



Natural Gas Diversification Strategy for PREPA



Agenda

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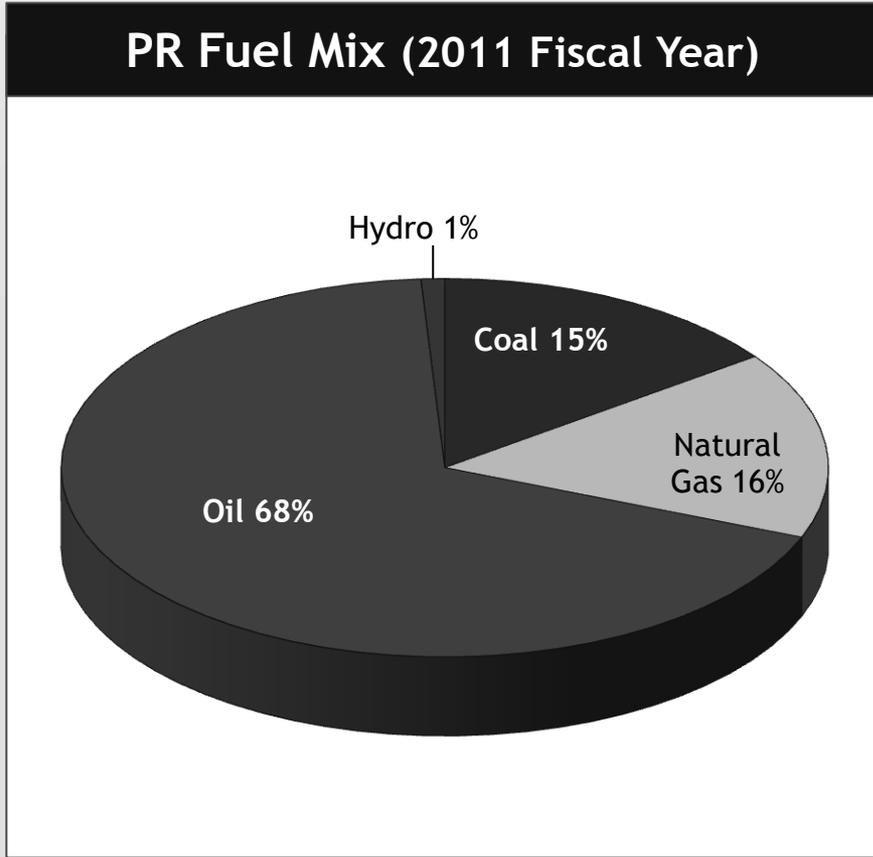
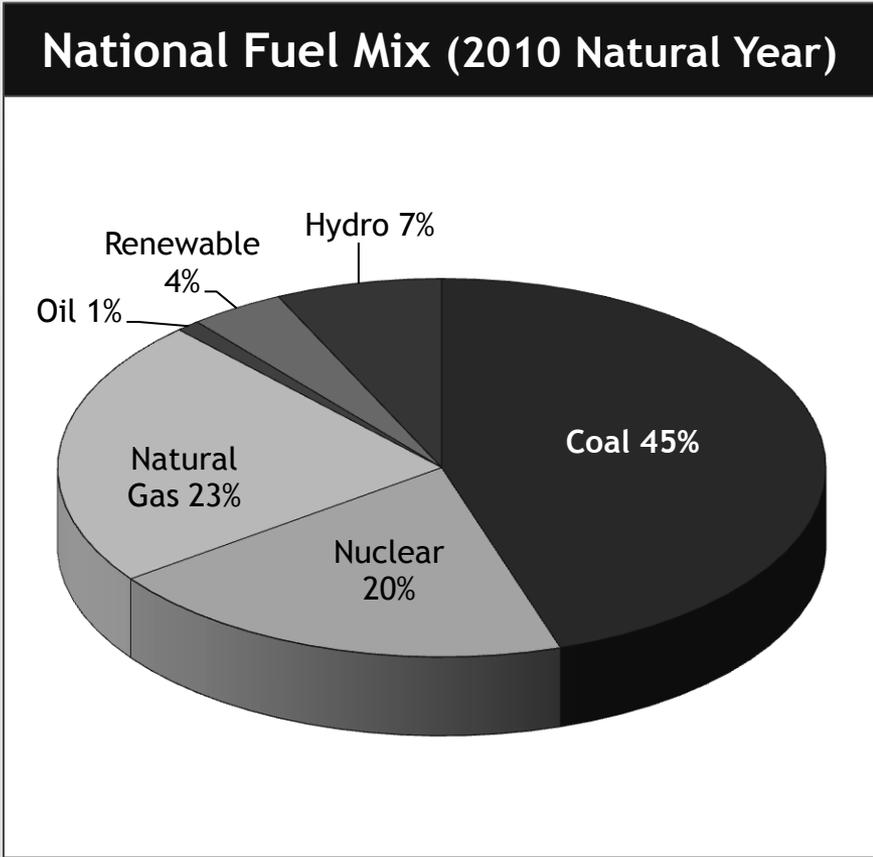
Importance of Diversifying to Natural Gas

2

Natural Gas Diversification Strategy



Currently, Puerto Rico's net electricity generating fuel mix varies significantly from the national mix

