



# ***STRATEGIC UPDATE & FLEXIBLE PATH***

## ***Board Public Input Session***

**June 13, 2018**

**Informational Update**

# AGENDA



- **OVERVIEW**
- **OPERATIONAL DYNAMICS**
- **SAVE FOR TOMORROW ENERGY PLAN (STEP)**
- **OUR FLEXIBLE PATH**
- **FLEXIBLE PATH OUTREACH IN MOTION**

# OVERVIEW

# WE SUPPORT OUR COMMUNITY **cps** ENERGY

## THE WHY:

- San Antonio is a prime center for growth & economic development, which will benefit everyone.
- Acknowledging what matters:
  - **RELIABILITY**
  - **AFFORDABILITY & VALUE**
  - **GREAT SERVICE**

## OUR FORWARD LOOKING COMMITMENT:

- We want to share important information with you on the approach & options we have to support our community, economic prosperity & business interests.
  - **STARTING WITH OUR *FLEXIBLE PATH!!***



# POWER TO DREAM

Our *People First* philosophy comes to life through our  
Power to Dream campaign.

Because everyone has dreams, and those dreams  
deserve to see the light of day.

# WHICH ALIGNS TO OUR FOCUS ...



## PEOPLE FIRST!

COMMUNITY & CUSTOMERS



# RELIABILITY MATTERS!!!



**24 HOURS A DAY  
7 DAYS A WEEK  
365 EVERY DAY OF THE YEAR**

- **We minimize / prevent outages!**



- **Our Power / Energy is there for you when you need it!!**



# AFFORDABILITY & VALUE MATTER!!!



We CONTROL COSTS to:



SAVE YOU MONEY!

# GREAT SERVICE MATTERS!!!



## TODAY & TOMORROW

✓	With a Clear Commitment to our <b>ENVIRONMENT</b>
✓	Supported by Creative & Helpful <b>PROGRAMS</b>
✓	Thru Well Maintained Community <b>ASSETS</b>
✓	From Highly Engaged & Safe <b>EMPLOYEES</b>

# CPS ENERGY BY THE #'S



#1

Largest Municipally-Owned Electric and Gas Company in the U.S.

158

# of Years in Business

#1

Voted Most Trusted Brand in the South Region by MSI

#1

Solar Power Production in Texas; Seventh in the Nation

Top 10

Engaged Residential Customer Relationship by MSI

#1

Wind Power Production in Texas

805K  
344K

Electric & Gas Customers

\$11B  
\$2.5B

\$11B in Assets, \$2.5B in Annual Revenue

## NEE (New Energy Economy)

\$5B  
Cumulative Economic Impact

>900  
Cumulative new Jobs

Added more than 900 new jobs

AA+

Premier Credit Rating

# BOARD OF TRUSTEES



**John Steen**  
*Board Chair*

John Steen represents the northeast quadrant of CPS Energy's service area. He is an attorney who previously served as the 108th Texas Secretary of State and as a commissioner of the Texas Department of Public Safety.



**Dr. Homer Guevara Jr.**  
*Vice Chair*

Dr. Homer Guevara Jr., an economics and government professor at Northwest Vista College, represents the southwestern quadrant of CPS Energy's service territory.



**Dr. Willis Mackey**  
*Trustee*

Dr. Willis Mackey, a retired public school administrator and current consultant to school districts across the state, represents the southeast quadrant of CPS Energy's service area.



**Edward Kelley**  
*Trustee*

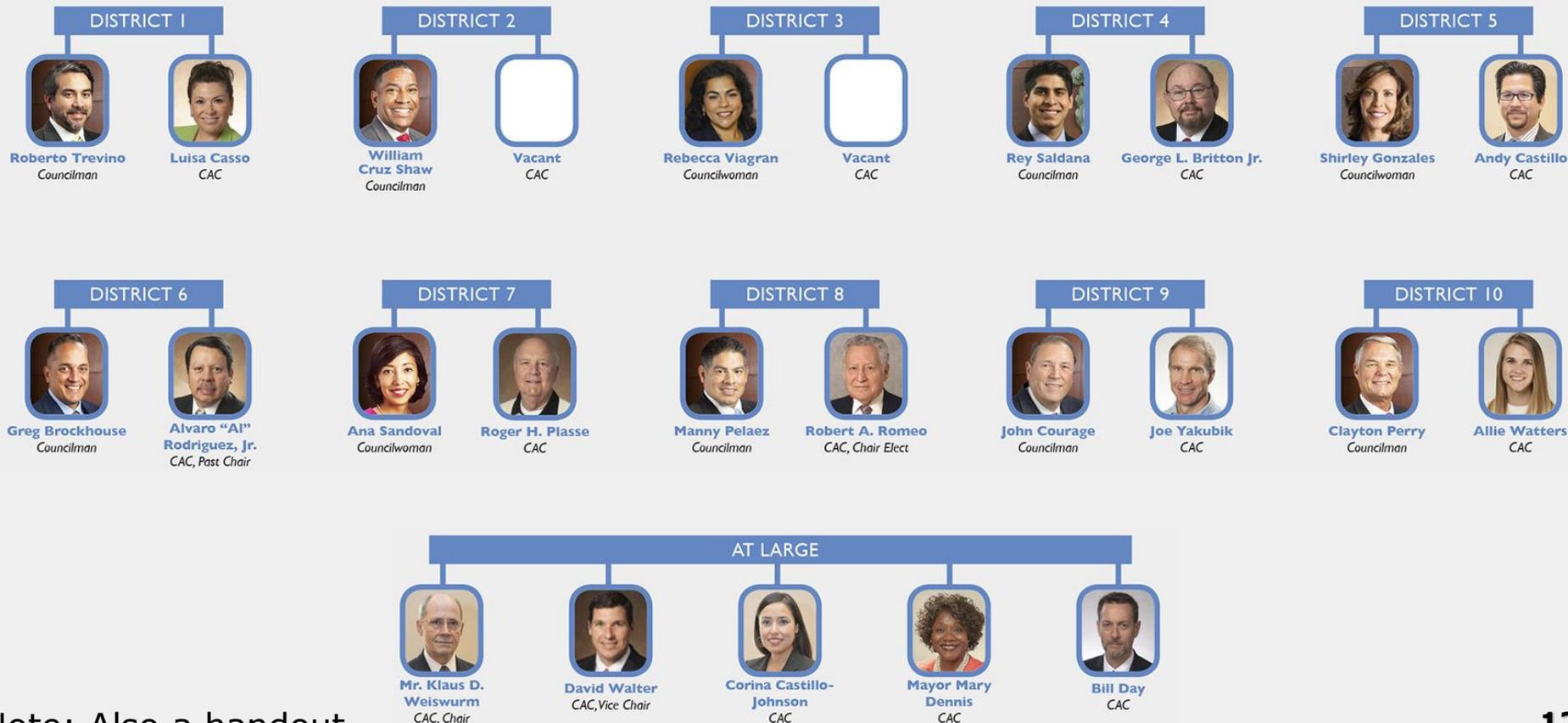
Edward Kelley represents the northwest quadrant of CPS Energy's service area. Kelley served as President and CEO of USAA Real Estate before retiring in 2005 after 17 years of service.



