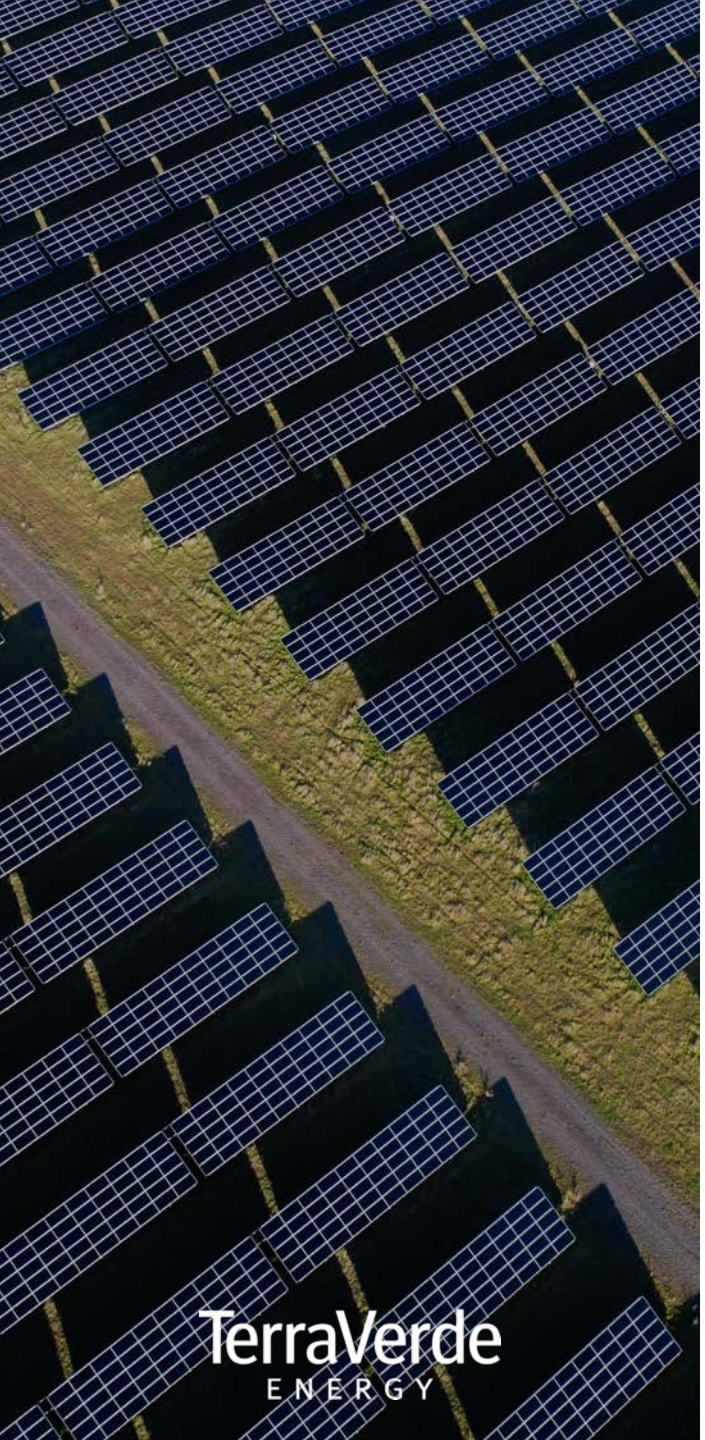
Coronado USD Feasibility Assessment for Solar PV & Battery Energy Storage

