



8 September 2023

## **Longroad Energy Investor Day**

Infratil Limited ('Infratil') (NZX/ASX: IFT) is pleased to release the presentation materials in advance of next week's Longroad Energy investor day in Phoenix, Arizona. The investor day also includes a site visit to Longroad Energy's Sun Streams solar projects.

Longroad Energy is a Boston-headquartered renewable energy developer focused on the development, ownership, and operation of wind, solar and storage projects throughout the US.

Since its establishment in 2016, Longroad Energy has developed and acquired 4.3GW of wind and solar projects, of which it still retains 2.4GW. This includes 4 projects totalling 0.9GW which are currently under construction.

In addition to Longroad's operating and under construction projects, Longroad currently has a 28.5GW development pipeline composed of wind, solar, and co-located and standalone storage assets across more than 20 US states.

## **Sun Stream Complex**

The Sun Streams complex includes four Maricopa County-based projects that Longroad acquired from First Solar in February 2021. The first, Sun Streams 2, is a 199MW solar project which commenced commercial operations in 2021. Sun Streams 3 is a 500MW solar and storage project which is expected to begin commercial operations in 2024 and will be the largest solar and storage project in Longroad's operational portfolio. Construction is expected to commence by the end of the 2023 calendar year on Sun Streams 4, a 677MW solar and storage project.

The Sun Streams site is well situated: adjacent to a significant power hub in the desert Southwest near California, offering excellent solar resource, and access to multiple transmission options with direct access to CAISO and the Southwest markets.

For additional information on Longroad Energy, please visit their website at [www.longroadenergy.com](http://www.longroadenergy.com)

Included alongside the Longroad Energy investor day materials is a separate update from Infratil on the US Renewables market, including some illustrative valuation guidance. This will not form part of the investor day presentation.

## **Any enquiries should be directed to:**

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[www.infratil.com](http://www.infratil.com)





# Longroad Energy: Infratil Investor Presentation

Phoenix, Arizona

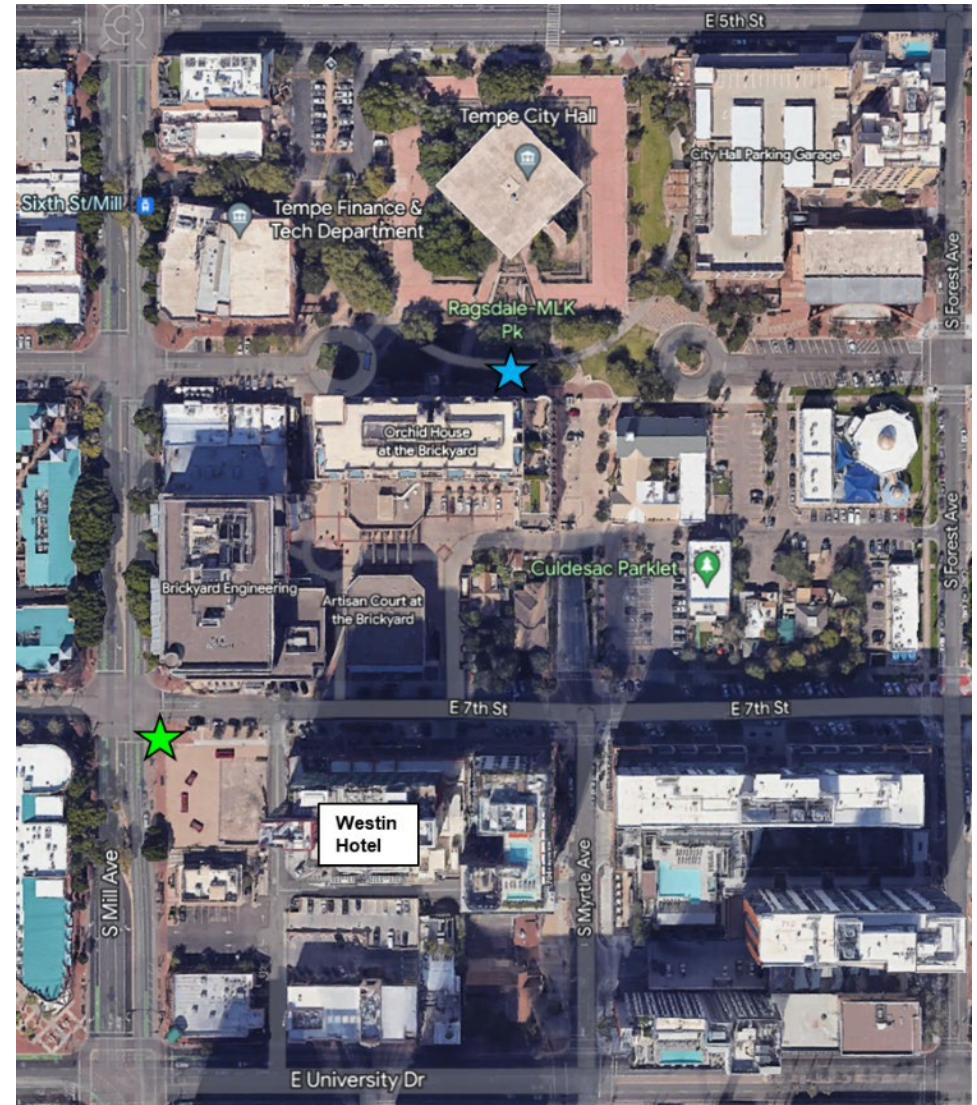
12 September 2023



# Safety

## Hotel Emergencies

- Dial 9-1-1 for any emergency
- Primary muster point is on Southwest corner of East 7th St. and S. Mills Ave. ★
- Secondary muster point is on the south lawn of Tempe City Hall ★
- Nearest Medical Facility is 2 blocks south
- University Health Walk-In Clinic 28 S Mill Ave, Tempe, AZ 85281



# Agenda

Topic	Speaker	Time
<b>Market Overview and Five-Year Goals</b>	<b>Paul Gaynor</b>	<b>8:15 – 8:30</b>
Operating Assets	Michael Alvarez	8:30 – 8:45
Understanding The Inflation Reduction Act	Ben Miller	8:45 – 9:15
Execution: Supply Chain and EPC	Michael Alvarez	9:15 – 9:30
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Sun Streams Overview	Rebecca Kelly	10:00 – 10:15
Questions		10:15 – 10:45

# Market Commentary

- Policy on target: increasing domestic manufacturing, decreasing reliance on China
- Treasury guidance imperfect and delayed
- Start-up time to establish domestic manufacturing
- Transmission build out required
- Permitting reform
- Workforce training

**Once in a Generation Growth Opportunity**



# Game Changing Legislation – IRA 2022

2023-2030  
Projected  
Additions

	GW	Multiple of 2022 Capacity
<b>Solar</b>	<b>364</b>	<b>(3x)</b>
<b>Wind</b>	<b>137</b>	<b>(2x)</b>
<b>Storage</b>	<b><u>111</u></b>	<b>(9x)</b>
<b>Total</b>	<b><u>606</u></b>	

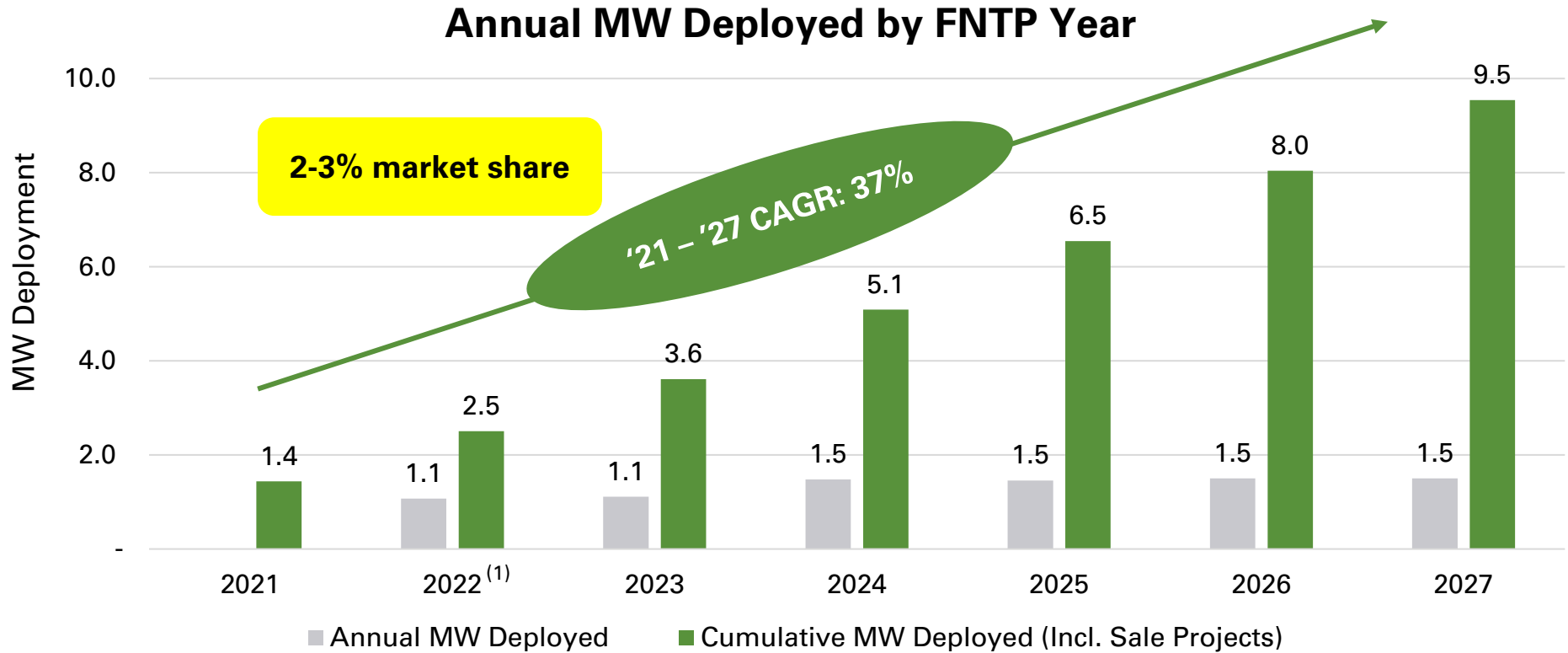
or about **~75 GW p.a.**

Source: BNEF 1H 2023 US Clean Energy Market Outlook

**Need ~100 GW p.a. to hit 80% clean power by 2030**

# Five-Year Goal

# ~10 GW by 2027



<b>Net Owned MW - BB</b>	<b>1,433</b>	<b>2,392</b>	<b>3,500</b>	<b>4,976</b>	<b>6,432</b>	<b>7,932</b>
(+) Annual MW Added	1,067	1,108	1,476	1,456	1,500	1,500
(-) MW Sold	(108)	--	--	--	--	--
<b>Net Owned MW - EB</b>	<b>1,433</b>	<b>2,392</b>	<b>3,500</b>	<b>4,976</b>	<b>6,432</b>	<b>9,432</b>

Note: Represents the year in which projects reach NTP. Excludes Valta MW deployment.

