



RAC WORKING GROUP: ALLOCATING REVENUE REQUIREMENTS TO CUSTOMER GROUPS

PRESENTED BY:

CPS Energy

September 23, 2021

Informational Update



OBJECTIVES & TAKEAWAYS



- **RECAP OUTPUT FROM COST OF SERVICE ANALYSIS**
- **SUMMARIZE ALLOCATION PROCESS**
- **SHOW COSTS ALLOCATED TO CUSTOMER GROUPS**
- **PROVIDE FULL COST OF SERVICE STUDY TO RAC MEMBERS**

AGENDA



- **COS OUTPUT**
- **ALLOCATION PROCESS**
- **CUSTOMER COST ALLOCATION**
- **DEMAND COST ALLOCATION**
- **ENERGY COST ALLOCATION**

Once the budgeting process is finished and our forward looking revenue requirements are defined, our backward looking, normalized Cost of Service study is used to appropriately, proportionately spread incremental revenue requirements to each customer group.

REVENUE VS. COST BY CUSTOMER GROUP (FY2017)



\$ in thousands Revenues

		Residential		PL		LLP		ELP		SLP	
Fixed	Customer	\$ 69,207	7%	\$ 8,032	2%	\$ 4,149	2%	\$ 2,035	2%	\$ 448	0%
	Demand	136	0%	-	0%	66,547	25%	31,418	26%	50,991	30%
Variable	Energy	737,804	93%	361,858	98%	134,192	74%	55,188	72%	68,807	69%
	Energy (fuel adj)	121,237		62,344		40,485		19,594		31,374	
	Energy (reg adj)	103,917		36,071		23,680		10,326		16,111	
Total		\$ 1,032,301	100%	\$ 468,305	100%	\$ 269,052	100%	\$ 118,560	100%	\$ 167,731	100%

Cost to Serve

		Residential		PL		LLP		ELP		SLP	
Fixed	Customer	\$ 184,004	17%	\$ 37,503	9%	\$ 7,061	3%	\$ 1,817	2%	\$ 2,862	2%
	Demand	472,529	43%	185,514	43%	109,279	44%	45,246	41%	65,160	38%
Variable	Energy	209,734	40%	107,853	48%	70,024	54%	33,862	58%	53,953	60%
	Energy (fuel adj)	121,237		62,344		40,485		19,594		31,374	
	Energy (reg adj)	103,917		36,071		23,680		10,326		16,111	
Total		\$ 1,091,421	100%	\$ 429,285	100%	\$ 250,529	100%	\$ 110,845	100%	\$ 169,459	100%

% Cost to Serve

95%

109%

107%

107%

99%

Notes: Based on normalized data (i.e., total revenue = total cost to serve).

COST BY CUSTOMER GROUP



Cost to Serve

\$ in thousands

		RESIDENTIAL	PL	LLP	ELP	SLP	SUM
Fixed	Customer	\$184,004	\$37,503	\$7,061	\$1,817	\$2,862	\$233,247
	Demand	472,529	185,514	109,279	45,246	65,160	877,728
Variable	Energy	209,734	107,853	70,024	33,862	53,953	475,426
	Energy (fuel adj)	121,237	62,344	40,485	19,594	31,374	275,034
	Energy (reg adj)	103,917	36,071	23,680	10,326	16,111	190,105
Sum		\$1,091,421	\$429,285	\$250,529	\$110,845	\$169,459	\$2,051,539