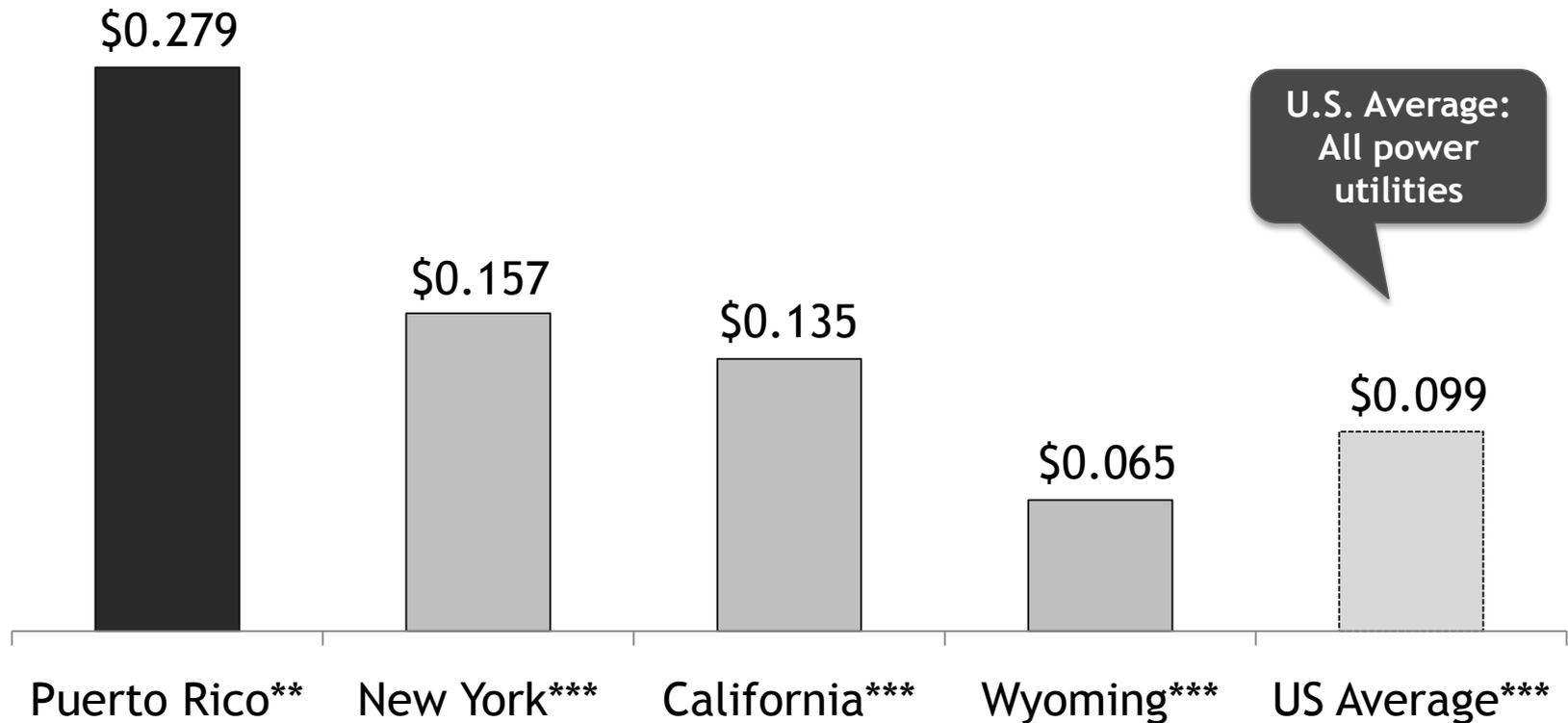


Puerto Rico's generating capacity is heavily dependent on fuel oil, whereas only 1% of US capacity is derived from fuel oil



Due to our high dependence on fuel oil, Puerto Rico's electricity rates are the highest among public power utilities in the United States*

Average Retail Price for Public Utilities (Cents per KWh)



