:5	2.0	C800 MR
Average Annual Precipitation (Rainfall) Storm Intensity 10 year - 1 hour Storm Intensity 1 hour (Maximum)	39 1.63 4	Inches Inches/Hour Inches/Hour			Location:	Brookside Sola Franklin County		920
Wind Loading DESCRIPTION Category NOTES Classification of Structure Category IV Ref. ASCE 7-10, Section 1.5				Delivery to Site Date 6/1/2023 Available for Energization Date: 7/1/2023 Technical Contact: John Strom				
Exposure Reference Wind Velocity, V Seismic Criteria	C 120 mph	Ref. ASCE 7- 2	10, Section 26.7 6.5		Telephone: Fax:	952-300-9483	energy.co	m
Mapped Maximum Considered Earthquake								
= 0.137g. Seismic Importance Factor, IE = 1.50. Based on the information presented in the Geotechnical Report, the project site has been assigned to Site Class D, to be verified by a site-specific geotechnical report.								