

# Market-based Electricity Use - Calculation & S

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This sheet is where Scope 2 emissions fr

Electricity use by department shows the instruments that are associated with dir contractual instrument entered on the E emissions rates. Next, location-based er contractual instruments. If more than on is equally divided and subtracted from t emissions from contractual instruments

## GHG Summary

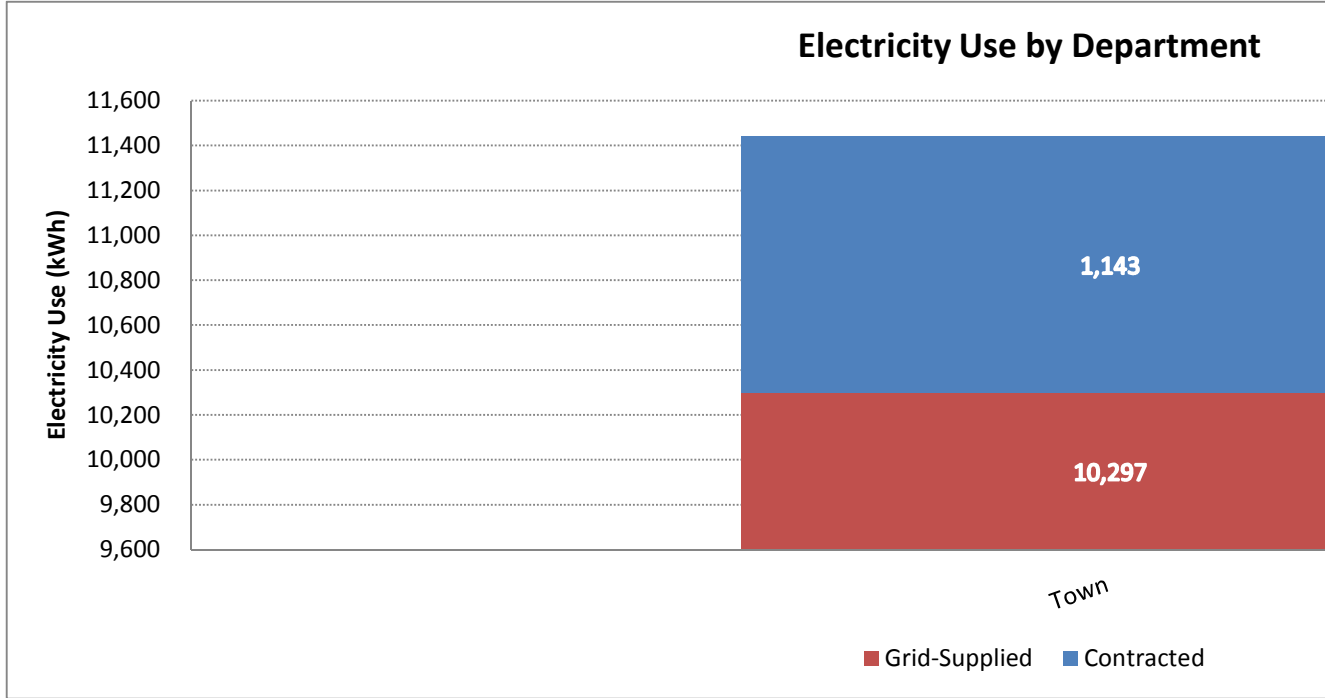
Emissions by Department (in MT CO <sub>2</sub> e)				
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total
Town	-	-	-	-
Total Emissions from Electricity Use	-	-	-	-

Emissions by Department



## Electricity Summary

Electricity Use by Department (in kWh)				
Department	Grid-Supplied kWh	Contracted kWh	Total kWh	Market-Based kWh
Town	10,297	1,143	11,440	9,154
<b>Total Electricity Use</b>	<b>10,297</b>	<b>1,143</b>	<b>11,440</b>	<b>9,154</b>



## Background Calculations

### Market-Based Calculations

#### CO<sub>2</sub> Emissions by Contractual Instrument

$$\text{Emissions} = \text{Electricity Consumed (kWh)} \times \text{Emissions Factor (lb CO}_2\text{/MWh)} \times \text{MWh/kWh} \times \text{MT/lb} \times \text{CO}_2 \text{ GWP}$$

