

El Paso Electric Quarterly Update

EPE presentation to Las Cruces City Council

Presenters

Ricardo Gonzales – Director, New Mexico External Affairs

Steven Buraczyk – Senior Vice President and Chief Operations Officer

Roberto Favela – Manager, Renewable Energy/Corporate Development

EPE will be providing an update on the necessary system expansion, generation and transmission and distribution additions and expansions along with basic information on EPE's carbon foot print. EPE will also update the Council on the company's Solar Energy Program and Portfolio.

The Electric Company
El Paso Electric



 **Update to City of Las Cruces
October 2013**



EE Overview

Service Territory

Regional electric utility serving west Texas and southern New Mexico

Existing Resources

Existing resource provide a good fuel mix

Expansion

Customer growth/demand and generation retirements leading to necessary system expansion

Estimated Capital

Sizeable capital expenditures for the next several years

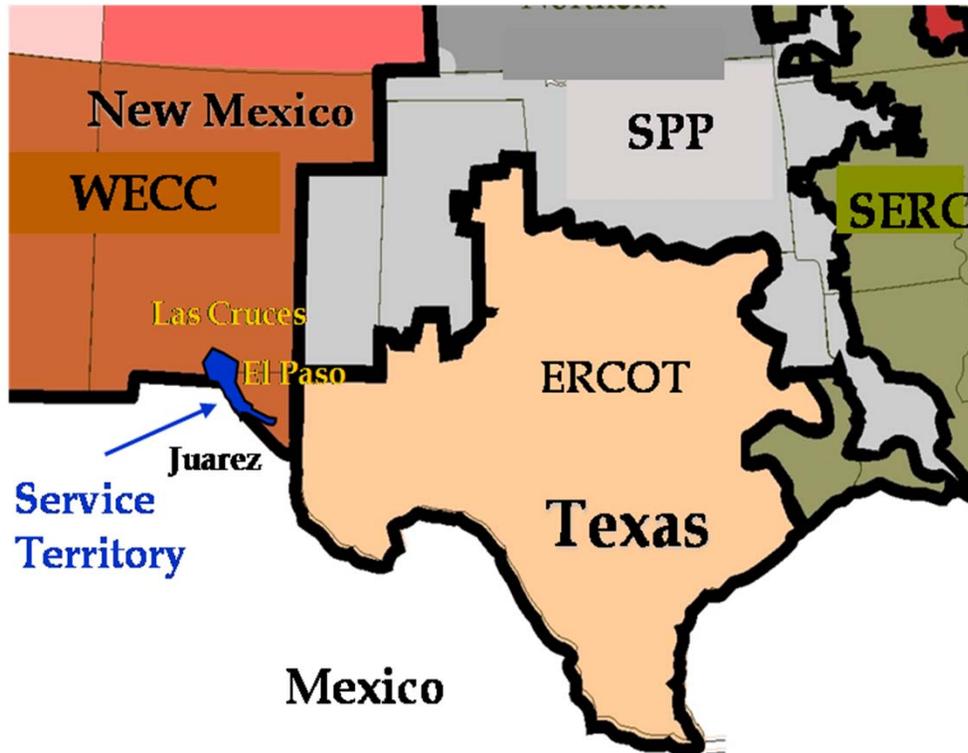
Environmental

Favorable environmental profile – low carbon footprint

Renewables

Significant amount of renewable resources have been added to EPE's system

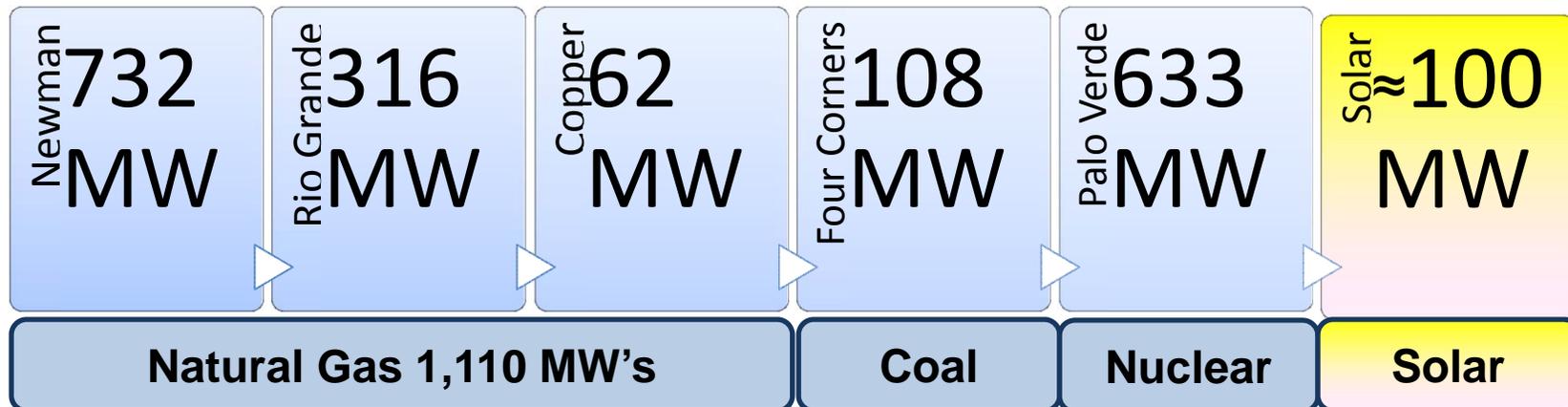
Service Territory



- ⌚ Approximately 390,000 retail customers
- ⌚ EPE owns 1,820 miles of transmission and distribution lines
- ⌚ 1,852 MW of generation (net) – nuclear (34%), natural gas (60%) and limited coal (6%)
- ⌚ Approximately 100 MW of utility scale solar
- ⌚ No interconnection with ERCOT
- ⌚ Interconnected with Mexico

