

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Continue Electric)	
Integrated Resource Planning and Related)	Rulemaking 20-05-003
Procurement Processes.)	(Filed May 7, 2020)
)	
)	

In compliance with the requirements from California Public Utilities Commission (“Commission”) Decision (“D.”) 20-12-044, D.21-06-035, related Energy Division guidance, and Energy Division’s January 4, 2023, *Filing Requirements Overview for February 1, 2023 IRP Procurement Compliance Filing & Data Request*, The Regents of the University of California (“UC”) hereby provides its February 2023 Integrated Resource Plan (“IRP”) Procurement Update to the Commission.

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I. CONCLUSION

UC thanks the Commission for its time and effort in this Rulemaking and for its review of UC's February 2023 IRP Procurement Update.

Dated: February 1, 2023

Respectfully submitted,

/s/ Josh Stoops

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On behalf of The Regents of the University of
California

Attachment A

UC Verification

Verification

Consistent with the direction provided in Energy Division's January 4, 2023, *Filing Requirements Overview for February 1, 2023 IRP Procurement Compliance Filing & Data Request* and Rule 1.11 of the California Public Utilities Commission's ("Commission") Rules of Practice and Procedure, Clean Energy Alliance provides this Verification. I am an officer of the reporting organization herein and am authorized to make this verification on its behalf. The statements in the foregoing document are true of my own knowledge, except as to matters which are therein stated on information or belief, and as to those matters, I believe them to be true. I declare under the penalty of perjury that the foregoing is true and correct.

Executed on February 1, 2023, at Oakland, California.

Respectfully submitted,

/s/ Cynthia Clark

Cynthia Clark
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President
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Attachment B
[PUBLIC]
UC RDTv3

is_unique_contract_id	resource	alternative_resource_name	contract_status	project_interconnection_position	interconnection_substation	marginal_addition	marginal_addition_to	total_nameplate_capacity	contracted_nameplate_capacity	sep_contracted_mw_mpc	contract_gwh_annual	is_hybrid_paired	can_charge_from_grid	total_generator_mw	contracted_generator_mw
UC_BAONLY_RCA-2	NEW_GENERIC_SOLAR_1AKIS	Sandhills Sol 1 Solar Park	Development	Q-1307	NA	NA						Nonhybrid			
UC_PPA_GoldenFields-1	NEW_GENERIC_SOLAR_1AKIS	Golden Fields Solar	Development	Q-1212	NA	NA						Nonhybrid			
UC_PPA_Giffen	GIFENS & BUSSELL	Giffen	Online			NA						Nonhybrid			

law_unique_contract_id	resource	total_storage_mwh	contracted_storage_mwh	solar_technology_sub_type	storage_technology_sub_type	total_storage_depth_mwh	contracted_storage_depth_mwh	viability_cost_reasonableness	viability_technical_feasibility	viability_financing_controls	resource_mix	cam_d1911016_vamo_ghgfreepcia	buy_sell_mwh	counterparty	generator_supplier
UC_BACONLY_RICA-2	NEW-GENERIC-SOLAR-1ANIS			1ANIS								D-19-11-016	Buy	Redwood Coast Energy Authority	EDPR North America
UC_PPA_GoldenFields-1	NEW-GENERIC-SOLAR-1ANIS			1ANIS									Buy	non-LSE supplier	Golden Fields Solar JV LLC
UC_PPA_Giffen	GIFENS & BUSSEL			1ANIS								D-19-11-016	Buy	non-LSE supplier	Giffen Solar Park LLC

luc_unique_contract_id	resource	developer_name	capacity_area	capacity_sub_area	cpuc_approval_ref	county	COD_year	COD_month	COD_day	contract_start_date_year	contract_start_date_month	contract_start_date_day	contract_end_date_year	contract_end_date_month	contract_end_date_day	contract_execution_date_year	contract_execution_date_month	contract_execution_date_day	tx_upgrades
UC_BACONLY_RICA-2	NEW-GENERIC-SOLAR-1AKIS	NA	Kern			KernCounty													
UC_PPA_CaldenFields-1	NEW-GENERIC-SOLAR-1AKIS	NA	Kern			KernCounty													
UC_PPA_Giffen	GIFFEN-6-BUSCELL	NA	GreaterFresno			FresnoCounty	2017	8	3	2014	9	3	2042	8	2	2014	9	3	

tx_unique_contract_id	resource	tx_upgrade_date_year	tx_upgrade_date_month	tx_upgrade_date_day	tx_upgrade_description	d1911016_branche	d2196035_procurement_cat	mtr_branch1_NQC	mtr_branch2_NQC	mtr_branch3_NQC	mtr_branch4_NQC_LDES	mtr_branch4_NQC_firm_ZE	mtr_NQC_ZE_gen_paired_dr	previous_COD_year	previous_COD_month	previous_COD_day	remediation_plan	signed_contract	notice_to_proceed	public_contract
UC_BACONLY_RICA-2	NEW-GENERIC-SOLAR-2ANIS					3														
UC_PPA_CaldenFields-1	NEW-GENERIC-SOLAR-2ANIS																			
UC_PPA_Giffen	GIFENS 6_BUGSLL					18.783											NO	YES	YES	