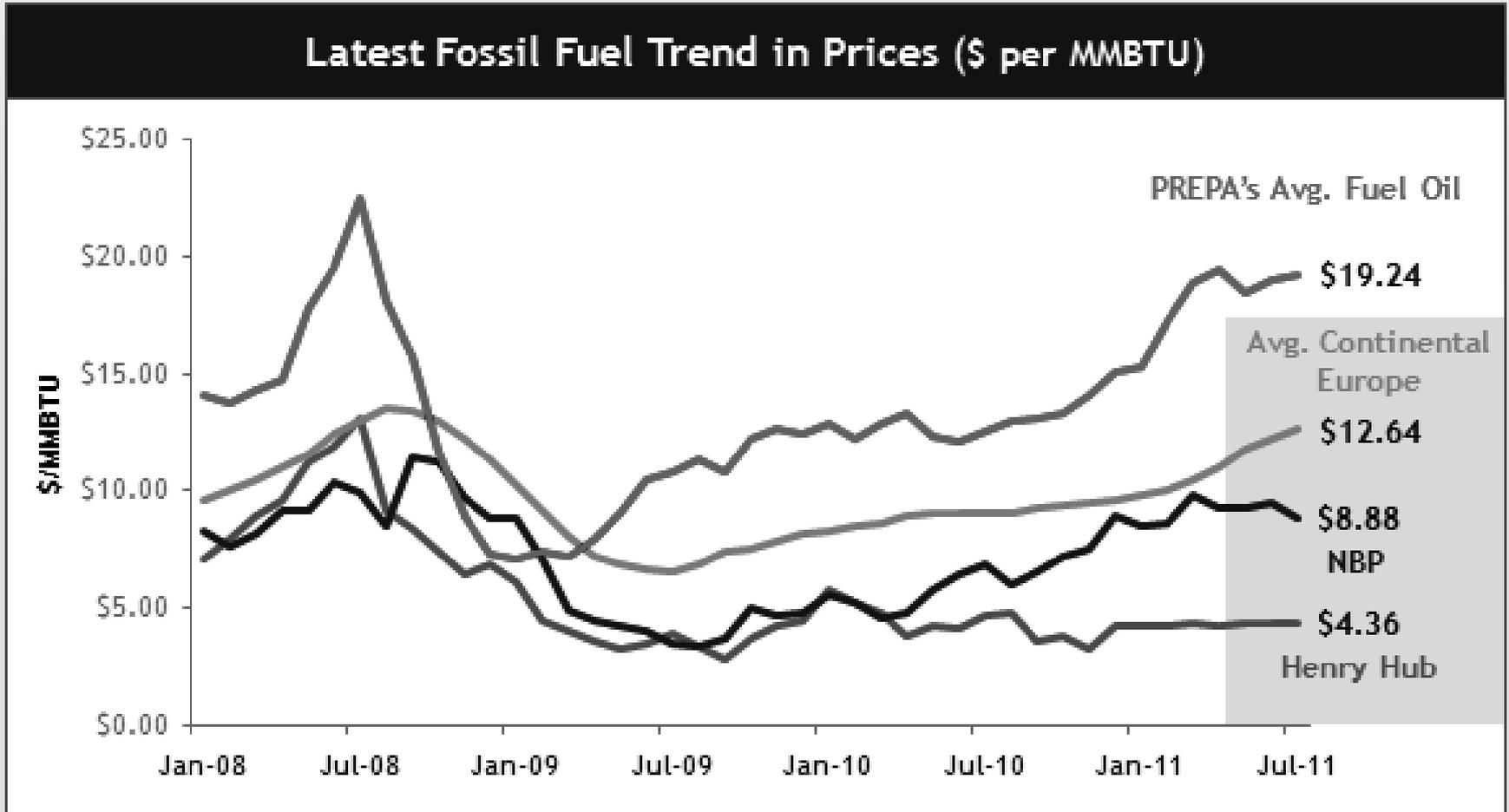
* Hawaii's retail prices are \$31.29 cents per KWh this represents the United States' highest retail price.

** PREPA end of June FY 2011.

*** U.S. Energy Information Administration (Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, by State, Year-to-Date through May 2011 and 2010).



Natural gas prices have established a clear and constant trend



Historically, natural gas prices have consistently remained below PREPA's fuel price

