

USING ENERGY EFFICIENCY IN RESOURCE PLANS TO ARGUE FOR INCREASED ENERGY EFFICIENCY



Ellen Zuckerman & Jeff Schlegel

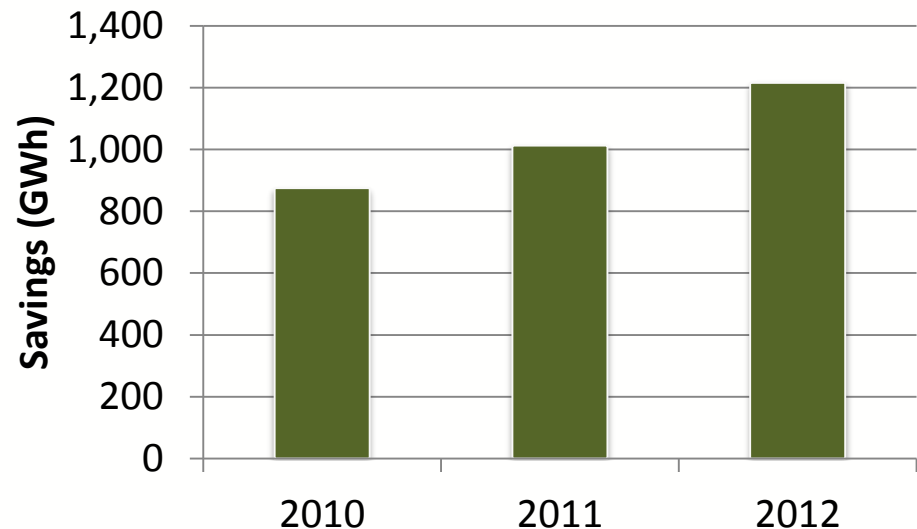
Southwest Energy Efficiency Project (SWEEP)

ACEEE EE as a Resource Conference, September 2013

AZ'S ELECTRIC EE POLICY FRAMEWORK

- **Electric Standard**
22% savings by 2020
(20% energy savings)
- **IRP Rules**
Meaningful, fair
opportunity for EE to
compete as a resource
- **Decoupling Policy**
Allows IOUs to file
decoupling proposals

Annual Program Savings: 2010-2012



SRP Saved ~2.25% of Retail Sales in FY13
APS Saved ~1.8% in 2012

IRP Rules and Decoupling Policy Were Almost as Important to SWEEP as the EE Standard

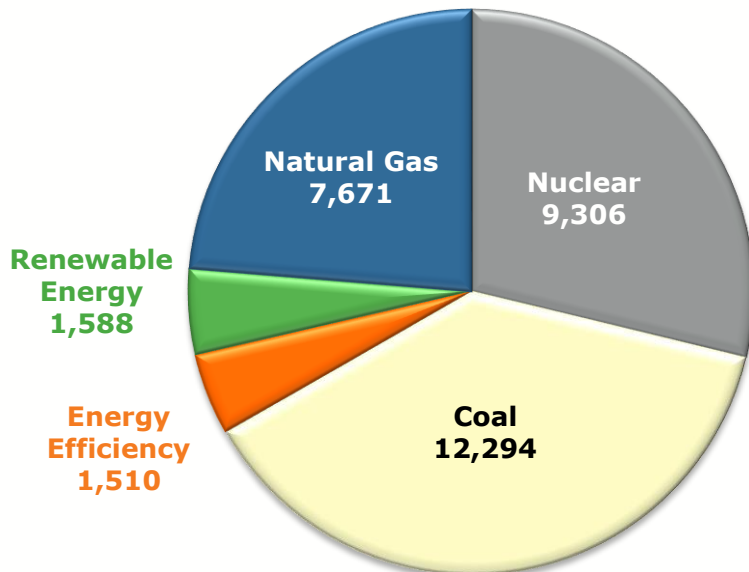
WHY IRP IS IMPORTANT TO EE

- EE is significant and no longer “in the noise”
- EE must be accurately quantified and aligned with forecasts so:
 - Our lights stay on
 - We don’t overinvest in unnecessary infrastructure
- **To make the policy case for EE**
 - Show EE benefits
 - Show EE to be reliable, least cost resource
 - Engender stronger political support
- **To work with utilities to include EE in their long-range plans to help institutionalize and “lock in” EE**