bx_unique_contract_id	resource	buying_energy_capacity	NQC_reporting_source	procurement_origin	csp_resource_category	csp_annual_2024	csp_annual_2025	csp_annual_2030	csp_annual_2035	macro_supertype	notes
UC_BACONLY_RCA-2	NEW-GENERIC-SOLAR-1A1S	CapacityOnly	In the contract	D1911016	NA					nongeneric	
UC_PPA_GoldenFields-1	NEW-GENERIC-SOLAR-1A1S	EnergyCapacity	Calculated		Solar New SCE SDG&E (GWh)					nongeneric	
UC_PPA_Giffen	GIFENS-6-BUSDL1	EnergyCapacity	Calculated	D1911016	Solar Baseline California (GWh)	\$7.39428	\$7.17008	\$6.72524	\$6.17628	physical	

resource	contract status	contracted nameplate capacity	is hybrid paired	can charge from grid	contracted generator mw	contracted storage mw	contracted storage depth mwh	buy sell own	contract start date year	contract start date month
_NEW_GENERIC_SOLAR_1AXIS	Development		NotHybrid	0				Buy		
_NEW_GENERIC_SOLAR_1AXIS	Development		NotHybrid	0				Buy		
_NEW_GENERIC_BATTERY_STORAGE	Development		NotHybrid	0				Buy		
GIFENS_6_BUGSL1	Online		NotHybrid	0				Buy		
_NEW_GENERIC_WIND	PlannedNew		NotHybrid	0				Buy		
_CREZ_GENERIC_NEW_MEXICO_WIND	PlannedNew		NotHybrid	0				Buy		
_NEW_GENERIC_BATTERY_STORAGE	PlannedNew		NotHybrid	0				Buy		
_NEW_GENERIC_BATTERY_STORAGE	PlannedNew		NotHybrid	0				Buy		

resource	contract_start_date_day	contract_end_date_year	contract_end_date_month	contract_end_date_day	buying_energy_capacity	multiplier	resource_el	hybrid/pair	elec type (f)	start year	end year	hybrid stor	short dura	2024	2025	2026	2027	2028
_NEW_GENERIC_SOLAR_1AXIS					CapacityOnly	1	utility_pv	n/a	utility_pv	2024	2032	100%	100%					
_NEW_GENERIC_SOLAR_1AXIS					EnergyCapacity	1	utility_pv	n/a	utility_pv	2025	2039	100%	100%					
_NEW_GENERIC_BATTERY_STORAGE					EnergyCapacity	1	4hr_batter	n/a	4hr_batter	2025	2039	100%	100%					
GIFENS_6_BUGSL1					EnergyCapacity	1	utility_pv	n/a	utility_pv	2015	2041	100%	100%					
_NEW_GENERIC_WIND					EnergyCapacity	1	in_state_w	n/a	in_state_w	2025	2038	100%	100%					
_CREZ_GENERIC_NEW_MEXICO_WIND					EnergyCapacity	1	out_of_sta	n/a	out_of_sta	2026	2040	100%	100%					
_NEW_GENERIC_BATTERY_STORAGE					CapacityOnly	1	4hr_batter	n/a	4hr_batter	2024	2033	100%	100%					
_NEW_GENERIC_BATTERY_STORAGE					CapacityOnly	1	4hr_batter	n/a	4hr_batter	2024	2033	100%	100%					

resource	2029	2030	2031	2032	2033	2034	2035
_NEW_GENERIC_SOLAR_1AXIS							
_NEW_GENERIC_SOLAR_1AXIS							
_NEW_GENERIC_BATTERY_STORAGE							
GIFENS_6_BUGSL1							
_NEW_GENERIC_WIND							
_CREZ_GENERIC_NEW_MEXICO_WIND							
_NEW_GENERIC_BATTERY_STORAGE							
_NEW_GENERIC_BATTERY_STORAGE							

Reliability Need												
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
CAISO gross peak (MW)	53,530	54,113	54,769	55,494	56,125	56,797	57,454	58,178	58,827	59,511	60,161	60,803
PRM (%)	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%
CAISO total reliability need (TRN) (MW)	61,024	61,689	62,437	63,263	63,983	64,749	65,498	66,323	67,063	67,843	68,584	69,315
MRN/TRN ratio	0.77	0.79	0.80	0.78	0.75	0.76	0.77	0.74	0.71	0.68	0.65	0.63
CAISO marginal reliability need (MRN) (MW)	47,112	48,652	50,193	49,099	48,005	49,369	50,732	49,261	47,790	46,318	44,847	43,376
LSE managed peak share (%)												
LSE MRN (MW)												

BTM PV												
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Capacity (MW)	38	38	41	43	46	49	51	54	56	59	61	63