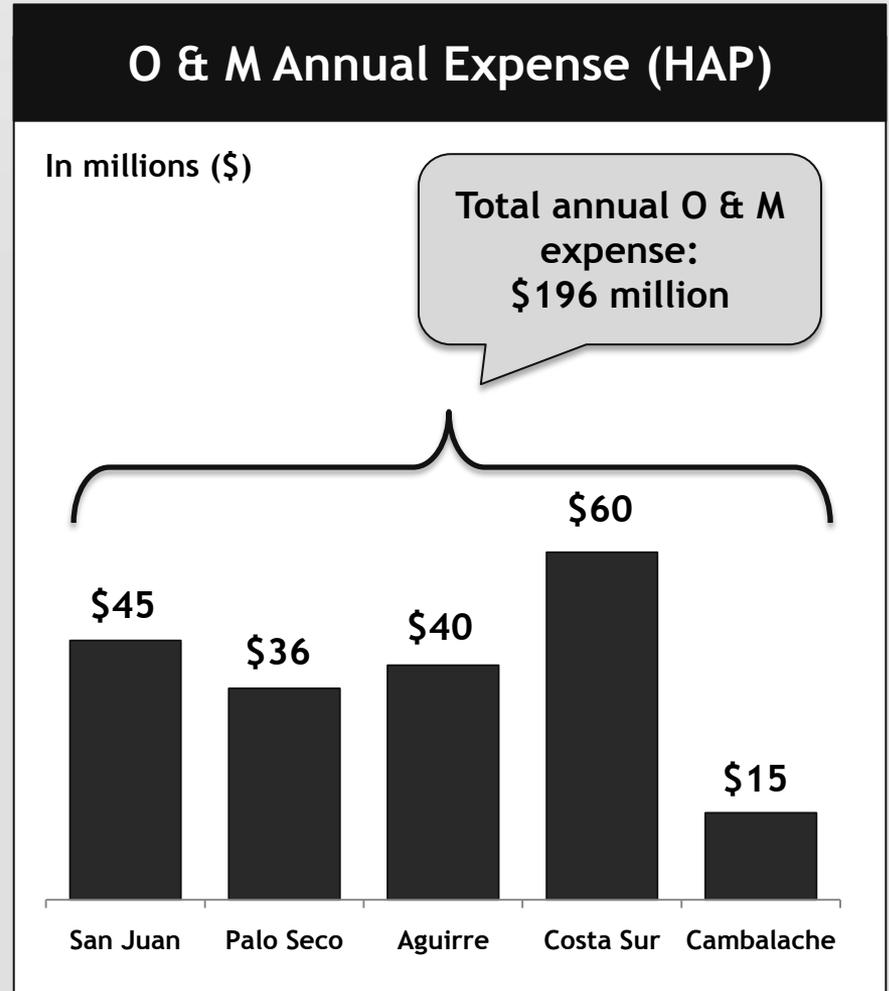
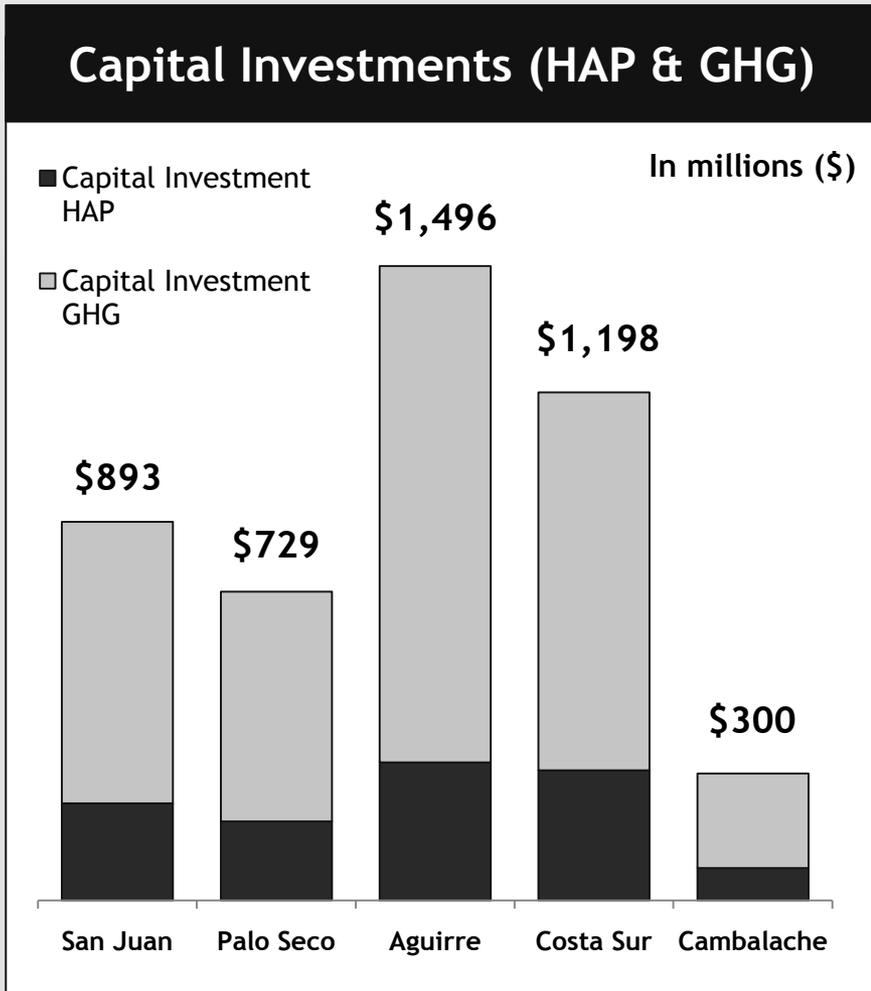


Going forward, EPA's new regulations over public power utilities will provide additional constraints on PREPA's operations

- 1 During 2009 and 2010, EPA approved new regulations under the Clean Air Act (CAA) that established the requirement of detailed annual reports of Greenhouse Gas (GHG) emissions from power utility companies
- 2 If Congress is unable to stop the imposition of these regulations, utilities would have only 3 years to implement the necessary changes
- 3 In order for PREPA to comply with this new regulations, it would need to incur in significant capital investments to implement a comprehensive Emissions Monitoring System (EMS)
- 4 Capital investments would primarily be directed at reducing emissions of Hazardous Air Pollutants (HAP) and Greenhouse Gases (GHG)
- 5 PREPA would also incur an additional annual expense of operating and maintaining the newly implemented controls



