

Utility	MT_UTILITY_NAME	PSEG-Long Island		
Country	MT_COUNTRY	USA		
State	MT_STATE	NY		
Applicability Date	MT_APPLICABILITY_DATE	01/01/2023		
Power Conversion	MT_POWER_CONVERSION_DEV	SYNCHRONOUS_GENERATOR		
Normal Performance Category	MT_NP_NORMAL_OP_CAT-APP	CAT_A		
Abnormal Performance Category	MT_NP_ABNORMAL_OP_CAT-APP	CAT_I		
IEEE 1547 CLAUSE				
	CAPABILITY TO LIMIT ACTIVE POWER			UNITS PSEG-Required Setting
4.6.2	Limit Active Power Enable	AP_LIMIT_P_ENABLE-SS	Mode	DISABLED
	Maximum Active Power Setting	AP_MAX_P-SS	% S	100
	SERVICE CRITERIA			UNITS PSEG-Required Setting
4.10	Permit Service	ES_PERMIT_SERVICE-SS	Mode	ENABLED
	ES Voltage Low Setting	ES_V_LOW-SS	V p.u.	0.9
	ES Voltage High Setting	ES_V_HIGH-SS	V p.u.	1.05
	ES Frequency Low Setting	ES_F_LOW-SS	Hz	59.3
	ES Frequency High Setting	ES_F_HIGH-SS	Hz	60.5
	ES Randomized Delay	ES_RANDOMIZED_DELAY-SS	s	300
	ES Delay Setting	ES_DELAY-SS	s	300
	ES Ramp Rate Setting	ES_RAMP_RATE-SS	s	300
	CONSTANT POWER FACTOR MODE(Specified Power Factor)			UNITS PSEG-Required Setting
5.3.2	Constant Power Factor Mode	CONST_PF_MODE_ENABLE-SS	Mode	ENABLED
	Constant Power Factor Excitation	CONST_PF_EXCITATION-SS	Mode	ABS
	Constant Power Factor setting	CONST_PF-SS	PF	1
	CONSTANT REACTIVE POWER MODE			UNITS PSEG-Required Setting
5.3.5	Constant Reactive Power Mode Enable	CONST_Q_MODE_ENABLE-SS	Mode	DISABLED
	Constant Reactive Power Excitation	CONST_Q_MODE_EXCITATION-SS	% S	ABS
	Constant Reactive power setting	CONST_Q-SS	% S	0
	VOLT-REACTIVE POWER(Volt-Var Mode, Q(V), Voltage-Droop)			UNITS PSEG-Required Setting
5.3.3	Voltage-Reactive Power Mode Enable	QV_MODE_ENABLE-SS	Mode	DISABLED
	Vref	QV_VREF-SS	V p.u.	1.03
	Autonomous Vref Adjustment Enable	QV_VREF_AUTO_MODE-SS	Mode	DISABLED
	Vref adjustment time Constant	QV_VREF_OLRT-SS	s	3000
	Near Nominal			
	Point 2	V/Q Curve Point V2 Setting	V p.u.	1.03
		V/Q Curve Point Q2 Setting	Q p.u.	0
	Point 3	V/Q Curve Point V3 Setting	V p.u.	1.03
		V/Q Curve Point Q3 Setting	Q p.u.	0
	Point 1	V/Q Curve Point V1 Setting	V p.u.	1.01
		V/Q Curve Point Q1 Setting	Q p.u.	0.44
	Point 4	V/Q Curve Point V4 Setting	V p.u.	1.05
		V/Q Curve Point Q4 Setting	Q p.u.	-0.25
		QV Open Loop Response Time Setting	s	5
	MANDATORY VOLTAGE TRIPPING CHARACTERISTICS			UNITS/MODE PSEG-Required Setting
6.4.1	OV2	HV Trip Curve Point OV2 Setting	V p.u.	1.2
		HV Trip Curve Point OV2 Setting	s	0.16