Summary of Findings

January 16, 2020

TerraVerde ENERGY



Findings Report Summary Presentation

Overview of Feasibility Study Process

Summary of Site Assessments

Proposed Projects – Solar PV & Energy Storage

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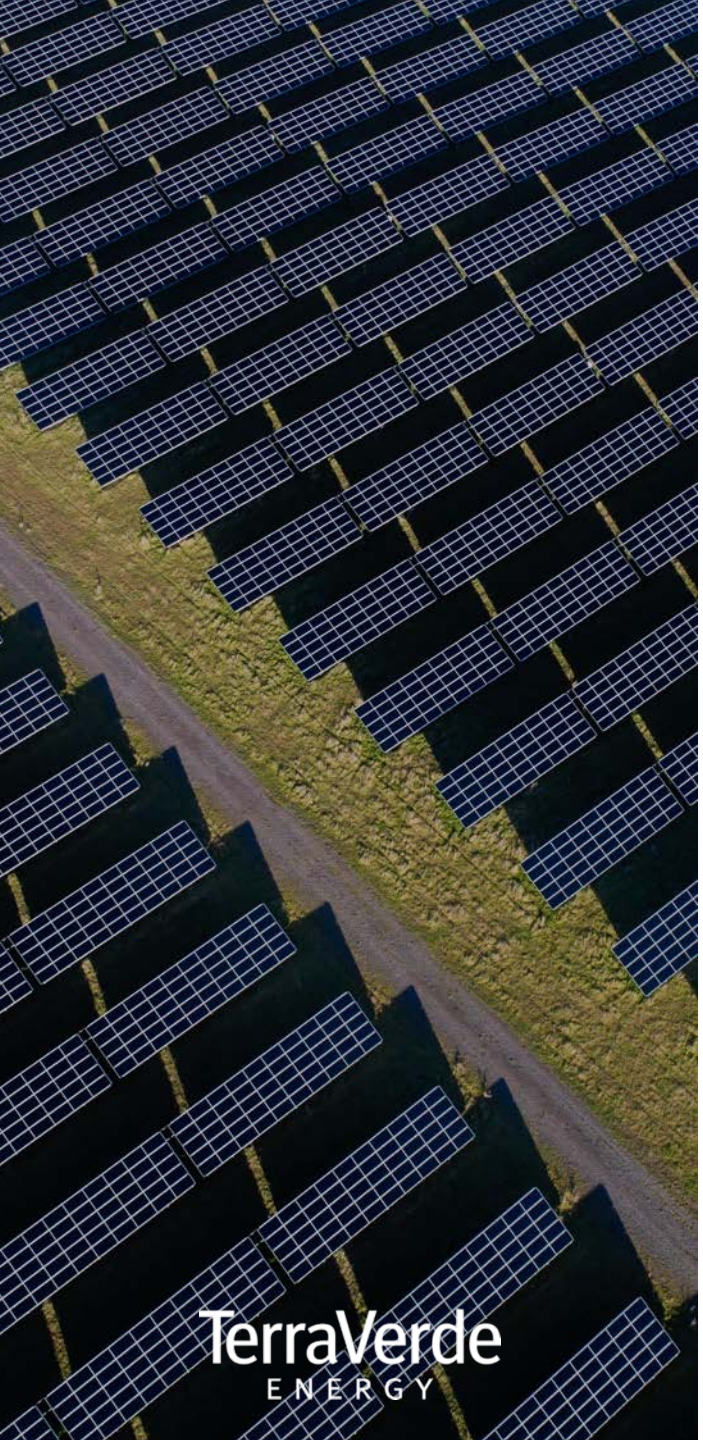
Project Schedule



Feasibility Study Process

- Electricity Use & Billing Analysis – 9 SDG&E Meters
- Baseline Time of Use (TOU) Rate Analysis
- Demand Profile Analysis (for Battery Energy Storage)
- Initial Solar PV System Sizing
- Site Audits
  - Area Availability/Constraints & Logistics for Solar PV
  - Electrical Infrastructure & Utility Infrastructure Assessment
- Interconnection Evaluation
- Project type options (rooftop, carport, shade canopy, ground)
- Adjust system sizes for site audit results
- Initial solar array layouts
- Project cost estimates & PPA rates
- Battery Storage Integration, as applicable
- Rate optimization (for post project installation assumptions)
- Financial cash flow proformas & projected net savings

Feasibility Study Results - Projects

Site	Interconn. Tariff	System Size (kW dc)	Consumption Offset (%)	Current Rate	Proposed Rate	Battery Size (kWh)	Demand (kW) Offset (%)	Notes
Crown Preschool	NEM	53	77%	AL-TOU	DG-R			Shade Canopy
Village Elementary	NEM	175	84%	AL-TOU	DG-R	60	47	Roof & Shade Canopy
Silver Strand Elementary	NEM	100	81%	AL-TOU	DG-R			Shade Canopy
Coronado High School	NEM	197	28%	AL-TOU	DG-R	120	38	Roof & Shade Canopy
Coronado HS Stadium				AL-TOU		120	36	Site Constraints
Aquatics Complex				AL-TOU		60	24	Site Constraints
Coronado Middle School				AL-TOU				Site Constraints
District Offices				AL-TOU				Site Constraints
Total NEM Projects Size:	NEM	**525**	**48%**					
Hypothetical Alternate	N/A	1,100	63%	DG-R	RES-BCT			Ground Mount

