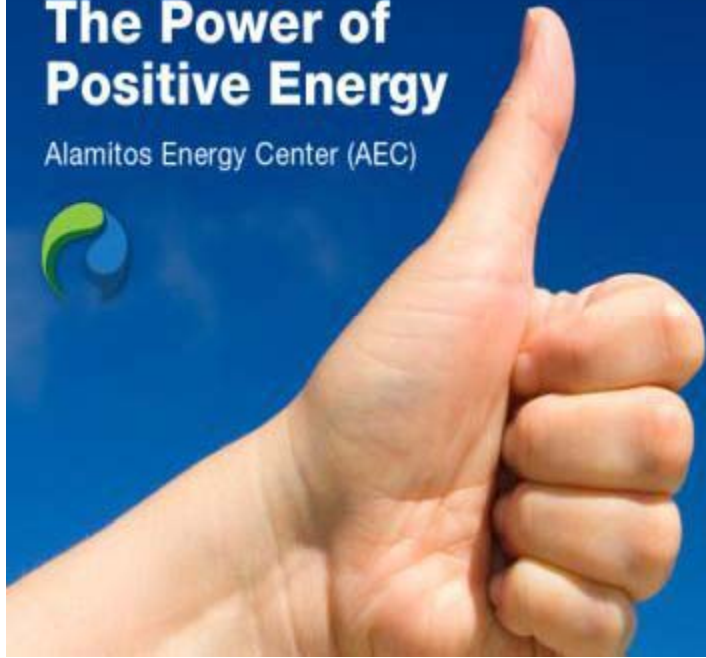


DOCKETED

Docket Number:	13-AFC-01
Project Title:	Alamitos Energy Center
TN #:	212764-3
Document Title:	Attachment 2 - AES Battery Storage Project
Description:	N/A
Filer:	ELIZABETH LAMBE
Organization:	Los Cerritos Wetlands Land Trust
Submitter Role:	Intervenor
Submission Date:	8/12/2016 11:53:41 AM
Docketed Date:	8/12/2016

The Power of Positive Energy

Alamitos Energy Center (AEC)