	OV1	HV Trip Curve Point OV1 Setting	V p.u.	1.1
		HV Trip Curve Point OV1 Setting	s	1
	UV1	LV Curve Trip Point UV1 Setting	V p.u.	0.88
		LV Curve Trip Point UV1 Setting	s	5
	UV2	LV Curve Trip Point UV2 Setting	V p.u.	0.5
		LV Curve Trip Point UV2 Setting	s	0.16
	MANDATORY FREQUENCY TRIPPING CHARACTERISTICS			UNITS/MODE PSEG-Required Setting
6.5.1	OF2	OF Curve Trip Point OF2 Setting	Hz	62
		OF Curve Trip Point OF2 Setting	s	0.16
	OF1	OF Curve Trip Point OF1 Setting	Hz	61.2
		OF Curve Trip Point OF1 Setting	s	300
	UF1	UF Curve Trip Point UF1 Setting	Hz	58.5
		UF Curve Trip Point UF1 Setting	s	300
	UF2	UF Curve Trip Point UF2 Setting	Hz	56.5
		UF Curve Trip Point UF2 Setting	s	0.16
	FREQUENCY-DROOP(Frequency-Watt, P(f))			UNITS PSEG-Required Setting
6.5.2.7.2		Frequency-Active Power Mode Enable	PF_MODE_ENABLE-SS	Mode ENABLED
	Deadband	Overfrequency Droop dbOF Setting	PF_DBOF-SS	Hz 0.036
		Underfrequency Droop dbUF Setting	PF_DBUF-SS	Hz 0.036
	Coefficient	Overfrequency Droop kOF Setting	PF_KOF-SS	unitless 0.05
		Underfrequency Droop kUF Setting	PF_KUF-SS	unitless 0.05
		P(f) Open Loop Response Time Setting	PF_OLRT-SS	s 5

DER Performance categories, defined in IEEE 1547, are assigned as follows:

- a. Synchronous and induction generator DER shall meet or exceed the requirements specified for Performance Category I.
- b. Photovoltaic or battery energy storage DER shall meet or exceed the requirements specified for Performance Category III.
- c. All other inverter-based DER shall meet or exceed the requirements specified for Performance Category II. Category II shall not be applied to Photovoltaic (solar) and battery energy storage.

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Power Conversion	MT_POWER_CONVERSION_DEV	INVERTER
Normal Performance Category	MT_NP_NORMAL_OP_CAT-APP	CAT B
Abnormal Performance Category	MT_NP_ABNORMAL_OP_CAT-APP	CAT II

IEEE 1547 CLAUSE			UNITS	PSEG-Required Setting
4.6.2	CAPABILITY TO LIMIT ACTIVE POWER			
		Limit Active Power Enable	AP_LIMIT_P_ENABLE-SS	Mode DISABLED
		Maximum Active Power Setting	AP_MAX_P-SS	% S 100
4.1	SERVICE CRITERIA			
		Permit Service	ES_PERMIT_SERVICE-SS	Mode ENABLED
	ES Voltage Low Setting	ES_V_LOW-SS	V p.u.	0.9
		ES_V_HIGH-SS	V p.u.	1.05
	ES Frequency Low Setting	ES_F_LOW-SS	Hz	59.3
		ES_F_HIGH-SS	Hz	60.5
	ES Randomized Delay	ES_RANDOMIZED_DELAY-SS	s	300
	ES Delay Setting	ES_DELAY-SS	s	300