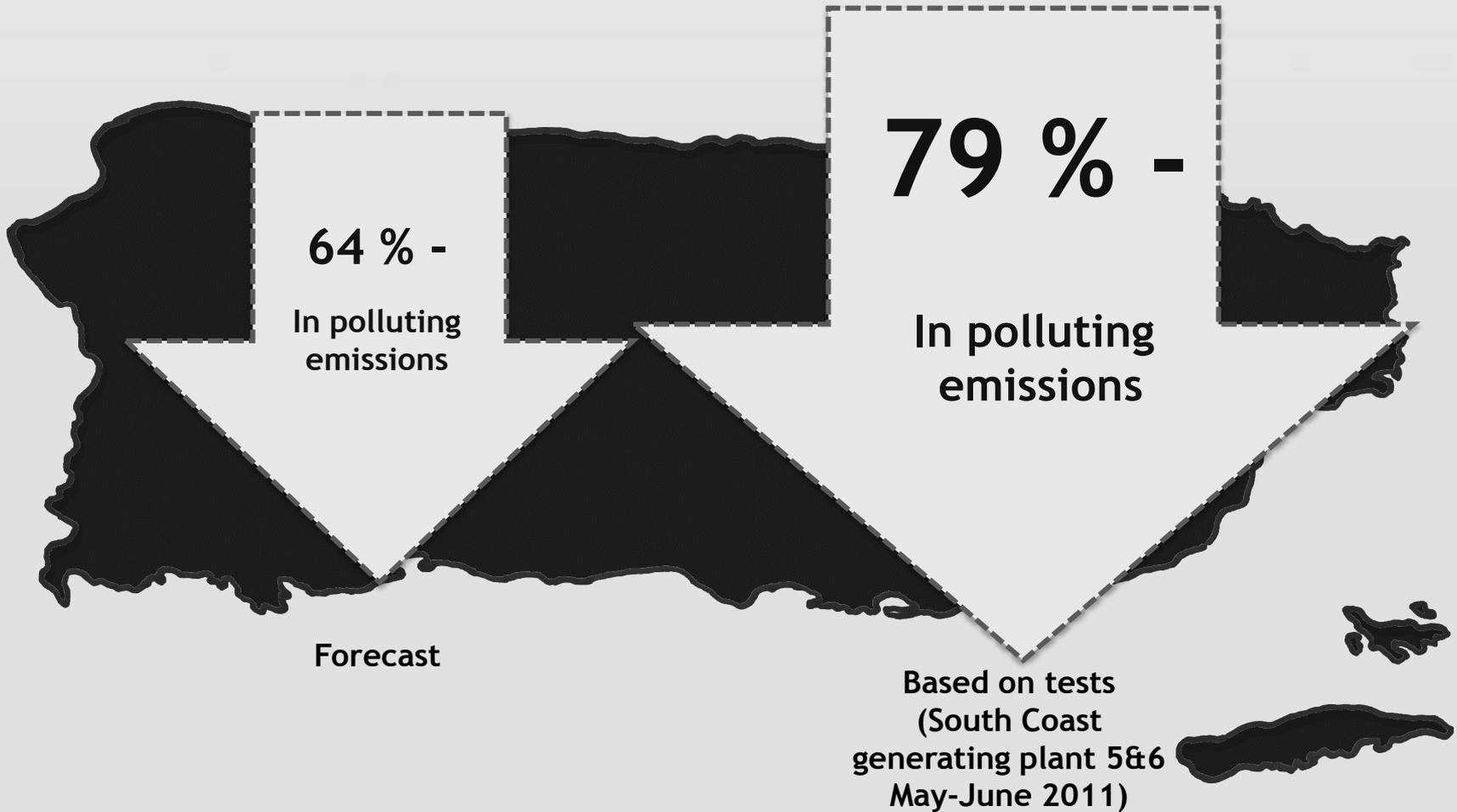
The estimated capital investments for the implementation of the EMS can arise to approximately \$4.6 billion in 3 years plus a recurring \$196 million annual expense



These expenses can be substantially reduced by switching PREPA's generating fuel mix to natural gas due to its considerably low CO² emission factor compared to other fossil fuels



Recent natural gas emission tests carried out at the South Coast generating plant CONFIRM the significant reduction in polluting emissions derived from burning natural gas



Due to these trends in oil and natural gas prices and PREPA's commitment to comply with new EPA industry regulations, should Congress not stop their imposition, it is of the utmost importance to implement and execute a natural gas diversification strategy



Agenda

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Importance of Diversifying to Natural Gas

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Natural Gas Diversification Strategy



The following four pillars are the cornerstone of PREPA's Natural Gas Diversification Strategy:

1

Via Verde

2

Natural Gas Plant Conversions

3

Natural Gas Price Negotiations

4

Off-Shore LNG Terminal (Aguirre)



Via Verde will connect the EcoEléctrica facility with the production plants in northern region of the island

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Via Verde Timeline

Key Milestones	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	
1. Complete Final Pipeline Design		█	█																
2. Get CoE Approval				█	█														
3. Contractor Notice to Proceed					█														
4. Complete Land Acquisitions	█	█	█	█	█														
5. Pipes Purchasing					█	█	█	█											
6. Specialized Equipment Purchasing					█	█	█	█	█										
7. Mobilization & Pipeline Construction					█	█	█	█	█	█	█	█	█	█	█				
8. Installation of Specialized Equipment							█	█	█	█	█	█	█	█	█				
9. Specialized Equipment Calibration													█	█	█				
10. Pipeline Commissioning																█	█		
11. Pipeline in Use																	█	█	

* Preliminary and subject to change



PREPA has designed an aggressive timeline to accomplish plant conversions by late 2012