Load and Resources

***Company Owned Generation 1,852 MW's**



Record Native Peak 1,750 MW's set in 2013

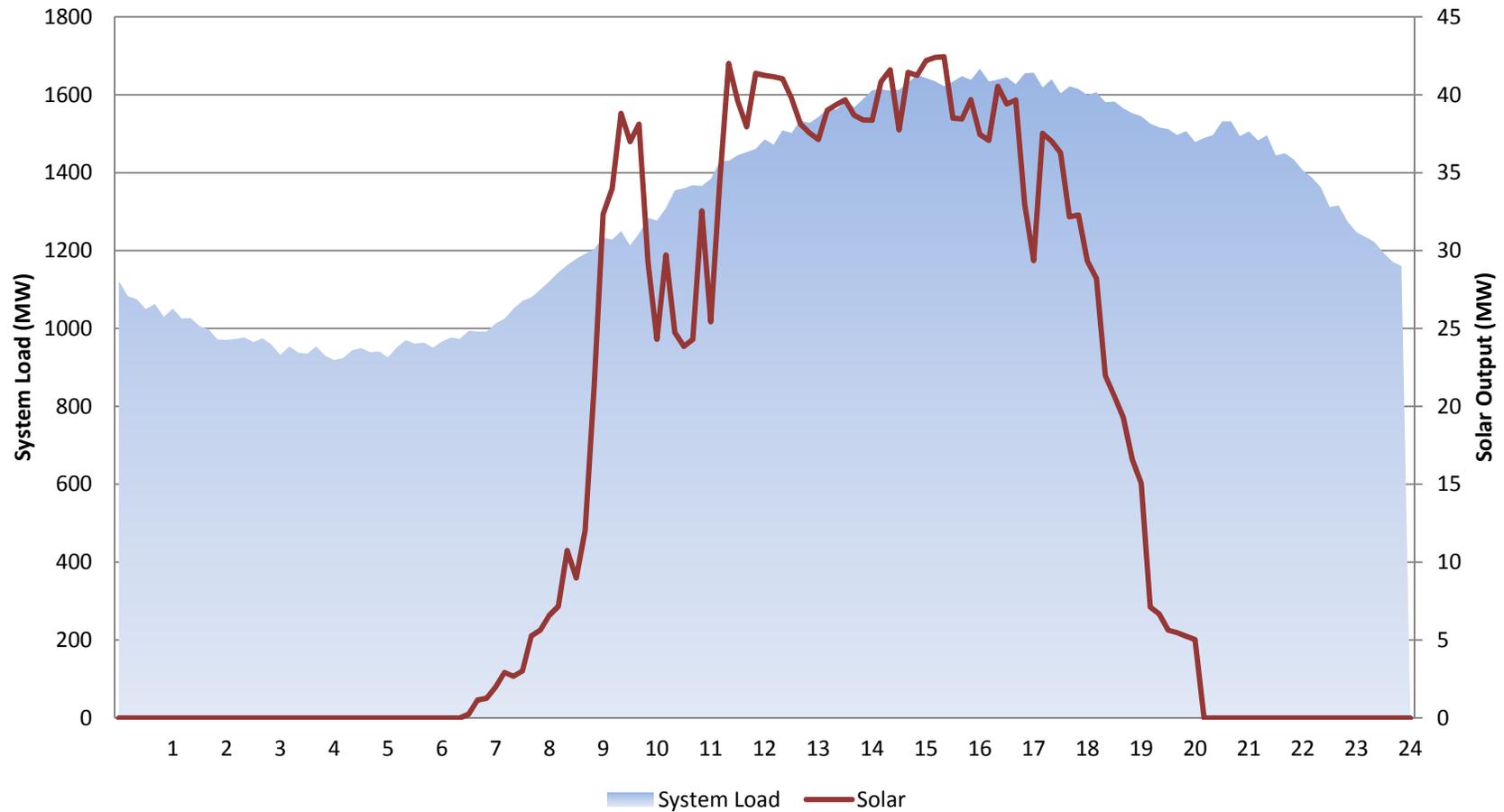
*Includes 1 MW of Wind Generation from HMWR

Solar Resources

Project	Type of Technology	Location	Size
Hueco Mountain Wind Ranch	Wind	East of Horizon, TX	1.32 MW
Newman Solar PV #1	Solar Photovoltaic	El Paso, TX	0.064 MW
Rio Grande Solar PV	Solar Photovoltaic	Sunland Park, NM	0.064 MW
Wrangler Substation PV	Concentrated Photovoltaic	East El Paso	0.048 MW
Stanton Tower Building PV	Mono-Crystalline	Downtown El Paso	0.031 MW
El Paso Community College PV	Solar Poly-Crystalline	EPCC Valle Verde	0.014 MW
Van Horn PV	Solar Photovoltaic	Van Horn, TX	0.020 MW
Sub-Total EPE Owned			1.56 MW
Southwest Environmental Center PV	Solar Photovoltaic	Las Cruces, NM	0.006 MW
Camino Real Landfill Methane Gas	Biomass	Sunland Park, NM	1.2 MW
Hatch Solar Energy Center	Concentrated Photovoltaic	Hatch, NM	5 MW
NRG Solar Roadrunner	Thin-film Photovoltaic	Santa Teresa, NM	20 MW
Las Cruces Centennial Solar Farm	Solar Poly-Crystalline	Las Cruces, NM	12 MW
El Chaparral Solar Farm	Solar Poly-Crystalline	Chaparral, NM	10 MW
Macho Springs Solar (2014)	Thin-film Photovoltaic	Deming, NM	50 MW
Sub-Total PPA			98.2 MW
Customer-Owned Renewable DG			10 MW
Total Renewables			109.76 MW

