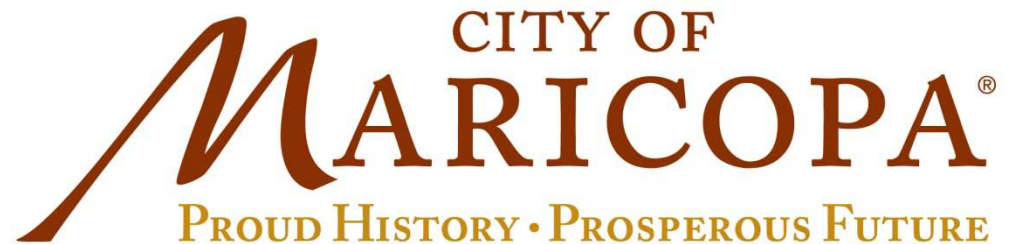


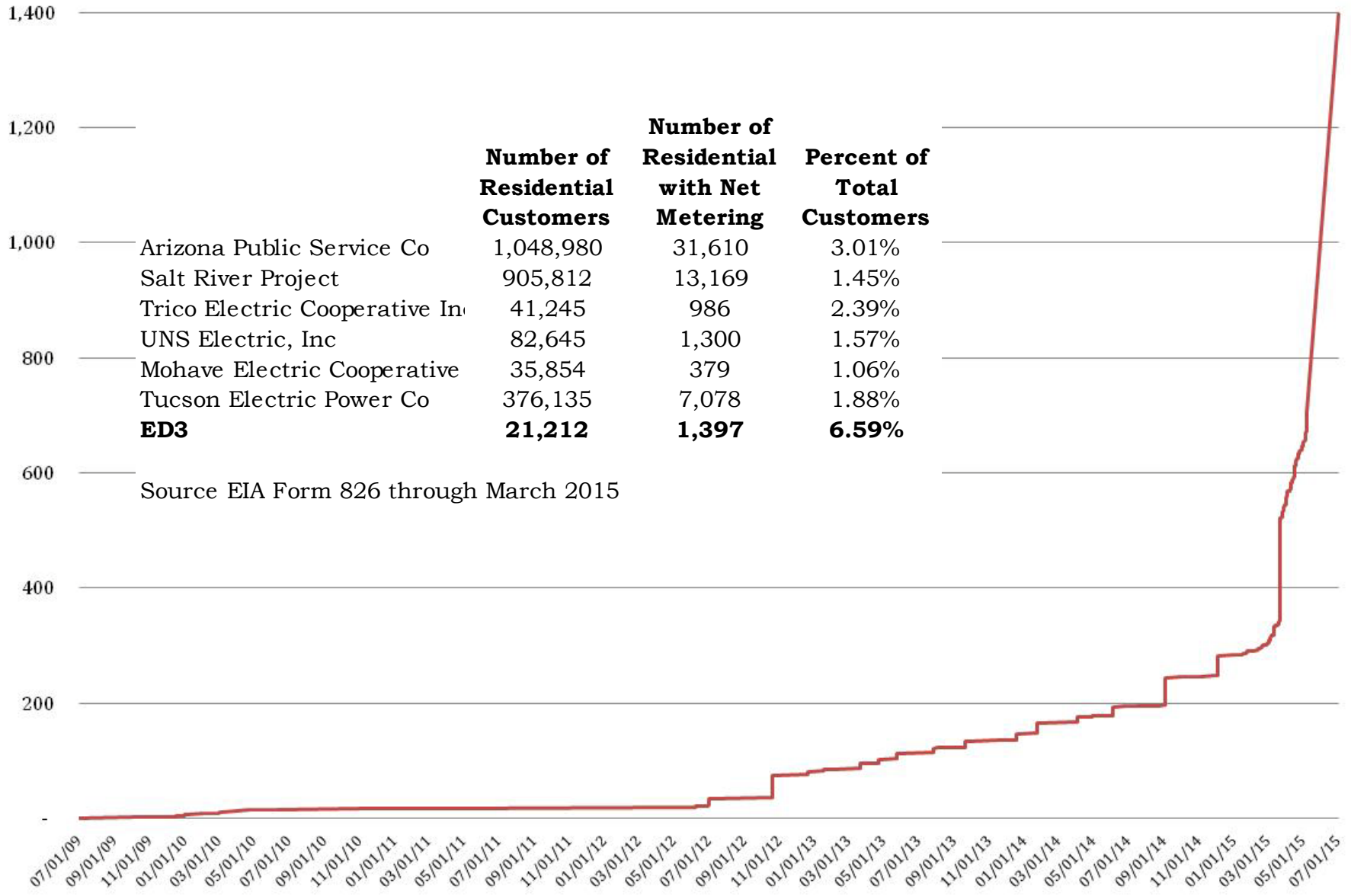
# Electrical District No. 3 Distributed Energy Generation (DG) Policy Review