AES Alamitos Battery Energy Storage System

Application for a Conditional Use Permit

Long Beach, CA

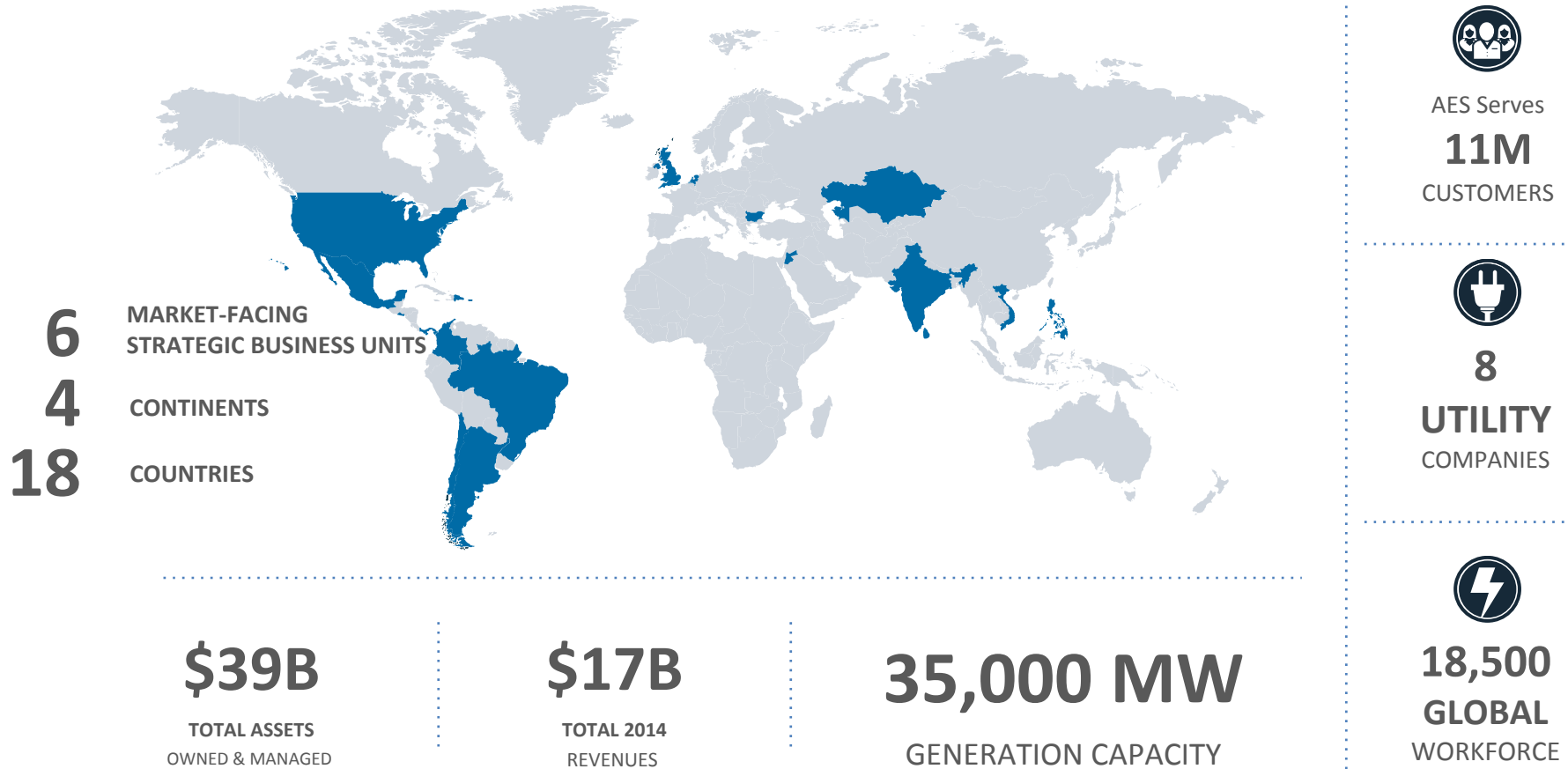
July 18, 2016





The AES Corporation

Improving lives by delivering safe, reliable and sustainable energy in every market we serve.





AES in California



- 3 natural gas power plants
 - Long Beach (Alamitos)
 - Huntington Beach
 - Redondo Beach
- Approximately 15% of Southern California Edison's peak demand
- Innovative leader in new energy solutions
- Over 280 MW of renewable energy sources
 - Wind
 - Battery Storage *
 - Solar power developer

**Coming to Long Beach by 2021*



Alamitos Energy Center

- AES proposes to modernize and reduce the generating capacity of the Alamitos generating station in three separate projects:
 - ✓ Modernize and reduce the natural gas generation from 1,960 MW to 1,050 MW
 - ✓ Replace natural gas generation with up to **300 MW of Battery Energy Storage System (BESS)**
 - ✓ Demolish and remove the old steam generators and stacks