**Ron Nirenberg**  
*Ex-Officio Member*

Ron Nirenberg, as current mayor of San Antonio, serves as an ex-officio member of the Board of Trustees. He will remain on the Board through his current mayoral term.

# San Antonio City Council Members & Citizens Advisory Committee (CAC)

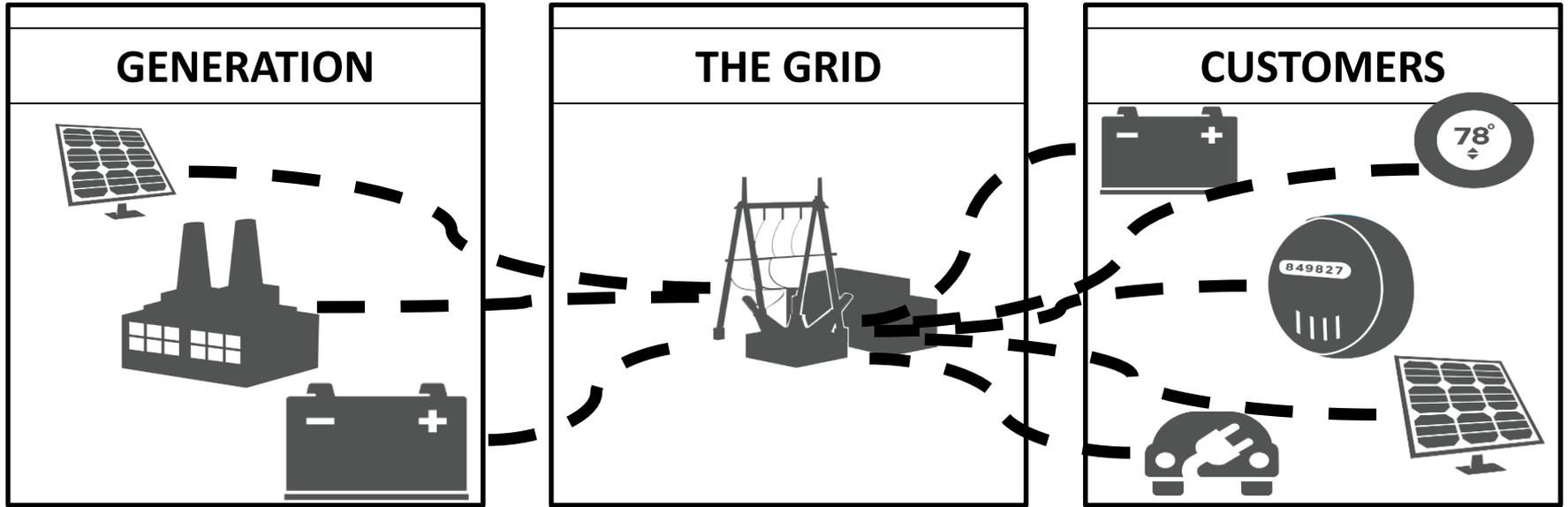


Note: Also a handout

# OPERATIONAL DYNAMICS

# OPERATIONAL DYNAMICS

WE ARE A FULLY INTEGRATED UTILITY

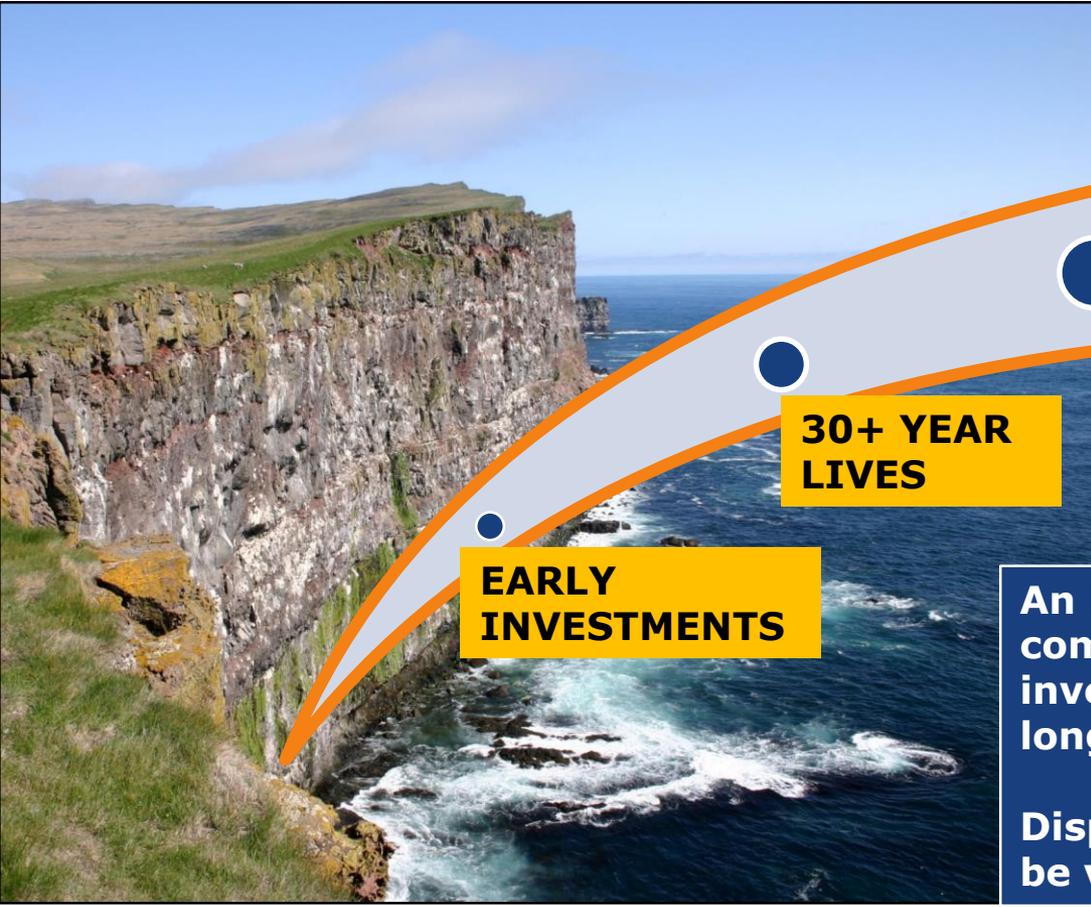
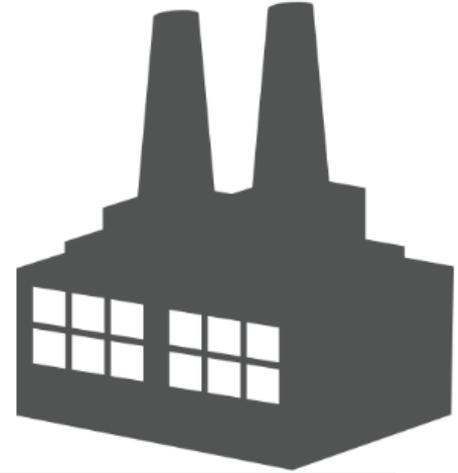