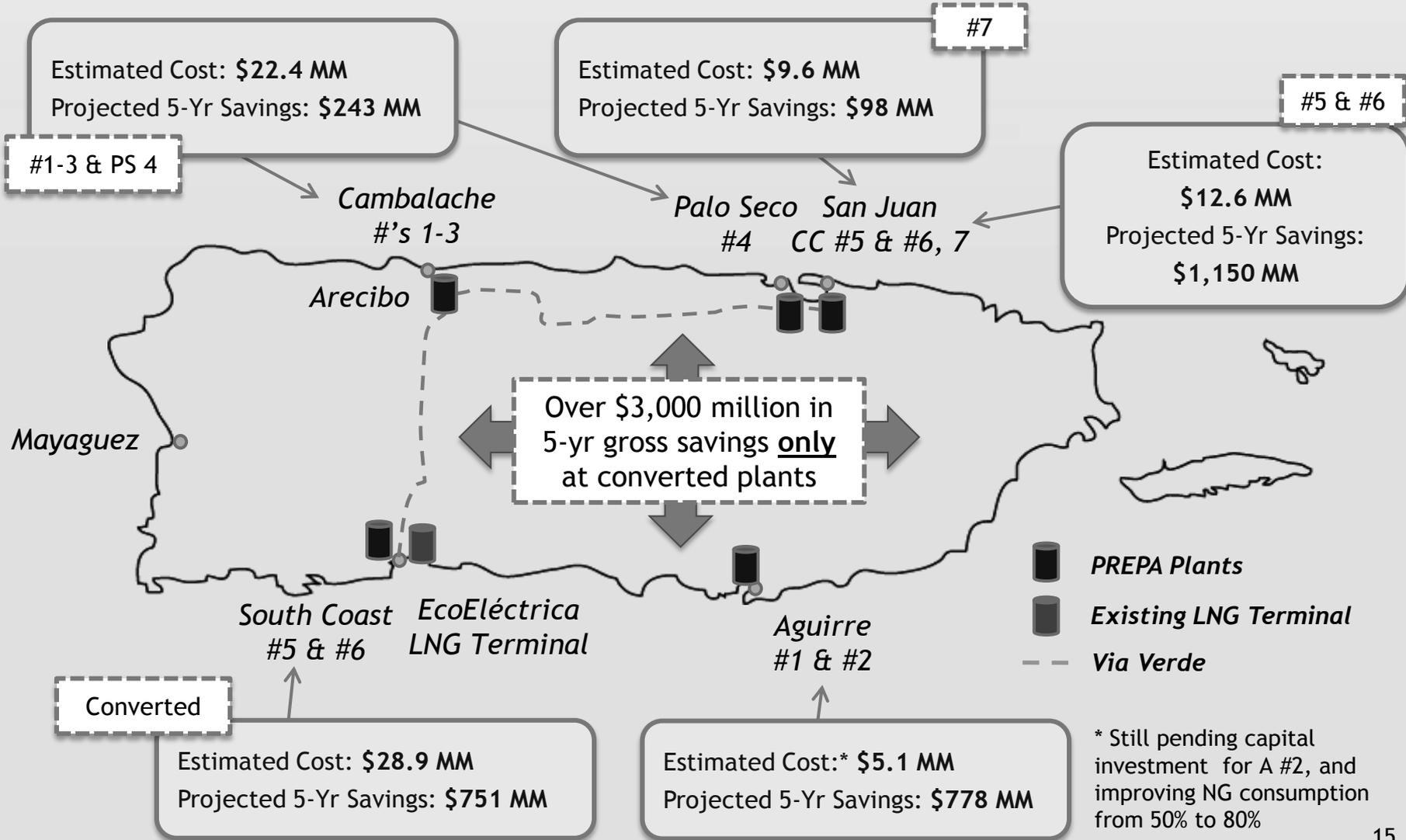
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Natural Gas Plant Conversion Timeline