Presentation to Maricopa City Council

July 21, 2015

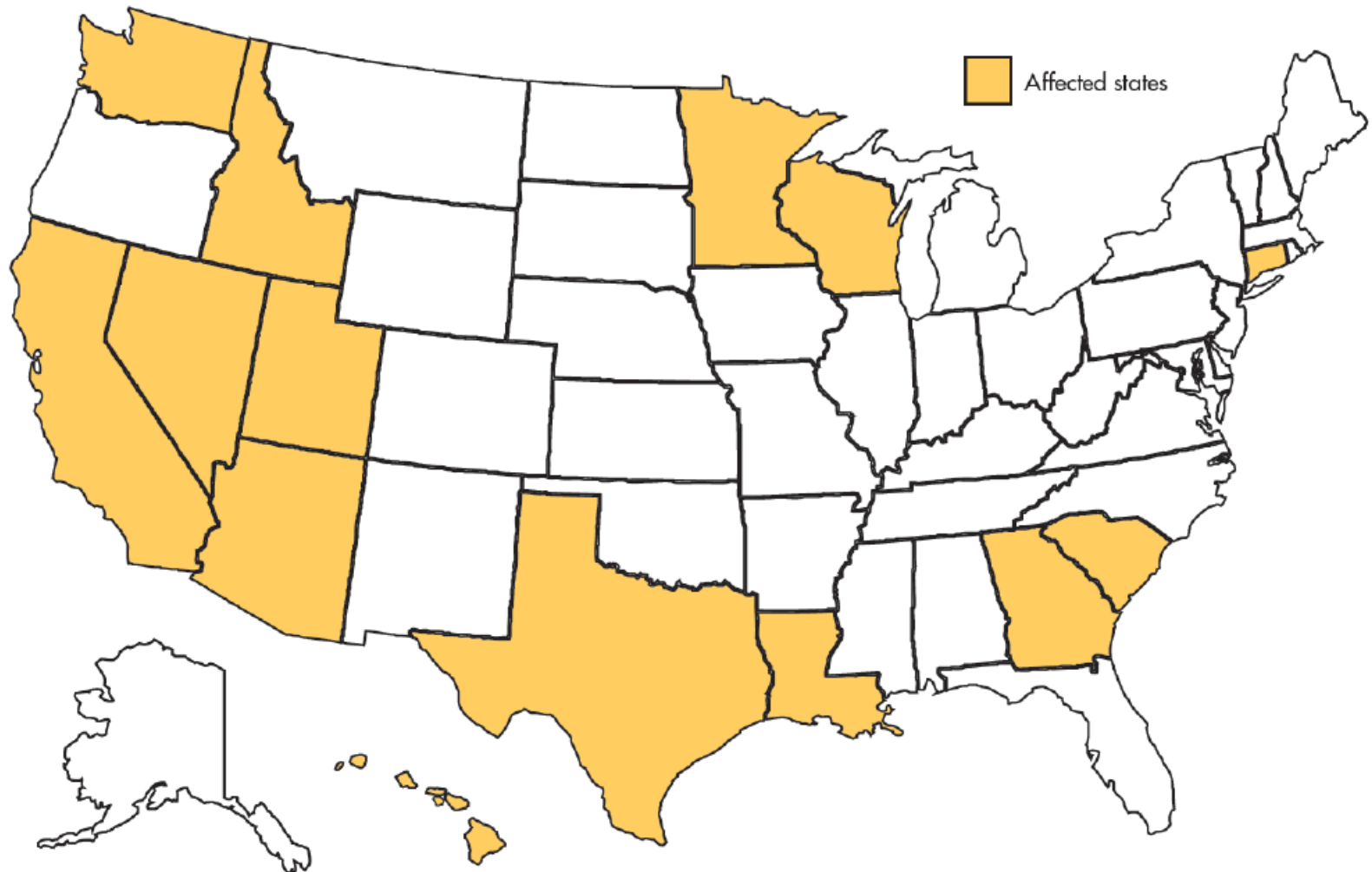


# Number ED3 Rooftop Solar Customers

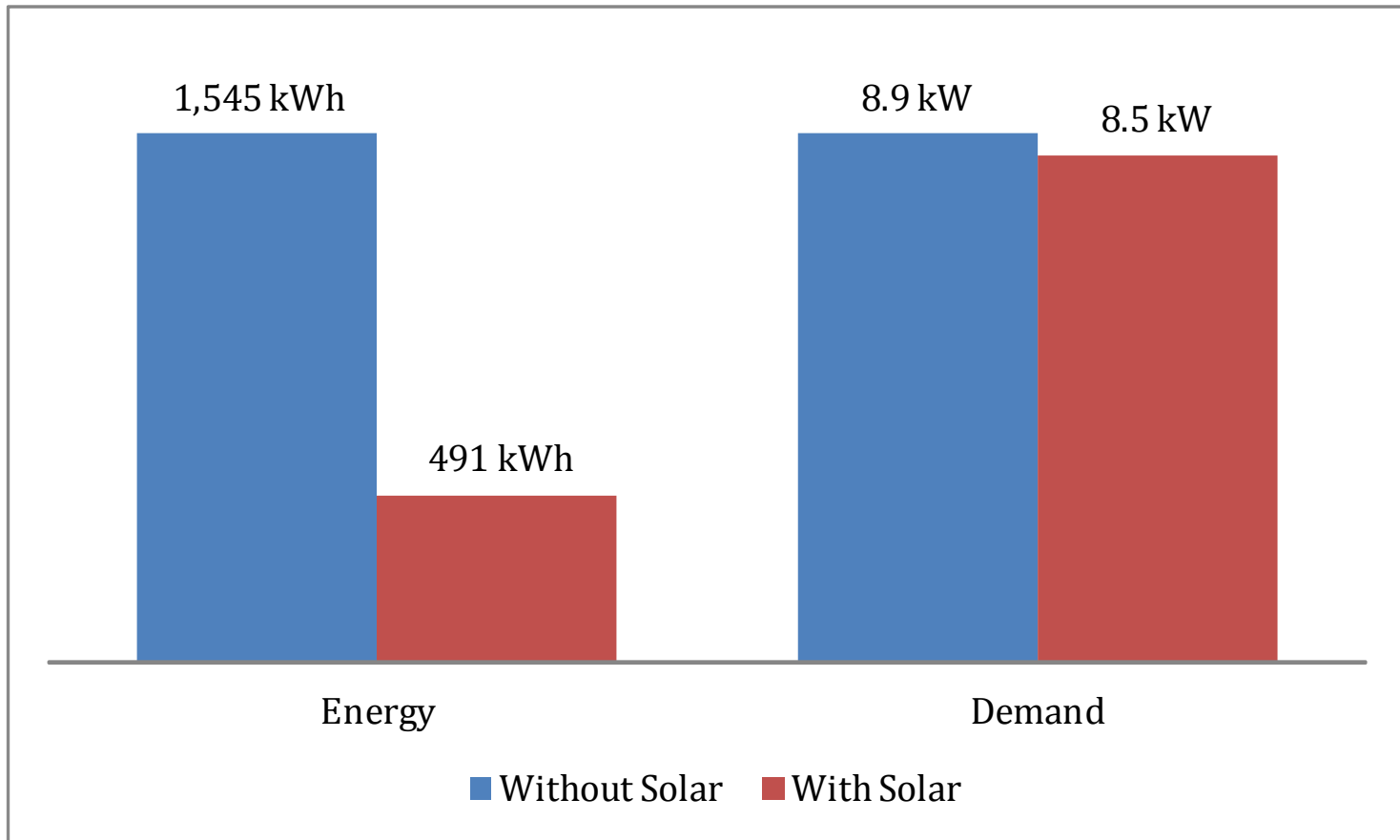


	<b>Number of Residential Customers</b>	<b>Number of Residential with Net Metering</b>	<b>Percent of Total Customers</b>
Arizona Public Service Co	1,048,980	31,610	3.01%
Salt River Project	905,812	13,169	1.45%
Trico Electric Cooperative Inc	41,245	986	2.39%
UNS Electric, Inc	82,645	1,300	1.57%
Mohave Electric Cooperative	35,854	379	1.06%
Tucson Electric Power Co	376,135	7,078	1.88%
<b>ED3</b>	<b>21,212</b>	<b>1,397</b>	<b>6.59%</b>