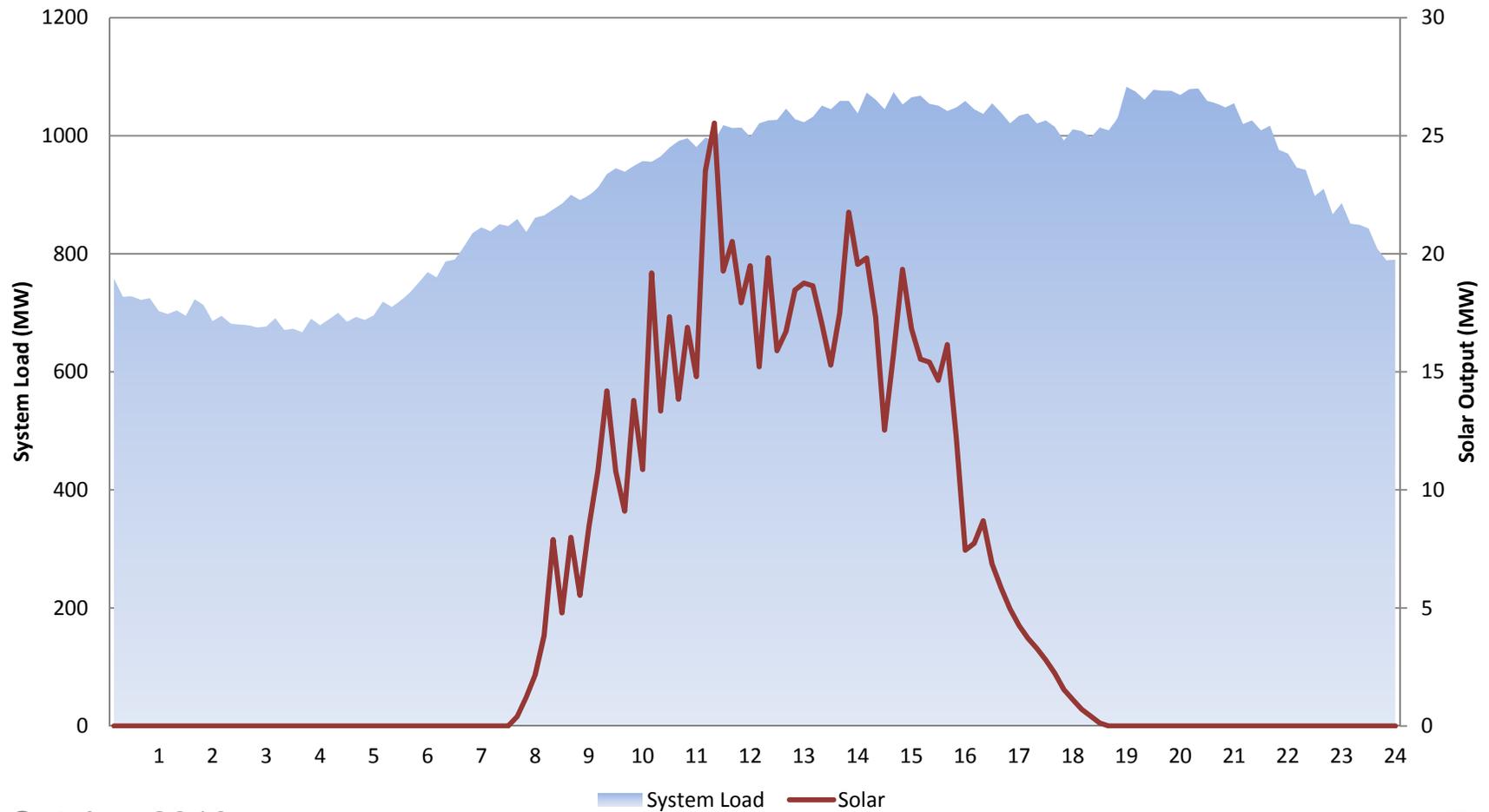
System Load vs. Solar Output

07/08/13



System Load vs. Solar Output

10/14/13



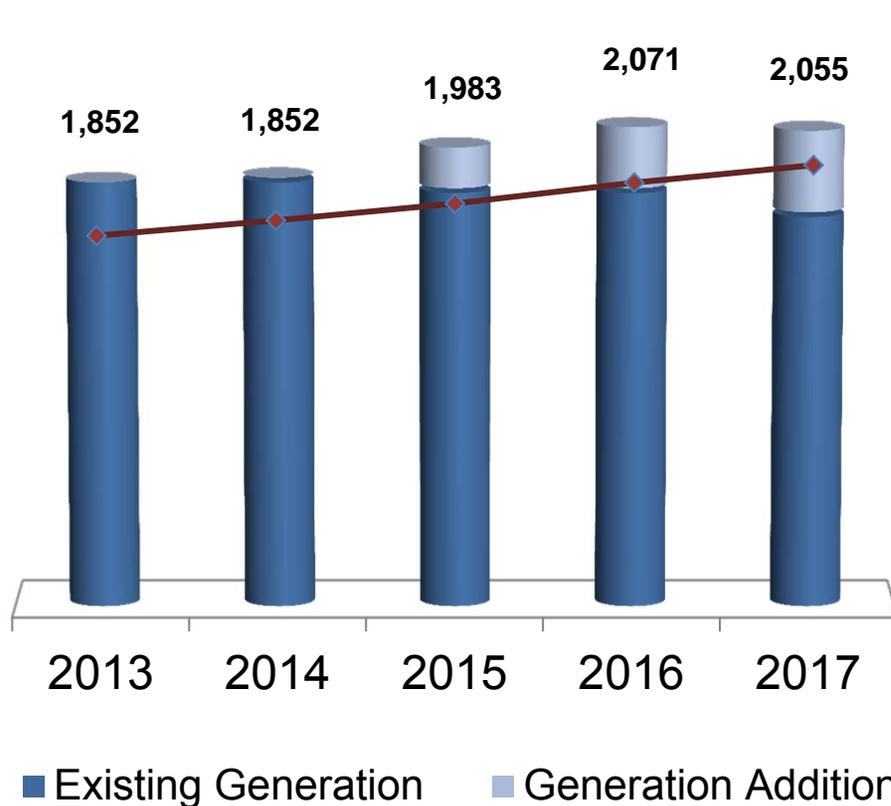
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Necessary System Expansion

System expansion is being driven by customer demand and necessary retirements of existing generation

Generation Additions Schedule

Generating Capacity at Summer Peak (MW)



⏻ Existing capacity 1,852 MW

Additions

- ⏻ 2014 MPS Unit 1 (88 MW) (a)
- ⏻ 2015 MPS Unit 2 (88 MW)
- ⏻ 2016 MPS Unit 3 (88 MW)
- ⏻ 2017 MPS Unit 4 (88 MW)

Unit Retirements (b)

- ⏻ 2014 Rio Grande 6 (45 MW)
- ⏻ 2016 Four Corners 4 & 5 (104MW)*

(a) Unit 1 expected to be commercially operational by December 2014

(b) Unit retirements occur in December and impact capacity available in the following year

* Analysis of Four Corners in progress

Generation Additions

- ⏻ Rio Grande 9 began commercial operation May 2013
- ⏻ The quick start General Electric LMS 100 aero-derivative unit is capable of producing 87MW's



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Generation Additions

- ⌚ EE's next investment to prepare for the region's growing customer demand is a new power station in east El Paso
- ⌚ The Montana Power Station will consist of four state of the art 88 megawatt simple-cycle LMS 100 aero-derivative combustion turbines
- ⌚ The plan calls for one unit per year to be placed into service annually from 2014-2017



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Five Year Estimated T&D Expenditures