Contractual Instrument/Utility	kWh	EF (lb		MWh/kWh	MT/lb	MT CO <sub>2</sub>
		CO <sub>2</sub> /MWh)				
NEXAMP solar	1,143	-		0.001	0.000454	-
NEXAMP	-	-		0.001	0.000454	-
NEXAMP	-	-		0.001	0.000454	-
NEXAMP solar	1,143	-		0.001	0.000454	-
NEXAMP solar	1,143	-		0.001	0.000454	-
NEXAMP solar	1,143	-		0.001	0.000454	-

#### CH<sub>4</sub> Emissions by Contractual Instrument

$$\text{Emissions} = \text{Electricity Consumed (kWh)} \times \text{Emissions Factor (lb CH}_4\text{/MWh)} \times \text{MWh/kWh} \times \text{MT/lb} \times \text{CH}_4 \text{ GWP}$$

Contractual Instrument/Utility	kWh	EF (lb		MWh/kWh	MT/lb	MT CH <sub>4</sub>
		CH <sub>4</sub> /MWh)				
NEXAMP solar	1,143	0.0000		0.001	0.000453592	-
NEXAMP	-	-		0.001	0.000453592	-

NEXAMP	-	-	0.001	0.000453592	-
NEXAMP solar	1,143	0.0000	0.001	0.000453592	-
NEXAMP solar	1,143	0.0000	0.001	0.000453592	-
NEXAMP solar	1,143	0.0000	0.001	0.000453592	-

### N<sub>2</sub>O Emissions by Contractual Instrument

*Emissions = Electricity Consumed (kWh) × Emissions Factor (lb N<sub>2</sub>O/MWh) × MWh/kWh × MT/lb × N<sub>2</sub>O GWP*

Contractual Instrument/Utility	kWh	EF (lb N <sub>2</sub> O/MWh)	MWh/kWh	MT/lb	MT N <sub>2</sub> O
NEXAMP solar	1,143	0.00	0.001	0.000453592	-
NEXAMP	-	-	0.001	0.000453592	-
NEXAMP	-	-	0.001	0.000453592	-
NEXAMP solar	1,143	0.0000	0.001	0.000453592	-
NEXAMP solar	1,143	0.0000	0.001	0.000453592	-
NEXAMP solar	1,143	0.0000	0.001	0.000453592	-

### Activity Data by Department and Contractual Instrument

*Electricity use data by department and fuel type (kWh)*

Department	NEXAMP solar	NEXAMP	NEXAMP	NEXAMP solar	XAMP solar
<b>Town</b>	1,143	-	-	1,143	1,143
<b>Total</b>	1,143	-	-	1,143	1,143

### CO<sub>2</sub> Emissions by Department and Contractual Instrument

*Emissions = Electricity Consumed (kWh) × Emissions Factor (lb CO<sub>2</sub>/MWh) × MWh/kWh × MT/lb × CO<sub>2</sub> GWP*

Department	NEXAMP solar	NEXAMP	NEXAMP	NEXAMP solar	XAMP solar
<b>Town</b>	-	-	-	-	-
<b>Total</b>	-	-	-	-	-

### CH<sub>4</sub> emissions by Department and Contractual Instrument

*Emissions = Electricity Consumed (kWh) × Emissions Factor (lb CH<sub>4</sub>/kWh) × MWh/kWh × MT/lb × CH<sub>4</sub> GWP*

Department	NEXAMP solar	NEXAMP	NEXAMP	NEXAMP solar	XAMP solar
<b>Town</b>	-	-	-	-	-
<b>Total</b>	-	-	-	-	-

### N<sub>2</sub>O emissions by Department and Contractual Instrument

*Emissions = Electricity Consumed (kWh) × Emissions Factor (lb N<sub>2</sub>O/kWh) × MWh/kWh × MT/lb × N<sub>2</sub>O GWP*