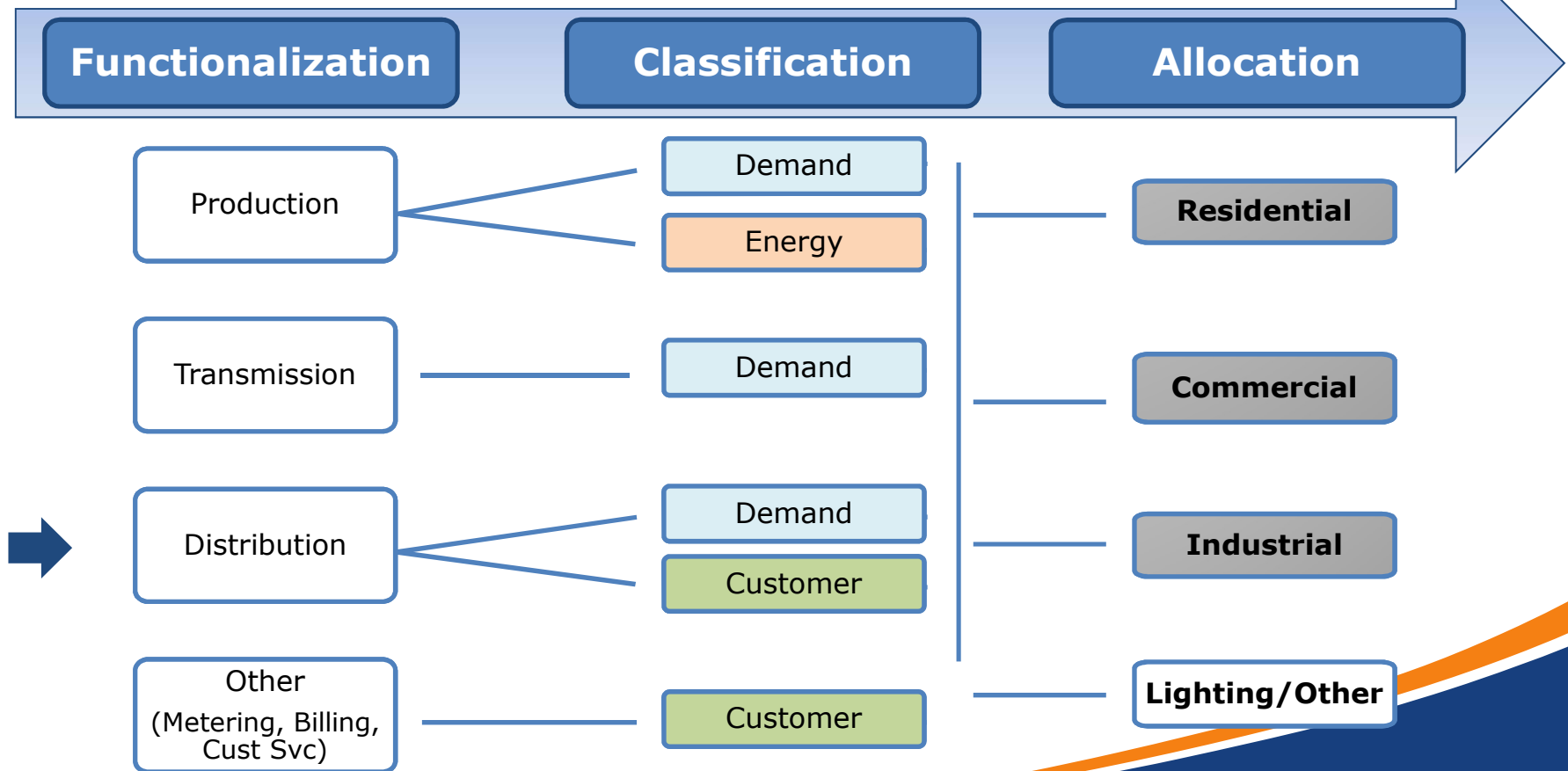
% of Sum

53% 21% 12% 5% 8% 100%

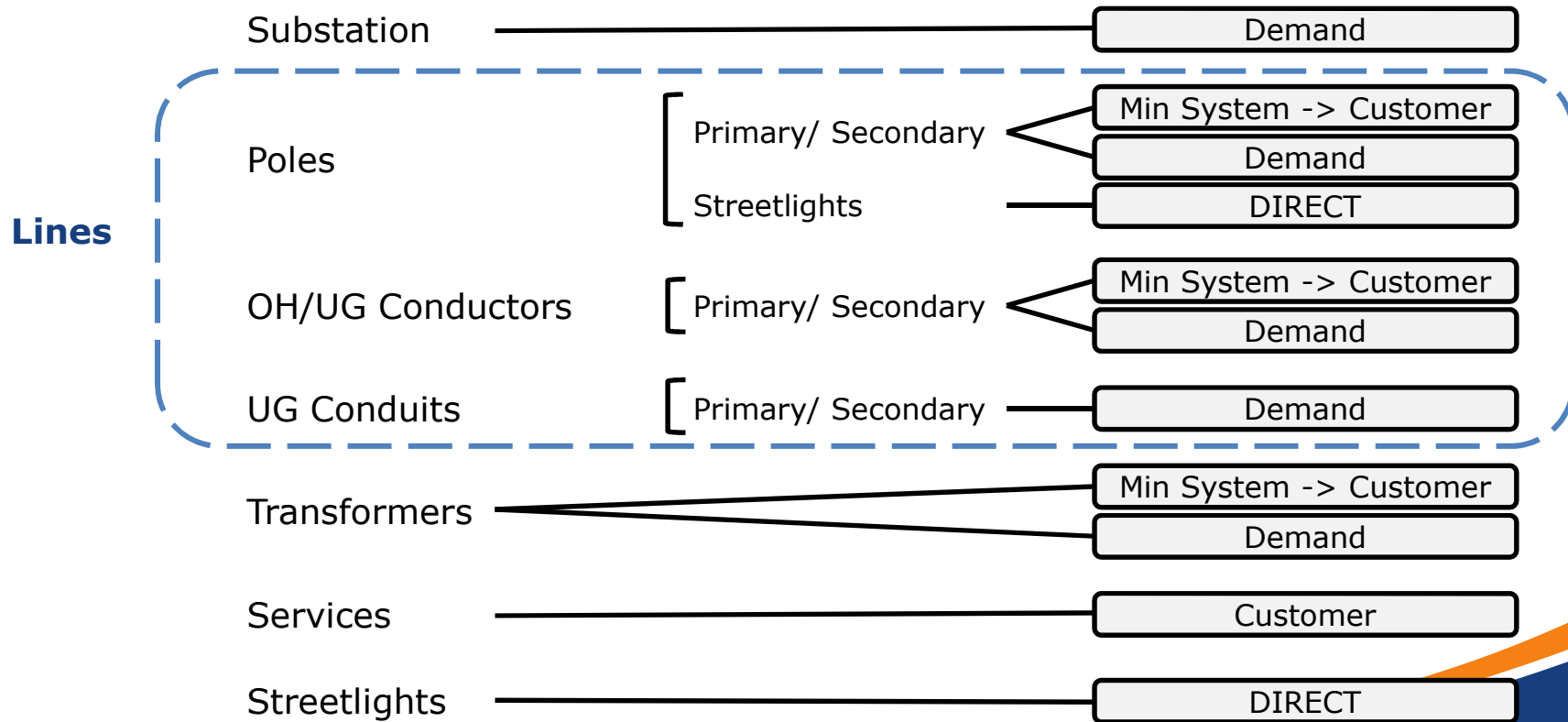
To deliver the appropriate forecasted revenue requirement, we proportionally recover incremental revenue from each customer group.

Note: Cost to Serve dollar amounts can be traced to tab "12a-1. RevReq by class" of the Study.

FUNCTIONALIZATION & CLASSIFICATION



DISTRIBUTION SUBFUNCTIONALIZATION & CLASSIFICATION



ALLOCATION APPROACH DEPENDS ON THE TYPE OF COST



**Focusing on
Customer Costs**

Cost to Serve

\$ in thousands

		RESIDENTIAL	PL	LLP	ELP	SLP	SUM
Fixed	Customer	\$184,004	\$37,503	\$7,061	\$1,817	\$2,862	\$233,247
	Demand	472,529	185,514	109,279	45,246	65,160	877,728
Variable	Energy	209,734	107,853	70,024	33,862	52,953	475,426
	Energy (fuel adj)	121,237	62,344	40,485	19,594	31,374	275,034
	Energy (reg adj)	103,917	36,071	23,680	10,320	16,111	190,105
Sum		\$1,091,421	\$429,285	\$250,529	\$110,845	\$169,459	\$2,051,539
% of Sum		53%	21%	12%	5%	8%	100%

First, we allocate customer costs to the customer groups.

Note: Cost to Serve dollar amounts can be traced to tab "12a-1. RevReq by class" of the Study.