# STATES WHERE UTILITIES ARE ADDRESSING DISTRIBUTED GENERATION



# Typical Residential Solar Customer\* (Monthly Energy and Demand)



\*Source: Salt River Project data for its 15,000 installations

# Fixed and Variable Costs



## For your Home

### Fixed Costs

Mortgage  
Insurance  
Taxes

### Variable Costs

Electricity  
Water/Wastewater  
Maintenance

## For ED3

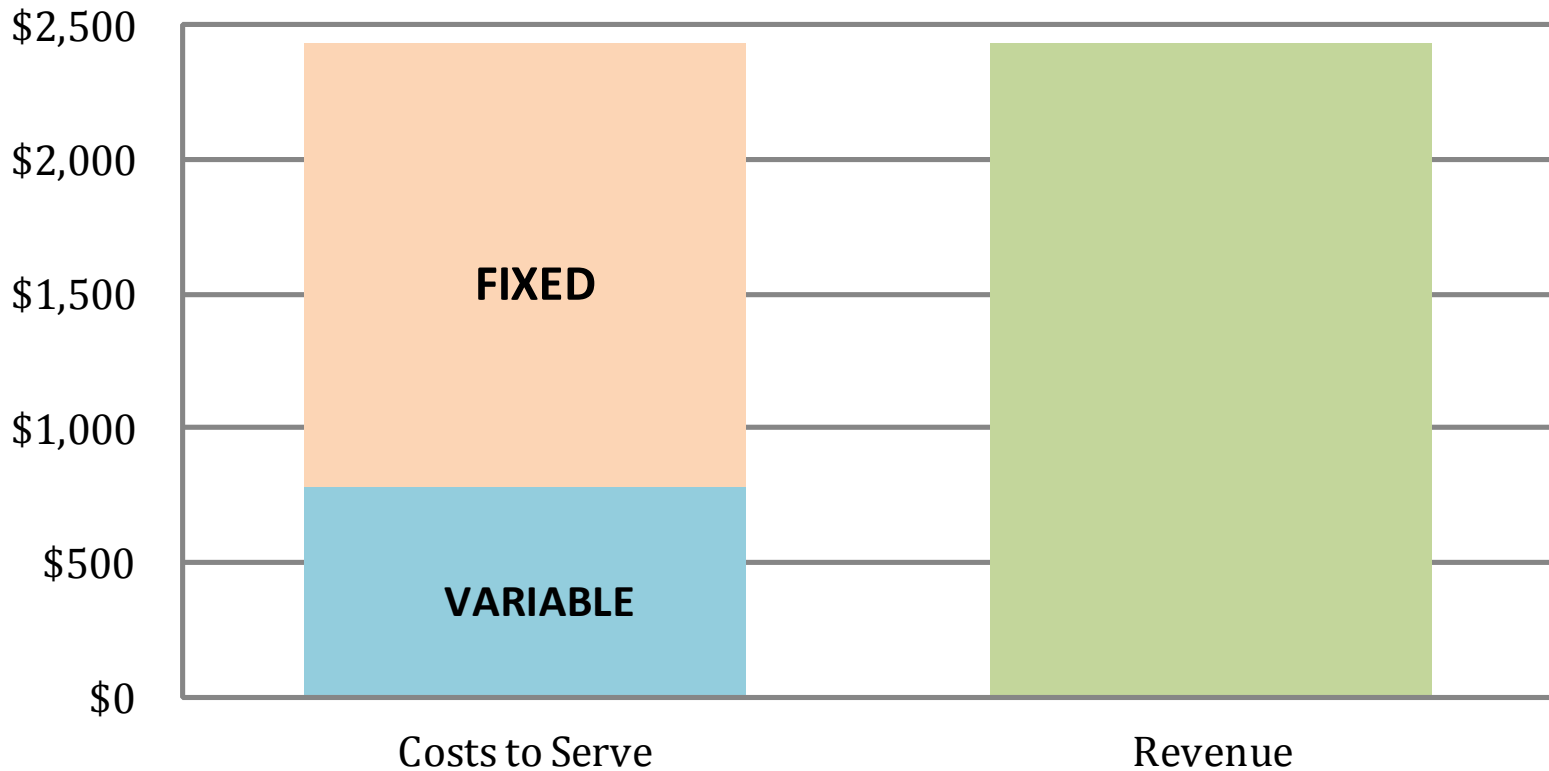
### Fixed Costs

Power Contracts  
Transmission Contracts  
Debt Service  
System Maintenance  
Depreciation

