

Understanding Municipal Utility Bills & Tracking Consumption

NCTCOG

March 26, 2020



**Presented By: Chris Pettit,
Bailey Muller, and Dorothy Gilliam**

TEESI  Engineering

**(Texas Energy Engineering Services, Inc.)
1301 S. Capital of Texas Hwy., Suite B-325
Austin, Texas 78746
www.teesi.com
(512) 328-2533**

NCTCOG's work on the SECO Regional Energy Manager project is being funded with federal grant dollars.

Would you be willing to count your time on this webinar as in-kind match for this project? *

*in order to count your time, you attest that your time is not being paid for by federal funds.

SECO Local Government Energy Reporting

Section 388.005 (c) Texas Health and Safety Code

Purpose: Lower Local Government Energy Consumption

Requirements: Requires all political subdivisions, institutes of higher education, and state agencies in the 42 Ozone Nonattainment and Near Nonattainment Counties to establish a **goal of reducing electric consumption by at least 5% each state fiscal year for 7 years** beginning September 1, 2019 **and to submit an annual report** to the State Energy Conservation Office (SECO)

Issues: Lack of Awareness, Non-Compliance with Annual Reporting Requirement

SECO Local Government Energy Reporting

Who Reports?

The following entities in 42
Nonattainment or Near
Nonattainment counties:

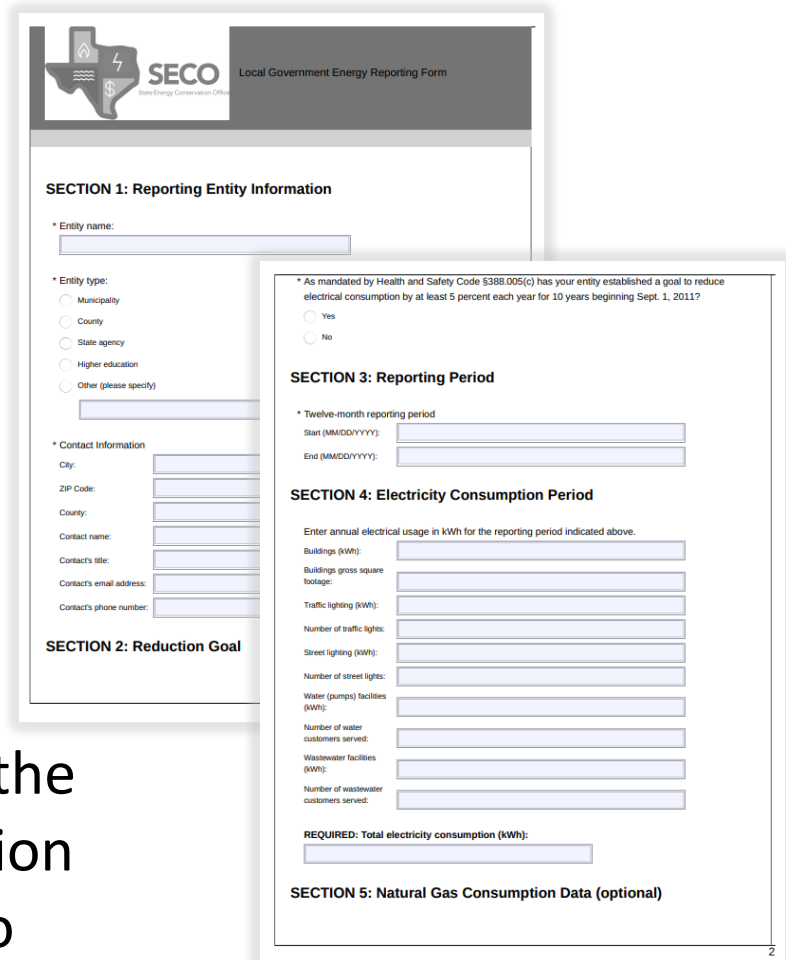
Cities and Counties

State Agencies

Institutes of Higher Education

What's Due:

Annual report to SECO recording the
entity's annual electric consumption
(kWh) and the entity's progress to
meet the 5% energy reduction goal






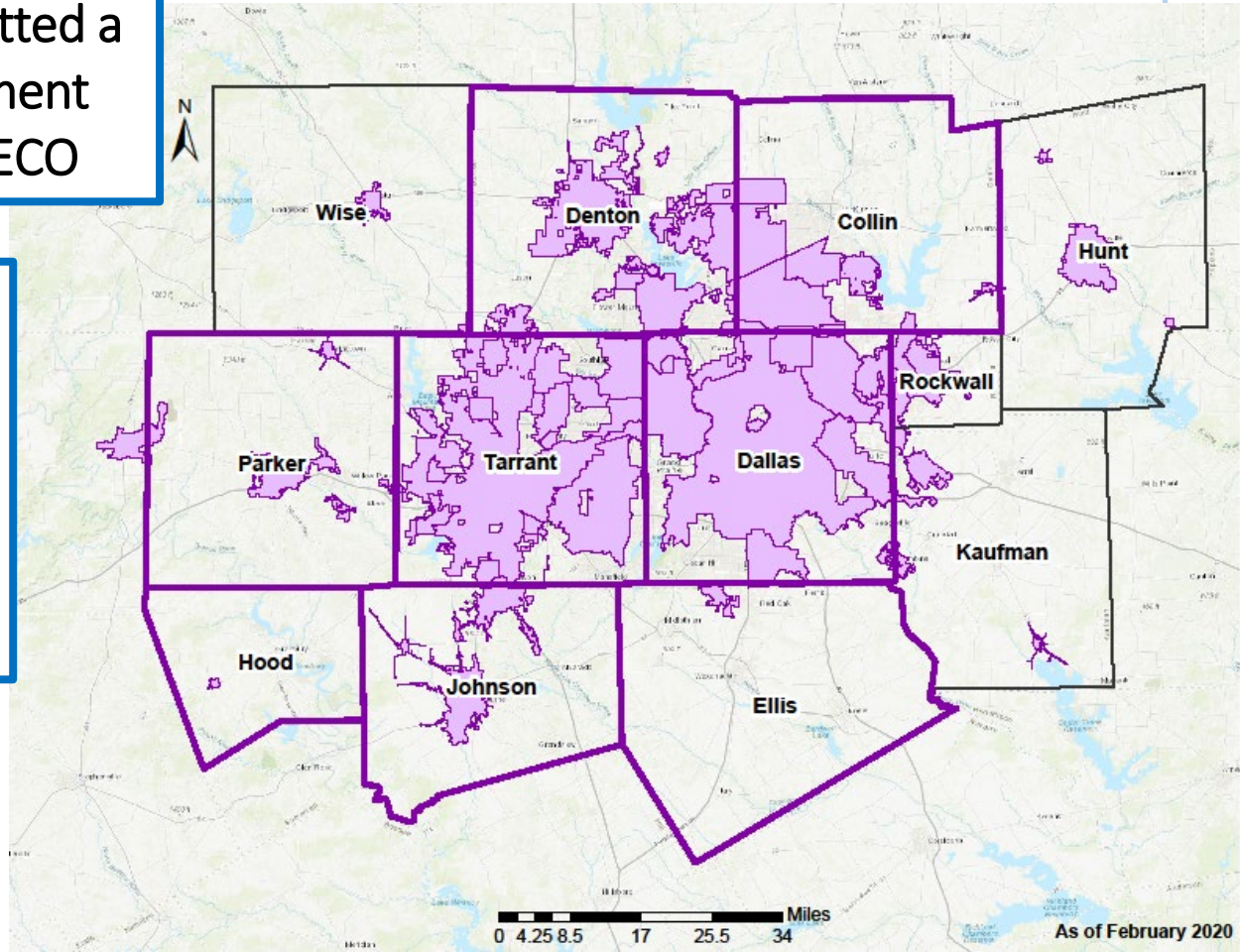
The image shows a screenshot of the SECO Local Government Energy Reporting Form. The form is titled "SECO Local Government Energy Reporting Form" and includes the following sections:

- SECTION 1: Reporting Entity Information**
 - * Entity name: [Text input field]
 - * Entity type:
 - Municipality
 - County
 - State agency
 - Higher education
 - Other (please specify) [Text input field]
 - * Contact information:
 - City: [Text input field]
 - ZIP Code: [Text input field]
 - County: [Text input field]
 - Contact name: [Text input field]
 - Contact's title: [Text input field]
 - Contact's email address: [Text input field]
 - Contact's phone number: [Text input field]
- SECTION 2: Reduction Goal**
- SECTION 3: Reporting Period**
 - * As mandated by Health and Safety Code §388.005(c) has your entity established a goal to reduce electrical consumption by at least 5 percent each year for 10 years beginning Sept. 1, 2011?
 - Yes
 - No
 - * Twelve-month reporting period:
 - Start (MM/DD/YYYY): [Text input field]
 - End (MM/DD/YYYY): [Text input field]
- SECTION 4: Electricity Consumption Period**
 - Enter annual electrical usage in kWh for the reporting period indicated above.
 - Buildings (kWh): [Text input field]
 - Buildings gross square footage: [Text input field]
 - Traffic lighting (kWh): [Text input field]
 - Number of traffic lights: [Text input field]
 - Street lighting (kWh): [Text input field]
 - Number of street lights: [Text input field]
 - Water (pumps) facilities (kWh): [Text input field]
 - Number of water customers served: [Text input field]
 - Wastewater facilities (kWh): [Text input field]
 - Number of wastewater customers served: [Text input field]
 - REQUIRED: Total electricity consumption (kWh): [Text input field]
- SECTION 5: Natural Gas Consumption Data (optional)**

North Texas Cities and Counties Who Submitted a **FY19** Local Government Energy Report to SECO

Legend

-  Counties Subject to Report
- Cities**
-  Submitted FY19 Report
- Counties**
-  Submitted FY19 Report



★ Number of Cities Who Reported: **56**

Number of Counties Who Reported: **8**

SECO Reporting

SECTION 4: Electricity Consumption Period

Enter annual electrical usage in kWh for the reporting period indicated above.

Buildings (kWh):

Buildings gross square
footage:

Traffic lighting (kWh):

Number of traffic lights:

Street lighting (kWh):

Number of street lights:

Water (pumps) facilities
(kWh):

Number of water
customers served:

Wastewater facilities
(kWh):

Number of wastewater
customers served:

REQUIRED: Total electricity consumption (kWh):

SECO Reporting

SECTION 5: Natural Gas Consumption Data (optional)

Enter annual natural gas consumption for the reporting period indicated above.

Unit of measure (CCF,
BTU, Therms):

Buildings:

Water (pumps) facilities:

Wastewater facilities:

Other:

**Total natural gas
consumption:**

SECTION 6: Water Consumption Data (optional)

Enter annual water consumption for the reporting period indicated above.

Buildings (gallons):

Water (pumps) facilities
(gallons):

Wastewater facilities
(gallons):

Other (gallons):

**Total water consumption
(gallons):**

**Did your municipality report
utility consumption for
FY2019 last year?**

Overall Goals

- Track Annual Consumption
 - Electricity consumption (kWh) **[Required]**
 - Natural gas consumption (ccf, mcf, BTUs, therms, etc.)
 - Water Consumption (gallons, kgal, etc.)