CUSTOMER COSTS ALLOCATION



Focusing on Customer Costs

Customer-Related Costs from Cost of Service Study for FY2017

\$ in thousands

Distribution	Costs	Allocation Method	ALLOCATION					ALLOCATED COSTS				
			Resi	PL	LLP	ELP	SLP	Residential	PL	LLP	ELP	SLP
Primary lines	\$ 59,943	# Custs served thru pri lines	90%	9%	0.3%	0.02%	0.005%	\$ 54,084	\$ 5,689	\$ 155	\$ 14	\$ 3
Secondary lines	\$ 17,128	# Custs served thru sec lines	90%	9%	0.3%	0.02%	0.001%	\$ 15,456	\$ 1,626	\$ 43	\$ 4	\$ 0
Transformers	\$ 19,366	# Custs served thru sec lines	90%	9%	0.3%	0.02%	0.001%	\$ 17,475	\$ 1,838	\$ 49	\$ 4	\$ 0
Services	\$ 11,428	# Secondary custs, weighted	68%	21%	10%	1%	0.05%	\$ 7,784	\$ 2,456	\$ 1,092	\$ 89	\$ 6
Customer Installation	\$ 1,933	kWh @ generator	44%	23%	15%	7%	11%	\$ 855	\$ 439	\$ 285	\$ 138	\$ 216
Metering												
Metering	\$ 50,872	Meter costs	66%	28%	4%	0.4%	1%	\$ 33,676	\$ 14,266	\$ 2,235	\$ 199	\$ 496
Meter Reading	\$ 15,394	# Customers, weighted	81%	17%	2%	0.2%	0.04%	\$ 12,394	\$ 2,607	\$ 355	\$ 31	\$ 7
Billing	\$ 5,725	# Customers, weighted	75%	24%	1%	0.1%	0.02%	\$ 4,300	\$ 1,357	\$ 62	\$ 5	\$ 1
Customer Service												
Phone/Office Contact	\$ 33,579	# Customers, weighted	90%	9%	0.3%	0.02%	0.005%	\$ 30,296	\$ 3,187	\$ 87	\$ 8	\$ 2
Public Awareness	\$ 1,230	kWh @ generator	44%	23%	15%	7%	11%	\$ 544	\$ 280	\$ 182	\$ 88	\$ 137
Marketing	\$ 20,501	kWh @ generator	44%	23%	15%	7%	11%	\$ 9,066	\$ 4,662	\$ 3,025	\$ 1,459	\$ 2,289
Other	\$ (3,852)	Test Year basic revenue	50%	23%	13%	6%	8%	\$ (1,925)	\$ (903)	\$ (508)	\$ (220)	\$ (296)
Total	\$ 233,247							\$ 184,004	\$ 37,503	\$ 7,061	\$ 1,817	\$ 2,862

Note: Information found on tab "12a-1. RevReq by class" of the COS Study.

RESULT OF COST ALLOCATION



Focusing on Customer Costs

Cost to Serve

\$ in thousands

		RESIDENTIAL	PL	LLP	ELP	SLP	SUM
Fixed	Customer	\$184,004	\$37,503	\$7,061	\$1,817	\$2,862	\$233,247
	Demand	472,529	185,514	109,279	45,246	65,160	877,728
Variable	Energy	209,734	107,853	70,024	33,862	53,953	475,426
	Energy (fuel adj)	121,237	62,344	40,485	19,594	31,374	275,034
	Energy (reg adj)	103,917	36,071	23,680	10,326	16,111	190,105
Sum		\$1,091,421	\$429,285	\$250,529	\$110,845	\$169,459	\$2,051,539
% of Sum		53%	21%	12%	5%	8%	100%

Allocation results in ~80% of the customer costs being built into residential rates (\$184M out of \$233M).

ALLOCATION APPROACH DEPENDS ON THE TYPE OF COST



**Focusing on
Demand Costs**

Cost to Serve

\$ in thousands

		RESIDENTIAL	PL	LLP	ELP	SLP	SUM
Fixed	Customer	\$184,004	\$37,503	\$7,061	\$1,817	\$2,862	\$233,247
	Demand	472,529	185,514	109,279	45,246	65,160	877,728
Variable	Energy	209,734	107,853	70,024	33,862	53,953	475,426
	Energy (fuel adj)	121,237	62,344	40,485	19,594	21,374	275,034
	Energy (reg adj)	103,917	36,071	23,680	10,326	16,111	190,105
Sum		\$1,091,421	\$429,285	\$250,529	\$110,845	\$169,459	\$2,051,539
% of Sum		53%	21%	12%	5%	8%	100%

Next, we allocate demand costs.