ES Ramp Rate Setting	ES_RAMP_RATE-SS	s	300	
5.3.2	CONSTANT POWER FACTOR MODE(Specified Power Factor)			
		Constant Power Factor Mode	CONST_PF_MODE_ENABLE-SS	Mode ENABLED
		Constant Power Factor Excitation	CONST_PF_EXCITATION-SS	Mode ABS
	Constant Power Factor setting	CONST_PF-SS	PF 1	
5.3.5	CONSTANT REACTIVE POWER MODE			
		Constant Reactive Power Mode Enable	CONST_Q_MODE_ENABLE-SS	Mode DISABLED
		Constant Reactive Power Excitation	CONST_Q_MODE_EXCITATION-SS	% S ABS
	Constant Reactive power setting	CONST_Q-SS	% S 0	
5.3.3	VOLT-REACTIVE POWER(Volt-Var Mode, Q(V), Voltage-Droop)			
		Voltage-Reactive Power Mode Enable	QV_MODE_ENABLE-SS	Mode DISABLED
	Near Nominal	Vref	QV_VREF-SS	V p.u. 1.03
		Autonomous Vref Adjustment Enable	QV_VREF_AUTO_MODE-SS	Mode DISABLED
		Vref adjustment time Constant	QV_VREF_OLRT-SS	s 3000
	Point 2	V/Q Curve Point V2 Setting	QV_CURVE_V2-SS	V p.u. 1.025
		V/Q Curve Point Q2 Setting	QV_CURVE_Q2-SS	Q p.u. 0
	Point 3	V/Q Curve Point V3 Setting	QV_CURVE_V3-SS	V p.u. 1.035
		V/Q Curve Point Q3 Setting	QV_CURVE_Q3-SS	Q p.u. 0
	Point 1	V/Q Curve Point V1 Setting	QV_CURVE_V1-SS	V p.u. 1.005
		V/Q Curve Point Q1 Setting	QV_CURVE_Q1-SS	Q p.u. 0.44
	Point 4	V/Q Curve Point V4 Setting	QV_CURVE_V4-SS	V p.u. 1.055
		V/Q Curve Point Q4 Setting	QV_CURVE_Q4-SS	Q p.u. -0.44
	QV Open Loop Response Time Setting	QV_OLRT-SS	s 5	
5.3.4	ACTIVE POWER-REACTIVE POWER(Watt-Var Mode, Q(P))			
		Active Power Reactive Power Mode Enable	QP_MODE_ENABLE-SS	Mode DISABLED
	Active Power, Generation	P-Q curve P3 Setting	QP_CURVE_P3_GEN-SS	P p.u. 1
		P-Q curve P2P-Q Setting	QP_CURVE_P2_GEN-SS	P p.u. 0.5
		P-Q curve P1 Setting	QP_CURVE_P1_GEN-SS	P p.u. 0.2
	Active Power, Absorption	P-Q curve P3 Setting	QP_CURVE_P1_LOAD-SS	P p.u. -0.2
		P-Q curve P3 Setting	QP_CURVE_P2_LOAD-SS	P p.u. -0.5
		P-Q curve P3 Setting	QP_CURVE_P3_LOAD-SS	P p.u. -1
	Reactive Power, Generation	P-Q curve P3 Setting	QP_CURVE_Q3_GEN-SS	S p.u. -0.44
		P-Q curve P3 Setting	QP_CURVE_Q2_GEN-SS	Q p.u. 0
		P-Q curve P3 Setting	QP_CURVE_Q1_GEN-SS	Q p.u. 0
	Reactive Power, Absorption	P-Q curve P3 Setting	QP_CURVE_Q1_LOAD-SS	Q p.u. 0
		P-Q curve P3 Setting	QP_CURVE_Q2_LOAD-SS	Q p.u. 0
P-Q curve P3 Setting		QP_CURVE_Q3_LOAD-SS	S p.u. 0.44	
5.4.2	VOLT-ACTIVE POWER MODE(Volt-Watt Mode, P(V))			
		Voltage-Active Power Mode Enable	PV_MODE_ENABLE-SS	Mode DISABLED
	Point 1	PV Curve Point V1 Setting	PV_CURVE_V1-SS	V p.u. 1.08