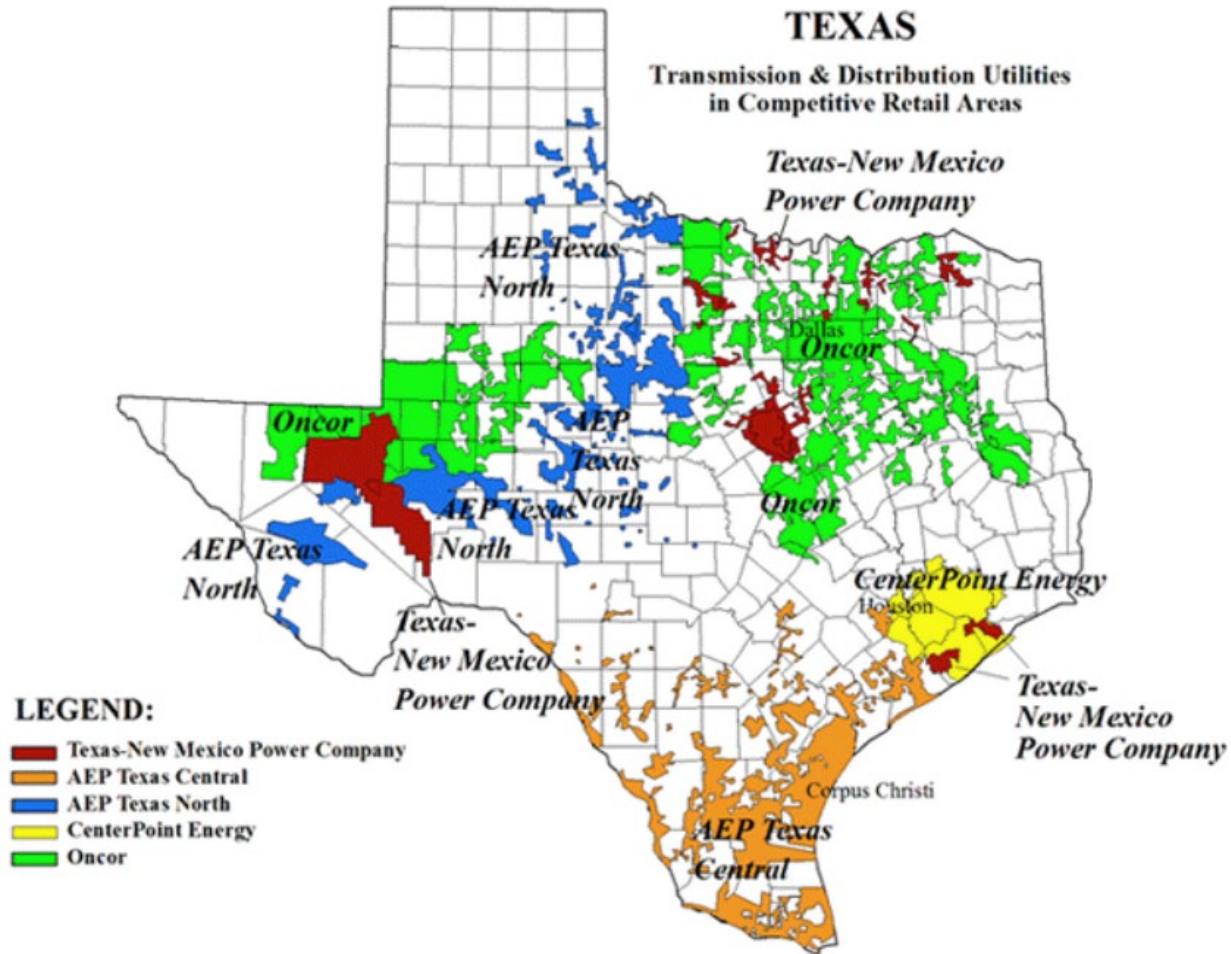
- Better Understanding of Utility Bills

REP vs TDSP

- Retail Electricity Provider (REP)
 - Who you get your bill from
 - Wholesaler
 - Negotiate Contract for \$/kWh

- Transmission and Delivery Service Provider (TDSP)
 - Power Generators & Transmission Lines
 - Fixed Rate Structures based on electric service provided

Transmission & Distribution Service Providers (TDSP)



How do you track your energy consumption?

Tracking Utility Consumption

Account Number: 55555555
 Invoice Number: 11111111111111
 Billing Date: March 15, 2018
 Page 3

YOUR SERVICE CHARGES

123 Street Name, City, TX 77777
 ESI-ID: 12345678987654321
 PO #:

Major REP Company : Current Charges

Meter# XXXXXXXX
 Service Period February 12, 2018 to March 12, 2018 Actual-Total 446.76 kW
 Meter Multiplier of 1
 Current meter read Actual-Total March 12, 2018 1,276.3316
 Previous meter read February 12, 2018 1,148.0789
 Current period consists of 28 days Difference 128.2527
 Meter Multiplier of 600 x Difference of 128.2527 = 76,951.62 kWARh
 PowerFactor = 0.888
 Current meter read Actual-Total March 12, 2018 1,390.3106
 Previous meter read February 12, 2018 1,235.5994
 Current period consists of 28 days Difference 154.7112
 Meter Multiplier of 600 x Difference of 154.7112 = 92,826.72 kWh
 PowerFactor = 0

Electricity

Account #: 123456789

Service Address: 123 Main St, City, TX 77777

Month	Start Date	End Date	Consumption (kWh)	Metered Demand (kW)	Billed Demand (kW)	Demand Charges (\$)	Total Charges (\$)
1	12/28/18	1/27/19	41,520	84	102	\$ 908.82	\$ 3,073.67
2	1/27/19	2/28/19	40,200	86	102	\$ 908.82	\$ 3,027.11
3	2/28/19	3/26/19	42,840	88	102	\$ 908.82	\$ 3,035.48
4	3/26/19	4/28/19	45,000	108	108	\$ 1,380.24	\$ 4,678.83
5	4/28/19	5/30/19	71,640	131	131	\$ 1,674.18	\$ 6,583.90
6	5/30/19	6/29/19	77,880	146	146	\$ 1,865.88	\$ 7,229.36
7	6/29/19	7/29/19	68,640	139	139	\$ 1,776.42	\$ 6,588.74
8	7/29/19	8/28/19	70,800	137	137	\$ 1,750.86	\$ 6,664.50
9	8/28/19	9/29/19	67,800	121	121	\$ 1,546.38	\$ 6,171.98
10	9/29/19	10/30/19	50,280	100	100	\$ 891.00	\$ 3,010.07
11	10/30/19	11/27/19	46,080	97	97	\$ 864.27	\$ 2,828.88
12	11/27/19	12/28/19	45,840	86	88	\$ 784.08	\$ 2,698.02
Total(s):			668,520	1,324	1,373	\$ 15,259.77	\$ 55,590.54

How do you track your utility consumption?

- Hardcopies of Invoices
- Spreadsheets
- Software
 - ENERGY STAR Portfolio Manager
 - Other



Tracking Utility Consumption

Account Number: 55555555
 Invoice Number: 11111111111111
 Billing Date: March 15, 2018
 Page 3

Biggest Challenges

- Identifying all accounts
- Finding all the bills
- Correct dates for reporting
- Waiting until the last minute

Utility Provider

- Account Representative – make a friend!