1. Includes Foxhound.

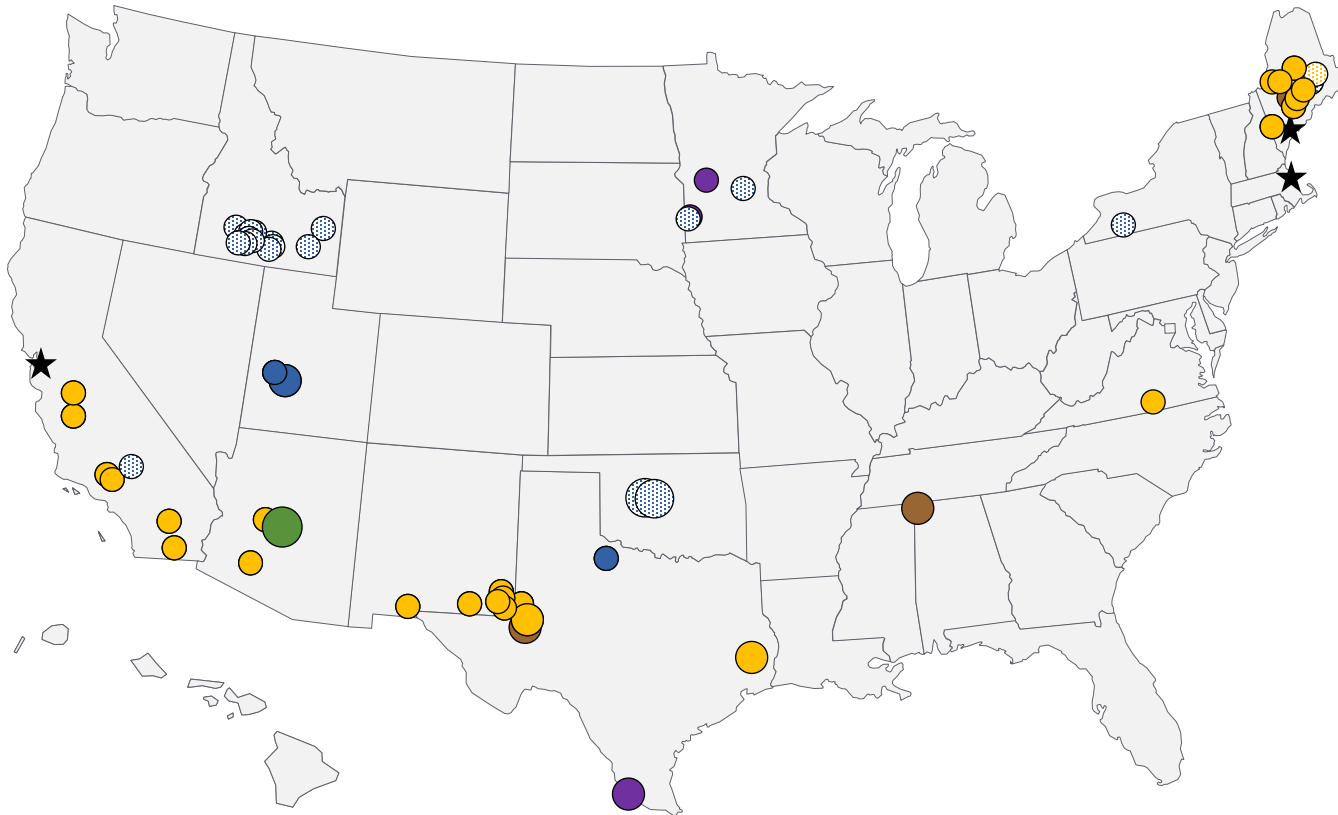
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## 2.4 GW / 30 Projects

Longroad Sold, Owned (Operating + In-Construction), and LES-Managed Assets



(1) Reflects net MW sold.  
 (2) Map excludes Federal Street assets sold and held for sale, which are spread over hundreds of individual sites across the United States.  
 (3) Maine DG tranche 2 development portfolio sold is represented by a single marker in the state of Maine on the map.  
 (4) Includes Umbriel, Sun Streams 3, Pittsfield and Three Corners which are currently under construction

GW	
3.8	Developed <sup>(4)</sup>
0.5	Acquired
4.3	Total
(1.9)	Sold
2.4	Net Owned (30)
1.9	Services

# 2023 Performance update

## Key 2023 Performance Drivers

- Prospero Solar 1 and 2 hail repairs completed ahead of schedule
- Milford Wind repower nearing completion (September COD)
- Maine DG Solar overperforming investment case so far primarily due to strong power pricing and favorable REC market

## New Projects

- Onboarding of Umbriel, Sun Streams 3, Three Corners and Pittsfield on schedule

## Challenges

- Sun Streams 2 unfavorable pricing basis due to CAISO modeling error
- Little Bear being curtailed significantly due to local congestion; primarily shielded due to PPA reimbursements.
- El Campo performance struggling due to equipment quality and failures; Longroad protected through availability guarantee LDs

**Opco on track to achieve 2023 Plan EBITDA of US\$147 million**

# 2023+ Opco Execution Plan

## 2023

- Safe execution is the Highest Priority
- 2023 Opco EBITDA is forecast to be ~US\$147 million across 30 projects
- Prioritized improvement of key systems (e.g., performance optimization, document management)
- Seamless onboarding of in-construction projects (Umbriel, Sun Streams 3, Three Corners, and Pittsfield)
- Total Staff: Asset Management (20), Site Operations (33), ROC (7)

## 2023 & beyond

### **Key Issues to Address for Growth to Opco run rate EBITDA of US\$500 million**

- Congestion/basis and Energy/REC Management
- Uncontracted merchant price exposure
- Severe convective storm risks – insurance costs
- Increasing regulatory focus – critical infrastructure/cyber
- Supply chain and spare parts management
- Labor training and retention; Service Partnerships
- Technology enhancements and repowering



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# Features of the IRA

The IRA directs nearly US\$400 billion in federal funding to clean energy, with the goal of substantially lowering the nation's carbon emissions by the end of this decade

## Key Features:

- 10-year Production Tax Credit (PTC) (including new solar PTC)
- 10-year Investment Tax Credit (ITC)
- Stand-alone Storage ITC
- Made in America
- Energy Communities
- Hydrogen
- Transferability (and Refundability)

...and more

## Economic Impact

### Potential Value

		<i>+Unlev IRR%</i>	<i>PPA Price Discount \$/MWh</i>
1	<b>Domestic Content Adder</b> <ul style="list-style-type: none"> <li>• 110% multiplier for PTC</li> <li>• +10 percentage points adder to ITC</li> <li>• FSLR procurement of US-made modules for under-construction solar-only projects</li> <li>• Additional OEMs (modules, trackers, inverters, BESS) expanding US manufacturing base</li> </ul>	<b>+4%</b>	<b>\$(10)</b>
2	<b>Energy Community Adder</b> <ul style="list-style-type: none"> <li>• Brownfield site or Direct employment or tax revenues from coal/O&amp;G and unemployment higher than national average</li> <li>• Census tract with coal mine closed after 2009 or coal power plant retired since 2009</li> <li>• Similar to Domestic Content Adder, results in 110% PTC multiplier or +10 pts ITC</li> </ul>	<b>+5%</b>	<b>\$(12)</b>
3	<b>Solar PTC</b> <ul style="list-style-type: none"> <li>• Solar projects can elect solar PTC</li> <li>• Projects with biggest value opportunity are in locations with strong solar resource and cheap cost to build (i.e., US Southwest)</li> <li>• PTC protections to be added to new solar PPAs. Expect similar financing structures as precedent wind PTC deals</li> </ul>	<b>+2%</b>	<b>\$(5)</b>



# Prevailing Wage and Apprenticeship

## Specific Guidance

- Projects must pay prevailing wage and 10-15% apprenticeship labor hours for construction and alterations/repairs during operations
- Projects unable to find qualified apprentices are excused
- Without compliance, tax credits reduced from 30% ITC / 100% PTC to 6% / 20%, respectively

## Longroad Implications

- Longroad's 2022 NTP projects exempt
- Incorporated compliance obligations into key agreements (EPC, O&M, etc.) for 2023 NTP projects
- Ability to cure and maintain tax credits by paying correct labor rates and fines. Willful noncompliance non-curable

## Core Requirement

# Energy Community

### Specific Guidance

- Qualify one of three ways:
  1. Brownfield site
  2. O&G employment + general unemployment, or
  3. Coal plant or mine closure
- IRS published map of areas qualifying under #2 / #3. To be updated annually
- Qualification test under #2 is done either at start of construction or placed in service