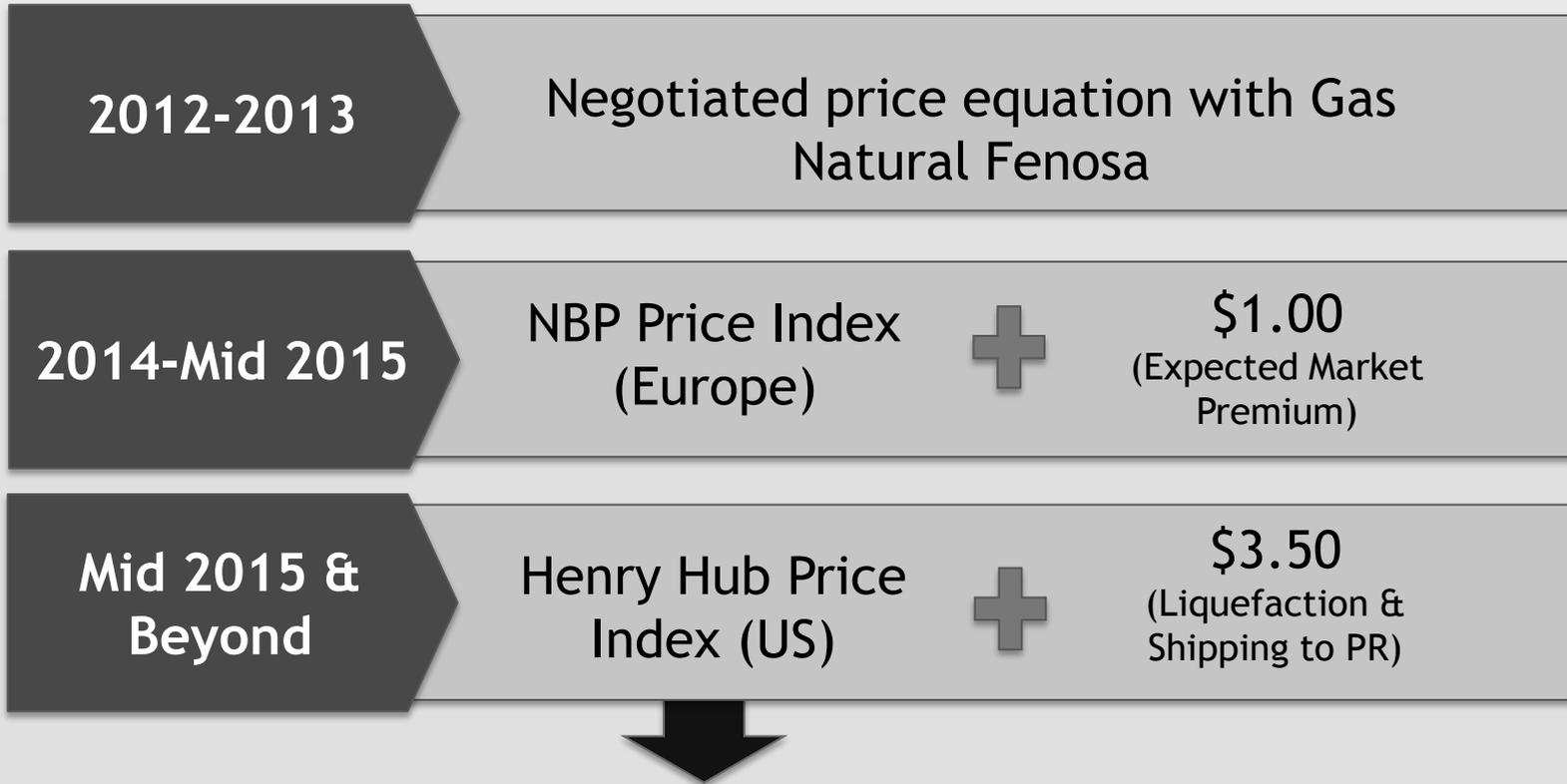


Plant conversions will require an investment of approximately \$78.7 million in the next 2 years but will provide significant savings when burning natural gas





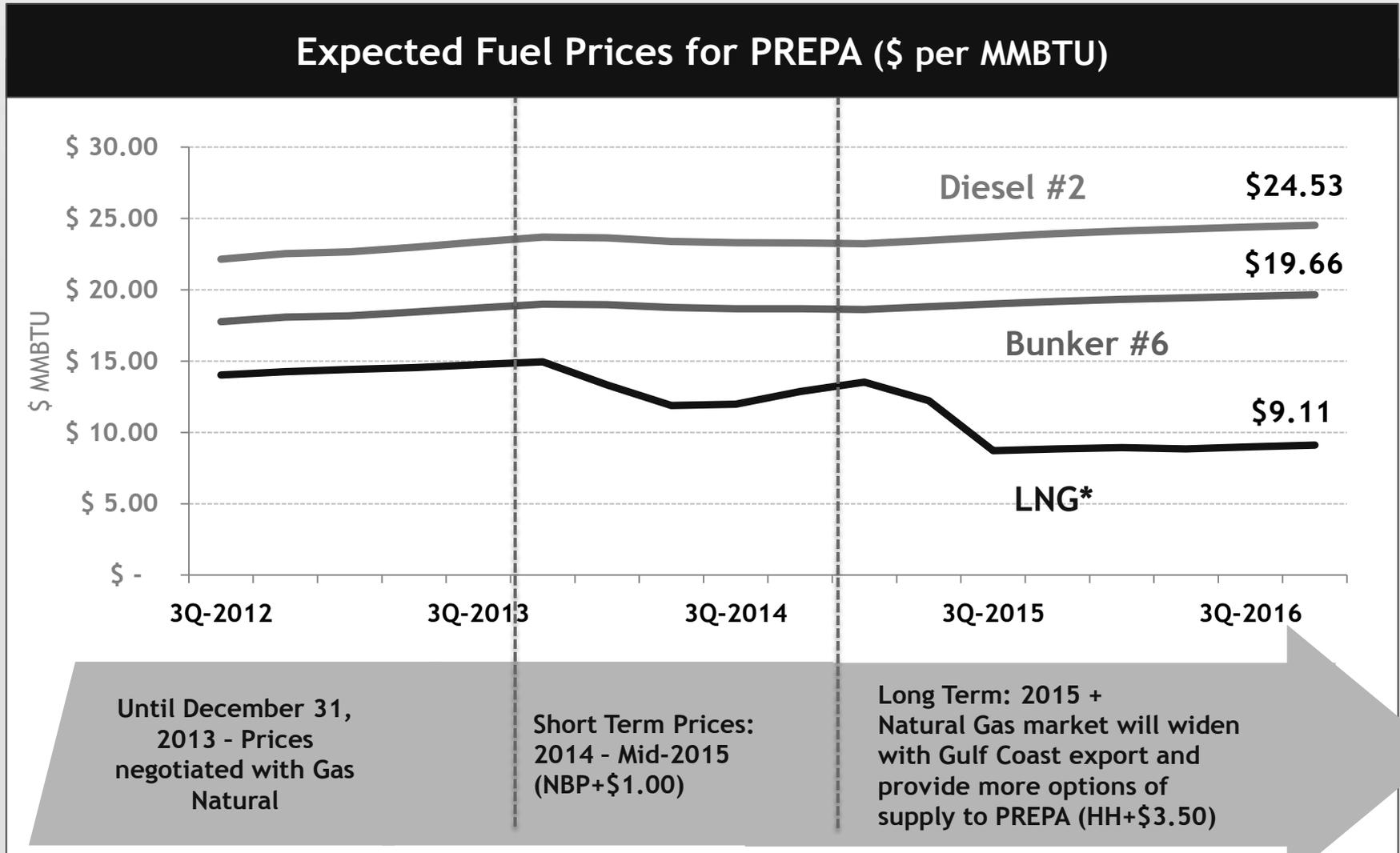
PREPA's natural gas consultants (Galway) anticipate that bids from other suppliers should be approximately:



• Once the Gulf Coast opens up for export, the pricing should drop further to Henry Hub price index + \$3.50



LNG costs for PREPA are anticipated to go through 3 price phases and should provide a significant reduction in fuel costs



Source: Galway & PREPA. Preliminary and subject to market fluctuations.