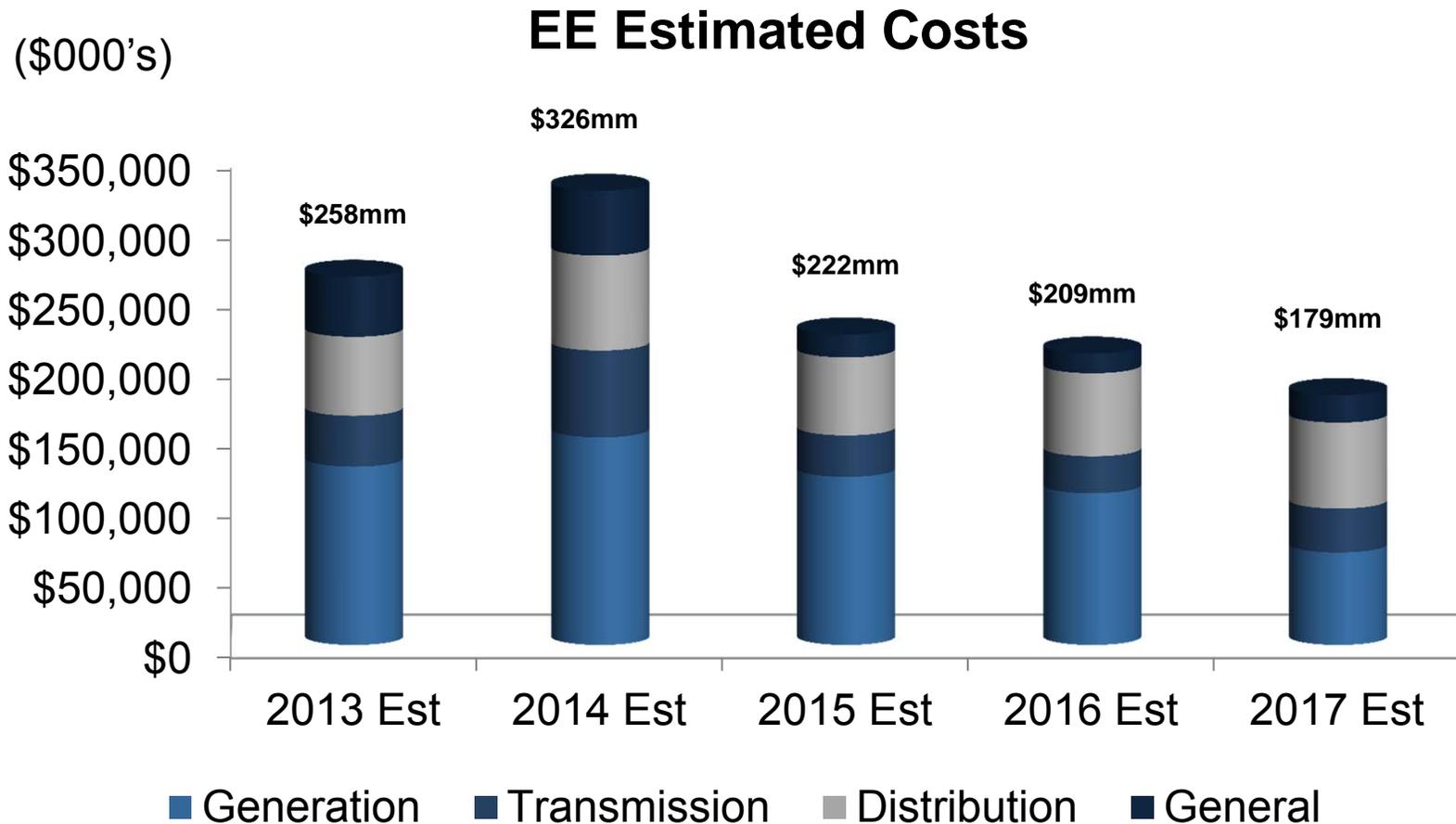
- ⌚ EE anticipates capital expenditures related to Transmission and Distribution of \$488MM over the next five years
 - ⌚ New Mexico Distribution - \$91MM
 - ⌚ Texas Distribution - \$221MM
 - ⌚ Total Transmission - \$176MM