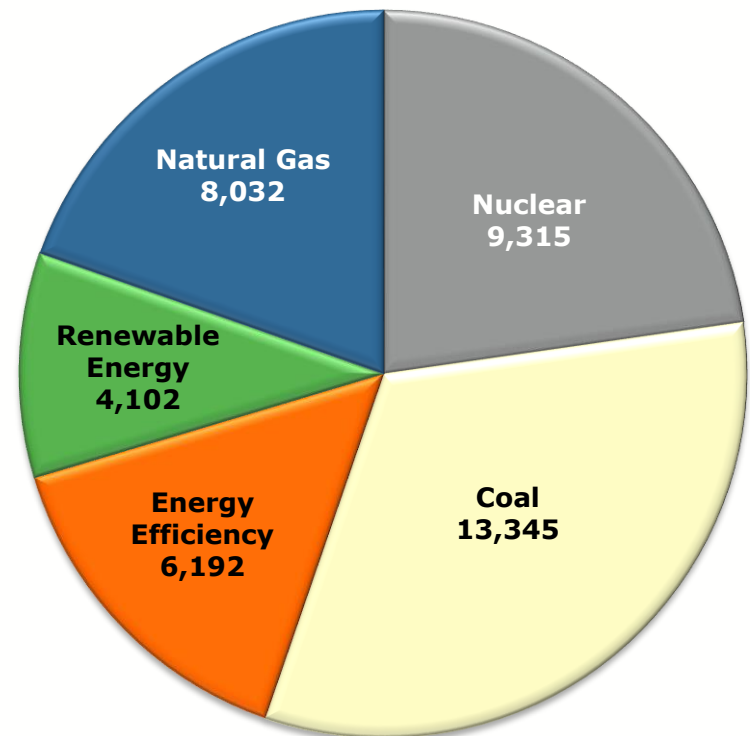
EE IS A SIGNIFICANT RESOURCE IN UTILITY IRPS

Energy efficiency is the fastest growing resource at APS, reaching 15% of total resources by 2020