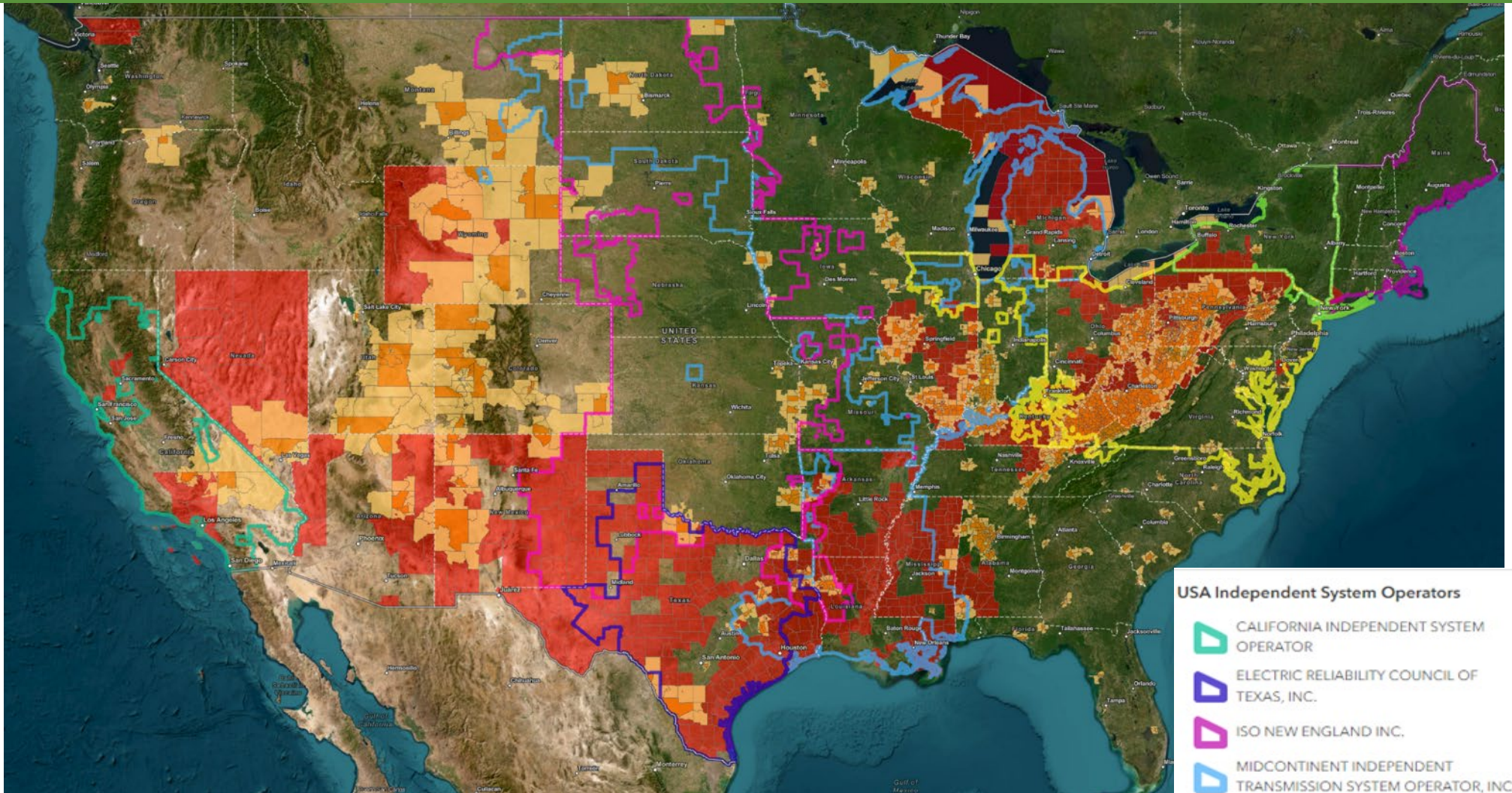
### Longroad Implications

- Opportunity to secure qualification status under method #2 at start of construction
- Qualification under method #3 will remain in place, providing certainty much earlier in project development cycle
- Value sharing with PPA offtakers will vary across markets
- Relatively small economic pick-up on solar PTC projects, but more substantive on ITC projects. Can create large difference in project economics and viability competing against others with/without qualification



# Understanding The Inflation Reduction Act

# Energy Community Map



### USA Coal Closure Energy Communities – DOE

- Census tract directly adjoining a census tract with a coal closure
- Census tract with a coal closure

Source: IRS, various ISO

### USA MSA/Non-MSAs that are Energy Communities - DOE

- Is an energy community, as it meets both the Fossil Fuels Employment (FFE) threshold and the unemployment rate requirement

### USA Independent System Operators

- CALIFORNIA INDEPENDENT SYSTEM OPERATOR
- ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.
- ISO NEW ENGLAND INC.
- MIDCONTINENT INDEPENDENT TRANSMISSION SYSTEM OPERATOR, INC..
- NEW YORK INDEPENDENT SYSTEM OPERATOR
- PJM INTERCONNECTION, LLC
- SOUTHWEST POWER POOL



# Made in America

### Specific Guidance

- Issued proposed guidance (can be utilized interim), formal guidance expected 1H '24
- Structural steel must be US-made. Includes PV piles (but not trackers) and wind-turbine generator (WTG) towers
- US Manufactured Product (non-structural steel/iron) test is done on direct costs instead of cost to project. Direct costs exclude profits, overhead and transport (among other things)
- Project submits certificate to IRS that it qualifies for adder but must retain records

### Longroad Implications

- Direct cost methodology not anticipated or based on Made in America precedent. Industry lobbying for changes, mainly:
  - Manufactured Product calculation done on project cost to purchase equipment, not supplier direct costs
  - Explicit list of equipment that is subject to Manufactured Product test
  - Ability to claim Domestic Content adder on PV in paired PV + BESS project
- Path to PV qualification in near-term with module/tracker US-content. Longer-term PV + BESS with cell manufacturing in US by mid-decade

## Made in America Examples

**1**

**Solar**

- 110% multiplier for PTC
- +10 percentage points for ITC

**2**

**Wind**

- 110% multiplier for PTC, or
- +10 percentage points for ITC

**3**

**BESS**

- +10 percentage points for ITC

### Potential Value

*+Unlev IRR%*      *PPA Price Discount \$/MWh*

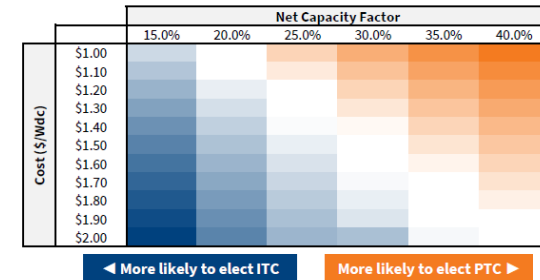
**+0.2%**      **\$(0.50)**

**+4%**      **\$(10)**

**TBD**      **TBD**

**TBD**      **TBD**

Solar PTC vs. ITC Comparison Chart



- PTC less accretive in general. Most wind projects elect PTC
- Value uplift depends on cost premium

- Relies on US-based cell manufacturing
- Also depends on cost premium

Source: CohnReznick Capital August 2022 presentation, "Inflation Reduction Act: Tax Credit Monetization Analysis"

# Transferability

### Specific Guidance

- Tax credit sale proceeds are tax exempt
- Seller (i.e., project) unable to sell only bonus tax credit (i.e., Domestic Content or Energy Community). Tax credit can only be sold once
- Buyer responsible if tax credits are later disallowed, Sellers expected to sign up to indemnity (similar to tax equity)
- Individuals will have difficulty acting as buyers, as can only use credits to offset income from the project that is the source of the tax credits

### Longroad Implications

- Credit unable to be transferred using lease-passthrough structure due to “double sale” restriction. May limit use of structure going forward
- Tax equity still base case. Credit transfers offer no upfront monetization of depreciation, inability to “step-up” basis to fair market value and ~10% price discount to credit value
- Does provide backstop for tax equity in case of not being able to monetize credits

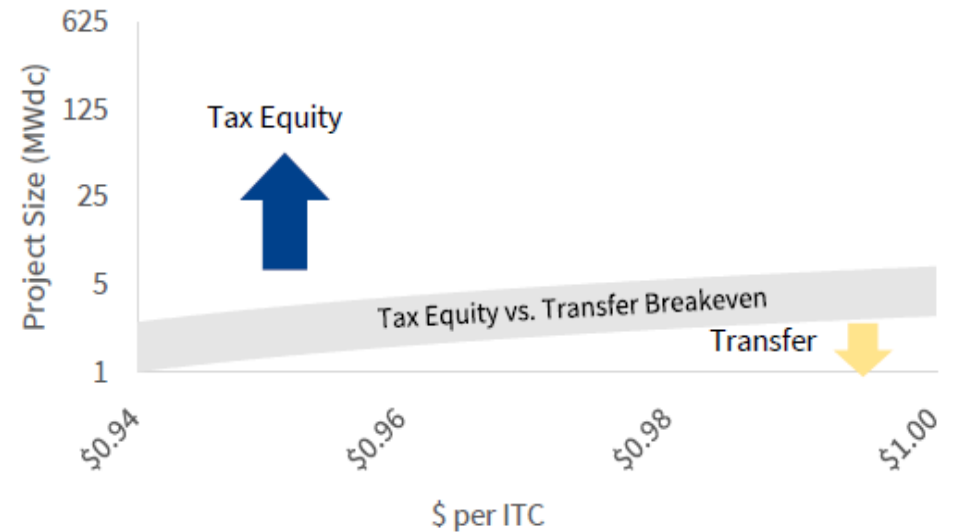


# IRA: Transferability vs. Tax Equity

Solar Tax Equity vs. Transfer Comparison Chart

Project Size (MWdc)	Transfer Rate					
	\$0.90	\$0.92	\$0.94	\$0.96	\$0.98	\$1.00
1.35					Transfer	
7						
34						
68						
135						
338						
675	Tax Equity					

Solar Tax Equity vs. Transfer Breakeven Line



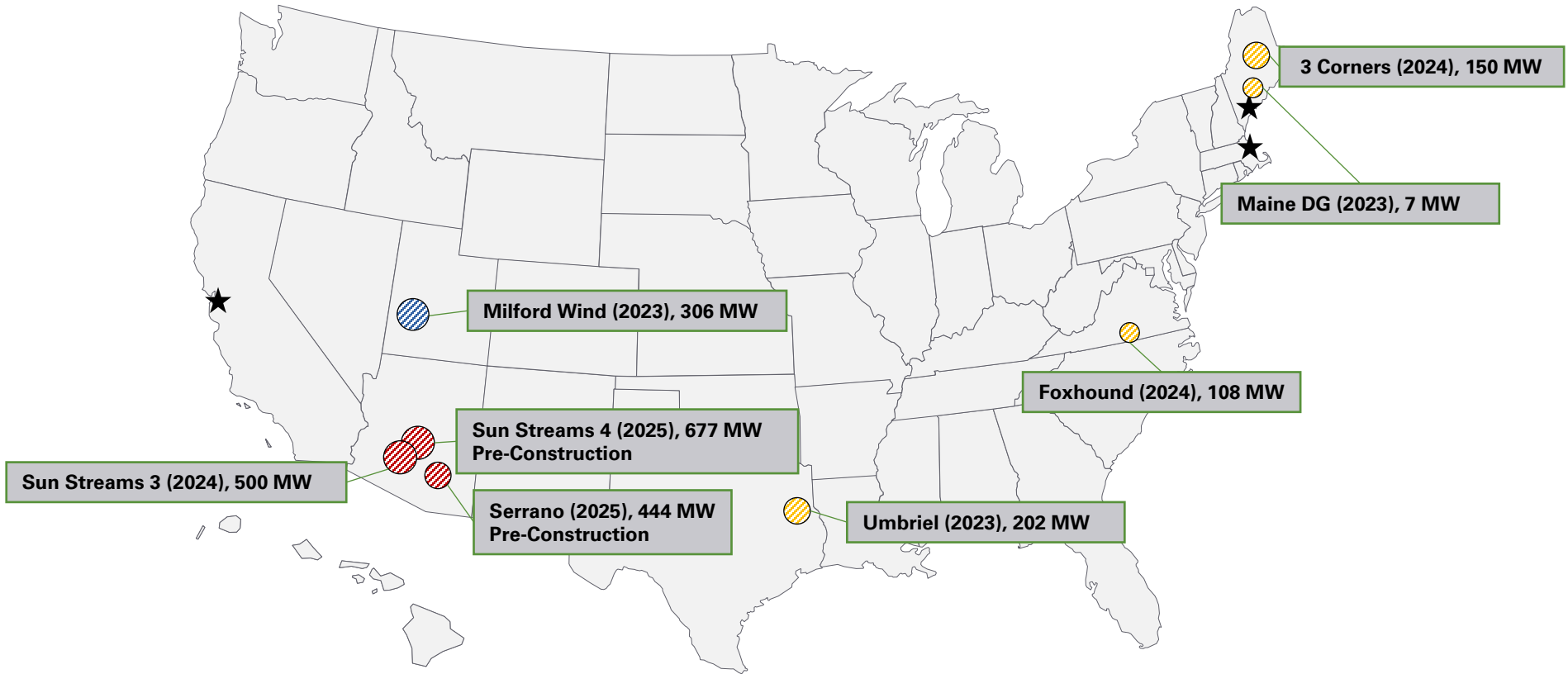
Source: CohnReznick Capital August 2022 presentation, "Inflation Reduction Act: Tax Credit Monetization Analysis"

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# Construction: 8 projects/2.4 GW/\$3.1 B

Key: Project Name (COD Year), MW



- 401+ MW
- 201 – 400 MW
- 0 – 200 MW
- ★ Longroad Office
- Solar Development
- Wind Development
- Storage Development
- Solar+Storage Development

(1) Reflects total installed capacity (solar, wind and storage).