YOUR SERVICE CHARGES

123 Street Name, City, TX 77777
 ESI-ID: 12345678987654321
 PO #:

Major REP Company : Current Charges

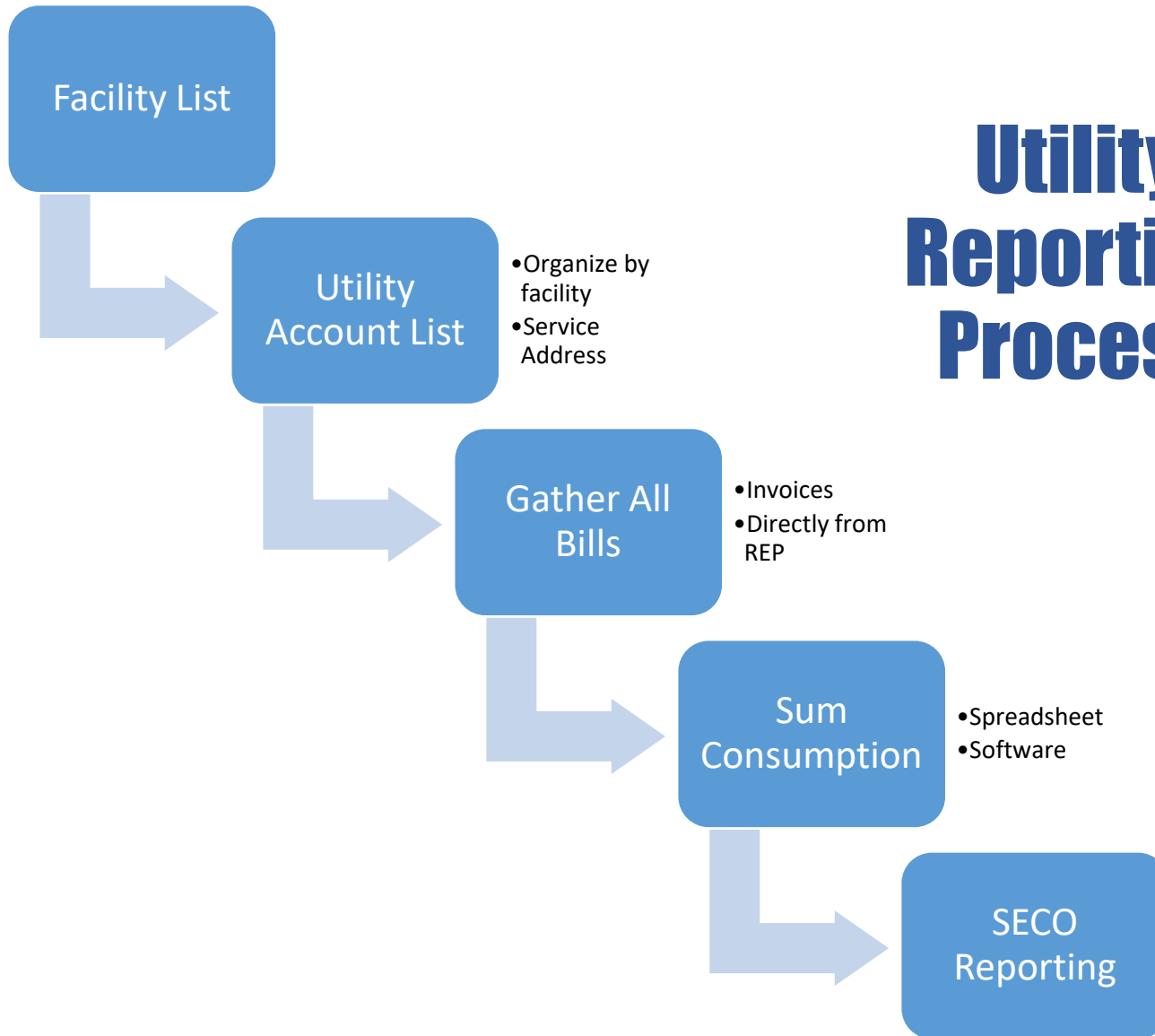
Meter#	XXXXXXX		
Service Period	February 12, 2018 to March 12, 2018 Actual-Total		446.76 kW
Meter Multiplier	of 1		
Current meter read Actual-Total	March 12, 2018	1,276.3316	
Previous meter read	February 12, 2018	1,148.0789	
Current period consists of 28 days	Difference	128.2527	
Meter Multiplier of 600 x Difference of 128.2527 =			76,951.62 KWARH
PowerFactor = 0.888			
Current meter read Actual-Total	March 12, 2018	1,390.3106	
Previous meter read	February 12, 2018	1,235.5994	
Current period consists of 28 days	Difference	154.7112	
Meter Multiplier of 600 x Difference of 154.7112 =			92,826.72 KWH
PowerFactor = 0			

Electricity

Account #: 123456789

Service Address: 123 Main St, City, TX 77777

Month	Start Date	End Date	Consumption (kWh)	Metered Demand (kW)	Billed Demand (kW)	Demand Charges (\$)	Total Charges (\$)
1	12/28/18	1/27/19	41,520	84	102	\$ 908.82	\$ 3,073.67
2	1/27/19	2/28/19	40,200	86	102	\$ 908.82	\$ 3,027.11
3	2/28/19	3/26/19	42,840	88	102	\$ 908.82	\$ 3,035.48
4	3/26/19	4/28/19	45,000	108	108	\$ 1,380.24	\$ 4,678.83
5	4/28/19	5/30/19	71,640	131	131	\$ 1,674.18	\$ 6,583.90
6	5/30/19	6/29/19	77,880	146	146	\$ 1,865.88	\$ 7,229.36
7	6/29/19	7/29/19	68,640	139	139	\$ 1,776.42	\$ 6,588.74
8	7/29/19	8/28/19	70,800	137	137	\$ 1,750.86	\$ 6,664.50
9	8/28/19	9/29/19	67,800	121	121	\$ 1,546.38	\$ 6,171.98
10	9/29/19	10/30/19	50,280	100	100	\$ 891.00	\$ 3,010.07
11	10/30/19	11/27/19	46,080	97	97	\$ 864.27	\$ 2,828.88
12	11/27/19	12/28/19	45,840	86	88	\$ 784.08	\$ 2,698.02
Total(s):			668,520	1,324	1,373	\$ 15,259.77	\$ 55,590.54



Facility List

- Gather a list of all facilities
 - Square Footage (can be found on insurance documents)
 - Include facilities leased by City if paying utilities
 - Exclude if leased out to others and City not paying utilities
 - Public Works Department

Facility Name	Square Footage	City Owned?	City Pays Bills?
City Hall	15,000	Y	Y
Library	5,000	Y	Y
Fire Station	2,500	Y	Y
Police Station	2,700	Y	Y
Tax Office	1,500	N	Y
....			
WTP	1,000	Y	Y
WWTP	2,000	Y	Y
Lift Station	N/A	Y	Y

Account List

- Gather list of all accounts
 - Electric, Natural Gas, Water
 - Review invoices
 - Internal Accounting/Finance Department or from REP Account Representative
 - Talk with Account Representative

Electric Accounts	Natural Gas Accounts	Water Accounts
123456789	1234-12	100001
987654321	-	100002
571238906	4444-22	610001
987612345	1234-55	120009
12983752	4321-11	140007
768961235		
123687		
182937		
891237		
182973		
789237		
790877		
5565747		

Combined Facility & Account List

- Ensure all Accounts are accounted for
- Remaining Accounts should be traffic lights, street lighting, etc.