(\$000's)

EE Estimated T&D Expenditures

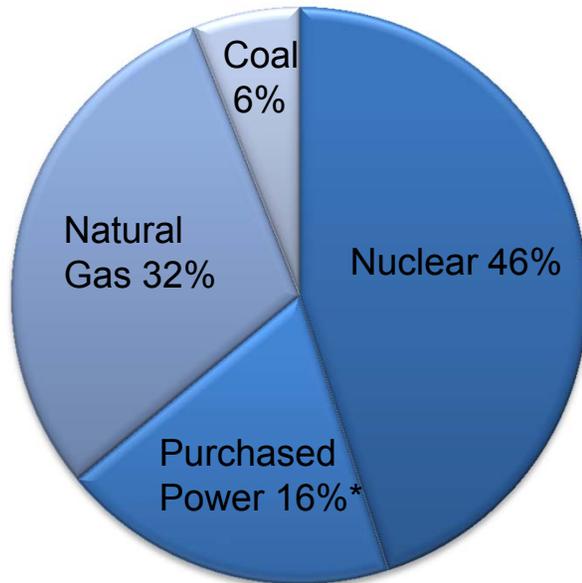


Five Year Cash Capital Expenditures



Diversified Energy Portfolio and Low Carbon Footprint

2012 Energy Sources (by MWh's)



*Renewable energy purchases represent 6% of total purchased power

EE vs. U.S. Carbon Footprint

(Short tons CO₂ equivalent emissions/MWH)



New Mexico Renewables

⏻ Requirements

- ⏻ EE is required to meet 10% of its current retail energy sales in New Mexico via renewables; escalates to 15% in 2015 and to 20% in 2020
- ⏻ Must be from diverse sources – at least 20% solar, 30% wind, 5% biomass and 1.5% renewable distributed generation (increases to 3% in 2015)
- ⏻ New reasonable cost threshold calculation methodology will likely limit future requirements for EE



EPE and Renewables

- **EPE is committed to supporting the development of renewable energy projects.**
- **Factors that impact EPE's renewable energy decisions include:**
 - Economic impact on customers
 - Ongoing advancements in renewable energy technology
 - Identifying feasible renewable projects for our territory
 - Ability to integrate renewable energy resources into system

EPE Renewable Projects



**Hueco Mountain
Wind Ranch**



**Newman & Rio Grande
Solar PV**



**Stanton Tower
Solar Installation**



**Camino Real Landfill Gas to
Energy Facility**



**Wrangler Solar
Facility**



**El Paso Community
College PV**



**Hatch Solar
Energy Center**



**Roadrunner Solar
Electric Facility**



**Las Cruces Centennial
Farm**



**El Chaparral
Solar Farm**



**Van Horn Solar
Facility**

Statistics Interconnection Application

Average KW Capacity for Residential Solar Interconnection Systems at NM			Average Number of Residential Solar Applications Received per Month for NM		
Year	Average System Capacity (kW)	Total Installed Capacity (kW)	Year	Average Number of applications per Month	Total Number of Applications per Year
2008	3.15	139	2008	4	44
2009	3.15	239	2009	6	76
2010	3.46	654	2010	16	189
2011	4.38	1469	2011	28	335
2012	4.79	2219	2012	39	463
2013*	5.19	2181	2013*	47	420
* Sept. 2013			* Sept. 2013		

Macho Springs Solar 50 MW

- **Project Details:**

- 50 MW Thin-Film Ground Mounted Single- Axis PV
- Expected annual generation in first year 149,440 MWh
- 20 year Power Purchase Agreement
- Site construction area is approximately 411 acres

- **Project Major Milestones:**

- Project Design Start January 2013
- Site Construction Ground break June 2013
- NMPRC Approval May 2013
- Interconnection Construction December 2013
- Commercial Operation Date May 2014