Projected Savings Comparison

			Projected Cumulative 25yr Net Savings				
Projects	**Avoided Cost (kWh)**		**Cash Purchase Option**	**Payback**	**PPA Option**	**Payback**	**SGIP Rebate (Batteries)**
Solar PV only (4 NEM Projects)	$0.1756/kWh		$1,778,639	15yrs	$781,958	13yrs	
Solar + Batteries (4 NEM Prj +2 BESS)	$0.1756/kWh + $20.08/kW		$2,543,187	13yrs	$1,415,296	4yrs	$63,000
Hypothetical RES-BCT Project	$0.1294/kWh		$3,903,220	10yrs	$2,969,450	0yrs	
			Projected Cumulative 10yr Net Savings				
Standalone Battery Projects (2 sites)	$45.37/kW		$182,907	5yrs			$63,000

Notes

Est. Total Project Cost for NEM Projects (solar only): $1,944,012 ($3.70/Wdc)

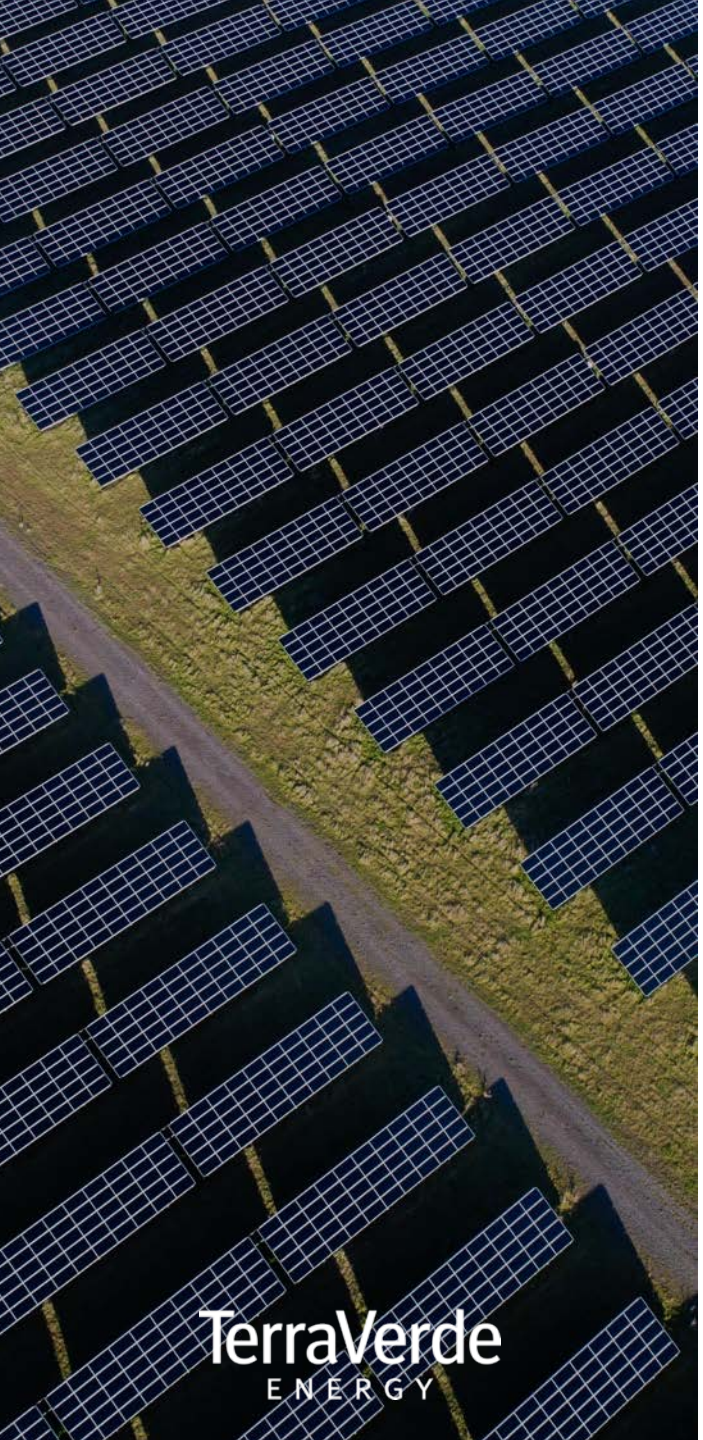
Est. PPA Rate for NEM Projects (solar only): $0.1990/kWh, 0% annual esc., 25yr term