		PV Curve Point P1 Setting	PV_CURVE_P1-SS	P p.u. 1
	Point 2	PV Curve Point V2 Setting	PV_CURVE_V2-SS	V p.u. 1.1
		PV Curve Point P2 gen Setting	PV_CURVE_P2_GEN-SS	P p.u. 0
	PV Curve Point P'2 load Setting	PV_CURVE_P2_LOAD-SS	P p.u. 0	
	P(V) Open Loop Response time Setting	PV_OLRT-SS	s 2	
6.4.1	MANDATORY VOLTAGE TRIPPING CHARACTERISTICS			
	OV2	HV Trip Curve Point OV2 Setting	OV2_TRIP_V-SS	V p.u. 1.2
		HV Trip Curve Point OV2 Setting	OV2_TRIP_T-SS	s 0.16
	OV1	HV Trip Curve Point OV1 Setting	OV1_TRIP_V-SS	V p.u. 1.1
		HV Trip Curve Point OV1 Setting	OV1_TRIP_T-SS	s 1
	UV1	LV Curve Trip Point UV1 Setting	UV1_TRIP_V-SS	V p.u. 0.88
		LV Curve Trip Point UV1 Setting	UV1_TRIP_T-SS	s 5
	UV2	LV Curve Trip Point UV2 Setting	UV2_TRIP_V-SS	V p.u. 0.5
LV Curve Trip Point UV2 Setting		UV2_TRIP_T-SS	s 0.16	
6.5.1	MANDATORY FREQUENCY TRIPPING CHARACTERISTICS			
	OF2	OF Curve Trip Point OF2 Setting	OF2_TRIP_F-SS	Hz 62
		OF Curve Trip Point OF2 Setting	OF2_TRIP_T-SS	s 0.16
	OF1	OF Curve Trip Point OF1 Setting	OF1_TRIP_F-SS	Hz 61.2
		OF Curve Trip Point OF1 Setting	OF1_TRIP_T-SS	s 300
	UF1	UF Curve Trip Point UF1 Setting	UF1_TRIP_F-SS	Hz 58.5
		UF Curve Trip Point UF1 Setting	UF1_TRIP_T-SS	s 300
	UF2	UF Curve Trip Point UF2 Setting	UF2_TRIP_F-SS	Hz 56.5
UF Curve Trip Point UF2 Setting		UF2_TRIP_T-SS	s 0.16	
6.5.2.7.2	FREQUENCY-DROOP(Frequency-Watt, P(f))			
		Frequency-Active Power Mode Enable	PF_MODE_ENABLE-SS	Mode ENABLED
	Deadband	Overfrequency Droop dbOF Setting	PF_DBOF-SS	Hz 0.036
		Underfrequency Droop dbUF Setting	PF_DBUF-SS	Hz 0.036
	Coefficient	Overfrequency Droop kOF Setting	PF_KOF-SS	unitless 0.05
		Underfrequency Droop kUF Setting	PF_KUF-SS	unitless 0.05
	P(f) Open Loop Response Time Setting	PF_OLRT-SS	s 5	

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State	MT_STATE	NY
Applicability Date	MT_APPLICABILITY_DATE	01/01/2023
Power Conversion	MT_POWER_CONVERSION_DEV	INVERTER
Normal Performance Category	MT_NP_NORMAL_OP_CAT-APP	CAT_B
Abnormal Performance Category	MT_NP_ABNORMAL_OP_CAT-APP	CAT_III

IEEE 1547 CLAUSE						
4.6.2	CAPABILITY TO LIMIT ACTIVE POWER			UNITS	PSEG-Required Setting	
		Limit Active Power Enable	AP_LIMIT_P_ENABLE-SS	Mode	DISABLED	
		Maximum Active Power Setting	AP_MAX_P-SS	% S	100	
4.1	SERVICE CRITERIA			UNITS	PSEG-Required Setting	
		Permit Service	ES_PERMIT_SERVICE-SS	Mode	ENABLED	