**We operate & manage in all aspects of the utility energy business & the ERCOT market**

# INVESTMENTS – LONG TERM



## TRADITIONAL GENERATION



**EARLY INVESTMENTS**

**30+ YEAR LIVES**

**40-60 YEAR LIVES**

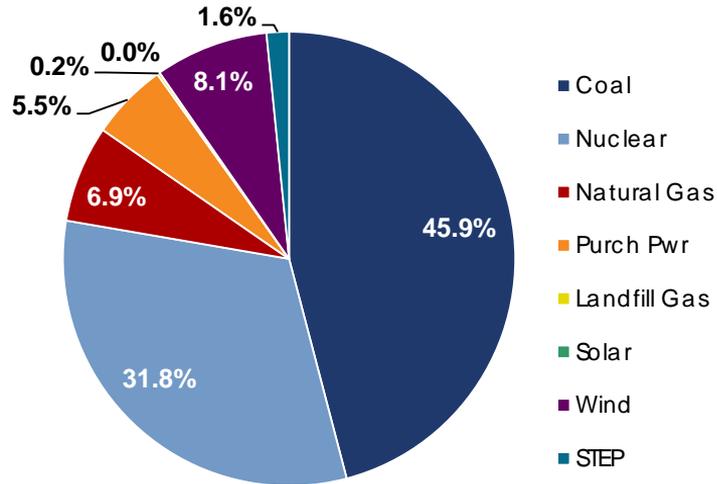
An historical value driver for our community has been our ability to invest in & maintain assets for a very long time.

Disposals done too early or late can be very costly.

# VISION 2020

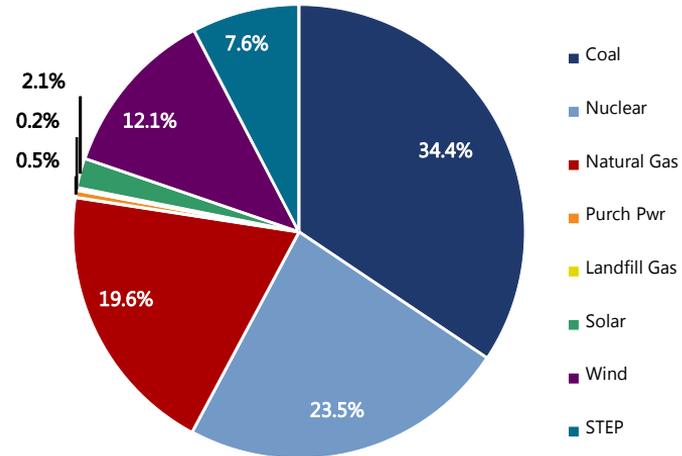


**2010 GENERATION**



**Low - No Carbon Generation Sources = 54%**  
**Renewable + Demand Reduction Sources = 15%**

**2020 PROJECTED GENERATION**



**Low - No Carbon Generation Sources = 66%**  
**Renewable + Demand Reduction Sources = 25%**

**Vision 2020 transitions CPS Energy from traditional generation power sources to competitively priced power that is based on a diverse generation portfolio**

# **SAVE FOR TOMORROW ENERGY PLAN (STEP)**

# SAVE FOR TOMORROW ENERGY PLAN (STEP)



- **GOAL:** 771 MW of Demand Savings by 2020  
*(equivalent of the output of a power plant)*
- **INVESTMENT:** Up to \$849 Million
- **DEMAND REDUCTION** -  
Achieved as of FY 2018: 626 MW \*

Category	Programs	Abbreviation
Weatherization	Weatherization	Wx
Residential Energy Efficiency	Res HVAC, Home Energy Assessments, New Construction, Multi-Family, Cool Roof	Res EE
Commercial Energy Efficiency	C&I Solutions, Small Business Solutions, New Construction, Schools & Institutions, Multi-Family	Comm EE
Demand Response	Demand Response	DR
Solar	Solar	



Examples of weatherization in a home



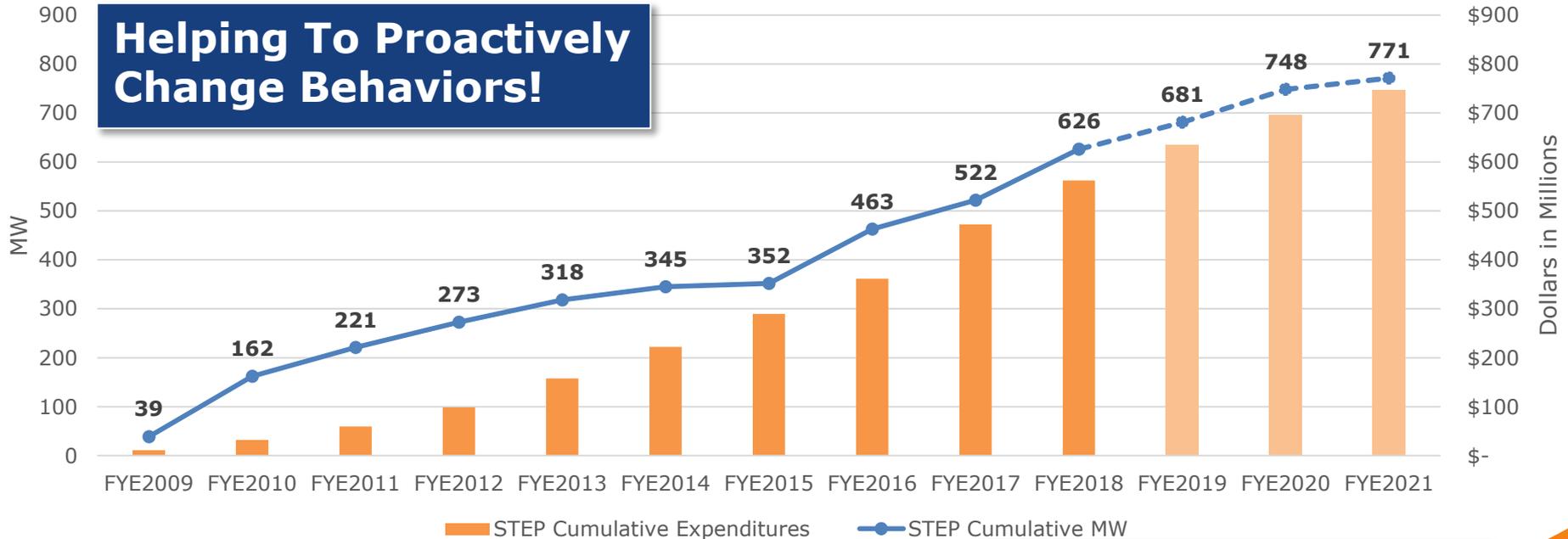
\* Pending final measurement & verification