Facility Name	Square Footage	City Owned?	City Pays Bills?	Electric Accounts	Natural Gas Accounts	Water Accounts
City Hall	15,000	Y	Y	123456789, 987654321	1234-12	100001
Library	5,000	Y	Y	571238906	-	100002
Fire Station	2,500	Y	Y	987612345	4444-22	610001
Police Station	2,700	Y	Y	12983752	1234-55	120009
Tax Office	1,500	N	Y	768961235	4321-11	140007
....						
WTP	1,000	Y	Y	123687, 182937, 891237	-	-
WWTP	2,000	Y	Y	182973, 789237, 790877	-	-
Lift Station	N/A	Y	Y	5565747	-	-

Account Number: 55555555
 Invoice Number: 11111111111111
 Billing Date: March 15, 2018
 Page 3

YOUR SERVICE CHARGES

123 Street Name, City, TX 77777
 ESI-ID: 12345678987654321
 PO #:

Major REP Company : Current Charges

Meter# XXXXXXXX			
Service Period February 12, 2018 to March 12, 2018 Actual-Total		446.76 kW	
Meter Multiplier of 1			
Current meter read Actual-Total	March 12, 2018	1,276.3316	
Previous meter read	February 12, 2018	1,148.0789	
Current period consists of 28 days	Difference	128.2527	
Meter Multiplier of 600 x Difference of 128.2527 =			76,951.62 KVARh
PowerFactor = 0.888			
Current meter read Actual-Total	March 12, 2018	1,390.3106	
Previous meter read	February 12, 2018	1,235.5994	
Current period consists of 28 days	Difference	154.7112	
Meter Multiplier of 600 x Difference of 154.7112 =			92,826.72 kWh
PowerFactor = 0			

February 12, 2018 to March 12, 2018

Energy Charges - Fixed Price - 92,826.72 kWh Total @ \$0.03616/kWh	\$3,356.61
Energy Charges - Nodal Congestion - 92,826.72 kWh Total @ \$0.003277/kWh	\$304.22
Gross Receipts Reimb. - 0% Exempt	\$73.11
TX Puc Assessment - 0% Exempt	\$6.10
Total Current Charges	\$3,740.04

The average price you paid for electric service provided by Major REP Company this month is: \$0.039/kWh

REP Charges

What is relevant to my
energy consumption
tracking?
kWh

TDSP Charges

Oncor : Current Charges

Meter# XXXXXXXX			
Current meter read Actual-Total	March 12, 2018	1,276.3316	
Previous meter read	February 12, 2018	1,148.0789	
Current period consists of 28 days	Difference	128.2527	
Meter Multiplier of 600 x Difference of 128.2527 =			76,951.62 KVARh
PowerFactor = 0.888			
Service Period February 12, 2018 to March 12, 2018 Actual-Total		446.76 kW	
Meter Multiplier of 1			
Current meter read Actual-Total	March 12, 2018	1,390.3106	
Previous meter read	February 12, 2018	1,235.5994	
Current period consists of 28 days	Difference	154.7112	
Meter Multiplier of 600 x Difference of 154.7112 =			92,826.72 kWh
PowerFactor = 0			

February 12, 2018 to March 12, 2018

TRANSMISSION COST RECOVERY FACTOR \$779.93

METERING CHARGE	\$31.35
NUCLEAR DECOMMISSIONING CHARGE	\$26.18
CUSTOMER CHARGE	\$9.18
DISTRIBUTION SYSTEM CHARGE	\$2,640.41
ENERGY EFFICIENCY COST RECOVERY	\$41.22
RS46884	\$49.62
RCE46957	\$5.46

Gross Receipts Reimb. - 0% Exempt	\$71.04
TX Puc Assessment - 0% Exempt	\$5.93
Total Current Charges	\$3,660.32

The average price you paid for electric service provided by Oncor this month is: \$0.039/kWh

Contract Expiration Date: 06/30/2021

The average price you paid for electric service this month is: **\$0.078 /kWh**

TOTAL CHARGES FOR ESI-ID 12345678987654321 **\$7,400.36**

Tracking Utility Consumption

- What we have so far: Facilities & Accounts

- Fiscal Year Reporting – 12 months/invoices
 - FY2020: September 1st 2019 – August 31st 2020

- Which month was the consumption?
 - Depends on start/end dates
 - Start/end dates – differ by utility/service/meter
 - How to choose first and last bill for reporting?

Tracking Utility Consumption

- Dates on bill: ~~Statement Date, Bill Due Date,~~
Read Dates / Service Dates

Monthly Invoice

Statement Date: 04/04/2019

Customer Number: 7601160215

Total Amount Due by 07/01/2019 **\$71,669.88**

Previous Balance:	\$629,021.57
Payments Since Last Invoice:	-\$1,170,289.18
Unpaid Balance:	-\$541,267.61
Late/Finance Charges:	\$0.00
Credit/Adjustments:	\$0.00
Total New Charges:	\$612,937.49

Which month do I choose?

Read Dates: 04/04/2019 - 05/06/2019

Usage: 54,800.000

April

Service : 01/28/2019 To 02/26/2019 - 29 Days

February

Read Dates: 04/15/2019 - 05/15/2019

Usage: 34,720.000

April? May? Choose one!

*Make sure first and last day are close to FY dates to ensure entire 12 months of data is being reported

**How often do you
review and track utility
data?**

Manual Tracking

Meter: 62802855 **Service Address:**

Electricity

Account #: 123456789
Service Address: 123 Main St, City, TX 77777

Service From: 01/19/18 to 02/20/18
 Wholesale Power Cost 107,040 kWh \$5,841.28
 > 250 kW Service 107,040 kWh \$1,175.23
 (Includes \$150.00 Service Availability Charge)
 Demand Charge 506.88000 KW @ 6.00 \$3,041.28
 Key Account Program Credit \$-267.60
 Franchise Fee \$293.71
Current Charges \$10,083.90

Month	Start Date	End Date	Consumption (kWh)	Billed Demand (kW)	Demand Charges (\$)	Total Charges (\$)
1	1/19/18	2/20/18	107,040			\$10,083.90
2	2/20/18	3/20/18	98,880			\$9,580.58
3	3/20/18	4/17/18	109,440			\$10,227.40
4						
5						
6						
7						
8						
9						
10						
11						
12						
			Total(s):			