# Construction: 3 Corners (Maine)



March 2023



August 2023



# Construction: Umbriel (Texas)



March 2023



August 2023

# EPC Suppliers

- Longroad partners with six EPC contractors, principally using a Guaranteed Maximum Price (GMP) contract structure
- Tier 1 EPC firms are in high demand given IRA tailwinds, with most being awarded a portfolio of deals or have pivoted to unilateral negotiations and prefer larger projects
- Tier 2 EPC firms are now advising they are not interested in participating in RFPs with numerous participants given access to direct opportunities
- No current indication EPC pricing will decline as companies are booking well into 2025/2026 and prevailing wage considerations driving labor costs higher
- Shortage of preconstruction/estimating personnel, so EPCs will only dedicate resources to opportunities they are reasonably certain will get built and meet their desire project profile
- Access to First Solar modules is a plus given project delays caused by silicon module import tariffs and other regulatory restrictions
- Availability of competent craft labor is becoming an issue in a few markets; craft pay is up 50-100% in most markets

# Equipment – PV Modules

- Longroad continues to leverage the strategic partnership with First Solar via a frame agreement
- Frame capacity plus previous procurement totals multi-GW
- Current frame agreement:
  - Successfully contracted and/or supplied Three Corners, Foxhound, Umbriel and Serrano
  - Multi-GW
  - Flexible volume but critical to manage projections given shortfall damages, annual min/max ranges and notices for domestic content
  - Pricing is fixed with some pass through for steel and aluminium adjustments
  - Transportations cost risk mitigated with US production
- Foreign silicon production shifting to Malaysia and Vietnam – still affected by anti-circumvention regulation
- IRA inducing additional announced US manufacturing capacity, but existing guidance is limiting actual investment to date

# Equipment – Inverters

- Longroad's current prequalified inverter manufacturers include Power Electronics, SMA, TMEIC, and Sungrow
- Will not look to procure inverters direct given consequences of essentially taking on all commissioning/performance risk
- Commissioning to commence shortly on the first block of Sungrow inverters at Sun Streams 3
- SMA (contracted via Powin) will have a large presence on projects with BESS systems
- Reviewing EPC inverters and other alternatives with Powin given domestic content requirements
- Inverter pricing has remained steady; largest schedule and supply risk are the medium voltage transformers that are incorporated into the skid



# Equipment – Trackers

- Longroad sources field-proven single axis tracker system from financially stable vendors
- Longroad has successfully contracted multi-GW of single-axis trackers between 2016 – 2023, primarily with NEXTracker
- Longroad is currently reviewing technology and commercial considerations of others as potential additions to the approved vendor list
- Suppliers are developing higher tilt angle options for hail regions and Longroad is piloting NEXTracker's Hail Pro option
- Since the primary component of single axis trackers is steel, tracker manufactures are adapting by sourcing US steel. NEXTracker has been building 10 GW of U.S. tracker manufacturing capacity with partners at 4 factories in the South, Southwest, and Midwest over the last year
- Lead times are currently 4 to 6 months for piles and tracker racking

# Equipment – Storage

- Powin is supplying BESS integrations services for Sun Streams 3 & 4 and Serrano
- Longroad Energy storage team evaluating alternative BESS suppliers
  - Current short list includes two other suppliers
- IRA domestic content guidelines for BESS unclear and poorly received by industry
  - 50% US content threshold will require US made cells, supply of which from Tier 1 vendors will be extremely limited for the next 5 years at least
  - Price premiums on US made cells are also vague with estimates anywhere from 20-50% over landed cost from China
- Lithium carbonate market has decreased ~33% of its peak in 2022 but is still 400% higher than 2021 low point. General expectation is that it will remain around current levels for foreseeable future
- BESS delivery times driven by inverter/transformers which are currently at 12 months or greater

# Equipment – Wind Turbines

- All major original equipment manufacturers (OEMs) are struggling through a combination of higher-than-expected supply chain costs and unexpected warranty costs on turbines that were rushed to market over the past few years; resulting in major price increases by all OEMs
- GE, Vestas, and Siemens Gamesa are all struggling with challenges to their service business through combination of unprofitable service contracts and a high rate of failures of major components affecting availability
- Closely engaged with three major OEMs to bid on King Pine, a ~1,000 MW wind project in Maine currently in development
- All major OEMs are exploring options to qualify for IRA Domestic Content adders, although high cost of transport to project sites presents wind-specific challenge

# Equipment – Main Power Transformers

## Example of Market

- Historically Main Power Transformers (MPT) were wrapped within EPC agreements, except when pursuing a safe harbor play, which kept any delays on the EPC to manage
- With lead times and costs doubling/tripling, work is underway to stand up direct procurement given need to release prior to EPC RFP full selection
- MPT results from recent project procurement confirms that market conditions are disappointing, and a seller's market
- With sites that do not have aux power from a local utility, the critical path of MPT -> substation energization -> BESS Delivery can drive projects well into a 3+ year from present time schedules
- Expect other equipment to fall into this same category in the near term (aux transformers, switchgear, HV breakers, etc.)

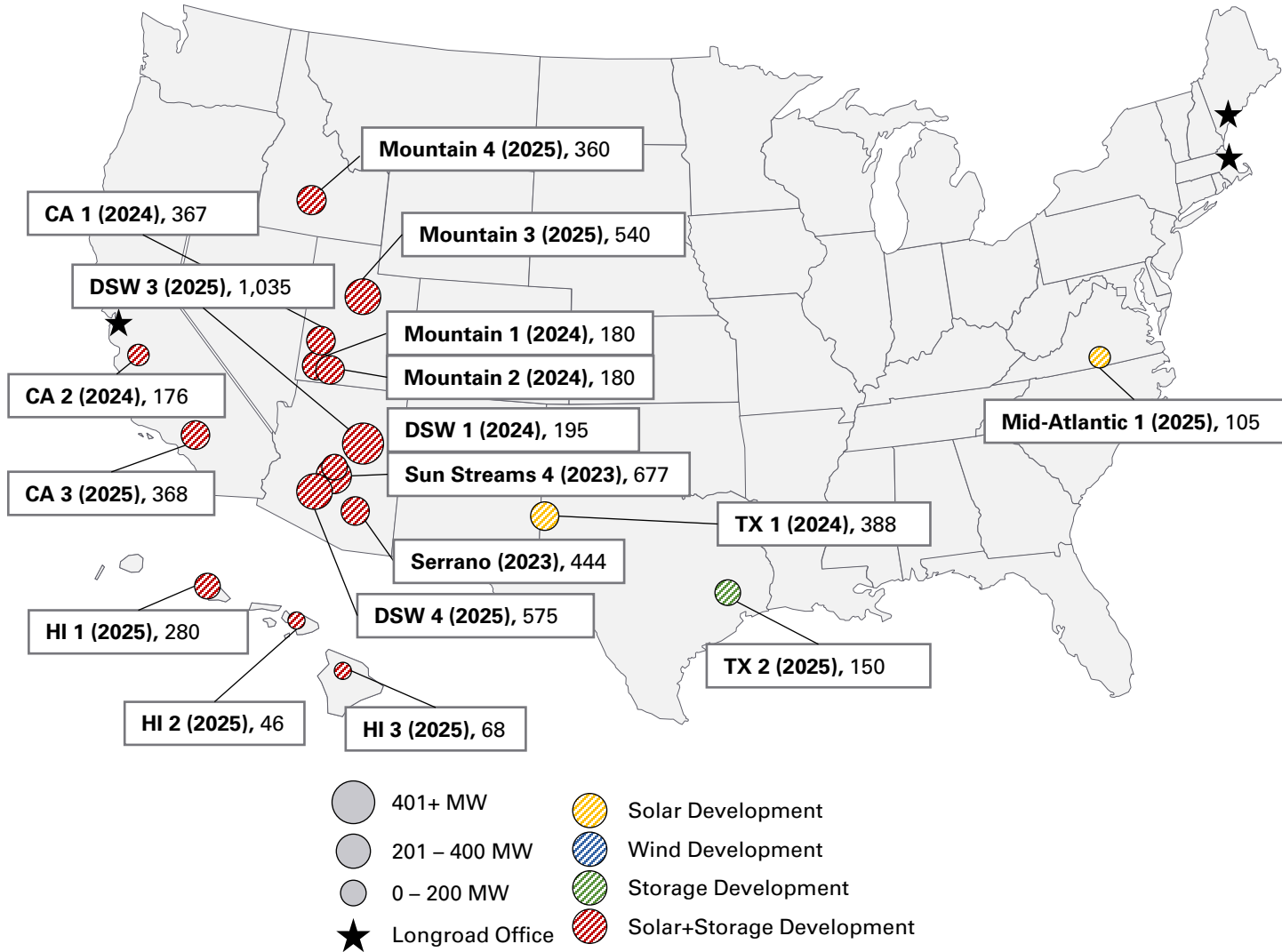
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# Near Term Plan Candidate Projects

Key: Project Name (FNTF Year), MW



GW	
1.1	2023 (2)
2.3	2024 (9)
<u>2.7</u>	2025 (7)
6.1	Total (18)

(1) Reflects total installed capacity (solar, wind and storage).