* Costs include market premium expectation in short term, and liquefaction and shipping in long term



The floating LNG terminal will be located 3 miles off-shore which will speed up the permitting process

4

Off-Shore LNG Terminal (Aguirre)

Why an off-shore terminal in Aguirre?

Shorter total timeline (permitting & construction) 3 years vs. 5 years for on-shore terminal

Capital Expenditure is less for an off-shore terminal \$173 MM (off-shore) vs. \$500-\$600 MM (on-shore)

Reduce the amount of oil barges entering the Aguirre estuary (terminal will be 3 miles off-shore)

Addresses additional LNG storage and regassification requirements to convert plants to natural gas

Aguirre is PREPA's largest plant by generating capacity; the fuel diversification strategy needs to include Aguirre

Aguirre GasPort Project Area

General Port Site Selection Criteria

- Avoid Sensitive Marine Resources (coral, sea grass, etc.)
- Minimize Pipeline Length
- Avoid Populated Areas
- Ensure High Port Availability



Ship to Ship LNG Transfer

**Single Berth (Double Banked)
Configuration**



**Double Birth (Across the Dock)
Configuration**



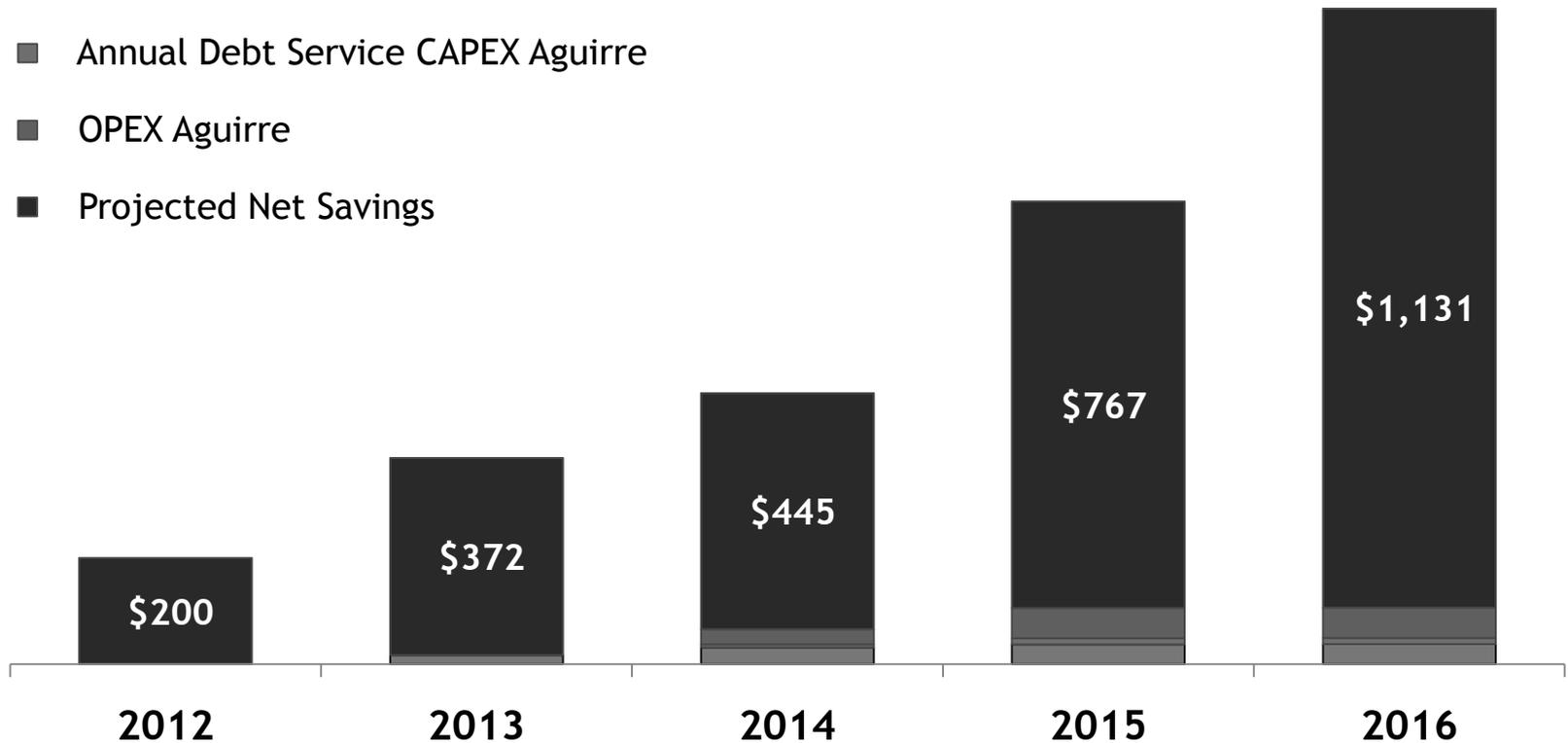
With the integration of Via Verde and the offshore LNG terminal in Aguirre, a diligent negotiation of LNG prices, and a timely conversion of plants, PREPA will be able to diversify its fuel mix towards a more cleaner burning fuel, while providing customers significant reductions in their electricity bills



Gross savings will be subject to financing costs from several capital improvement projects

Projected Net Savings - After financing costs

- Via Verde and Plant Conversions
- Annual Debt Service CAPEX Aguirre
- OPEX Aguirre
- Projected Net Savings



Source: Economic Savings Analysis Dr. Freyre, Galway natural gas pricing, PREPA Dispatch model
Preliminary and subject to change.