Meter: 62802855 **Service Address:**

Service From: 02/20/18 to 03/20/18
 Wholesale Power Cost 98,880 kWh \$5,395.98
 > 250 kW Service 98,880 kWh \$1,097.07
 (Includes \$150.00 Service Availability Charge)
 Demand Charge 509.28000 KW @ 6.00 \$3,055.68
 Key Account Program Credit \$-247.20
 Franchise Fee- \$279.05
Current Charges \$9,580.58

Meter: 62802855 **Service Address:**

Service From: 03/20/18 to 04/17/18
 Wholesale Power Cost 109,440 kWh \$5,972.25
 > 250 kW Service 109,440 kWh \$1,198.22
 (Includes \$150.00 Service Availability Charge)
 Demand Charge 505.44000 KW @ 6.00 \$3,032.64
 Key Account Program Credit \$-273.60
 Franchise Fee- \$297.89
Current Charges \$10,227.40

Do this for all utility accounts

Understanding Utility Bills & Tracking Consumption

Electricity

Account #: 123456789

Service Address: 123 Main St, City, TX 77777

Month	Start Date	End Date	Consumption (kWh)	Metered Demand (kW)	Billed Demand (kW)	Demand Charges (\$)	Total Charges (\$)
1	8/28/19	9/29/19	41,520	84	102	\$ 908.82	\$ 3,073.67
2	9/29/19	10/30/19	40,200	86	102	\$ 908.82	\$ 3,027.11
3	10/30/19	11/27/19	42,840	88	102	\$ 908.82	\$ 3,035.48
4	11/27/19	12/28/19	45,000	108	108	\$ 1,380.24	\$ 4,678.83
5	12/28/19	1/28/20	71,640	131	131	\$ 1,674.18	\$ 6,583.90
6	1/28/20	2/28/20	77,880	146	146	\$ 1,865.88	\$ 7,229.36
7	2/28/20	3/28/20	68,640	139	139	\$ 1,776.42	\$ 6,588.74
8	3/28/20	4/28/20	70,800	137	137	\$ 1,750.86	\$ 6,664.50
9	4/28/20	5/28/20	67,800	121	121	\$ 1,546.38	\$ 6,171.98
10	5/28/20	6/28/20	50,280	100	100	\$ 891.00	\$ 3,010.07
11	6/28/20	7/28/20	46,080	97	97	\$ 864.27	\$ 2,828.88
12	7/28/20	8/28/20	45,840	86	88	\$ 784.08	\$ 2,698.02
Total(s):			668,520	1,224	1,373	\$ 15,259.77	\$ 55,590.54

Electricity

Account #: 987654321

Service Address: 123 Main St, City, TX 77777

Month	Start Date	End Date	Consumption (kWh)	Metered Demand (kW)	Billed Demand (kW)	Demand Charges (\$)	Total Charges (\$)
1	9/2/19	10/4/19	20,760	42	51	\$ 454.41	\$ 1,536.84
2	10/4/19	11/4/19	20,100	43	51	\$ 454.41	\$ 1,513.56
3	11/4/19	12/2/19	21,420	44	51	\$ 454.41	\$ 1,517.74
4	12/2/19	1/2/20	22,500	54	54	\$ 690.12	\$ 2,339.42
5	1/2/20	2/2/20	35,820	65	66	\$ 837.09	\$ 3,291.95
6	2/2/20	3/4/20	38,940	73	73	\$ 932.94	\$ 3,614.68
7	3/4/20	4/2/20	34,320	70	70	\$ 888.21	\$ 3,294.37
8	4/2/20	5/3/20	35,400	68	69	\$ 875.43	\$ 3,332.25
9	5/3/20	6/2/20	33,900	61	61	\$ 773.19	\$ 3,085.99
10	6/2/20	7/3/20	25,140	50	50	\$ 445.50	\$ 1,505.04
11	7/3/20	8/2/20	23,040	49	49	\$ 432.14	\$ 1,414.44
12	8/2/20	9/2/20	22,920	43	44	\$ 392.04	\$ 1,349.01
Total(s):			334,260	662	687	\$ 7,629.89	\$ 27,795.27

Electricity

FACILITY: CITY HALL

Square Ft: 15,000

Account #s: 123456789, 987654321

Month	Consumption (kWh)	Metered Demand (kW)	Billed Demand (kW)	Demand Charges (\$)	Total Charges (\$)
1	62,280	126	153	\$ 1,363.23	\$ 4,610.51
2	60,300	130	153	\$ 1,363.23	\$ 4,540.67
3	64,260	131	153	\$ 1,363.23	\$ 4,553.22
4	67,500	162	162	\$ 2,070.36	\$ 7,018.25
5	107,460	196	197	\$ 2,511.27	\$ 9,875.85
6	116,820	220	219	\$ 2,798.82	\$ 10,844.04
7	102,960	209	209	\$ 2,664.63	\$ 9,883.11
8	106,200	205	206	\$ 2,626.29	\$ 9,996.75
9	101,700	182	182	\$ 2,319.57	\$ 9,257.97
10	75,420	149	150	\$ 1,336.50	\$ 4,515.11
11	69,120	146	146	\$ 1,296.41	\$ 4,243.32
12	68,760	130	132	\$ 1,176.12	\$ 4,047.03
Total(s):	1,002,780	1,985	2,060	\$ 22,889.66	\$ 83,385.81

Do this for all facilities!

SECO Reporting - Electricity

SECTION 4: Electricity Consumption Period

Enter annual electrical usage in kWh for the reporting period indicated above.

Buildings (kWh):

Buildings gross square
footage:

Traffic lighting (kWh):

Number of traffic lights:

Street lighting (kWh):

Number of street lights:

Water (pumps) facilities
(kWh):

Number of water
customers served:

Wastewater facilities
(kWh):

Number of wastewater
customers served:

City Hall, Libraries, Fire
Stations, parks, etc.

Water Treatment Plants,
pump stations, etc.

Wastewater Treatment
Plants, lift stations, etc.