# Near Term Plan Projects (2023)

Project	Market	Technology	Wind/Solar MW	BESS MW	Total MW	Land	Interconnect Initiated
Sun Streams 4	AZ/CAISO	PV + BESS	377	300	677	Yes	Yes
Serrano	AZ	PV + BESS	230	214	444	Yes	Yes
<b>Total</b>			<b>607</b>	<b>514</b>	<b>1,121</b>		

- Both projects are in Arizona and share Sun Streams 3 design and equipment features
- Long term PPAs with APS
- McCarthy is the EPC contractor; construction activities underway
- First Solar is supplying solar panels
- BESS to be supplied by Powin and AESC with long-term service performed by NovaSource

# Near Term Plan Candidate Projects (2024)

Project	Market	Technology	Wind/Solar MW	BESS MW	Total MW	Land	Interconnect Initiated
TX 1	SPP	PV	388	-	388	Yes	Yes
DSW 1	AZ/CAISO	PV + BESS	110	85	195	No	Yes
CA 1	SCPPA	PV + BESS	267	100	367	Yes	Yes
Mountain 1	PAC	PV + BESS	130	50	180	Yes	Yes
Mountain 2	PAC	PV + BESS	130	50	180	Yes	Yes
Mountain 3	PAC	PV + BESS	390	150	540	Yes	Yes
CA 2	CAISO	PV + BESS	101	75	176	Yes	Yes
Mid-Atlantic 1	PJM	PV	105	-	105	Yes	Yes
TX 2	ERCOT	BESS	-	150	150	Yes	Yes
<b>2024 Candidates, Total</b>			<b>1,621</b>	<b>660</b>	<b>2,281</b>		

- Diversified portfolio includes projects in seven different markets; represents a mix of development regimes and offtake opportunities
- Key variables driving FNTF schedule include permitting, interconnection construction timelines and access to PPAs
- 370 MW in active PPA negotiations
- 900 MW awaiting RFP results

# Near Term Plan Candidate Projects (2025)

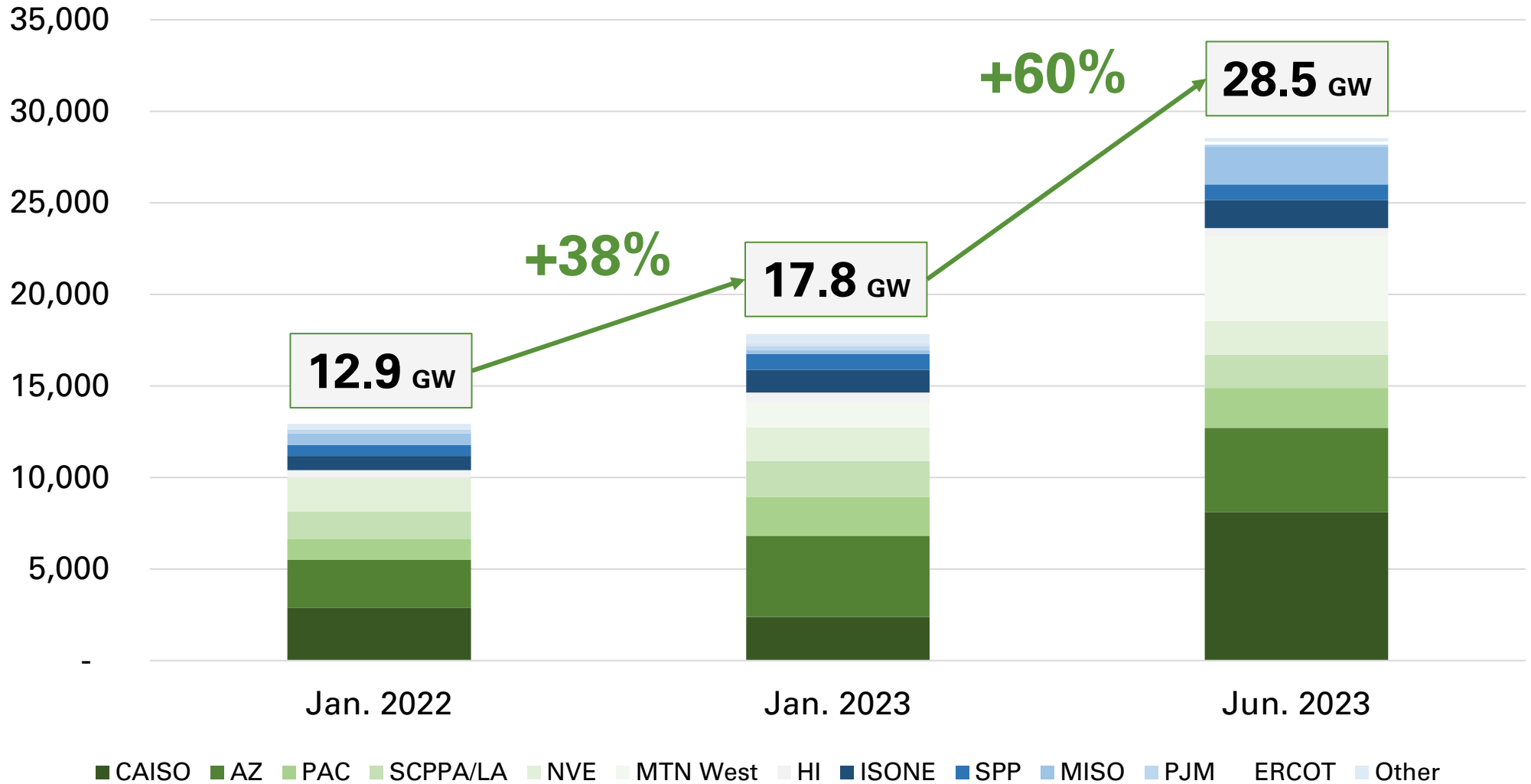
Project	Market	Technology	Wind/Solar MW	BESS MW	Total MW	Land	Interconnect Initiated
CA 3	SCPPA	PV + BESS	268	100	368	Yes	Yes
HI 1	HI	PV + BESS	160	120	280	No	Yes
HI 2	HI	PV + BESS	26	20	46	Yes	Yes
HI 3	HI	PV + BESS	38	30	68	Yes	Yes
DSW 3	AZ	PV + BESS	585	450	1,035	Yes	Yes
DSW 4	AZ	PV + BESS	325	250	575	Yes	Yes
Mountain 4	PAC	PV + BESS	260	100	360	Yes	Yes
<b>2025 Candidates, Total</b>			<b>1,662</b>	<b>1,070</b>	<b>2,732</b>		

- Portfolio is concentrated in western markets and positioned to meet sustained utility demand for renewable energy
- Projects are participating in active utility PPA/BTA RFP processes (e.g., PacifiCorp, HECO, APS)
- HECO’s potential entanglement with recent Maui wildfires introduces a risk of delay in signing PPAs in Hawaii
- Other potential 2025 FNTF projects exist within Longroad’s pipeline



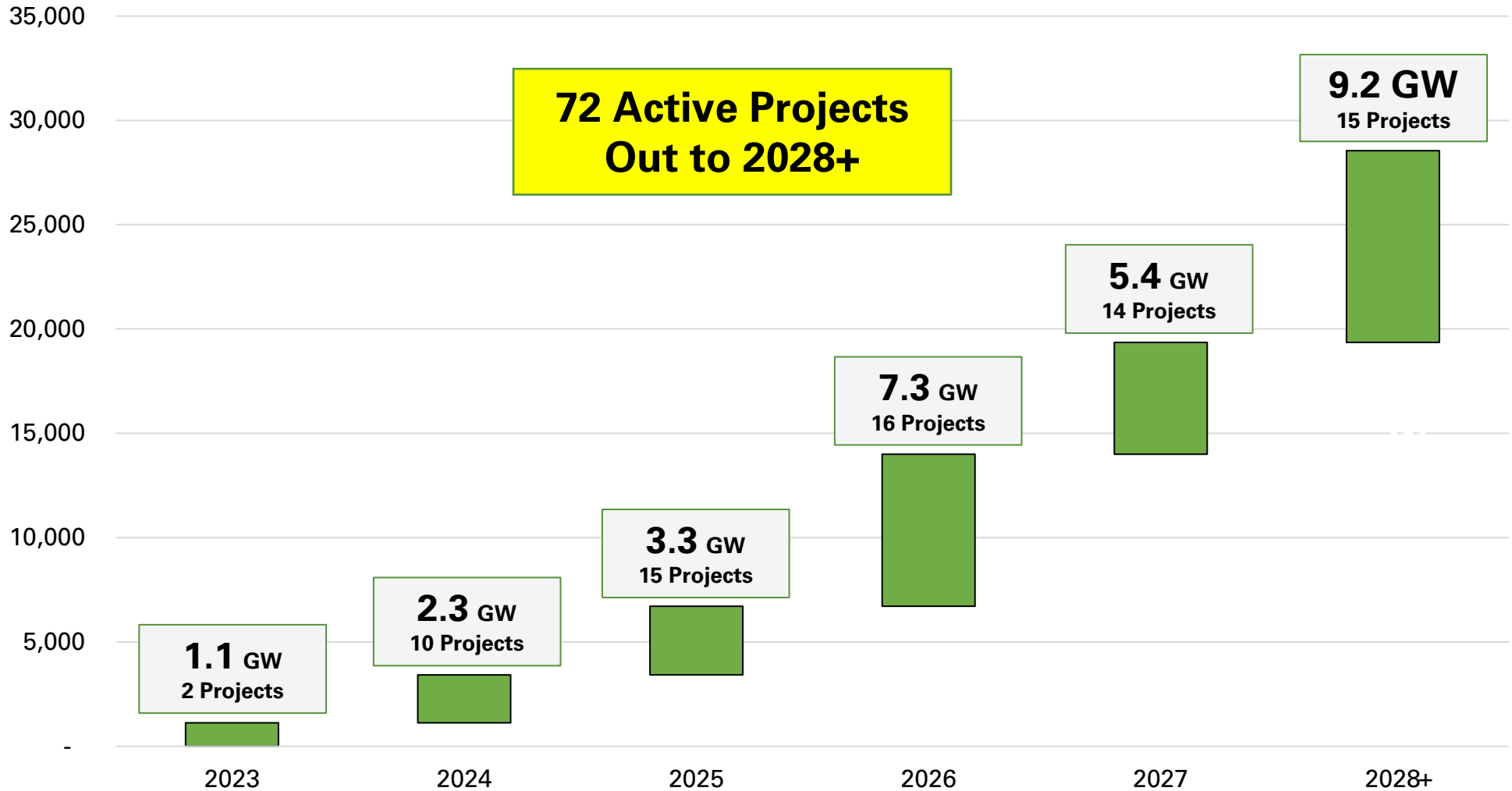
# Total Pipeline Growth

## January 2022 to June 2023, Pipeline Change



# Pipeline Breakdown by Year (GW)

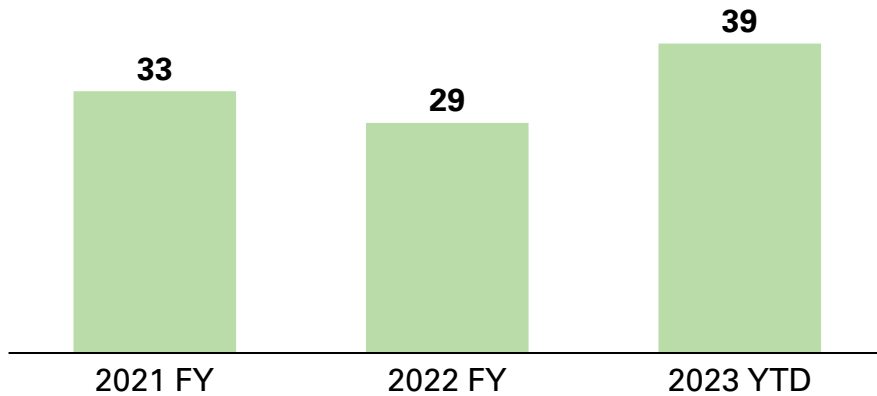
## Pipeline Breakdown by Project Total MW and FNTF Year