ELCC (%)												
Resource Type	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
in_state_wind_south	12%	14%	15%	11%	6%	8%	9%	8%	7%	6%	5%	4%
in_state_wind_north	24%	27%	31%	21%	12%	15%	19%	17%	15%	13%	11%	9%
out_of_state_wind_WYID	47%	45%	44%	38%	32%	33%	34%	33%	32%	31%	31%	30%
out_of_state_wind_WAOR	29%	28%	27%	23%	20%	20%	21%	20%	20%	19%	19%	18%
out_of_state_wind_AZNM	42%	41%	40%	34%	29%	30%	30%	30%	29%	28%	28%	27%
offshore_wind	67%	62%	56%	56%	55%	58%	61%	55%	49%	44%	38%	32%
utility_pv	12%	12%	12%	10%	8%	8%	7%	7%	7%	7%	7%	6%
btm_pv	5%	5%	4%	5%	6%	5%	5%	5%	5%	5%	5%	6%
4hr_batteries	85%	86%	87%	85%	82%	85%	89%	79%	69%	60%	50%	40%
5hr_batteries	86%	87%	88%	85%	83%	86%	89%	81%	72%	64%	56%	47%
6hr_batteries	87%	88%	88%	86%	84%	86%	89%	82%	75%	69%	62%	55%
7hr_batteries	88%	88%	88%	86%	85%	87%	89%	84%	78%	73%	68%	62%
8hr_batteries	89%	89%	88%	87%	86%	87%	89%	85%	81%	77%	73%	70%
pumped_storage	90%	89%	88%	87%	86%	87%	89%	86%	83%	80%	76%	73%
demand_response	77%	80%	82%	77%	73%	80%	86%	72%	58%	43%	29%	14%
hydro	51%	52%	53%	52%	51%	53%	54%	52%	50%	48%	45%	43%
small_hydro	36%	37%	38%	38%	37%	38%	39%	37%	36%	34%	32%	31%
geothermal	86%	89%	92%	92%	93%	92%	91%	92%	93%	93%	94%	95%
biomass_wood	78%	79%	81%	82%	83%	81%	80%	82%	84%	85%	87%	88%
biogas	75%	77%	78%	79%	79%	78%	77%	78%	80%	82%	84%	86%
nuclear	93%	94%	94%	94%	94%	93%	93%	93%	94%	95%	95%	96%
gas_cc	84%	85%	86%	87%	87%	86%	85%	86%	87%	88%	90%	91%
gas_ct	81%	83%	86%	84%	82%	81%	79%	80%	82%	83%	84%	85%
cogen	93%	93%	93%	93%	94%	93%	92%	93%	93%	93%	93%	93%
ice	93%	94%	94%	94%	94%	95%	95%	93%	92%	91%	89%	88%
coal	69%	71%	73%	72%	72%	69%	66%	69%	72%	75%	78%	81%
steam	78%	79%	81%	80%	80%	78%	76%	78%	80%	82%	84%	87%
unspecified_import	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Contract ELCC (effective MW)													
Resource Type	Contract Status	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
hybrid	Online												
in_state_wind_south	Online												
in_state_wind_north	Online												
out_of_state_wind_WYID	Online												
out_of_state_wind_WAOR	Online												
out_of_state_wind_AZNM	Online												
offshore_wind	Online												
utility_pv	Online												
btm_pv	Online												
4hr_batteries	Online												
5hr_batteries	Online												
6hr_batteries	Online												
7hr_batteries	Online												
8hr_batteries	Online												
pumped_storage	Online												
demand_response	Online												
hydro	Online												
small_hydro	Online												
geothermal	Online												
biomass_wood	Online												
biogas	Online												
nuclear	Online												
gas_cc	Online												
gas_ct	Online												
cogen	Online												
ice	Online												
coal	Online												
steam	Online												
unspecified_import	Online												
hybrid	Development												
in_state_wind_south	Development												
in_state_wind_north	Development												
out_of_state_wind_WYID	Development												
out_of_state_wind_WAOR	Development												
out_of_state_wind_AZNM	Development												
offshore_wind	Development												
utility_pv	Development												
btm_pv	Development												
4hr_batteries	Development												
5hr_batteries	Development												
6hr_batteries	Development												
7hr_batteries	Development												
8hr_batteries	Development												
pumped_storage	Development												
demand_response	Development												
hydro	Development												
small_hydro	Development												
geothermal	Development												
biomass_wood	Development												
biogas	Development												
nuclear	Development												
gas_cc	Development												
gas_ct	Development												
cogen	Development												
ice	Development												
coal	Development												
steam	Development												
unspecified_import	Development												
hybrid	Review												
in_state_wind_south	Review												
in_state_wind_north	Review												
out_of_state_wind_WYID	Review												

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2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
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steam	
unspecified_import	
LSE total supply (effective MW)	
Net capacity position (+ve = excess, -ve = shortfall) (effective MW)	

Load and Resource Table by Contract Status												
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
LSE reliability need (MW)												
ELCC by contract status (effective MW)												
Online												
Development												
Review												
PlannedExisting												
PlannedNew												
BTM PV												
LSE total supply (effective MW)												
Net capacity position (+ve = excess, -ve = shortfall) (effective MW)												

Attachment C
[CONFIDENTIAL-REDACTED]
UC Supporting Documents