**2012
Total Energy
32,370 GWh**



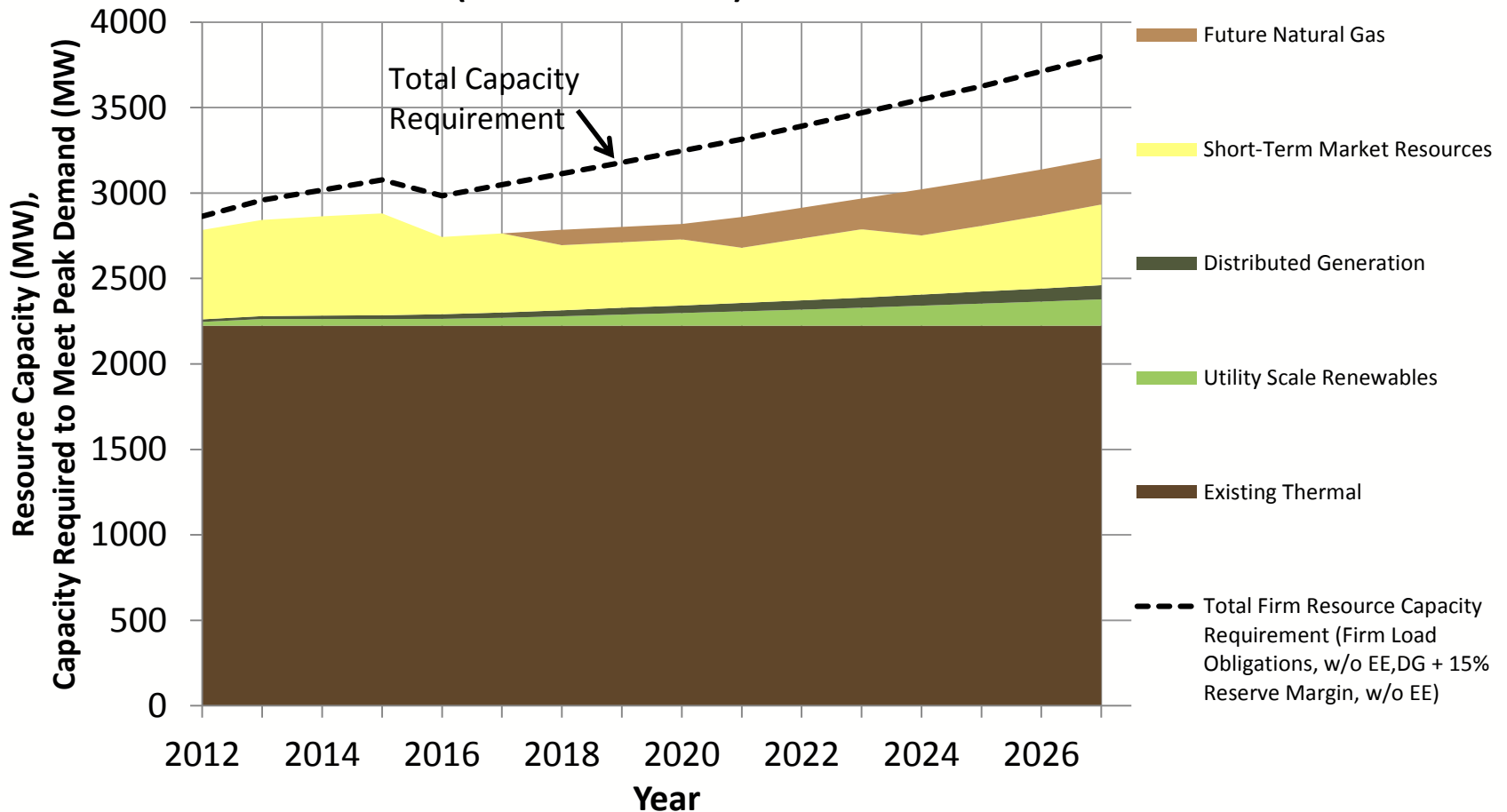
**2020
Total Energy
40,987 GWh**