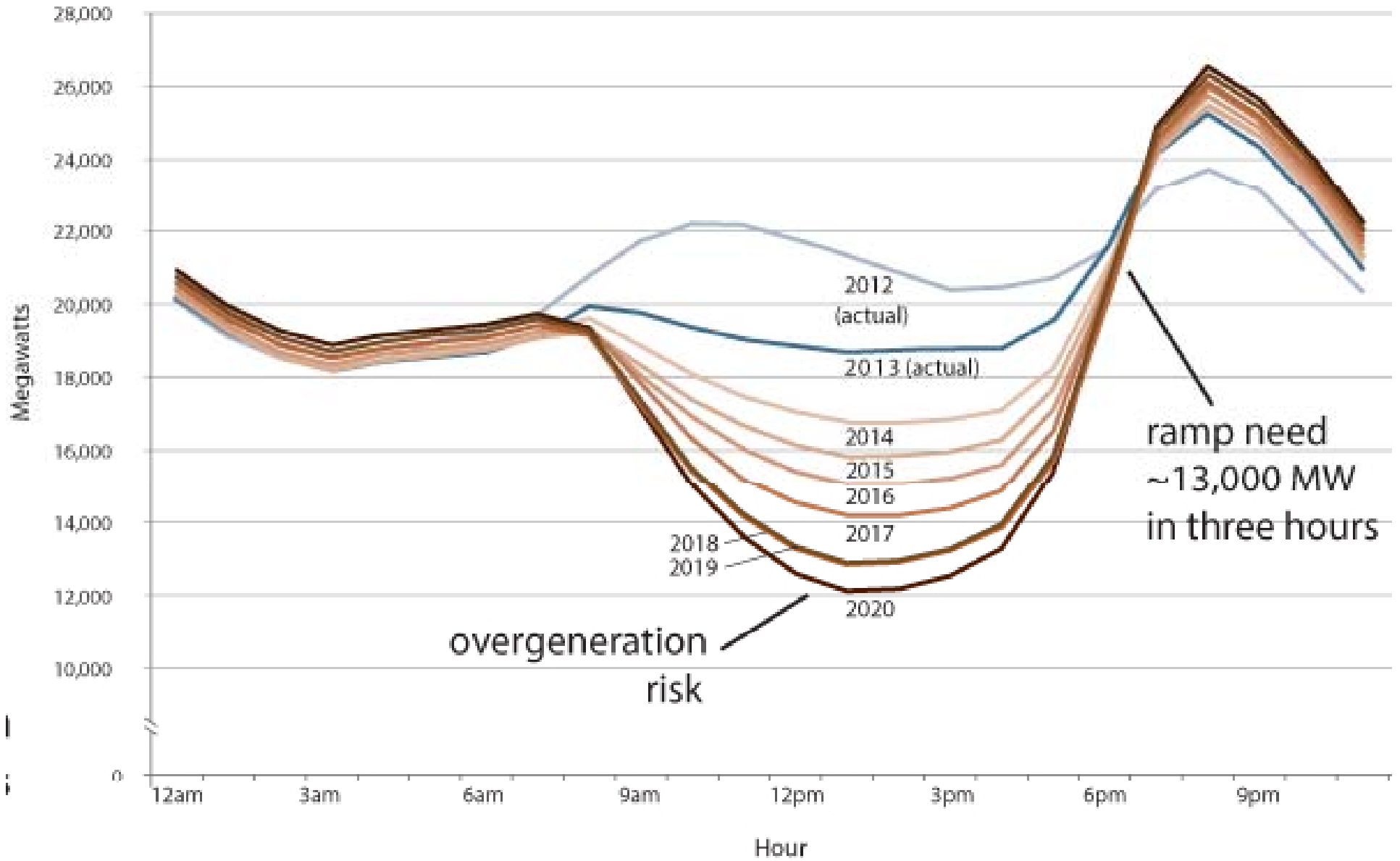


Why Do We Need Energy Storage?

California's goals for a cleaner, more environmentally sensitive energy future are fundamentally changing the electrical system.

- Renewable Energy: 33% by 2020 – 50% by 2030
- Greenhouse Gases: 80% reduction by 2050
- Coal: Limits on out-of-state coal contracts
- Water: Limits on once-through-cooling (OTC) for power plants, reductions in fresh water
- Nuclear???
- Electricity: Transportation and goods movement
- System Evolution: Demand side management, smart meters, consumer choice

Net load - March 31





Why Build Energy Storage in Long Beach?

- Maintain grid reliability
 - Need generation where the demand is located
 - Alamitos location more effective and efficient
 - Loss of generation in south-western Los Angeles reliability area



Key Attributes of the AES Alamitos BESS

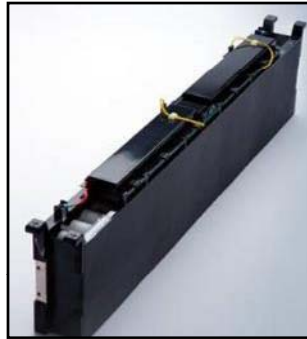
- World's largest battery energy storage system (100 MW up to 300 MW)
 - Pre-qualified battery suppliers
 - AES patented Advancion[®] control technology
 - Mandatory supplier return and recycling
 - Closed loop chiller plant for climate control
- No emissions
- Negligible fresh water use
- Eliminates discharge to San Gabriel river
- Reduces noise
- Within existing plant fence line, consistent with zoning use

BESS equipment looks similar to computer equipment in a data center

Cells



Modules



Trays & Racks





AES' Newest BESS in Indianapolis







Clean | Reliable | Lower Profile



Clean | Reliable | Lower Profile



Clean | Reliable | Lower Profile



Clean | Reliable | Lower Profile



Clean | Reliable | Lower Profile



Clean | Reliable | Lower Profile





Clean | Reliable | Lower Profile

Required Planning Entitlements

- AES filed an application with the City of Long Beach for
 - Site Plan Review
 - Conditional Use Permit
 - Standards Variance
 - Local Coastal Development Permit
 - Mitigated Negative Declaration (MND)
- Next Steps
 - August/September: 30 day public review of MND
 - October: Planning Commission Approval
 - 2018: Design and Construction
 - 2020: Operational
- Once constructed and operational, AES will apply to the City of Long Beach for demolition permits



How Can the Local Community Participate?

- Provide comment on the draft EIR
- Support via letter or e-comments
- Attend public meetings and hearings
- Get on the AES email list serve



How to Reach Us

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