		ES Voltage Low Setting	ES_V_LOW-SS	V p.u.	0.9	
		ES Voltage High Setting	ES_V_HIGH-SS	V p.u.	1.05	
		ES Frequency Low Setting	ES_F_LOW-SS	Hz	59.3	
		ES Frequency High Setting	ES_F_HIGH-SS	Hz	60.5	
		ES Randomized Delay	ES_RANDOMIZED_DELAY-SS	s	300	
		ES Delay Setting	ES_DELAY-SS	s	300	
5.3.2	CONSTANT POWER FACTOR MODE(Specified Power Factor)			UNITS	PSEG-Required Setting	
		Constant Power Factor Mode	CONST_PF_MODE_ENABLE-SS	Mode	ENABLED	
		Constant Power Factor Excitation	CONST_PF_EXCITATION-SS	Mode	ABS	
5.3.5	CONSTANT REACTIVE POWER MODE			UNITS	PSEG-Required Setting	
		Constant Reactive Power Mode Enable	CONST_Q_MODE_ENABLE-SS	Mode	DISABLED	
		Constant Reactive Power Excitation	CONST_Q_MODE_EXCITATION-SS	% S	ABS	
5.3.3	VOLT-REACTIVE POWER(Volt-Var Mode, Q(V), Voltage-Droop)			UNITS	PSEG-Required Setting	
		Voltage-Reactive Power Mode Enable	QV_MODE_ENABLE-SS	Mode	DISABLED	
	Near Nominal		Vref	QV_VREF-SS	V p.u.	1.03
			Autonomous Vref Adjustment Enable	QV_VREF_AUTO_MODE-SS	Mode	DISABLED
			Vref adjustment time Constant	QV_VREF_OLRT-SS	s	3000
	Point 2		V/Q Curve Point V2 Setting	QV_CURVE_V2-SS	V p.u.	1.025
			V/Q Curve Point Q2 Setting	QV_CURVE_Q2-SS	Q p.u.	0
	Point 3		V/Q Curve Point V3 Setting	QV_CURVE_V3-SS	V p.u.	1.035
			V/Q Curve Point Q3 Setting	QV_CURVE_Q3-SS	Q p.u.	0
	Point 1		V/Q Curve Point V1 Setting	QV_CURVE_V1-SS	V p.u.	1.005
			V/Q Curve Point Q1 Setting	QV_CURVE_Q1-SS	Q p.u.	0.44
	Point 4		V/Q Curve Point V4 Setting	QV_CURVE_V4-SS	V p.u.	1.055
		V/Q Curve Point Q4 Setting	QV_CURVE_Q4-SS	Q p.u.	-0.44	
		QV Open Loop Response Time Setting	QV_OLRT-SS	s	5	
5.3.4	ACTIVE POWER-REACTIVE POWER(Watt-Var Mode, Q(P))			UNITS	PSEG-Required Setting	
		Active Power Reactive Power Mode Enable	QP_MODE_ENABLE-SS	Mode	DISABLED	
	Active Power, Generation		P-Q curve P3 Setting	QP_CURVE_P3_GEN-SS	P p.u.	1
			P-Q curve P2-P-Q Setting	QP_CURVE_P2_GEN-SS	P p.u.	0.5
			P-Q curve P1 Setting	QP_CURVE_P1_GEN-SS	P p.u.	0.2
	Active Power, Absorption		P-Q curve P3 Setting	QP_CURVE_P1_LOAD-SS	P p.u.	-0.2
			P-Q curve P3 Setting	QP_CURVE_P2_LOAD-SS	P p.u.	-0.5
			P-Q curve P3 Setting	QP_CURVE_P3_LOAD-SS	P p.u.	-1
	Reactive Power, Generation		P-Q curve P3 Setting	QP_CURVE_Q3_GEN-SS	S p.u.	-0.44
			P-Q curve P3 Setting	QP_CURVE_Q2_GEN-SS	Q p.u.	0
			P-Q curve P3 Setting	QP_CURVE_Q1_GEN-SS	Q p.u.	0
			P-Q curve P3 Setting	QP_CURVE_Q1_LOAD-SS	Q p.u.	0