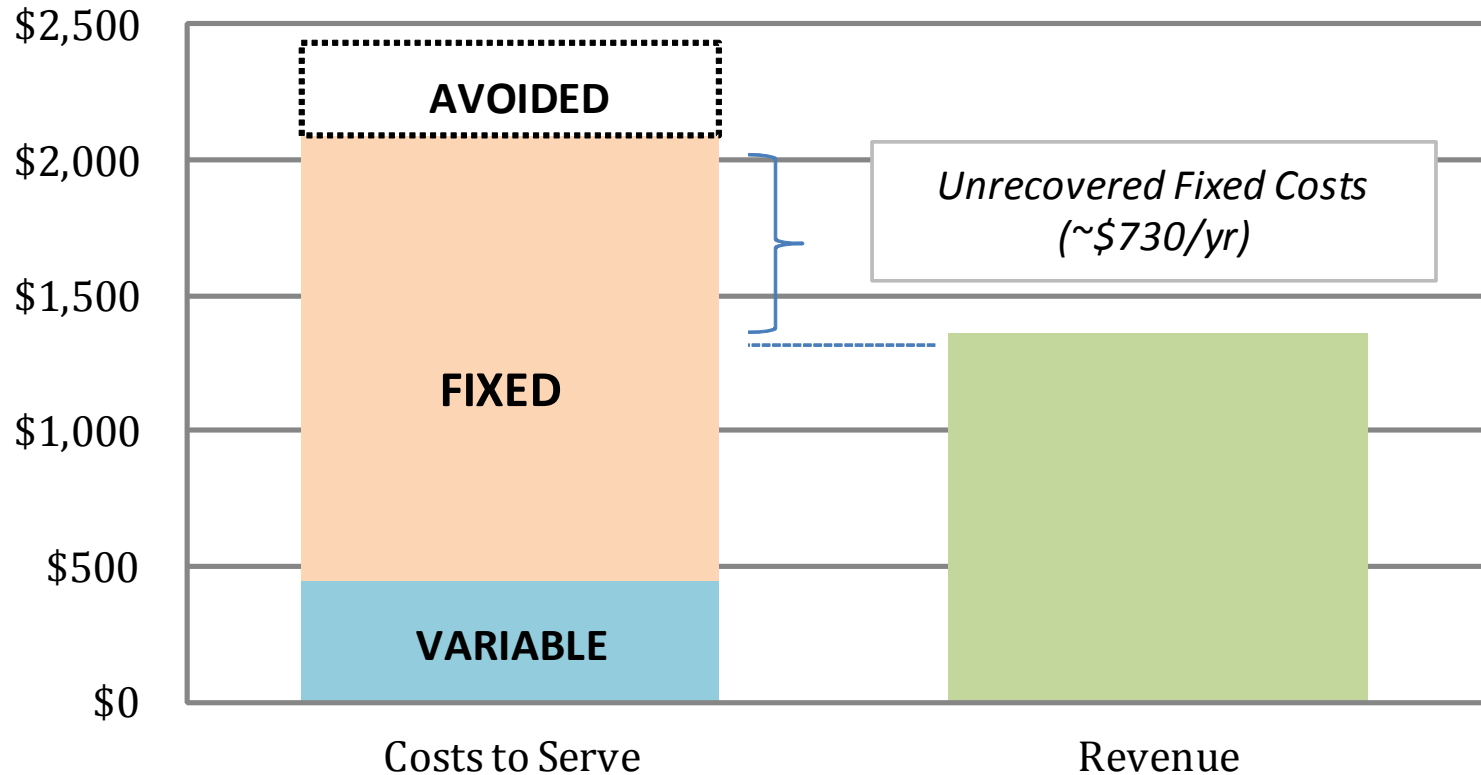
### Variable Costs

Energy (day/night, summer/winter)  
System Operation  
Labor

# Typical Residential Annual Billing and Cost to Serve (No Solar)

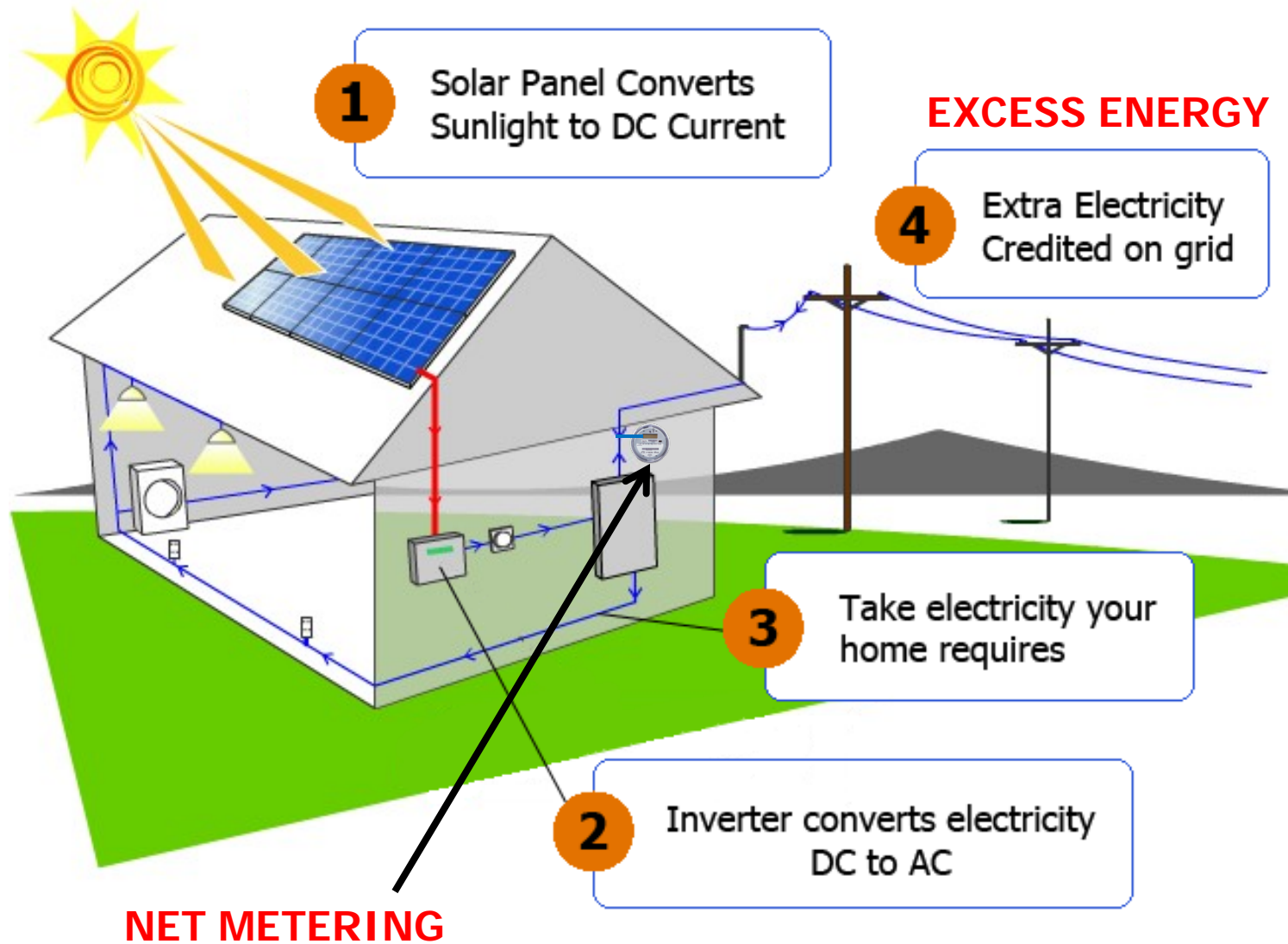


# Typical Residential Annual Billing and Cost to Serve (With Solar)



*\$730 Unrecovered Fixed Cost X 1397 Current Solar DG Installations  
= \$1,020,000 in 2015*

# Net Metering & Excess Energy





# Arizona Net Metering Policies & Efforts to Collect Lost Fixed Costs

	<u>Current</u>	<u>Proposed or Implemented</u>
<b>APS</b>		
Net Metering	Yes	Yes
Lost Fixed Cost Recovery (All Customers)	1.4592%	1.4592%