# OUR S.T.E.P. - PROGRAM

## 1<sup>st</sup> Major FLEXIBILITY MOVE



**Helping To Proactively Change Behaviors!**

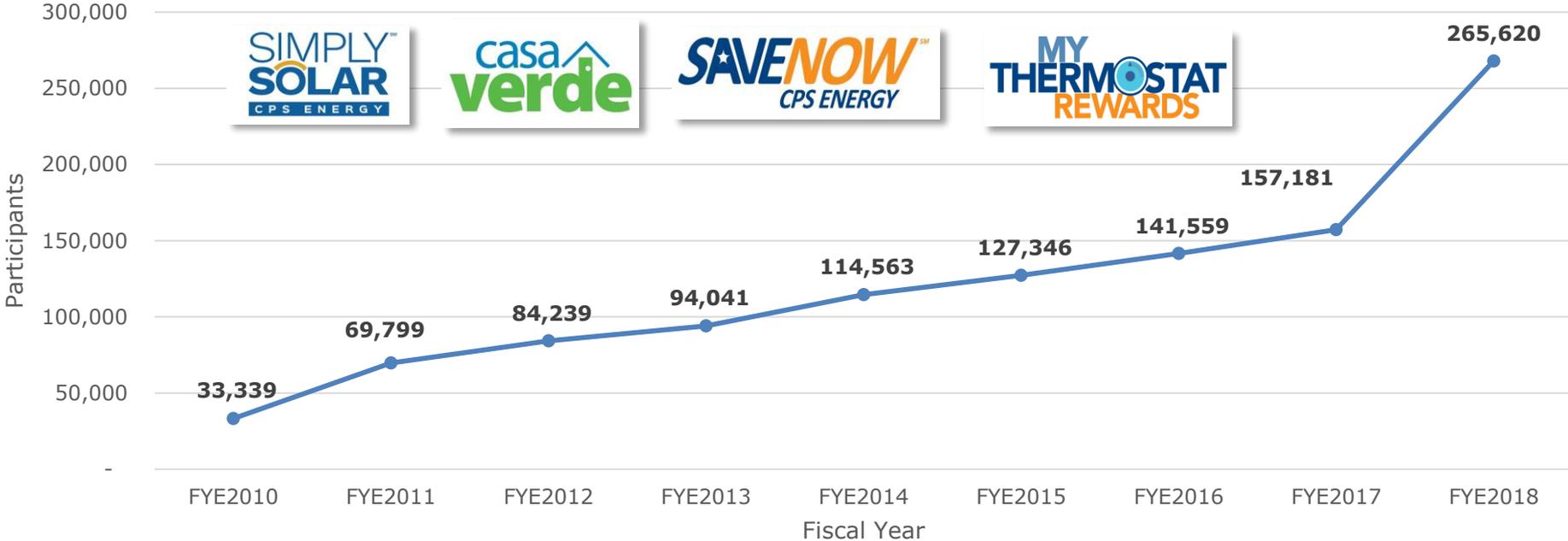


**\$'s Supporting Conservation: STEP**

**< LOWER**

**\$'s Building another Coal Plant + Operations & Maintenance**

# APPEALING PROGRAMS



**Popularity is increasing: In FYE 2018, we had 265K interactions with customers**

# CONSERVATION: OUR LEADERSHIP IN TEXAS

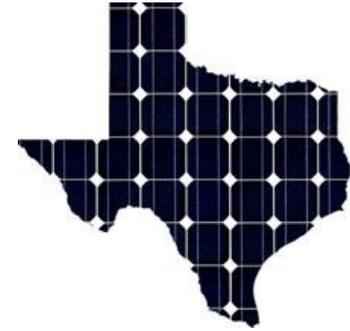


## 2016 DEMAND RESPONSE RESOURCES:

CPS Energy – 207 MW  
Next Best: Austin Energy – 131 MW  
After that: CenterPoint – 120 MW\*

## 2016 WEATHERIZATION FUNDING:

CPS Energy – \$20.1M  
Austin Energy – \$2.7M  
Next Best: Oncor – \$5.5M



## 2016 ROOFTOP SOLAR INSTALLED CAPACITY:

CPS Energy – 34 MW  
Austin Energy – 10 MW  
Next Best: Oncor – 12 MW

**We're a leader in Demand Side Management (DSM) Programs  
because of our STEP investment in the community**

\*Note: Demand Response resources are only available in ERCOT EEA2 emergency.

# TEXAS BENCHMARKING



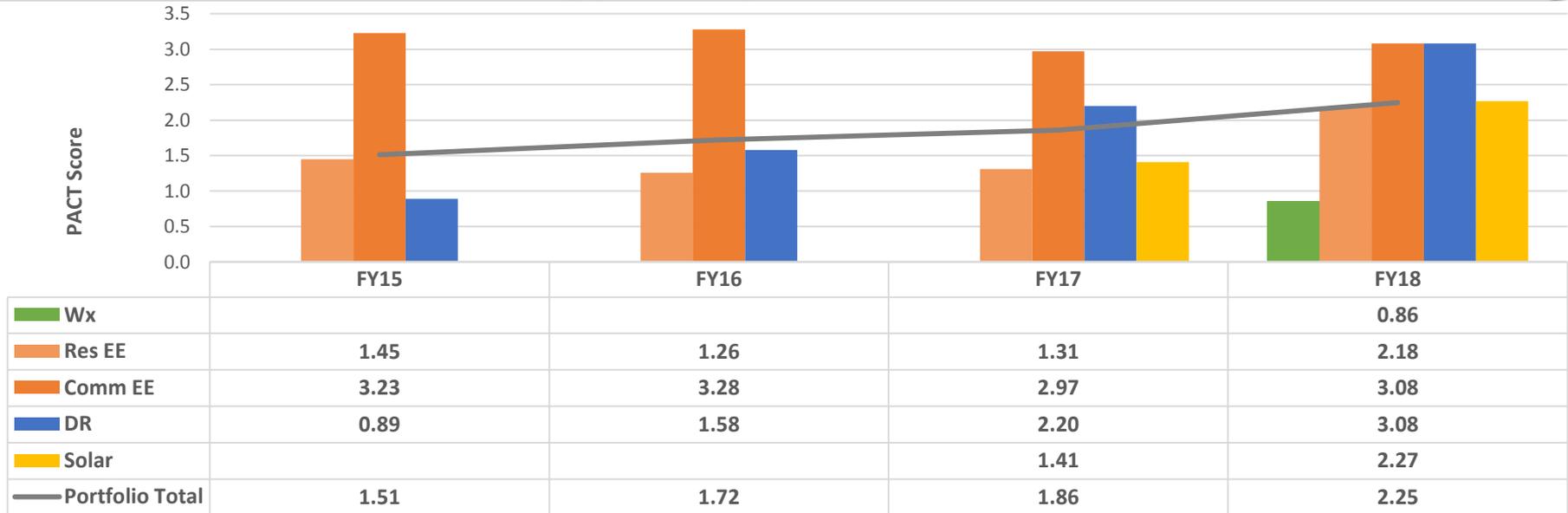
**Our broad range of DSM Programs compare favorably to other electric providers in Texas**

Utility	Commercial					Residential							Solar			R&D	
	Commercial DR	Recommission MTP	Commercial EE	Lighting	Schools & Gov.	New Homes	Weatherization	Residential EE	EE Kits	Retail Buy Down	Residential HVAC	Residential DR	In-School Education	Solar Rebate	Community Solar	Roofless	Research & Development
AEP Central (Corpus Christi)	✓		✓		✓	✓	✓	✓			✓	✓		✓			
Austin Energy	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓		✓			✓
CenterPoint (Houston)	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓						✓
CPS Energy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Oncor (Dallas)	✓		✓				✓	✓						✓			✓
El Paso Electric	✓		✓				✓	✓	✓	✓		✓	✓	✓	✓		✓

# COST EFFECTIVE



**Cost effectiveness of rebates has improved 49% since FY15 through a combination of adjusting incentives & declining technology & implementation costs**



**Glossary:**

Wx = Weatherization | Res EE = Residential Energy Efficiency  
 Comm EE = Commercial Energy Efficiency | DR = Demand Response