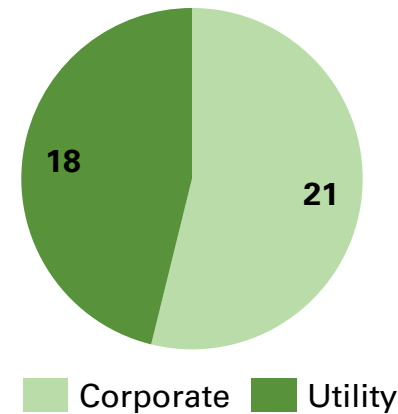
# Origination Big Picture

*There continues to be a sustained demand for renewables; Longroad has increased its opportunity set via an expanded development footprint*

Longroad RFP Participation by Year



2023 Longroad RFP Participation by Offtaker Type

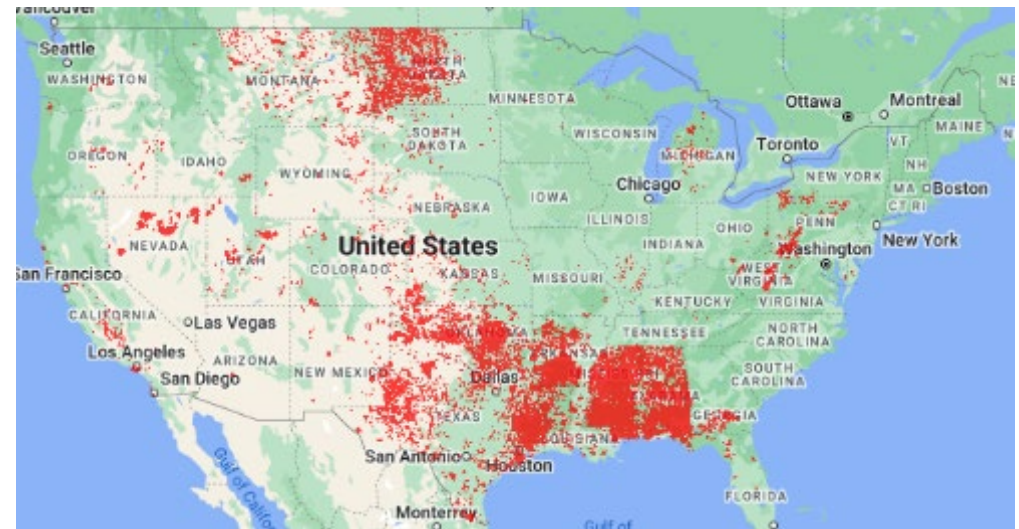


- 2023 YTD RFP participation exceeds both 2022 and 2021 FY
- 2023 PPA opportunities are nearly split evenly between corporates and utilities; participation across six of Longroad's nine markets
- Longroad is actively negotiating PPAs and awaiting further RFP shortlist advancement

# Agreement with Black Stone Minerals

*The agreement provides Longroad with exclusive rights to several thousand acres of Black Stone Minerals (BSM) assets*

- BSM is one of the largest owners of mineral rights with 20+ million acres under management
- Relationship established via successful execution at Longroad's Umbriel project
- Will provide avenue for growth and help de-risk projects already in Longroad's existing pipeline
- Multi-year term



Map of BSM's mineral holdings; Longroad's agreement with BSM includes a subset of the portfolio covering 12 states



# M&A Environment

- 12 large platform transactions since Q4 2021
- Significant number of asset level opportunities in market of varying quality, constraining investors' bandwidth
- Longroad M&A focus in line with portfolio rebalancing strategy and/or opportunistic
- ~33% of deals completed to date have originated as acquisitions
- 11 of 72 deal pipeline projects have been acquired
- Valta investment (2022), anchoring exposure to DG market

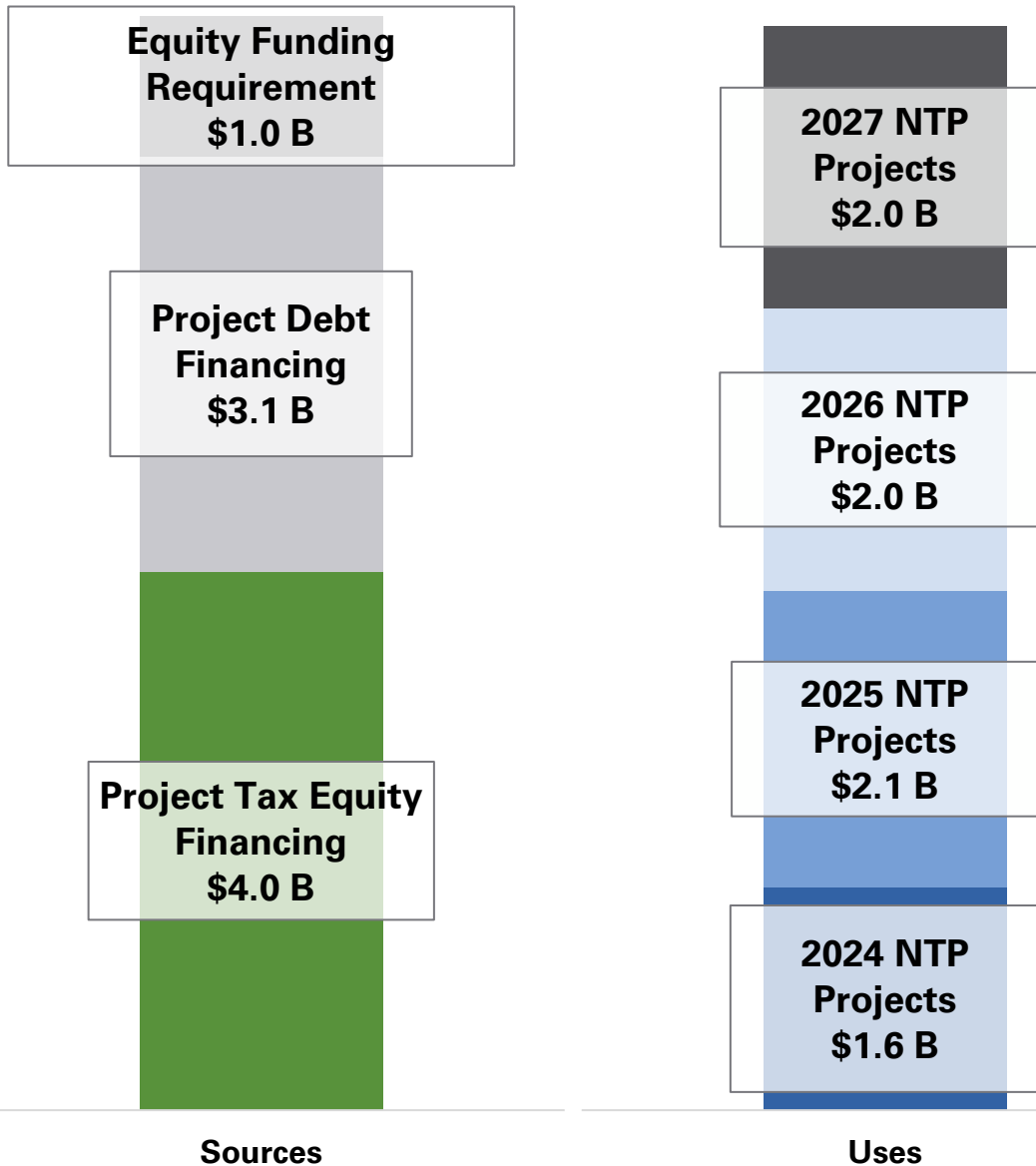
# Agenda

Topic	Speaker	Time
Market Overview and Five-Year Goals	Paul Gaynor	8:15 – 8:30
Operating Assets	Michael Alvarez	8:30 – 8:45
Understanding The Inflation Reduction Act	Ben Miller	8:45 – 9:15
Execution: Supply Chain and EPC	Michael Alvarez	9:15 – 9:30
Development Plan	Paul Gaynor	9:30 – 9:45
<b>Capital Requirements</b>	<b>Peter Keel</b>	<b>9:45 – 10:00</b>
Sun Streams Overview	Rebecca Kelly	10:00 – 10:15
Questions		10:15 – 10:45

# Longroad Today (pro forma December 23)

- 3.5 GW operating and in-construction on December 31, 2023
  - 2.4 GW operating and in-construction today
  - 1.1 GW (Sun Streams 4 and Serrano) achieving FNTF in the balance of the year
- Equity in 3.5 GW fleet fully funded with existing Longroad capital
- Pipeline positioned to deliver incremental ~6 GW of projects through 2027

# Capital to Fund 2024-27 Plan (~6 GW)



- 2024-27 Plan ~6 GW
- ~US\$8 billion capex plan
  - 85% to 90% via tax equity and debt financing
  - 10 – 15% funded via equity
  - Evaluating options for next round of Longroad equity funding, both public and private

# Raising Capital in New World of IRA

- Longroad has raised US\$10 billion since inception
- Development plan through 2027 will require ~US\$8 billion of incremental capex investment
- Expect 85-90%, or US\$7.0 billion, of capex to be funded via non-recourse project financings (i.e., tax equity and debt financings);
  - ~US\$4 billion of the project financings expected to be sourced from tax equity banks that Longroad has traditionally used (e.g., US Bank and PNC); tax equity market remains constrained which creates competitive advantage for experienced developers like Longroad
  - ~US\$3 billion would be sourced by traditional bank debt (e.g., Keybank, CIT, HSBC, Morgan Stanley, MUFG, CIBC)
- Remaining US\$1.0 billion would be funded via additional Longroad equity, additional holding company debt or cash distributions from Opco
- IRA offers potential additional tax equity optimizations for refundability, domestic content adders, energy community adders, and solar PTCs

**US\$8 billion capex plan to deliver on Longroad's development plan through 2027 and generating US\$600+ million of EBITDA**