Est. Total Project Cost for NEM Solar + Battery Projects: $2,155,512

Est. Total Cost for Standalone Battery Storage (2 sites): $211,500

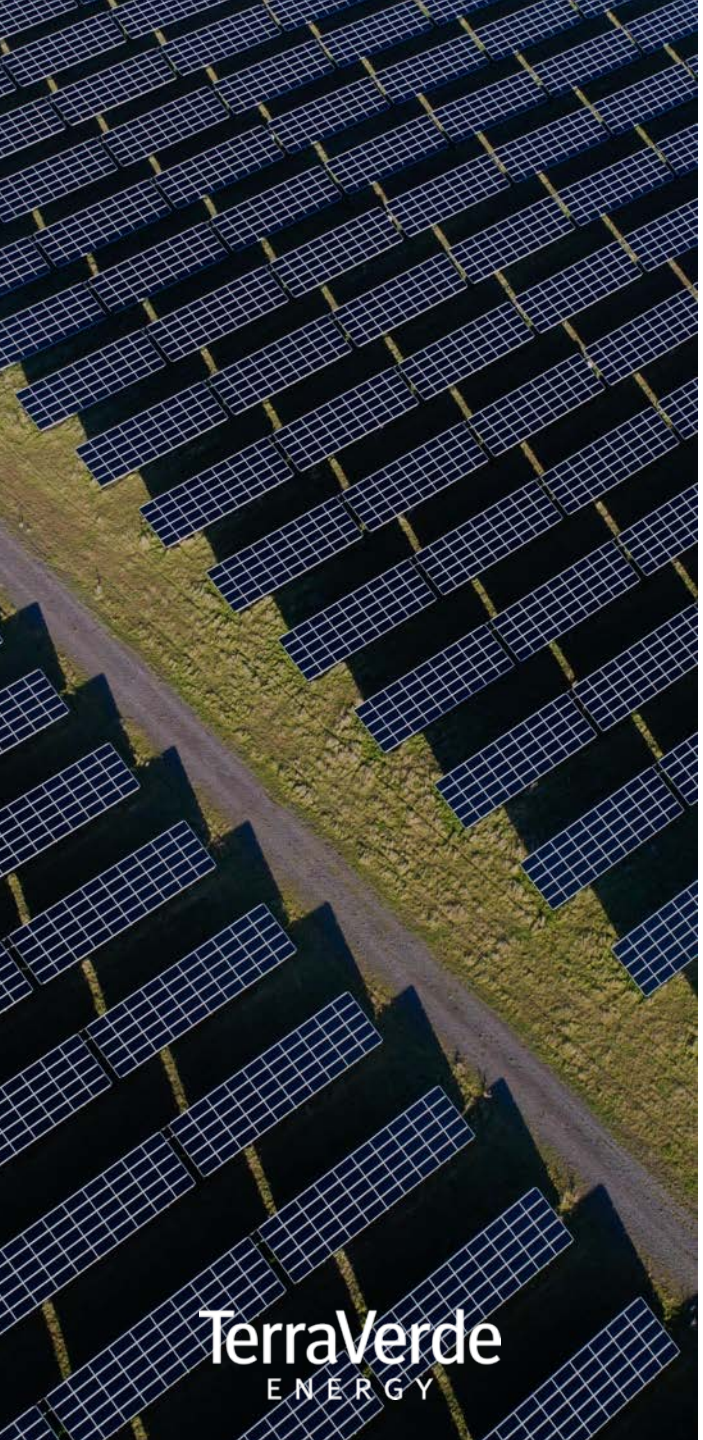
Est. Project Cost for RES-BCT Project: $1,897,633 ($1.73/Wdc)

Est. PPA Rate for RES-BCT Project: $0.1100/kWh, 0% annual esc., 25yr term



Conclusions & Next Steps

- Solar + Battery Storage project (4 NEM sites, 2 with battery storage systems) provides greatest savings potential & payback performance.
- Cash Purchase yields greater savings & ROI than PPA financing.
- Standalone Battery Energy Storage at Coronado HS Stadium and Aquatics Center provide added savings.
  - Reduces the Demand Charge component costs.
- If the District owned or leased property to support an export tariff project option (RES-BCT), greater overall savings could be achieved (greater than NEM projects).
  - 1MW ground-mount project would require 3-4 acres
- Next Steps:
  - Consider/evaluate financing options
  - Run RFP process to test the market
    - Ask for PPA & EPC price options



Project Schedule

- Develop RFP docs, project specs & 30% design: 4wks
- RFP process, evaluate proposals, select vendor: 4wks
- Contract Negotiations: 3wks
- 4217 Code resolution, Board Approval: 2wks
- Vendor due diligence & design/engineering: 8-10wks
- DSA Design approval and permitting: 4-6wks
- Construction / Installation: 16-20wks
- Commissioning and PTO: 3wks
- Startup, performance validation, project close out: 3wks

- Total: 10 to 12 months

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