# OUR MANY RENEWABLE INSTALLATIONS ACROSS TX & SA



# OUR *FLEXIBLE PATH*

# GOALS & APPROACH



65% →	Low-carbon generation	
20% →	Renewable energy capacity in power generation mix <ul style="list-style-type: none"><li>• Purchase of cleaner Natural Gas "Rio Nogales" Units</li><li>• Purchase of 450MW of utility scale solar</li></ul>	✓
75% →	75% NOx emissions reduction since 1997 <ul style="list-style-type: none"><li>• Closure of J.T. Deely Coals Units 1 &amp; 2 in 2018</li><li>• Using a more efficient product – lower sulfur fuel</li></ul>	✓
#6 →	Solar Leadership <ul style="list-style-type: none"><li>• High National Ranking by <i>Environment Texas</i></li></ul>	✓
	New Environmental Tools <ul style="list-style-type: none"><li>• Air Quality Sensors</li><li>• Smart Sniffer "Gaston"</li></ul>	✓

**We continue our commitment to sustainability & being an engaged environmental steward**

# DEVELOPING A FLEXIBLE FUTURE



**AGAIN RELIABILITY MATTERS: Traditional generation is playing the role of “virtual storage” for renewable energy until energy storage technology scales up**

**Now: Renewables and Traditional Generation**

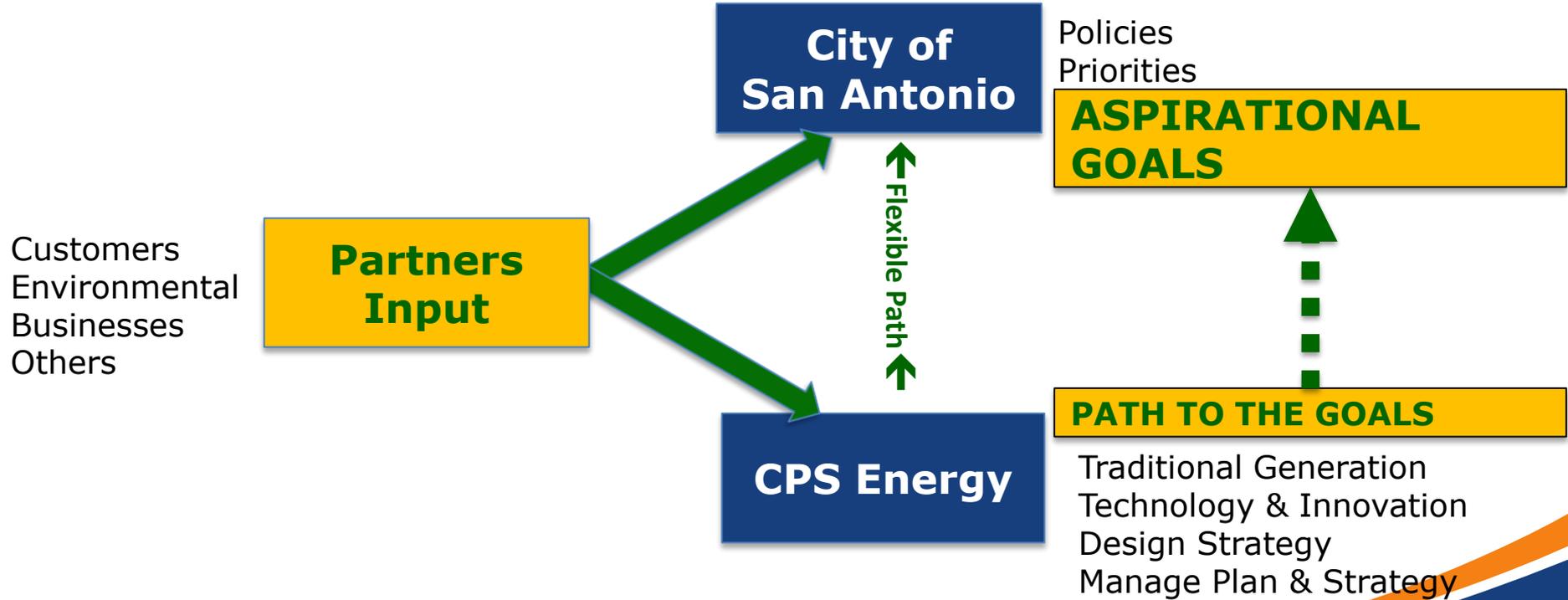


**Future: Renewables and Energy Storage**



**Currently not economical**

# COMMUNITY DIALOGUE = MORE ENGAGEMENT



**Our decisions reflect the values & priorities of our community!**

# WHY THE FLEXIBLE PATH, WHY NOW?



**Technology is evolving & changing now, & at a rapid pace.  
Flexibility is needed for us to meet your needs & desires  
in a responsible way.**



# WHY FLEXIBILITY MATTERS



## Traditional *(Historical)*

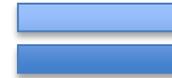
- **Predictable customer load**
- **Predictable customer growth**
- **Consistent generation levels**



40+ Year Baseload Assets  
***Traditional Power Plants***

## Flexible *(Future)*

- **Energy Efficiency**
  - Equipment using less energy
  - Declining use per customer
- **More Potential for Renewables**
  - Intermittency in generation
  - Renewables serving off-peak hours
- **New technologies on the horizon**