Lost Fixed Cost Recovery (Solar Only)	\$0.70/kW of Solar	<b>\$3.00/kW of Solar</b>
Excess Generation	Retail Rate	Retail Rate
<b>SRP</b>		
Net Metering		Yes
Lost Fixed Cost Charge	Implemented April 1, 2015	<b>Demand Charges</b>
Excess Generation		Retail Rate
<b>TEP</b>		
Net Metering	Yes	Yes
Lost Fixed Cost Recovery (All Customers)	\$0.62/month	\$0.62/month
Lost Fixed Cost Recovery (Solar Only)	No	No
Excess Generation	Retail Rate (\$0.11/kWh)	<b>0.0584/kWh</b>
<b>SSEV/TRICO</b>		
Net Metering	Yes	Yes
Lost Fixed Cost Recovery (All Customers)	No	No
Lost Fixed Cost Recovery (Solar Only)	No	No
Excess Generation	Retail Rate (\$0.126/kWh)	<b>Avoided Cost (\$0.03/kWh)</b>

# ***NEW Solar DG Customers Policy Changes***

- 1. Compensation for Excess Generation.**  
All excess generation will be credited at ED3's avoided energy cost rate each month (currently \$0.026/kWh, changes annually).
- 2. Increase Fixed Cost Recovery Charge** from current \$0.70/kW/month to \$3.00/kW/month of Installed Solar DG.
- 3. The above Policies 1 and 2 apply to all NEW DG applications** received and approved after **July 1, 2015**. **NEW** solar will be limited to 30/month.

# Solar DG Policy Changes Reduced Unrecovered Fixed Costs