# Longroad Today vs. ~10 GW (2027)

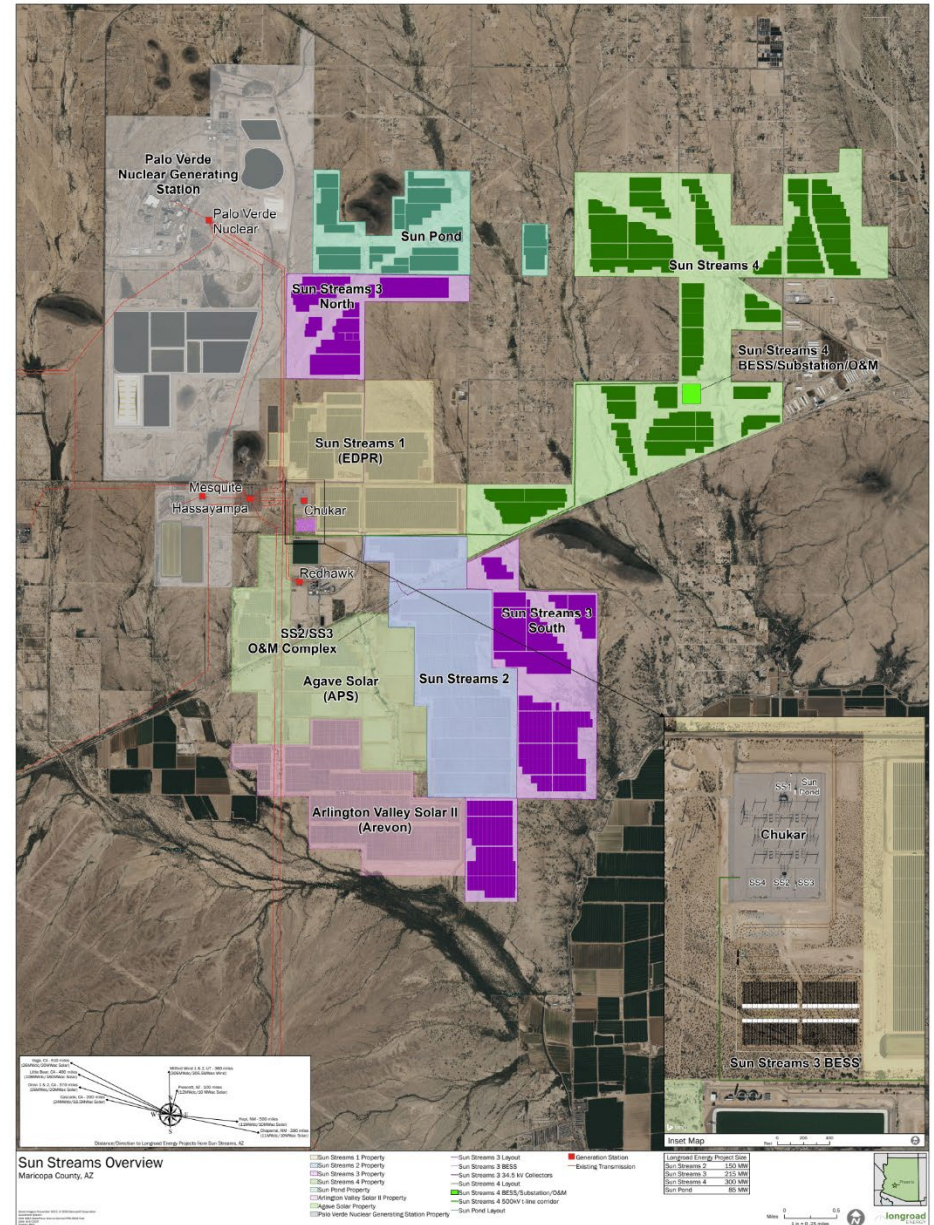
- Operating fleet growing from 3.5 GW today to 10 GW in 2027
- EBITDA increases from US\$200 million to US\$600 million on a run-rate basis
- ~6 GW of new projects requires ~US\$8 billion of new capital
  - US\$7 billion funded by project level term debt and tax equity
  - US\$1 billion of equity funding required; could be funded via incremental Longroad equity, additional holding company debt and operating company distributions
- Assets on balance sheet grow from ~US\$4 billion today to ~US\$12 billion in 2027

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# Sun Streams Overview

- Sun Streams are located at a major transmission hub associated with Palo Verde, the largest nuclear plant in the U.S.
- Longroad has 20-year contracts with Phoenix-based utility Arizona Public Service for offtake of energy and capacity from 515 MW solar and 2 GW BESS at Sun Streams
- Post-PPA term the projects can sell into other markets including California because of their unique location on the grid



# Operational Highlights

	PV MW	# panels	Annual generation (MWh)	# piles	BESS MW	BESS MWh (nameplate)	BESS MWh (installed)	# BESS Cells	Acres
SS2	199	452,790	465,359	70,024	-	-	-	-	1,388
SS3	285	606,492	656,259	87,520	215	860	1,308	1,340,640	2,172
SS4	377	793,404	887,238	114,915	300	1,200	1,741	1,784,160	3,140
Confidential	111	224,798	123,000	32,559	85	340	493	505,512	841
<b>TOTAL</b>	<b>972</b>	<b>2,077,484</b>	<b>2,131,856</b>	<b>305,018</b>	<b>600</b>	<b>2,400</b>	<b>3,542</b>	<b>3,630,312</b>	<b>7,541</b>

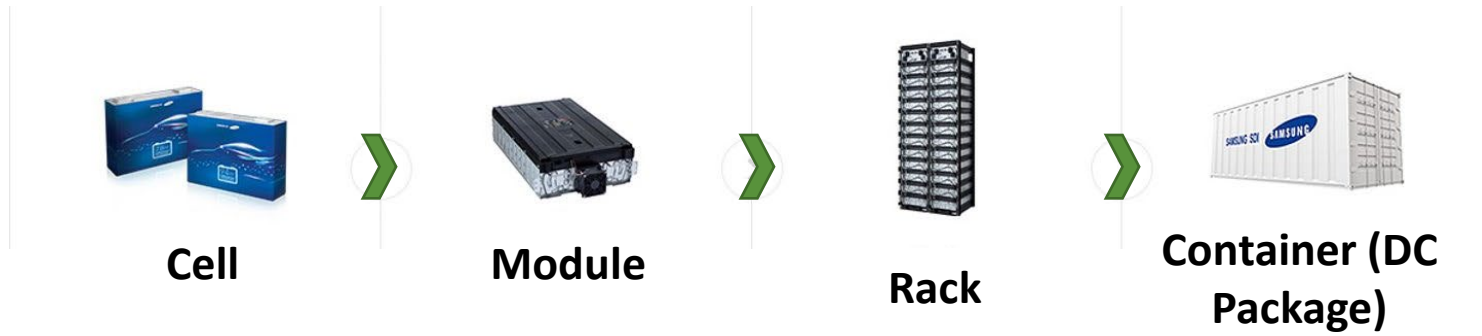
- The projects will generate enough electricity to power over 200,000 U.S. homes; in order to generate this much electricity, a coal plant would consume 775 million pounds (350 million kg) of coal
- Over 1,000 jobs to support construction
- These projects will provide over US\$100 million to Arizona schools via leases for land owned by the state

# Tour Overview: 4 Stops

- **SS2:** solar arrays at operational project
- **SS3 north:** solar arrays under construction adjacent to Palo Verde nuclear plant
- **SS3 BESS yard and Chukar substation:** battery storage area next to 500 kV step-up substation shared by Sun Streams projects
- **SS4:** preliminary construction activities



# BESS 101



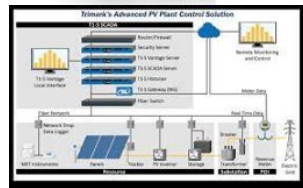
**Inverter**



**Transformer**



**Control**



**Full BESS System**





# Longroad Energy: Infratil Investor Presentation

Phoenix, Arizona

12 September 2023





# Infratil Update September 2023

US Renewables Market and Illustrative Valuation Guidance





# Industry Dynamics

Our outlook on the US renewable industry remains highly positive, with significant tailwinds present despite a challenging macroeconomic environment and prolonged period of uncertainty

- Significant and growing total addressable market with global investment in renewables reaching ~US\$500 billion in 2022, with the U.S. forecasted to be the second-largest market in the world for renewables investment. Solar and wind are the leading technologies with global investment levels of ~US\$300 billion and ~US\$175 billion in 2022, respectively<sup>1</sup>
- Due to the strong uptick in global supply and demand, as well as the modernisation of grid infrastructure for increased capacity and reliability, global new grid investment is projected to grow from ~US\$275 billion in 2022 to over ~US\$300 billion in 2023<sup>1</sup>
- Like most other industries, the renewables industry has been impacted by adverse macroeconomic conditions including higher inflation, higher interest rates, and supply chain constraints – which have led to increased financing costs, increased capex, as well as increased lead times on certain high-demand components (e.g., modules and battery cells)
- Despite this, renewables as an asset class have been highly resilient (e.g., national blended PPA prices (solar and wind) have seen increases in 2022 in line with higher financing and capex costs), and renewables are still estimated to provide the lowest levelized cost of energy<sup>1</sup>
- Regulatory tailwinds have also mitigated against an uncertain and challenging macroeconomic environment, with the Inflation Reduction Act (IRA) providing unprecedented, long-term policy support for the U.S. energy transition
- In addition to tariffs and trade restrictions that have been imposed on international supply chains, the U.S. has strongly reinforced the need to increase onshore manufacturing capabilities – which has been bolstered further by the IRA
- Following two record years in the renewables M&A and capital markets environment, utility-scale renewable platform M&A has since slowed down in this uncertain environment





# Comparable Companies





# Competitive Landscape



Similar large-scale private competitors have also raised capital over the last two years to increase scale, pursue M&A, and execute on their near-term business plans

## Comparison of Longroad Against its Private Peers of Similar Scale

- Similarly large growth-oriented private renewables companies include Apex Clean Energy, ConnectGen, Cypress Creek Renewables, and D. E. Shaw Renewable Investments (DESRI)
- Many of these competitors have also raised capital over the last two years to increase scale, pursue M&A, and execute on their near-term business plans, with some rumoured to currently be in the market

<i>Includes solar, wind, and storage<sup>1</sup></i>							
<b>Operating &amp; under construction assets</b>	2,400	400	400	>2,000	4,400	>2,000	3,000
<b>Development assets<sup>1</sup></b>	28,500	39,100	24,300	8,300	21,500	12,400	25,800
<b>Total portfolio assets (MW)</b>	30,900	>39,500	>24,000	>10,000	>25,000	>15,000	>27,500
<b>Footprint (States)</b>	>20	22	12	14	11	23	9
<b>Team Size (#)</b>	~170	~260	~45	~320	~200	~260	~100
<b>Recent Transaction(s)</b>	<ul style="list-style-type: none"> <li>• \$300m minority investment from MEAG and \$100m each from IFT and NZ Super in Aug-22</li> </ul>	<ul style="list-style-type: none"> <li>• Acquisition of majority stake in Oct-21 by Ares Management</li> <li>• Rumoured ongoing portfolio sell-down</li> </ul>	<ul style="list-style-type: none"> <li>• Rumoured ongoing sale of operating assets (pivoting away from ongoing full sales process)</li> </ul>	<ul style="list-style-type: none"> <li>• Acquired by EQT in Jul-21</li> </ul>	<ul style="list-style-type: none"> <li>• Rumoured ongoing potential capital raise/sale</li> </ul>	<ul style="list-style-type: none"> <li>• \$500m equity investment announced in Jun-22 from Generate Capital</li> </ul>	<ul style="list-style-type: none"> <li>• \$600m equity investment in Mar-22 led by funds managed by Ares Management</li> </ul>








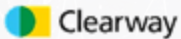


Source: Based on public information and estimates, compiled by a third-party, and may not represent the most current / up-to-date information. <sup>1</sup> Due to limited availability of public information relating to storage pipelines in particular, these amounts may not be fully reflected in some of Longroad's selected peers above

# Broad Public Comparables

An available set of publicly comparable companies for Longroad is limited. Factors to consider are scale, operating asset base, size of development platform, and technology mix, amongst others