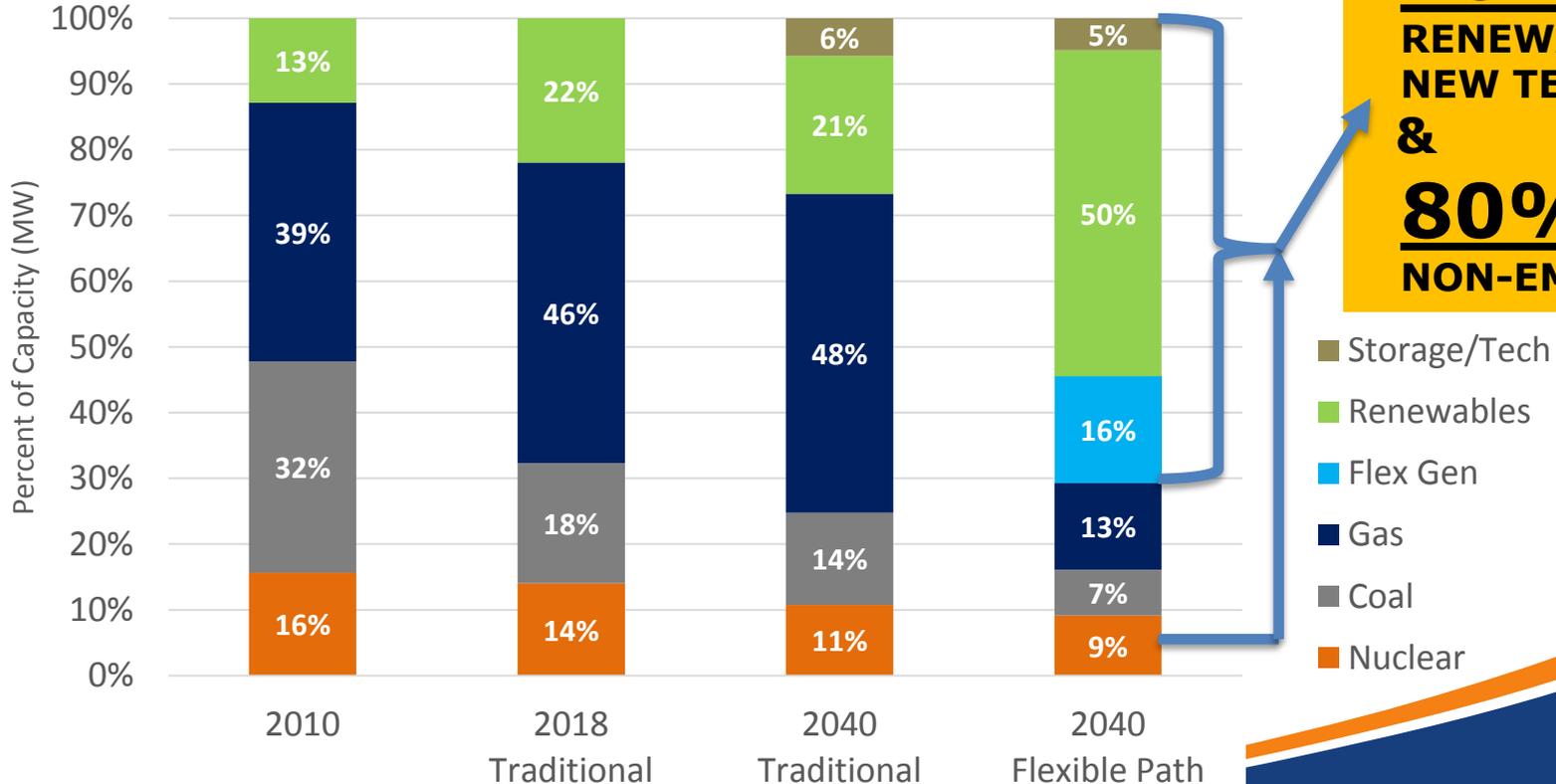


Need Ability to Adapt  
***Flexible Generation Path***

# FLEXIBLE PATH - CAPACITY MIX



We will adjust our plan as new competing technologies provide more benefits



**70%+!**  
**RENEWABLES /**  
**NEW TECH**  
**&**  
**80%!!**  
**NON-EMMITTING**

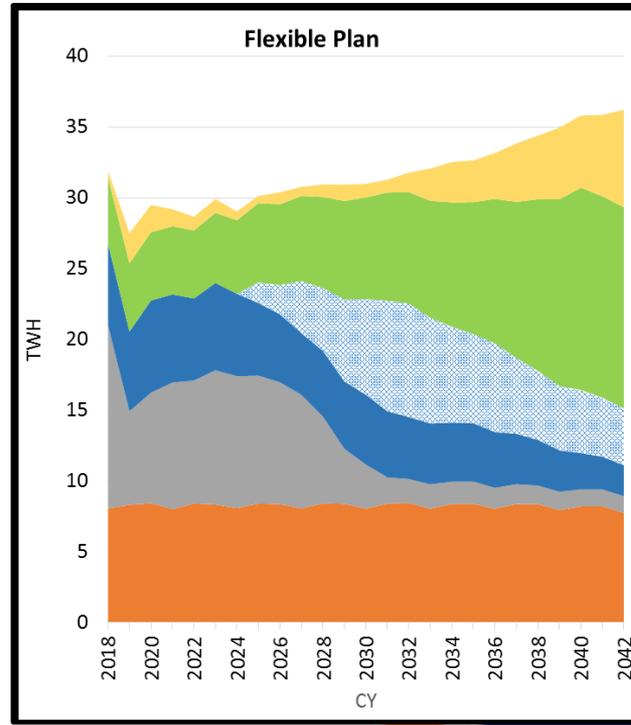
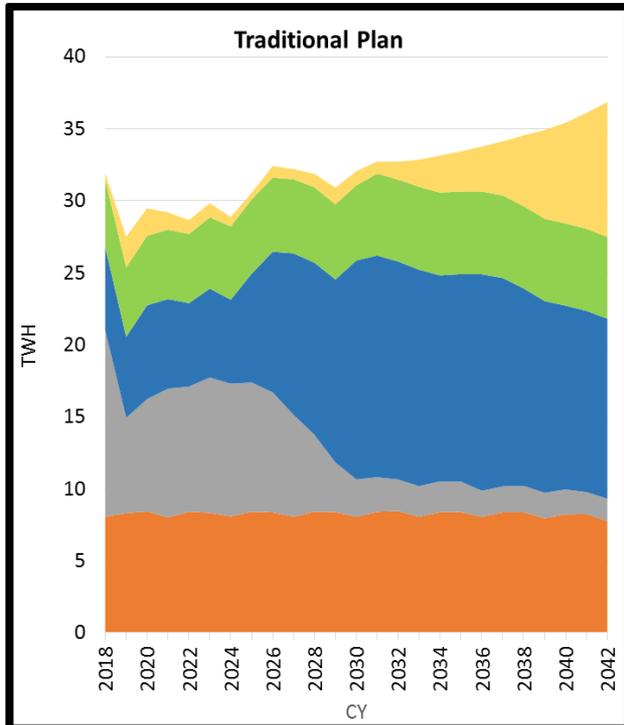
- Storage/Tech
- Renewables
- Flex Gen
- Gas
- Coal
- Nuclear

# ALL GEN MIX (TWh) – YEARLY

WHILE LEVERAGING WELL PERFORMING PORTFOLIO



The Flexible Path increases renewable generation & gives our customers more options