DEMAND COST ALLOCATION



Focusing on Demand Costs

Demand-Related Costs from Cost of Service Study for FY2017

\$ in thousands

	<u>Costs</u>	<u>Allocation Method</u>	<u>ALLOCATION</u>					<u>ALLOCATED COSTS</u>				
			Resi	PL	LLP	ELP	SLP	Residential	PL	LLP	ELP	SLP
Production Non-Fuel	\$ 553,152	Average & Excess	53%	21%	13%	5%	8%	\$ 292,590	\$ 118,512	\$ 69,531	\$ 29,224	\$ 43,296
Decommissioning	\$ 30,340	Average & Excess	53%	21%	13%	5%	8%	\$ 16,048	\$ 6,500	\$ 3,814	\$ 1,603	\$ 2,375
Transmission	\$ 68,545	Avg Class CPs w/4 ERCOT CPs	53%	20%	14%	5%	8%	\$ 36,211	\$ 13,881	\$ 9,319	\$ 3,694	\$ 5,440
Distribution												
Substations	\$ 72,994	Class NCP	54%	21%	12%	5%	8%	\$ 39,115	\$ 15,562	\$ 9,048	\$ 3,750	\$ 5,519
Primary lines	\$ 106,016	Class NCP	54%	21%	12%	5%	8%	\$ 56,810	\$ 22,603	\$ 13,142	\$ 5,446	\$ 8,016
Secondary lines	\$ 28,853	Sum NCP thru sec lines	70%	17%	9%	3%	1%	\$ 20,102	\$ 5,008	\$ 2,575	\$ 875	\$ 292
Transformers	\$ 17,826	Avg of Class NCP & Sum NCP thru sec lines	65%	19%	10%	4%	1%	\$ 11,653	\$ 3,448	\$ 1,850	\$ 654	\$ 221
Total	\$ 877,727							\$ 472,529	\$ 185,514	\$ 109,279	\$ 45,246	\$ 65,160

Note: Information found on tab "12a-1. RevReq by class" of the COS Study.

RESULT OF DEMAND COST ALLOCATION



Focusing on Demand Costs

Cost to Serve

\$ in thousands

		RESIDENTIAL	PL	LLP	ELP	SLP	SUM
Fixed	Customer	\$184,004	\$37,503	\$7,061	\$1,817	\$2,862	\$233,247
	Demand	472,529	185,514	109,279	45,246	65,160	877,728
Variable	Energy	209,734	107,853	70,024	33,862	53,953	475,426
	Energy (fuel adj)	121,237	62,344	40,485	19,594	31,374	275,034
	Energy (reg adj)	103,917	36,071	23,680	10,326	16,111	190,105
Sum		\$1,091,421	\$429,285	\$250,529	\$110,845	\$169,459	\$2,051,539
% of Sum		53%	21%	12%	5%	8%	100%

Allocation results in ~54% of the customer costs being built into residential rates (\$473M out of \$878M).

ALLOCATION APPROACH DEPENDS ON THE TYPE OF COST



Focusing on Energy Costs

Cost to Serve

\$ in thousands

		RESIDENTIAL	PL	LLP	ELP	SLP	SUM
Fixed	Customer	\$184,004	\$37,503	\$7,061	\$1,817	\$2,862	\$233,247
	Demand	472,529	185,514	109,279	45,246	65,160	877,728
Variable	Energy	209,734	107,853	70,024	33,862	53,953	475,426
	Energy (fuel adj)	121,237	62,344	40,485	19,594	31,374	275,034
	Energy (reg adj)	103,917	36,071	23,680	10,326	16,111	190,105
Sum		\$1,091,421	\$429,285	\$250,529	\$110,845	\$169,459	\$2,051,539
% of Sum		53%	21%	12%	5%	8%	100%

Lastly, we allocate the energy costs to each customer group.

ENERGY COSTS* ALLOCATION



Focusing on Energy Costs

Energy-Related Costs from Cost of Service Study for FY2017

\$ in thousands

Production	Costs	Allocation Method	ALLOCATION					ALLOCATED COSTS				
			Resi	PL	LLP	ELP	SLP	Residential	PL	LLP	ELP	SLP
Non-Fuel	\$ 116,024	kWh @ generator	44%	23%	15%	7%	11%	\$ 51,307	\$ 26,384	\$ 17,121	\$ 8,258	\$ 12,954
Fuel	\$ 359,403	kWh sales	44%	23%	15%	7%	11%	\$ 158,427	\$ 81,469	\$ 52,904	\$ 25,604	\$ 40,999
Total	\$ 475,426							\$ 209,734	\$ 107,853	\$ 70,024	\$ 33,862	\$ 53,953

* Base rate energy costs only, excludes costs that are passed through via the adjustments clause in the rates (e.g. fuel adjustment, regulatory adjustment).