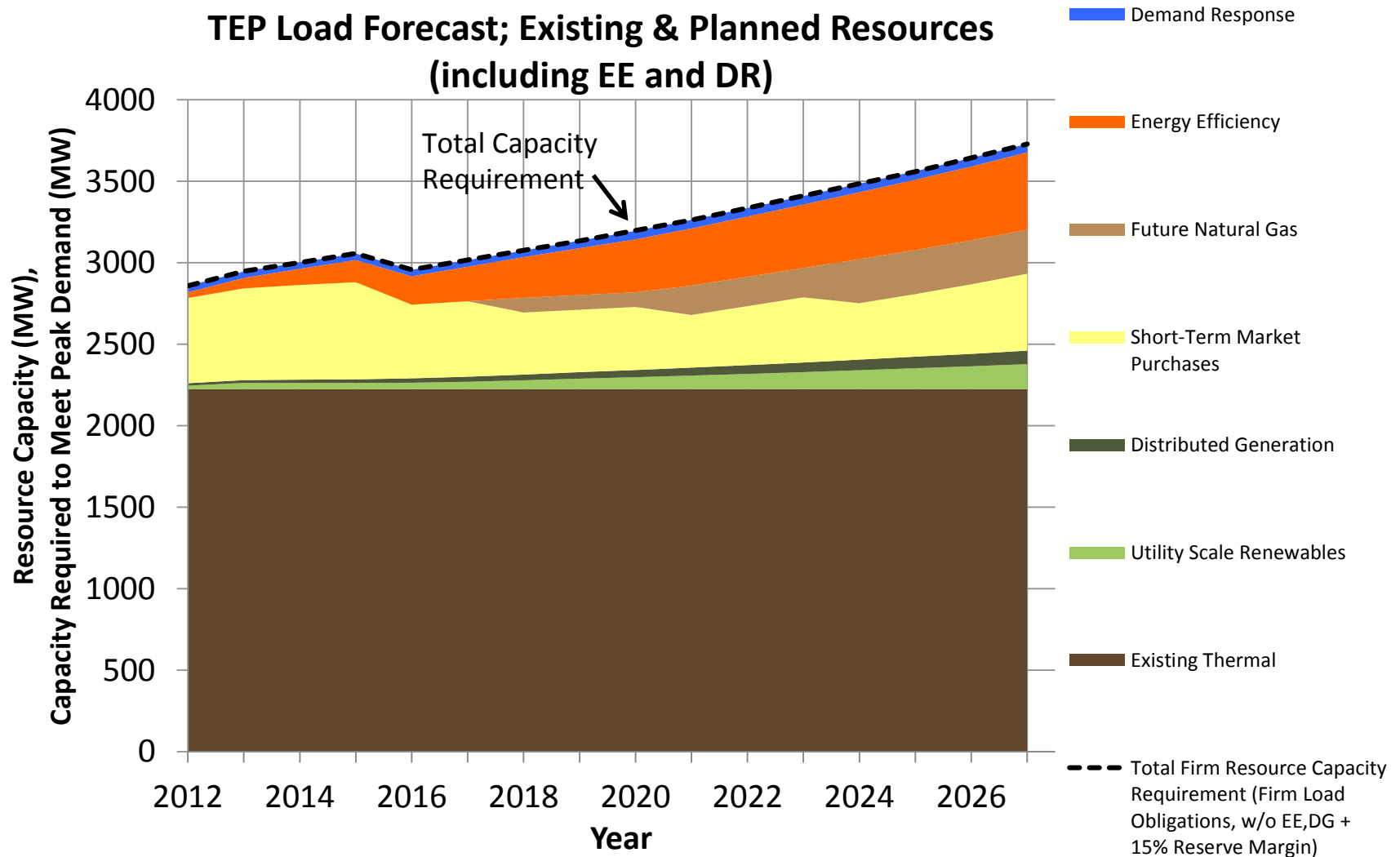
84% of energy growth is met by EE (54%) and Renewables (29%)