Department	NEXAMP solar	NEXAMP	NEXAMP	NEXAMP solar	XAMP solar
<b>Town</b>	-	-	-	-	-
<b>Total</b>	-	-	-	-	-

## Adjusted Location-Based Calculations

### Activity Data by Department and Utility

*Electricity use data by department and fuel type (kWh)*

Department	NYUP	-	-	-	-
<b>Town</b>		5,725	-	-	-
<b>Total</b>		5,725	-	-	-

**CO<sub>2</sub> Emissions by Department and Utility**

*Emissions = Electricity Consumed (kWh) × Utility Emissions Factor (lb CO<sub>2</sub>/MWh) × MWh/kWh × MT/lb × CO<sub>2</sub> GWP*

Department	NYUP	-	-	-	-
<b>Town</b>		-	-	-	-
<b>Total</b>		-	-	-	-

**CH<sub>4</sub> emissions by department and utility**

*Emissions = Electricity Consumed (kWh) × Utility Emissions Factor (lb CH<sub>4</sub>/kWh) × MWh/kWh × MT/lb × CH<sub>4</sub> GWP*

Department	NYUP	-	-	-	-
<b>Town</b>		-	-	-	-
<b>Total</b>		-	-	-	-

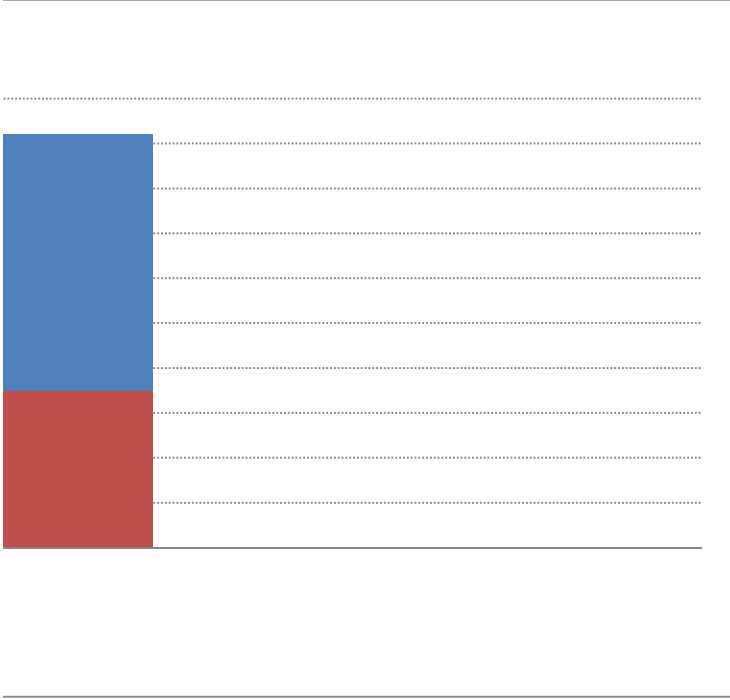
**N<sub>2</sub>O emissions by department and utility**

*Emissions = Electricity Consumed (kWh) × Utility Emissions Factor (lb N<sub>2</sub>O/kWh) × MWh/kWh × MT/lb × N<sub>2</sub>O GWP*

Department	NYUP	-	-	-	-
<b>Town</b>		-	-	-	-
<b>Total</b>		-	-	-	-







× GWP =	MT CO <sub>2</sub> e
1	-
1	-
1	-
1	-
1	-
1	-

× GWP =	MT CO <sub>2</sub> e
25	-
25	-

25	-
25	-
25	-
25	-

× GWP =	MT CO <sub>2</sub> e
298	-
298	-
298	-
298	-
298	-
298	-

NEXAMP solar	TOTAL
1,143	4,572
1,143	<b>4,572</b>

NEXAMP solar	TOTAL
-	-
-	-

NEXAMP solar	TOTAL
-	-
-	-

NEXAMP solar	TOTAL
-	-
-	-

-	<b>TOTAL</b>
-	5,725
-	5,725

-	<b>TOTAL</b>
-	-
-	-

-	<b>TOTAL</b>
-	-
-	-

-	<b>TOTAL</b>
-	-
-	-

# t Operations Module