

PC
Workshop
for SALT
June 29,
2021

2021
Business
Case
Mobilization
Sept. 30, 2021

2021
Business
Case
Overview
November 17, 2021

Council Presentation

January 25, 2022

Debra Jones – Nathan Theaux – David Smith

City of Angleton, Texas
Capital Improvements and Energy Efficiency Opportunity

Life Is On | Schneider
Electric

Discussion Topics

2014
Business
Case

2021
Update of
Business
Case

Financing

Timeline

2015

- Comprehensive Building Control System
- Upgrade existing street lighting to LED
- Eco kiosk for parks and recreations
- Update HVAC systems
- City wide building LED retrofits
- Modernize WWTP

Opportunity Matrix

Department Name <i>Name</i>	Interior Lights <i>Y/N</i>	Exterior Lights <i>Y/N</i>	Occupancy Sensors <i>Y/N</i>	Install BAS or Upgrade BAS <i>Y/N</i>	HVAC Improvements <i>Y/N</i>	IT Power Management <i>Y/N</i>	AMR Water Meter Project <i>Y/N</i>	Variable Speed Drives <i>Y/N</i>	High Efficiency Blowers <i>Y/N</i>	Fine Bubble Diffusers <i>Y/N</i>	Dissolved Oxygen Control <i>Y/N</i>	Onsite Chlorine Generation <i>Y/N</i>	Total <i>Count</i>
City Hall	Y	Y	Y	Y	Y	Y	Y						7
Police Department	Y	Y	Y	Y		Y	Y						6
Fire Department	Y	Y	Y	Y		Y	Y						6
Recreation Center	Y	Y	Y	Y	Y	Y	Y	Y				Y	9
Park Facilities		Y											1
Wastewater Treatment Plant	Y	Y	Y					Y	Y	Y	Y	Y	8
Water Meters							Y						1
													0
Total	5	6	5	4	2	4	5	2	1	1	1	2	38

\$8-10M over 20 yrs. savings



Interior Lighting



Exterior Lighting



Mechanical Retrofits



Water Conservation



Building Envelope



Controls Upgrades



Additional Opportunities

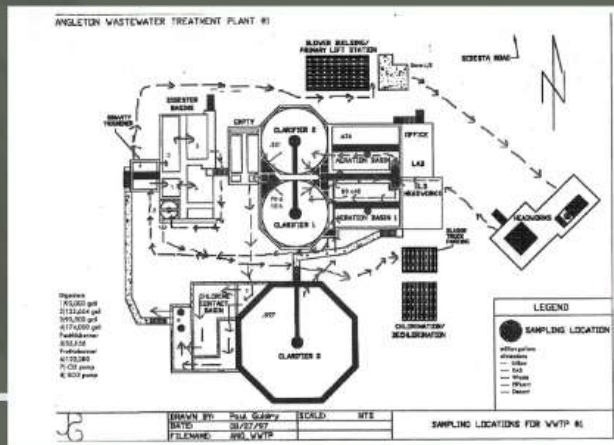


Waste Water Plant



Savings

Waste Water Treatment Plant



2. Oyster Creek WWTP

Freese & Nichols (F&N) evaluated the City's WWTP in late 2018. In 2019, F&N presented a report to Council, based on the evaluation that recommended the following improvements to the WWTP; multi-rake screen; screening water sluice; washer/compactor; headwall grit removal; grit classifier; two grit pumps; 48" gate valve; gate valve electric actuator; six slide gates; and grating.

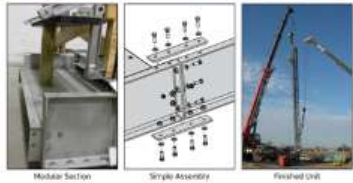
2018 recommendations

IMPACT

- **Improved efficiency** – replaces failed or near end of life equipment
- **Boost Reliability** – Improved operations and allow for preventative maintenance
- **Savings Impact of 50%**

Opportunity Matrix Waste Water Treatment Plant

Scope Item	Y/N	Benefit of this Scope
Mechanical Bar Screen	Y	Replacement of broken equipment will prevent pass through of inert material, protecting all downgradient equipment. Reduces maintenance and increases equipment life.
Grit Pump	Y	Replacement of broken equipment will prevent pass through of inert material, protecting all downgradient equipment. Reduces maintenance and increases equipment life.
Grit Washer	Y	Replacement of broken equipment will prevent pass through of inert material, protecting all downgradient equipment. Reduces maintenance and increases equipment life.
Aeration Basins	Y	Installation of DO control (on/off) and new diffuser tubes reduce aeration energy use by 50%.
Aerobic Digesters	Y	Rehab of the gravity thickener would allow for sludge thickening prior to dewatering. Needed for on-site dewatering.
Dewatering	Y	Installation of new sludge pumps and volute press would allow staff to perform regular wasting from the aerobic digesters and perform on-site dewatering without the need for a 3rd party contract. Estimate total reduction in T&D costs of biosolids will be 50%.



ECM 1



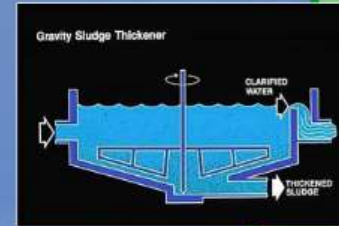
ECM 2



ECM 3



ECM 4



ECM 5



ECM 6





Paying for the Project

- Existing City Budget - general fund or by department
 - Rebates and state funds where available
 - Third party financing (*most common*)
 - Costs are covered by the project including financing

Stimulus

Guarantee

	City of Angleton, Texas	
Best Case Estimated Timeline Performance Contract Opportunity		
<i>Council Meetings held 4th Tuesday of each month at 6:00 PM, workshop 2nd Tuesdays</i>		
121 S. Veterans		
Initial Meeting with City Manager		June 10, 2021
Workshop on PC and previously designed project		June 29, 2021
Letter of Interest		June 21, 2021
Mobilize PDE team		September 30, 2021
Present Business Case		November 17, 2021
WasteWater Workshop		December 15, 2021
Present PA to Council, consider moving forward w/IGA		January 25, 2022
Recommend ESCO and sign IGA		February 8, 2022
Mobilize Development Team		March 25, 2022
50% development review with client Finance and Contract approval status meeting Select 3rd Party M&V engineering firm		May 24, 2022
75% completion meeting		June 28, 2022
Final IGA Results Due to customer		July 28, 2022
Council approval to purchase project / sign contract		August 1, 2022
Send Scope for M&V approval from 3rd Party Engineer		August 1, 2022
Third party engineering review due back		August 22, 2022
Mobilize team to begin construction		September 3, 2022
Installation complete		to be determined
<i>approval dates have been matched up with Council scheduled meetings</i>		
24-Aug	14-Sep	28-Sep
14-Dec	28-Dec	11-Jan
22-Mar	12-Apr	26-Apr
12-Jul	26-Jul	
		10-May
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		9-Nov
		22-Feb
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Life Is On