UTILITIES HAVE UNMET LOAD OBLIGATIONS WITHOUT EE & DR

TEP Load Forecast; Existing/Planned Generation Resources
(without EE or DR)

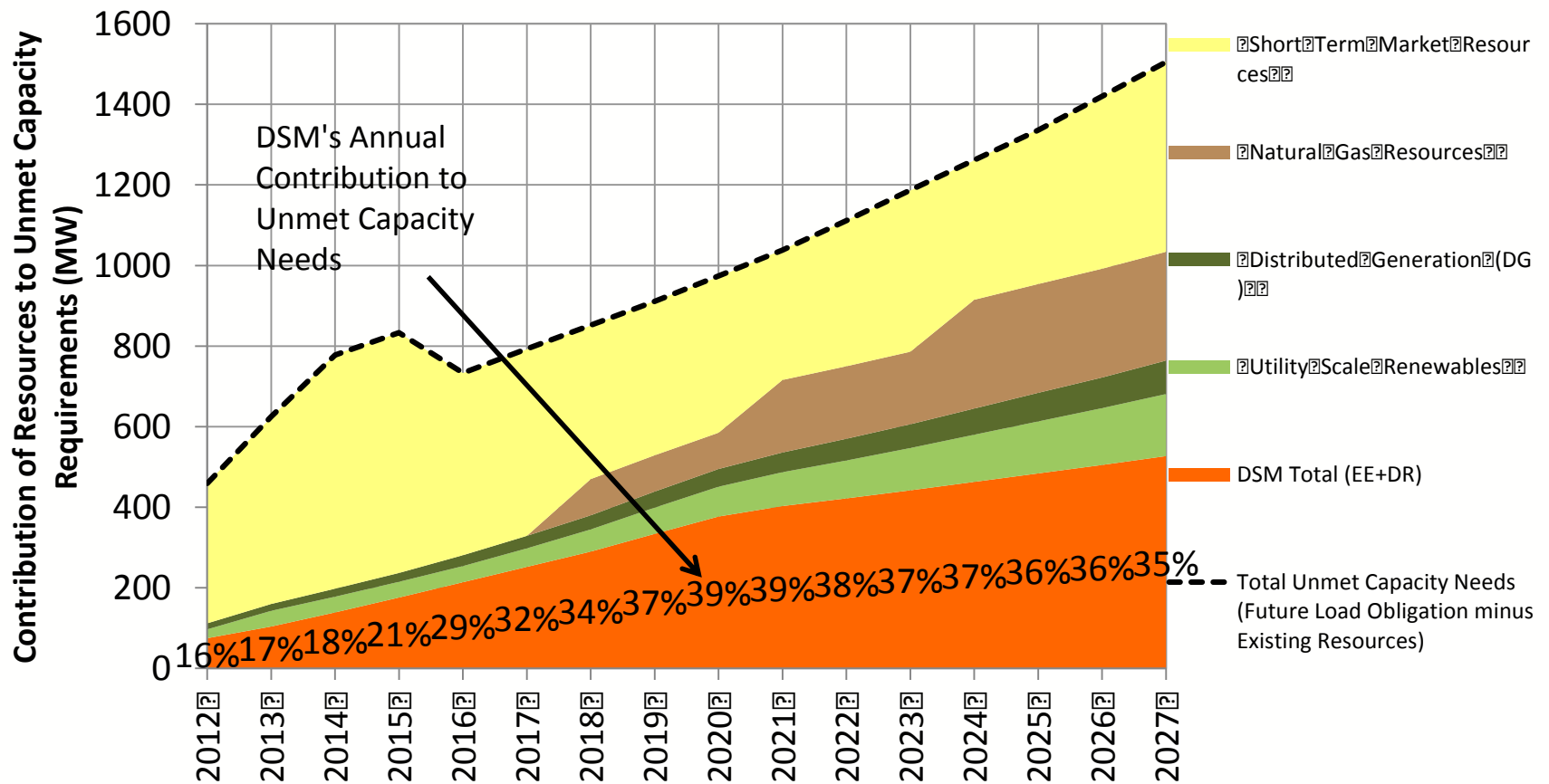


EE & DR ARE RELIED UPON TO MEET LOAD OBLIGATIONS



EE & DR MEET 30-39% OF CAPACITY NEEDS

Contribution of Future Resource Additions to Unmet Capacity Needs



EE AVOIDS INVESTMENT IN LARGE BASELOAD PLANTS

APS 2009 IRP

Addition of 2 Large Nuclear Plants in 2022 & 2023 (800 MW)