Note: Information found on tab "12a-1. RevReq by class" of the COS Study.

RESULT OF COST ALLOCATION



Focusing on Energy Costs

Cost to Serve

\$ in thousands

		RESIDENTIAL	PL	LLP	ELP	SLP	SUM
Fixed	Customer	\$184,004	\$37,503	\$7,061	\$1,817	\$2,862	\$233,247
	Demand	472,529	185,514	109,279	45,246	65,160	877,728
Variable	Energy	209,734	107,853	70,024	33,862	53,953	475,426
	Energy (fuel adj)	121,237	62,344	40,485	19,594	31,374	275,034
	Energy (reg adj)	103,917	36,071	23,680	10,326	16,111	190,105
Sum		\$1,091,421	\$429,285	\$250,529	\$110,845	\$169,459	\$2,051,539
% of Sum		53%	21%	12%	5%	8%	100%

Allocation results in ~45% of the customer costs being built into residential rates (\$210M out of \$475M).

Note: For FY2017. Based on normalized data

The next step of the process is to design the bill components to appropriately recover fixed vs. variable costs (i.e., customer costs, demand costs & energy costs).

We will cover this on October 14th.



Thank You





Appendix



COST ALLOCATION – INDUSTRY STANDARDS



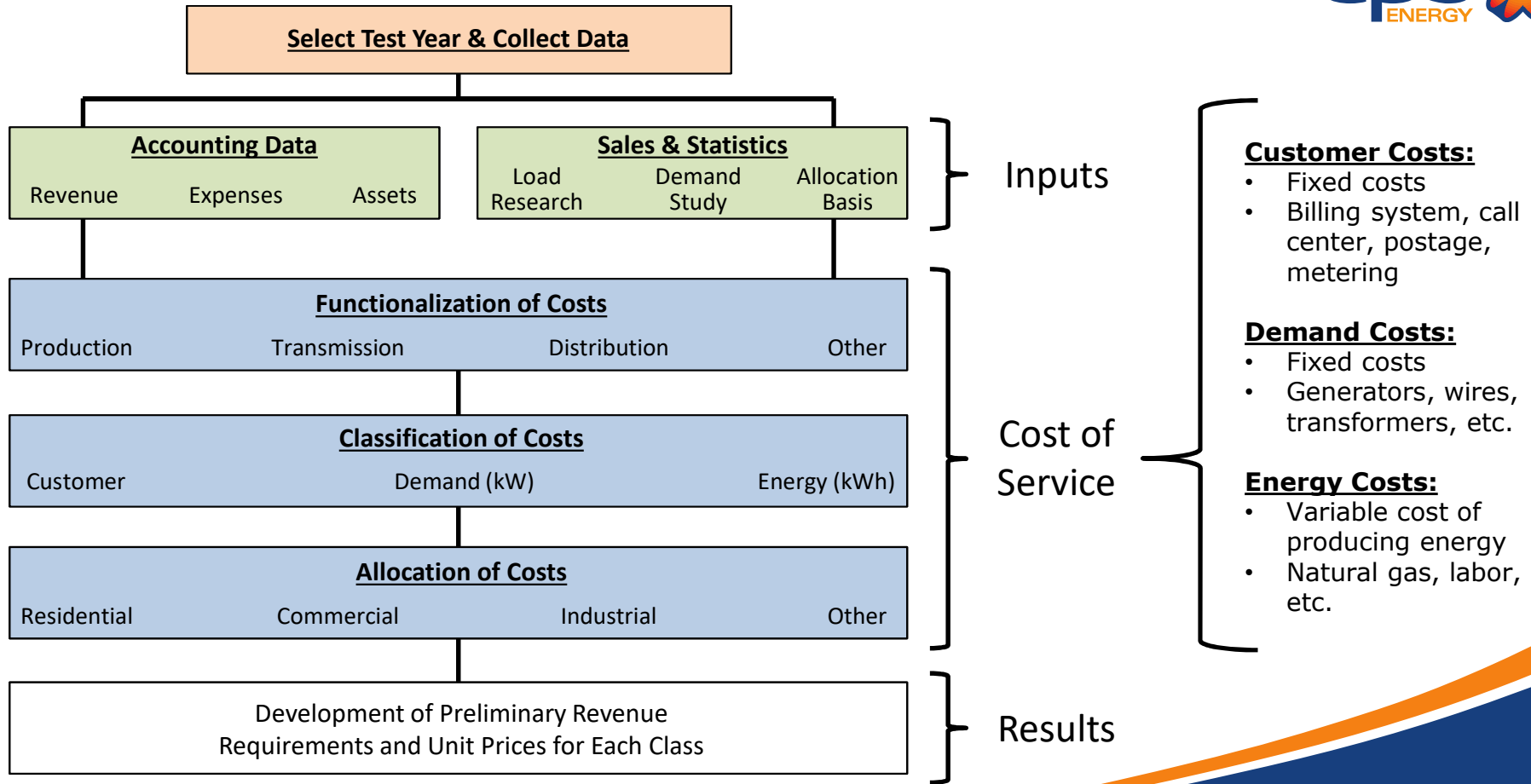
Three sources of industry guidance on developing cost of service:

- **NARUC Electric Utility Cost Allocation Manual – Embedded Cost of Service**
- **PUCT Unbundled Cost of Service Guidance/Rules**
- **PUCT Transmission Cost of Service Rules**

Customers have unique profiles; they use electricity in different ways

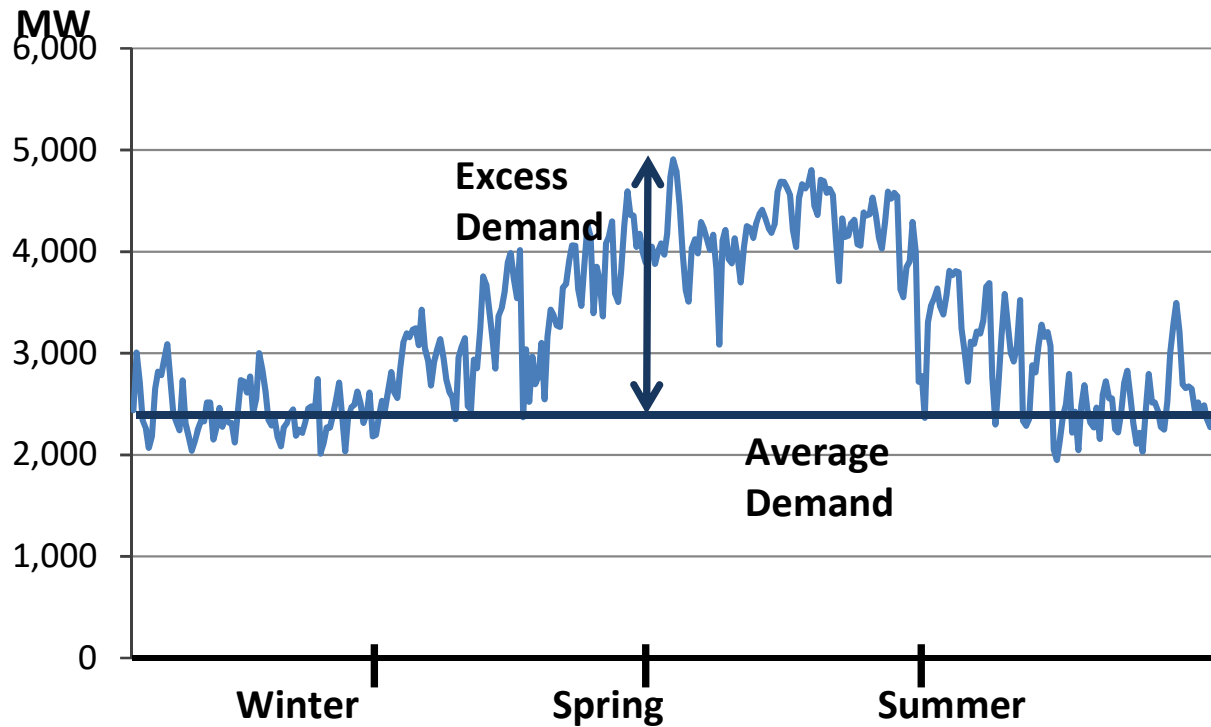
CPS Energy uses all three of these to guide development of cost of service.

COST TO SERVE



DEMAND ALLOCATION FACTORS

AVERAGE & EXCESS METHOD



Plotted values are maximum daily demands.