REQUIRED: Total electricity consumption (kWh):

Should be sum of kWh
from above

SECO Reporting - Electricity

- Buildings
 - City Hall, libraries, police/fire stations, storage facilities, parks, etc.
 - Sum of square footage of buildings

- Traffic Lights
 - Quantity

- Street Lights
 - Quantity

SECO Reporting - Electricity

- Water (pumps) facilities (kWh)
 - Number of water customers served
 - Water Treatment Plants (WTP)
 - Booster pump stations

- Wastewater Facilities (kWh)
 - Number of wastewater customers served
 - Wastewater Treatment Plants (WWTP)
 - Lift stations

- Get with your Public Works Department

Natural Gas

- *Optional Reporting*
- Consumption Units (CCF, **MCF**, BTU, therms)
 - Unit Conversions: ex: 1 MCF = 10 CCF
(get assistance from utility representative)
- Billing Components
 - Service Charges, Consumption Charges, Taxes, Total

SECTION 5: Natural Gas Consumption Data (optional)

Enter annual natural gas consumption for the reporting period indicated above.

Unit of measure (CCF,
BTU, Therms):

Buildings:

Water (pumps) facilities:

Wastewater facilities:

Other:

**Total natural gas
consumption:**

Natural Gas

Your Billing Detail Information:

Meter Serial #	Date of Service		Meter Reading	
	From	To	Previous	Present
006344862	6/14/17	7/13/17	15810	15850
Read Difference:				40.00
Actual Usage in CCF:				40.00

Your Charges:

PREVIOUS BALANCE	59.38
Payment Received 06/30/2017	-59.38
CURRENT GAS CHARGE TOTAL	70.09
Commercial C021	
Customer Charge	44.66
Consump Chrg 40.000 @ 0.09279	3.71
Rider GCR 40.000 @ 0.5429	21.72
TAX/FEE CHARGE TOTAL	4.20
Rider FF @ 0.03878	2.72
Rider Tax @ 0.02037	1.48
CURRENT CHARGES	74.29
TOTAL AMOUNT DUE	74.29

Natural Gas

Account #: 987654321

Service Address: 123 Main St, City, TX 77777

Month	Start Date	End Date	Consumption (CCF)	Total Charges (\$)
1	6/14/17	7/13/17	40	\$74.29
2				
...				
12				
Total(s):				

For all utilities: Always track "Current Charges" and not "Total Amount Due"
These may differ if previous payment hasn't processed



Warning: It's possible that accounts may be in different units (CCF vs MCF)

Water

- *Optional* Reporting
- Consumption Units
 - Gallons, hundred gallons, kGal, ccf, etc.
 - Unit Conversions
- Billing Components
 - Meter Charges, Consumption Charges, Sewer Charge, Taxes

SECTION 6: Water Consumption Data (optional)

Enter annual water consumption for the reporting period indicated above.

Buildings (gallons):

Water (pumps) facilities
(gallons):

Wastewater facilities
(gallons):

Other (gallons):

**Total water consumption
(gallons):**

Water

WATER UTILITY					
Service from	1/17/19	to	2/16/19		
Service Provided	Meter Number	Meter Size	Read Previous	Read 2/16/19	Usage in 1000 Gals
Water	123456	5/8"	1,201	1,207	6
Sewer					6
Meter Charge		5/8"			\$25.00
Water Consumption @			\$8.37		\$50.22
Sewer Charge @			\$1.12		\$6.72
SUBTOTAL					\$81.94
Local Taxes @		2.25%			\$1.84
CURRENT CHARGES					<u>\$83.78</u>
TOTAL AMOUNT DUE					<u>\$83.78</u>

Check units!

Water

Account #: 1000234
Service Address: 123 Main St, City, TX 77777

Month	Start Date	End Date	Consumption (kGal)	Total Charges (\$)
1	1/17/19	2/16/19	6	\$83.78
2				
...				
12				
Total(s):				



Warning:
Units may vary across
different accounts

Electric Bill Summary

- Customer/Meter Charges
- Consumption (kWh) Charges
 - \$/kWh
 - Mostly REP charges
 - Negotiable Rate (*mostly*)
- Demand (kW) Charges
 - \$/kW
 - Mostly TDSP charges
 - Subject to Demand adjustments
- Riders
- Total Charges

AEP TEXAS - NORTH DIVISION
TARIFF FOR ELECTRIC DELIVERY SERVICE
Applicable: Certified Service Area previously served by AEP Texas North Company
Chapter: 6 Section: 6.1.1
Section Title: Delivery System Charges
Revision: Eighth Effective Date: October 1, 2017

**6.1.1.1.3 SECONDARY VOLTAGE SERVICE
GREATER THAN 10 KW**

MONTHLY RATE

I. Transmission and Distribution Charges:

Customer Charge			
Non-IDR Metered	\$4.25	per Retail Customer	per Month
IDR Metered	\$26.00	per Retail Customer	per Month
Metering Charge			
Non-IDR Metered	\$18.68	per Retail Customer	per Month
IDR Metered	\$35.00	per Retail Customer	per Month
Transmission System Charge			
Non-IDR Metered	\$1.245	per NCP kW Billing Demand	
IDR Metered	\$1.953	per 4CP kW Billing Demand	

Distribution System Charge

MUNICIPAL STREET LIGHTING FACILITIES RATE

Description	Code	kWh	Facilities Price
Mercury Vapor			
175 Watt	932	70	\$4.84
400 Watt	935	160	\$8.87
Twin 400 Watt	936	320	\$12.50
High Pressure Sodium			
70 Watt	944	28	\$4.71
100 Watt	945	39	\$5.59
150 Watt	946	57	\$4.97
250 Watt	947	104	\$7.39
400 Watt	949	165	\$8.77
Twin 150 Watt	948	114	\$12.38
Twin 250 Watt (b)	950	208	\$13.76
1000 Watt (d)	955	367	\$5.86

Demand (kW)

- Peak power draw
 - kW vs kWh
- 15% to 45% of total charges for commercial accounts
- Billing Demand Adjustments
 - Metered Demand (kW) vs Billed Demand (kW)
 - Charges applied to Billed Demand
 - **Ratchet Clause**
 - **Power Factor**
 - Minimum Demand

Demand Billing Adjustments

- 80% Ratchet Clause – computes the larger of the metered kW in the billing period *or* 80% of the highest metered demand in the previous 11 months
- Power Factor – Ratio of actual power being used by a facility to the apparent power that the utility must make available
 - Minimum PF required = 95% (typically)

What is Portfolio Manager?