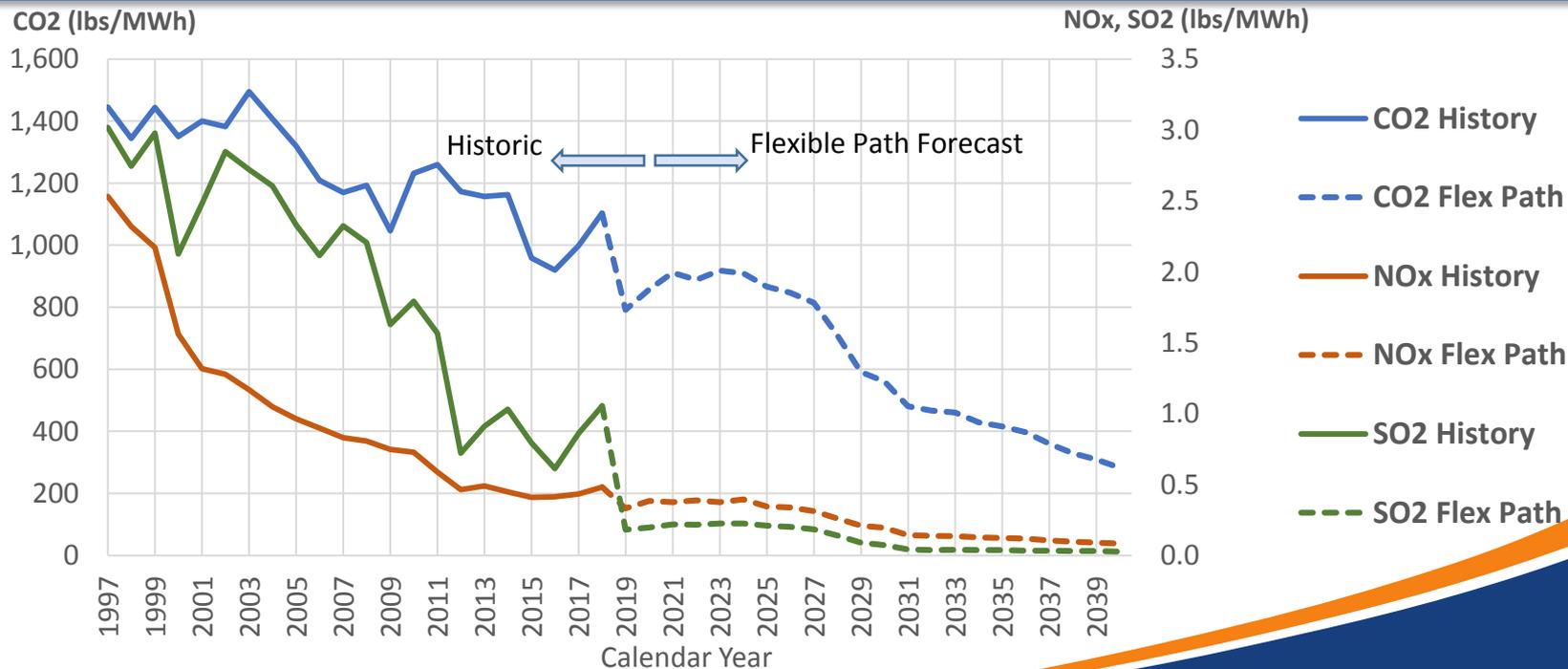


- Market Purchase
- Renewable
- Flex Gen
- Gas
- Coal
- Nuclear

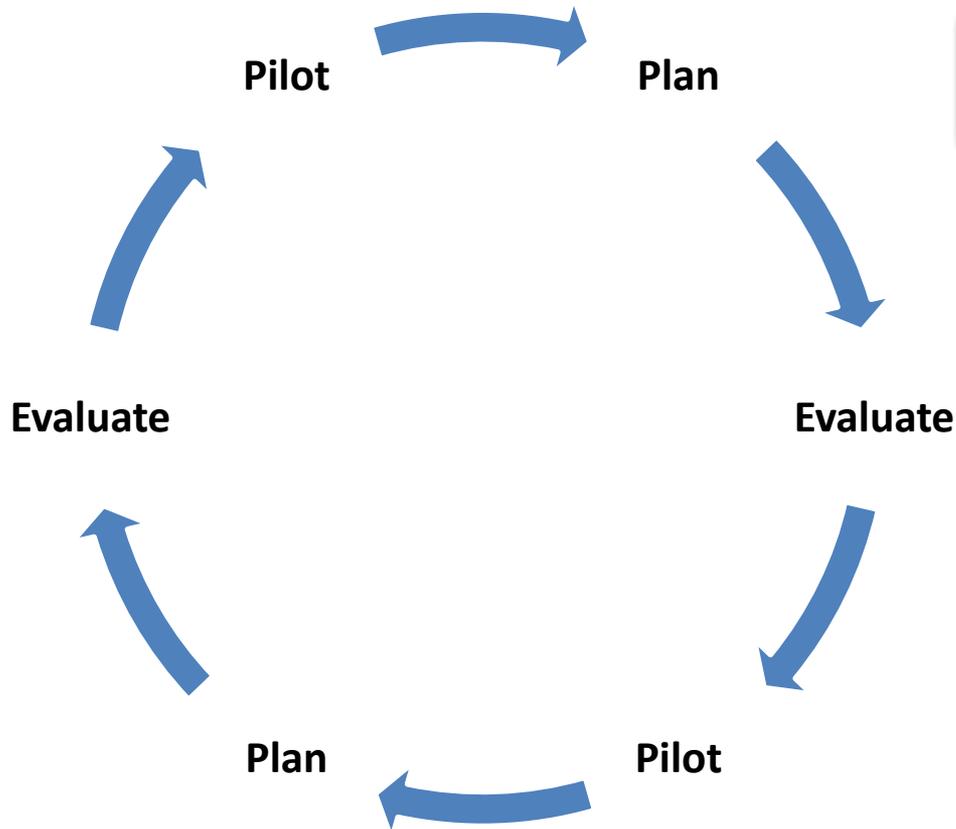
# CPS ENERGY EMISSION INTENSITY REDUCTIONS THROUGH FLEXIBLE PATH



**By 2040, the Flexible Path reduces the intensity of CO<sub>2</sub>, NO<sub>x</sub>, & SO<sub>2</sub> emissions by 80%, 97%, & 99%, respectively, as indexed to 1997**



# IN SUPPORT OF YOUR MISSION & GOALS



**We are being thoughtful about our city's future**

- **Pilot** solar and battery storage peak shifting Pilot other battery uses
- **Plan** for evolving integrated processes mitigating risk and enhancing our customers experience
- **Evaluate** pilots and plan future programs

# Our Flexible Path

BALANCING THE TRIED AND TRUE WITH NEW

IN ACTION!



 Energy-storage units to meet customer demand

 Existing assets; gas, nuclear, solar and wind generation provide flexibility

 Quick-cycle peaking units help meet excess demand

 Street lights automatically adjust by dimming or brightening, based on traffic, maximizing energy efficiency

 We enable public wi-fi hub and city service kiosks

 Updated 'grid' allows for quicker response and power restoration

 Our poles and wires are the backbone to support enhanced high-speed connectivity

 Advanced technology for natural gas detection is safe and effective

 Simply Solar broadens access and interest in renewable energy solutions

 Communication devices allow for real-time delivery of information across the network

 New solutions to power electric vehicles

 EPI Center: A historic and closed power plant will become a venue and think tank for new and emerging technologies

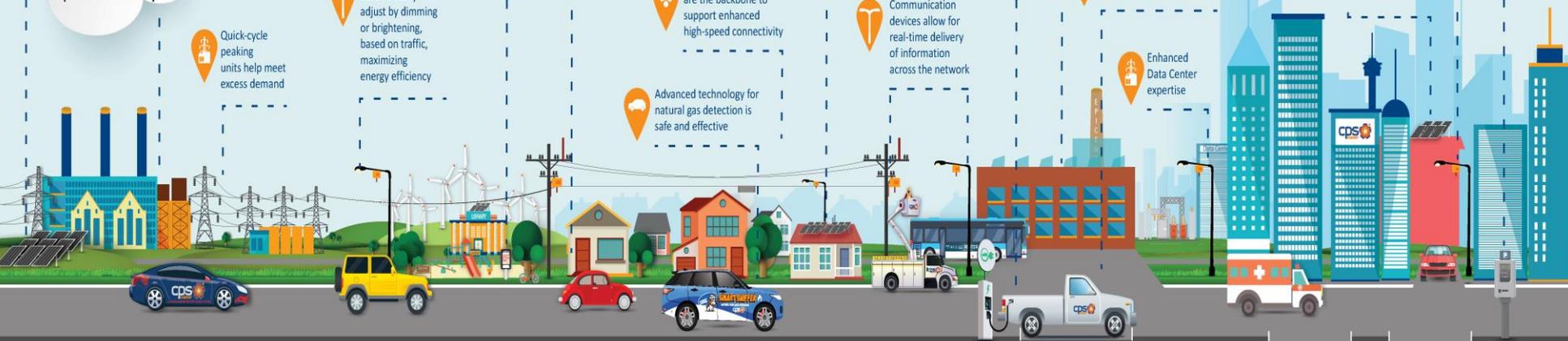
 App-enabled electric vehicle charging is also able to supply power