	Reactive Power, Absorption		P-Q curve P3 Setting	QP_CURVE_Q2_LOAD-SS	Q p.u.	0
			P-Q curve P3 Setting	QP_CURVE_Q3_LOAD-SS	S p.u.	0.44
5.4.2	VOLT-ACTIVE POWER MODE(Volt-Watt Mode, P(V))			UNITS	PSEG-Required Setting	
		Voltage-Active Power Mode Enable	PV_MODE_ENABLE-SS	Mode	DISABLED	
	Point 1		PV Curve Point V1 Setting	PV_CURVE_V1-SS	V p.u.	1.08
			PV Curve Point P1 Setting	PV_CURVE_P1-SS	P p.u.	1
	Point 2		PV Curve Point V2 Setting	PV_CURVE_V2-SS	V p.u.	1.1
			PV Curve Point P2 gen Setting	PV_CURVE_P2_GEN-SS	P p.u.	0
			PV Curve Point P2 load Setting	PV_CURVE_P2_LOAD-SS	P p.u.	0
		P(V) Open Loop Response time Setting	PV_OLRT-SS	s	2	
6.4.1	MANDATORY VOLTAGE TRIPPING CHARACTERISTICS			UNITS/MODE	PSEG-Required Setting	
	OV2		HV Trip Curve Point OV2 Setting	OV2_TRIP_V-SS	V p.u.	1.2
			HV Trip Curve Point T-SS	OV2_TRIP_T-SS	s	0.16
	OV1		HV Trip Curve Point OV1 Setting	OV1_TRIP_V-SS	V p.u.	1.1
			HV Trip Curve Point T-SS	OV1_TRIP_T-SS	s	2
	UV1		LV Curve Trip Point UV1 Setting	UV1_TRIP_V-SS	V p.u.	0.88
			LV Curve Trip Point T-SS	UV1_TRIP_T-SS	s	5
	UV2		LV Curve Trip Point UV2 Setting	UV2_TRIP_V-SS	V p.u.	0.5
		LV Curve Trip Point T-SS	UV2_TRIP_T-SS	s	1.1	
6.4.2.7.3	MOMENTARY CESSATION PARAMETERS (NOT MANDATORY)			UNITS/MODE	PSEG-Required Setting	
		HV MomCess Curve Point V1 Setting	MC_HVRT_V1-SS	V p.u.	1.1	
	LV	LV MomCess Curve Point V1 Setting	MC_LVRT_V1-SS	V p.u.	0.5	
6.5.1	MANDATORY FREQUENCY TRIPPING CHARACTERISTICS			UNITS/MODE	PSEG-Required Setting	
	OF2		OF Curve Trip Point OF2 Setting	OF2_TRIP_F-SS	Hz	62
			OF Curve Trip Point T-SS	OF2_TRIP_T-SS	s	0.16
	OF1		OF Curve Trip Point OF1 Setting	OF1_TRIP_F-SS	Hz	61.2
			OF Curve Trip Point T-SS	OF1_TRIP_T-SS	s	300
	UF1		UF Curve Trip Point UF1 Setting	UF1_TRIP_F-SS	Hz	58.5
			UF Curve Trip Point T-SS	UF1_TRIP_T-SS	s	300
	UF2		UF Curve Trip Point UF2 Setting	UF2_TRIP_F-SS	Hz	56.5
		UF Curve Trip Point T-SS	UF2_TRIP_T-SS	s	0.16	
6.5.2.7.2	FREQUENCY-DROOP(Frequency-Watt, P(f))			UNITS	PSEG-Required Setting	
		Frequency-Active Power Mode Enable	PF_MODE_ENABLE-SS	Mode	ENABLED	
	Deadband		Overfrequency Droop dbOF Setting	PF_DBOF-SS	Hz	0.036
			Underfrequency Droop dbUF Setting	PF_DBUF-SS	Hz	0.036
	Coefficient		Overfrequency Droop kOF Setting	PF_KOF-SS	unitless	0.05
		Underfrequency Droop kUF Setting	PF_KUF-SS	unitless	0.05	
		P(f) Open Loop Response Time Setting	PF_OLRT-SS	s	5	

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