## Comparing Longroad Directly to Publicly-Listed Renewables Companies is Challenging

- While public IPPs and YieldCo's serve as valuable operating benchmarks, Longroad is not directly comparable due to reasons such as scale or portfolio & technology composition, amongst others
- Longroad's relative stage of maturity and emphasis towards growth is evidenced in the metrics below; currently having a much lower proportion of operating assets as a % of total MW, and demonstrating a strong track record of development growth relative to its peers (noting that peers also include M&A)

		NTM EV / EBITDA <sup>1</sup>	Operating + development pipeline MW <sup>2</sup>	Operating Capacity as a % of Total <sup>3</sup>	Avg. Annual Installation (MW) <sup>4</sup>	Annual Development Target (MW) <sup>5</sup>
IPP	 aes <sup>6</sup>	11.0x	75,700	19.4%	3,900	6,500
	 Brookfield	22.4x	160,300	16.2%	1,750	2,300
	 edp	11.2x	93,200	16.3%	900	5,700
	 INNERGEX	11.4x	13,600	31.1%	300	900
	 NEOEN	12.1x	23,300	30.1%	1,000	1,500
	 Orsted	9.5x	134,400	15.2%	1,600	3,700
YieldCo	 Atlantica <sup>7</sup>	9.0x	5,600	38.9%	200	N/A
	 Clearway	9.8x	40,500	25.3%	1,000	1,750
	 NEXERA energy PARTNERS	10.0x	9,300	N/A	1,000	4,750
	 longroad ENERGY		30,900	7.7%	1,275 (2022 Actual)	1,500

Source: Based on public information, FactSet, and Wall Street research as at August 2023, compiled by a third-party. <sup>1</sup> Reflects median of broker research estimates; <sup>2</sup> Includes operating, under construction, and pipeline; <sup>3</sup> Reflects operating and under construction MW divided by total platform MW; <sup>4</sup> Reflects 2019A - 2023E average annual capacity added to the operating or late-stage (FNTP) pipeline, includes M&A; <sup>5</sup> Reflects company's guidance annual development targets / additions to capacity; <sup>6</sup> Represents renewables capacity only; <sup>7</sup> Represents renewables capacity only





# US Renewables Illustrative Valuation Guidance





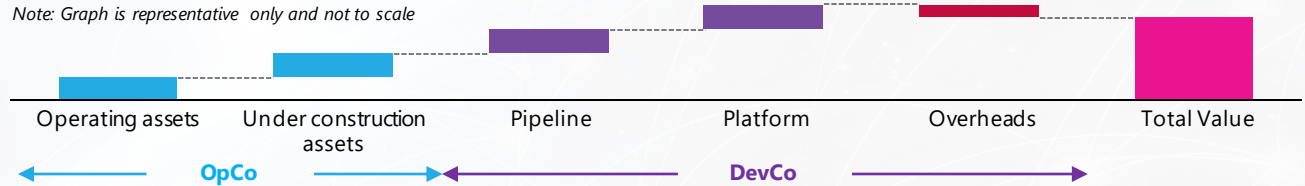
# Valuation Methodology

The primary valuation approach for private and public renewable developers is a Sum-of-the-Parts, risk-adjusted Discounted Cash Flow analysis

## Illustrative Sum-of-the-Parts (“SOTP”) Valuation Approach

- The primary valuation approach for private and public renewable developers is a SOTP risk-adjusted Discounted Cash Flow (“DCF”) analysis, including the operating & under construction assets, pipeline, and platform (incl. platform and development overheads)

Note: Graph is representative only and not to scale



	Operating and under construction assets	Pipeline	Platform and Overheads
Illustrative Assumptions	<ul style="list-style-type: none"> <li>Illustrative post-tax cost of equity of 5.5 - 7.5% for contracted cash flows, and 8 - 12% for merchant cash flows for solar assets, with discount rate premium of 50bps for wind assets</li> <li>Useful life of 30 - 40 years (depending on technology)</li> <li>Key operating assumptions generally based on third-party reports / inputs (e.g., generation, merchant curves)</li> </ul>	<ul style="list-style-type: none"> <li>Discount rate premium of 100 - 500bps</li> <li>Similar operating assumptions as operating &amp; under construction assets</li> <li>Day 1 project gearing of ~85% - 90% via tax equity and debt financing, average lifetime gearing of ~40 - 60%</li> <li>Probability weighting often applied to pipeline based on year, progress, and other market dynamics (e.g., supply chain, political support, connection)</li> </ul>	<ul style="list-style-type: none"> <li>Platform value of long-term pipeline, including incremental platform &amp; development overheads and dry holes</li> <li>DCF of 5 - 10 years, plus illustrative terminal multiple of 10.0x - 15.0x</li> <li>Illustrative post-tax cost of equity of 14 - 20% for cash flows / value created</li> <li>Illustrative development margin assumption of US\$100 - US\$300/kW, and cadence of 1,000 - 2,000MW p.a.</li> </ul>
Key Diligence Areas	<ul style="list-style-type: none"> <li>Merchant power pricing / curves</li> <li>Construction budgets &amp; contingency, EPC wrap, permits outstanding</li> <li>Weighted average contract life remaining, gearing &amp; refinancing assumptions, hedging ratios</li> <li>Key operating assumptions (e.g., generation, basis / curtailment, useful lives vs. maintenance / O&amp;M spend, taxes)</li> </ul>	<ul style="list-style-type: none"> <li>Annual development target vs. historical track record, market share, quality &amp; size of team</li> <li>Development economics vs. historical track record, quality &amp; diversification of pipeline</li> <li>Key pipeline assumptions (e.g., offtake, construction, interconnection, and financing arrangements, and political / market forces)</li> </ul>	<ul style="list-style-type: none"> <li>Annual development target vs. historical track record, quality &amp; size of team</li> <li>Development economics vs. historical track record, quality &amp; diversification of pipeline</li> <li>Ability of the business to build scale and continue to refresh pipeline over time, ensuring a reasonable share of the market and considering longer-term sector tailwinds / headwinds</li> </ul>

# Simple Desktop Valuation

If only limited information is available, an illustrative desktop valuation can be performed with reference to public comps, in combination with a widely-adopted private market approach

## Illustrative Desktop Valuation Approach using Broad Public Comparables

- If only limited information is available, an illustrative desktop valuation approach can be performed to calculate a SOTP valuation by valuing the OpCo (by using broad public comparables), and the DevCo (by using a widely-adopted private market approach)

	OpCo (operating & under construction assets)	DevCo (pipeline, platform value & overheads)
<b>Methodology</b>	$\begin{aligned} &\text{Operating \& under construction run-rate EBITDA} \\ &\times \\ &\text{Indicative EV / EBITDA Multiple} \\ &\text{Less} \\ &\text{Operating \& under construction asset-level gearing} \end{aligned}$	$\begin{aligned} &\text{Discounted Cash Flow of future development pipeline growth} \\ &\text{(annual development target} \times \text{ avg. dev margin)} \\ &\text{Less} \\ &\text{Discounted Cash Flow of platform and development overheads} \\ &\text{Plus} \\ &\text{Terminal value} \end{aligned}$
<b>Key inputs</b>	<ul style="list-style-type: none"> <li>• Operating &amp; under construction MW owned</li> <li>• Operating &amp; under construction run-rate EBITDA, or avg. run-rate EBITDA/MW for contracted assets</li> <li>• Indicative EV / EBITDA Multiple for operating assets</li> <li>• Day 1 and average lifetime gearing</li> </ul>	<ul style="list-style-type: none"> <li>• Annual development target (MW p.a.)</li> <li>• Average net development margin (\$/kW, i.e., \$/kW of net sale proceeds or net value created based on NPV)</li> <li>• Platform and development overheads, incl. dry holes (\$ p.a.)</li> <li>• Risk-adjusted discount rate (%) and/or terminal value multiple (x)</li> </ul>
<b>Key considerations / Limitations</b>	<ul style="list-style-type: none"> <li>• Scarcity of directly comparable public companies</li> <li>• Public comparables &amp; multiples value 100% of business, not just the OpCo, albeit development is difficult to value in a public market context (given the challenge of assessing pipeline quality, and the information gap between public valuations and private transactions)</li> <li>• Volatility of public comps &amp; multiples, particularly in rising interest rate / uncertain macro environments</li> <li>• Proportion of operating vs. development MWs in the portfolio, development track record vs. annual development target (incl. M&amp;A), quality &amp; size of team</li> <li>• Company- and asset-specific nuances, e.g., tax credits or project-level debt in cash flows and / or multiples; contract / offtake structure, useful lives, locations, technologies and hedging levels for operating assets</li> </ul>	<ul style="list-style-type: none"> <li>• Achievability of annual development target and future profitability (avg. development margin), quality &amp; diversification of pipeline</li> <li>• Demonstrable track record, including the continued ability to deploy, successfully and profitably execute on M&amp;A, secure financing, and retain &amp; attract high-quality staff to deliver platform value and pipeline</li> <li>• Key industry relationships, incl. access and ability to procure scarce equipment or land on favourable terms</li> <li>• Management of the EPC process and ability to manage project costs and schedules to budgets</li> <li>• Consideration of the broader M&amp;A environment, continuation of sentiment towards renewables and platform value</li> </ul>



# DevCo/Platform Valuations

A widely-adopted private market approach to valuing the DevCo / Platform is a Discounted Cash Flow analysis of the future development pipeline growth (incl. overheads)

## Illustrative DevCo / Platform Valuation Approach

- A widely-adopted private market approach to valuing the DevCo / Platform is a Discounted Cash Flow analysis of the future development pipeline growth, less the platform and development overheads required to execute on that long-term plan, plus a terminal value
- Each input into the calculation should be viewed in the context of the business' track record (e.g., annual development target and profitability), position within the market (e.g., market share and key relationships), and conviction around the team's ability to execute & continue to retain and attract talent
- An alternative approach to valuing the DevCo / Platform is to apply a development margin and probability-weighted assumptions to the development pipeline

(\$m unless otherwise stated)	Year 1	Year 2	Year 3	Year 4	Year 5	
Annual development target (MW p.a.)	1,500	1,500	1,500	1,500	1,500	
Average development margin (\$/kW)	\$200	\$200	\$200	\$200	\$200	← Average development margins in the US range between \$100 - \$300/kW
DevCo cash flows / Value created at FNTP	\$300	\$300	\$300	\$300	\$300	
Less: Platform and development overheads <sup>1</sup>	(\$30)	(\$33)	(\$35)	(\$38)	(\$40)	← Platform and development overheads assumed to grow at \$2.5m p.a.
<b>Net DevCo cash flows / Value created</b>	<b>\$270</b>	<b>\$267</b>	<b>\$265</b>	<b>\$262</b>	<b>\$260</b>	
Plus: Terminal value	-	-	-	-	\$2,600	← Terminal value determined using either a multiple or a cost of equity / discount rate (10.0x multiple shown indicatively)
<b>Total Net DevCo cash flows / Value created</b>	<b>\$270</b>	<b>\$267</b>	<b>\$265</b>	<b>\$262</b>	<b>\$2,860</b>	← Discounted back to Year 0 at appropriate discount rate

<sup>1</sup>Includes dry holes / project write-offs