 Enhanced Data Center expertise

 Energy storage batteries being used by industrial, governmental, commercial and residential

 Smart parking meters transmit downtown open parking availability

 Cameras enable better security



# **FLEXIBLE PATH OUTREACH IN MOTION**

# OUTREACH: FLEXIBLE PATH - COMPLETED



Event Date	Group	Speaker(s)	
3/8/18	San Antonio City Council	Paula Gold-Williams	✓
3/21/18	Environmental Stakeholder Group	Paula Gold-Williams, Cris Eugster	✓
3/21/18	Citizens Advisory Committee	Frank Almaraz	✓
4/3/18	CPS Energy Spring 2018 Energy Workshop	Paula Gold-Williams	✓
4/4/18	Real Estate Council	Paula Gold-Williams, Paul Barham	✓
4/10/18	San Antonio Chamber Energy & Sustainability Committee	Kathy Garcia	✓
4/18/18	Civic Breakfast Group	Paula Gold-Williams	✓
5/4/18	Working Session with Environmental Group	Cris Eugster & Leadership	✓
5/18/18	Federal/State Delegation	Rudy Garza, Kathy Garcia	✓



Paula Gold-Williams @ Real Estate Council

# OUTREACH:

## FLEXIBLE PATH - COMPLETED



Event Date	Group	Speaker(s)	
5/22/18	North San Antonio Chamber Board of Directors	Cris Eugster, Cory Kuchinsky	✓
5/24/18	South San Antonio Chamber Board of Directors	Rudy Garza, Polo Moncada	✓
5/29/18	NCTONA	Rudy Garza, Maria Garcia	✓
6/5/18	West San Antonio Chamber The State of Energy Attendees	Maria Garcia, Jesse Hernandez	✓



Rudy Garza & Maria Garcia @ NCTONA Association Meeting

# OUTREACH:

## FLEXIBLE PATH - SCHEDULED



Event	Group	Speaker(s)
6/13/18	CPS Energy Board Public Input Session	Paula Gold-Williams
6/18/18	New Energy Economy Partners	David Jungman POC (Speaker TBD)
6/20/18	West SA Chamber State of the Utility	Paula Gold-Williams
6/27/18	San Antonio Chamber Board of Directors	Paula Gold-Williams



# 12 "SIMPLE SUMMER SAVINGS" EVENTS




**Make time to unplug this summer.**



**Free Simple Summer Savings Event**  
Saturday, May 12  
9am – 12pm

**You're Invited!**

**OUR SAVIOR LUTHERAN CHURCH**  
11503 VANCE JACKSON RD  
Saturday, May 12  
9am – 12pm

Join us and our community partners for a **FREE** family-friendly event. Learn simple savings tips and discover programs like Casa Verde.

Bring in this mailer for one (1) free LED light bulb.\*  
Snacks and prizes.\*  
\*While supplies last.



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San Antonio, TX 78236

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**¡Está Invitado!**

**OUR SAVIOR LUTHERAN CHURCH**  
11503 VANCE JACKSON RD  
sábado, 12 de mayo  
9am – 12pm

Acompáñenos junto con nuestros socios de la comunidad para un evento **GRATUITO** para toda la familia. Aprenda consejos simples sobre ahorros y descubra programas como Casa Verde.

Tráiga este anuncio publicitario para obtener un (1) foco LED gratis.\*  
Bocadillos y premios.\*  
\*Mientras existencias.



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**You're Invited!**



**This summer, turn up the savings.**

**Free Simple Summer Savings Event**

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Snacks and Prizes.\*  
\*While supplies last.






[cpsenergy.com](http://cpsenergy.com)





**¡Está Invitado!**



**Este verano, aumente sus ahorros.**

**Consejos gratuitos para ahorrar este verano**

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[cpsenergy.com](http://cpsenergy.com)



# "SIMPLE SUMMER SAVINGS" SCHEDULE



Event Date	Time	Venue	
Saturday, May 12, 2018	9:30 am – 12:00 pm	Our Savior Lutheran Church	District 8
Thursday, May 17, 2018	5:30 pm – 7:30 pm	Somerset Multi-Purpose Center	Somerset, TX
Tuesday, May 22, 2018	5:30 pm – 7:30 pm	St. Mary Magdalen	District 1
Thursday, May 31, 2018	5:30 pm – 7:30 pm	Cuellar Community Center	District 6
Saturday, June 2, 2018	9:30 am – 12:00 pm	The Neighborhood Place	District 5
Thursday, June 7, 2018	5:30 pm – 7:30 pm	Hamilton Community Center	District 10
Tuesday, June 12, 2018	5:30 pm – 7:30 pm	St. Anthony's Church Hall	Elmendorf, TX
<b>Saturday, June 23, 2018</b>	<b>9:30 am – 12:00 pm</b>	<b>Southside Lions Community Center</b>	<b>District 3</b>
<b>Tuesday, June 26, 2018</b>	<b>5:30 pm – 7:30 pm</b>	<b>Hardberger Park Ecology Center</b>	<b>District 9</b>
Thursday, July 12, 2018	5:30 pm – 7:30 pm	Pre-K for SA East Center	District 2
Saturday, July 21, 2018	9:30 am – 12:00 pm	Ramirez Community Center	District 4
Thursday, July 26, 2018	5:30 pm – 7:30 pm	St. Dominic Church	District 7

# SUMMARY



- **WE ARE COMMITTED TO LISTENING**
- **WE WILL MAKE IMPROVEMENTS, AS NEEDED**
- **WE WILL CONTINUE TO CONTROL COSTS & KEEP EVERYTHING IN BALANCE**
- **OUR FLEXIBLE PATH IS "FLEXIBLE"**



***Thank You***

# GLOSSARY



- **SIMPLY SOLAR**: Thinking about going solar? Our customers now have three options for expanding solar in our community. And Simply Solar is CPS Energy's "seal of approval" for all three options: Roofless Solar, Solar Host & Bring Solar Home
- **CASA VERDE**: Casa Verde offers eligible customers an average of \$5,000 in free energy saving improvements that can lower their bill, especially during the summer and winter months. Recipients save an average of \$350 a year on their energy bill.
- **SAVE NOW**: CPS Energy offers a wide range of rebate programs and low cost/no cost solutions to help you save money. Marketed under the Save Now umbrella, these programs are available to both residential and commercial customers. Examples include incentives to upgrade equipment, like AC units, lighting, and pool pumps. We also offer Home Energy Assessments and Express Building Tune-ups to help you be more energy efficient.
- **MY THERMOSTAT REWARDS**: We now have even more options to help you to manage your energy use! With My Thermostat Rewards, you can receive a free, installed, programmable thermostat (\$300 value) from CPS Energy or purchase your own qualified Wi-Fi model, install it yourself, and get a valuable bill credit from CPS Energy.
- **DEMAND SIDE MANAGEMENT (DSM)**: The modification of customer's energy demand through various efficiency programs and methods such as financial incentives and behavioral change through education.