- Developed by EPA and DOE as part of ENERGY STAR Program
- Online energy and water tracking tool

Basic Meter Information

Monthly Entries

Display Year(s): 2019 x 2018 x

Show All Years

	Start Date	End Date	Usage kWh (thousand Watt-hours)	Total Cost (\$)	Estimation	2018	2019
<input type="checkbox"/>	1/1/2018	2/1/2018	134,959	13,863.03	<input type="checkbox"/>	<input type="checkbox"/>	666
<input type="checkbox"/>	2/1/2018	3/1/2018	211,697	17,255.72	<input type="checkbox"/>	<input type="checkbox"/>	695
<input type="checkbox"/>	3/1/2018	4/1/2018	196,982	16,693.17	<input type="checkbox"/>	<input type="checkbox"/>	702
<input type="checkbox"/>	4/1/2018	5/1/2018	233,502	18,303.16	<input type="checkbox"/>	<input type="checkbox"/>	684
<input type="checkbox"/>	5/1/2018	6/1/2018	258,846	19,853.99	<input type="checkbox"/>	<input type="checkbox"/>	791
<input type="checkbox"/>	6/1/2018	7/1/2018	287,400	21,454.97	<input type="checkbox"/>	<input type="checkbox"/>	837



Property Details

Update Property Use Details

It is important to keep the information about how your property is used up to date since this information is used to calculate your performance metrics. Updates that you make here are tracked as part of the [History Log](#). To correct an error that you find, use the [History Log](#). Note: you do not need to provide any new information for details you aren't updating.

Property Use Name: *

Type of Use:

Hover Over
for
Description

Detail	Current Value	Updated Value	Current As Of	Temporary Value
★ Gross Floor Area	20123 Sq. Ft. (as of 01/01/1985)	<input type="text"/> Sq. Ft. ▾	<input type="text"/> 📅	<input type="checkbox"/>
★ Weekly Operating Hours	65 (as of 01/01/1985)	<input type="text"/> <input type="checkbox"/> Use a default	<input type="text"/> 📅	<input type="checkbox"/>
★ Number of Workers on Main Shift	46.2829 (as of 01/01/1985)	<input type="text"/> <input type="checkbox"/> Use a default	<input type="text"/> 📅	<input type="checkbox"/>
★ Number of Computers	40.246 (as of 01/01/1985)	<input type="text"/> <input type="checkbox"/> Use a default	<input type="text"/> 📅	<input type="checkbox"/>
Percent That Can Be Heated	50 % or more (as of 01/01/1985)	<input type="text"/> ▾ <input type="checkbox"/> Use a default	<input type="text"/> 📅	<input type="checkbox"/>
★ Percent That Can Be Cooled	50 % or more (as of 01/01/1985)	<input type="text"/> ▾ <input type="checkbox"/> Use a default	<input type="text"/> 📅	<input type="checkbox"/>

★ This Use Detail is used to calculate the 1-100 ENERGY STAR Score.

Property Meter Entries

Display Year(s): 2016

	Start Date	End Date	Usage kWh (thousand Watt-hours)	Total Cost (\$)	Estimation	Green Power	Demand (kW)	Demand Cost (\$)	Last Update
<input type="checkbox"/>	1/1/2016	1/31/2016	6,912	858.20	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	2/1/2016	2/29/2016	7,488	940.06	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	3/1/2016	3/31/2016	7,360	969.64	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	4/1/2016	4/30/2016	9,408	1,245.37	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	5/1/2016	5/31/2016	10,880	1,404.12	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	6/1/2016	6/30/2016	14,656	1,809.91	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	7/1/2016	7/31/2016	12,608	1,758.18	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	8/1/2016	8/31/2016	15,616	1,872.59	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	9/1/2016	9/30/2016	15,552	1,780.88	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	10/1/2016	10/31/2016	10,816	1,318.15	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	11/1/2016	11/30/2016	8,192	1,023.12	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo
<input type="checkbox"/>	12/1/2016	12/31/2016	7,744	996.53	<input type="checkbox"/>	<input type="checkbox"/>			7/27/2017 Data Impo

Delete Selected Entries Download to Green Button XML Download to Excel
 Add Another Entry
 Learn how to copy/paste
 Delete All Entries

Upload data in bulk for this meter:

You can use the single-meter spreadsheet to either: "Upload" the file below, or copy and paste the data from the spreadsheet into the table above ([instructions in this FAQ](#)). Use this single-meter [spreadsheet template](#).

Choose File No file chosen Upload

Existing Entries

Bulk upload for one account

Add New (Single) Entry/Bill

Things to Watch Out For

- Start/end dates
- Consumption units
- Current charges vs amount due
- Gathering data – Contact Utility Representative

Next Steps

- Start preparation for FY2020 Utility Reporting
- Create a system to review bills regularly
- Establish baselines from FY2019 data submitted
 - kWh/sf for each facility
 - EUI = kBTU/sf/yr
 - ECI = \$/sf/yr
 - Compare year to year!

NCTCOG Local Government Energy Reporting Resources



Free individualized assistance to entities interested in learning more about the local government energy reporting requirements, how to fill out the annual reporting form, and answer any questions.



Working group of local governments to identify barriers preventing compliance to the state mandated local government energy reporting requirements and potential opportunities to improve the effectiveness of the requirement.

Interested in joining the working group? Email **Bailey Muller** at bmuller@nctcog.org for more information

NCTCOG Local Government Energy Reporting Resources



- **Whitepaper: Local Government Energy Reporting -**
<http://conservenorthtexas.org/case-studies/whitepaper-local-government-energy-reporting-requirements-texas>
- **Case Study: The City of Lewisville's Energy Consumption Reduction -**
<http://conservenorthtexas.org/case-studies/case-study-city-lewisvilles-energy-consumption-reduction>
- **Case Study: Development of an Energy Management Plan for Tarrant Regional Water District –** <http://conservenorthtexas.org/case-studies/case-study-development-energy-management-plan-tarrant-regional-water-district>
- **Energy Efficiency Reporting Requirements in Texas Matrix -**
https://www.nctcog.org/nctcg/media/Environment-and-Development/Documents/Natural%20Resources/Energy/CURRENT_EnergyReportingRequirements_TX.pdf
- **Local Government Energy Reporting Toolkit-**
<http://conservenorthtexas.org/item/local-government-energy-reporting-toolkit>

Upcoming NCTCOG Procurement Webinar Series

- **Part 1:** Procuring Energy Efficiency Projects for Facilities and Services
- **Part 2:** How to Support Your Community in Reducing Energy Consumption

Slated for May 2020

Thank You!

TEESI  Engineering

Chris Pettit

TEESI Engineering
chris.pettit@teesi.com
512-328-2533
www.teesi.com



Bailey Muller
Senior Air Quality Planner
(817) 695-9299
bmuller@nctcog.org

Dorothy Gilliam
Air Quality Planner
(817) 704-5675
dgilliam@nctcog.org