2022



2023

APS 2012 IRP

No Baseload Plant Additions
~820 MW Additional EE in 2022-23

+ ~820 MW of Additional EE



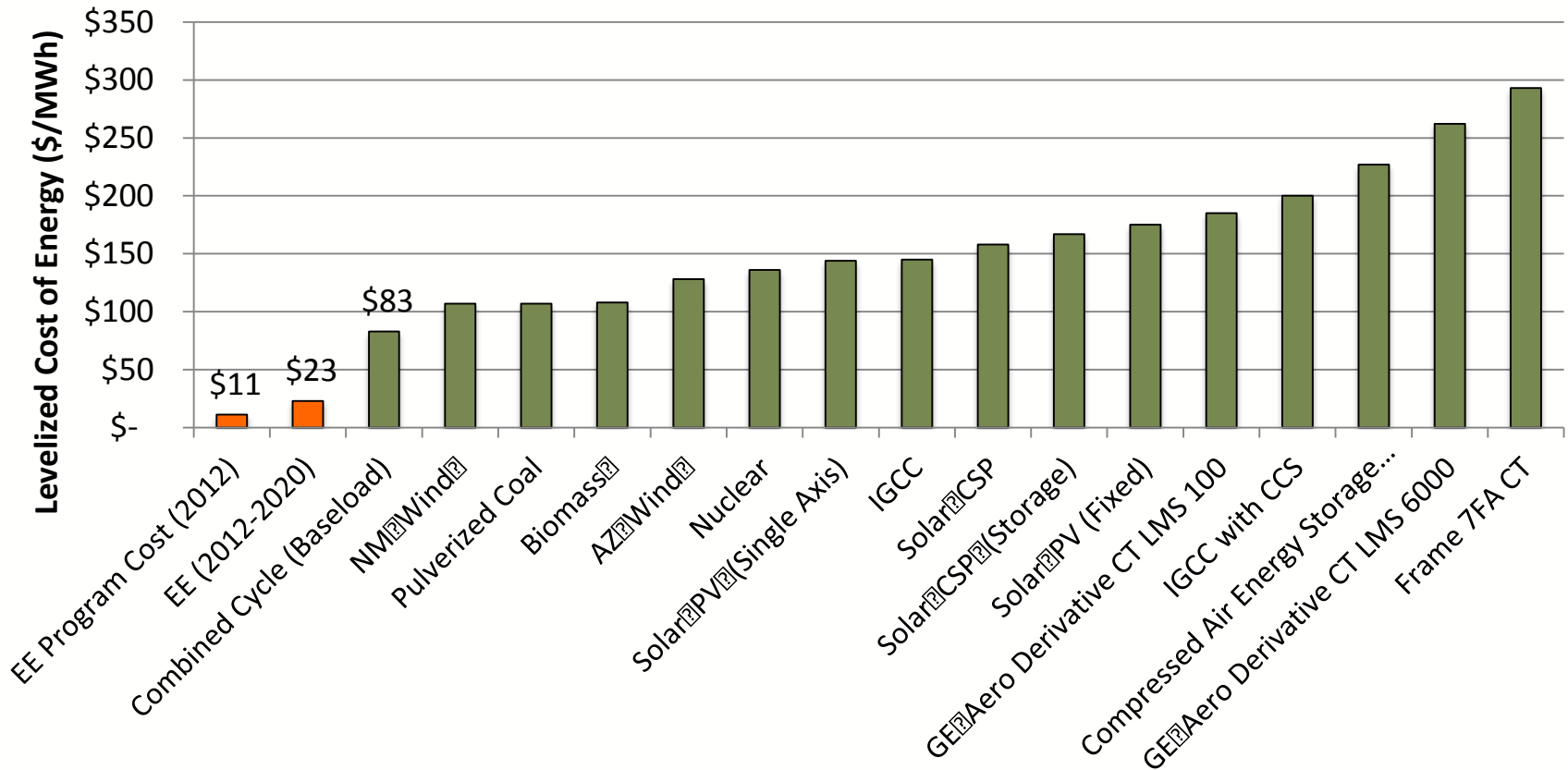
2022



2023

EE IS THE LOWEST COST ENERGY RESOURCE

Levelized Cost of Resources in TEP's 2012 IRP



Conventional resource costs include fuel, capital, O&M, transmission, and interconnection costs.

Renewable resource costs include generation, delivery, backup capacity, and system integration costs.

Data Source: Tucson Electric Power 2012 IRP, 2012 DSM Report, and 10/31/2012 TEP Rate Case Technical Conference

HOW WE HAVE & ARE USING UTILITY IRPs IN AZ

- Inclusion of EE as fundamental, significant resource in utilities' IRPs provides strong evidence for sustaining and continuing to EE programs investment in the face of challenges to EE in AZ
- ***Used utility prepared IRPs to support EE as low cost, low risk, high value resource***
 - IRP proceedings
 - Briefings with utility commissioners and meetings with public
 - Rate cases (Example: TEP Rate Case)
- Moving Forward: Continue to work with utilities to analyze and clearly communicate EE benefits in 2014 IRP cycle

CONTACT INFORMATION

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EXTRA SLIDE: ARIZONA'S ELECTRIC LANDSCAPE

□ 3 Major Electric Utilities

- APS, SRP, & TEP
- 86% of Retail Sales
- Serve 2.5M customers

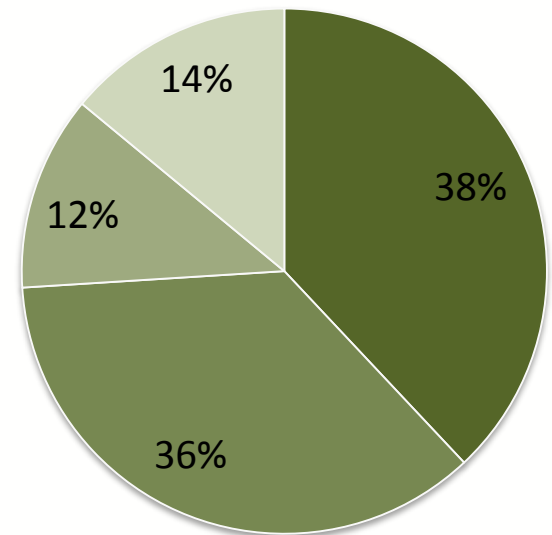
□ PUC Jurisdiction Over APS & TEP

□ SRP Board Oversees SRP

□ Strong EE Policy Frameworks

2011 Retail Sales by Utility

Total Sales: ~74,900 GWh



■ APS ■ SRP ■ TEP ■ Other