PSC REF#:418047

Public Service Commission of Wisconsin
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OEI
Wisconsin Office of Energy Innovation

Public Service Commission of Wisconsin
Office of Energy Innovation
Critical Infrastructure Microgrid and
Community Resilience Center Pilot Grant
Program

ATTACHMENT A - COVER SHEET

SECTION I - Provide information summarizing the project proposal.		
Project Title:	Florence Elementary School Emergency Shelter	
PSC Grant Request ($):	**Applicant Cost Share ($):**	**Project Total ($):**
$50,000	$29,500	$79,500
Choose one Eligible Activity		
☐ Critical Infrastructure Microgrid Feasibility Study Level 1 and 2	☐ Critical Infrastructure Microgrid Feasibility Study Level 3	X Community Resilience Center Feasibility Study

SECTION II - Provide information for your organization, signatory, and primary contact for the project.				
Applicant Type:	☐ City	☐ Village	☐ Town	☐ County
☐ Tribal Nation		☐ Wisconsin Technical College System		
☐ University of Wisconsin System		☐ K-12 School District	☐ 501(c)(3) nonprofit	
X Municipal Utility (water, wastewater, electric, natural gas)			☐ Hospital (public or nonprofit)	

Name (on W-9):	City of Florence Utility Commission
Address (on W-9):	501 Spring Ave. Florence, WI 54121
County or Counties Served by Project:	Florence
DUNS Number or CAGE Code:	030194286
NAICS Code:	221122

Authorized Representative/Signatory (Person authorized to submit applications and sign contracts)		**Primary Contact** (if different from Authorized Representative)
Name:	Kevin Inman	**Name:**
Title:	General Manager	**Title:**
Phone:	715-598-8530	**Phone:**
E-mail:	kinman@florwi.org	**E-mail:**
Signature of the Authorized Representative		

Attachment B - Budget Sheet

Florence Utilities
Florence Elementary School Emergency Shelter

Summary of Project Budget				
Line	Description	PSC Grant Request	Applicant Cost Share	Total Project Cost
1	Personnel		$17,500	$17,500
2	Fringe			$0
5	Travel			$0
6	Contractual	$50,000	$12,000	$62,000
7	Other			$0
8	Indirect			$0
	Totals	$50,000	$29,500	$79,500
	% of Total	63%	37%	

Applicant Comments:

Florence Utilities (applicant): Cost Share = $7,500 75 (hours of in-kind labor at an estimated $100/hr blended rate), Grant Request = $50,000 (to fund contract with SEPA)

SEPA: Cost Share = $12,000 (industry outreach), Grant Request = $0 ($50,000 contract through applicant)

School District of Florence County: Cost Share = $5,000 (50 hours of in-kind labor at an estimated $100/hr blended rate)

WPPI: Cost Share = $5,000 (50 hours of in-kind labor at an estimated $100/hr blended rate)

1.0 Project Description

Florence Utilities is an electrical distribution utility that serves the Village of Florence and Florence County. One of our major customers is the School District of Florence County and the Florence Elementary School.

Florence Utilities is interested in developing a designated emergency shelter at the existing Florence Elementary School located at 5844 Bill Anderson Drive in Florence, Wisconsin. A designated shelter at the elementary school could serve a population of 4,295. The elementary school is equipped with a full kitchen that could feed a large amount of people. In Florence County, roughly 27% of the population is age 65 and over so it is critical to designate a shelter to serve elderly customers, while giving these individuals a safe place to access medical equipment such as oxygen. The elementary school can also provide shelter for the following emergency services during a power outage event:

- Shelter for lineman restoring power
- Aid emergency response organizations
- Offer a place for refueling if gas pumps are down
- Provide a registered nurse for any minor medical care needs
- Shelter for special needs individuals

Previously, there was a 480 kilowatt (kW) diesel generator installed at the elementary school to provide emergency power generation and to serve the emergency shelter described above. However, the generator has failed and Florence Utilities along with the School District of Florence County is interested in pursuing a microgrid feasibility investigation in order to evaluate a microgrid system to serve the emergency shelter.

2.0 Merit Review Criteria

Identification of Critical Infrastructure

The elementary school will be utilized by Florence County and the Village of Florence as an emergency shelter during grid outages and other events. Examples of critical services to be provided by the emergency shelter are as follows:

- Phone charging
- Cook stoves
- Space heating
- Air conditioning
- Food preparation and storage
- Medical

- Refrigeration
- Oxygen
- WiFi
- Server storage
- Charge critical tools
- Emergency response capabilities

Replacing the obsolete generator would provide our community confidence in a safe place in the event of an outage emergency. This project would evaluate the feasibility of a microgrid project to provide critical power services to the Florence Elementary School as a shelter for area residents when evacuations are necessary.

Key Partners and Stakeholders

Florence Utilities plans on working directly with the Smart Electric Power Alliance (SEPA), who will lead the development of the microgrid feasibility study. Key partners to the project team will also include the School District of Florence County and WPPI, as listed in Table 2.1. Other key stakeholders, listed in Table 2.2, will be engaged regularly throughout the development of the study.

*Table 2.1 - **Core Project Team and Responsibilities***

Project Partners	Responsibility	Role
Florence Utilities	Technical and strategic support	Local electric distribution utility and applicant
School District of Florence County	Technical and strategic support	End-use customer
Smart Electric Power Alliance (SEPA)	Stakeholder engagement and technical assistance	Microgrid feasibility study lead
WPPI	Technical and strategic support	Electric wholesale supplier

Source: Smart Electric Power Alliance, 2021

*Table 2.2 - **Key Stakeholders and Responsibilities***

Key Stakeholders	Responsibility	Role
Town of Florence	Strategic support	Town served by the emergency shelter

Florence County Highway Commissioner	Strategic support	Emergency service accessing emergency shelter
Florence County Fire Chief	Strategic support	Emergency service accessing emergency shelter
Florence County Emergency Management	Strategic support	Emergency agency coordinating with emergency shelter

Source: Smart Electric Power Alliance, 2021

Project Resilience Objectives and Metrics

Extreme weather events threaten damage to the electrical system and disruption of power supply. These weather events are increasing both in frequency and economic impact in Wisconsin, causing prolonged outages, and disproportionately impacting underserved communities. This project presents the opportunity to collaborate with the community, propose and evaluate a solution to insulate critical services from the impacts of prolonged outages, and ultimately build community resilience. The study will identify a microgrid as a resiliency solution, develop microgrid designs that incorporate varying power supply technologies, and utilize stakeholder input to evaluate the feasibility of each microgrid design.

The feasibility study methodology included the following primary tasks completed by the project team:

1. **Stakeholder Engagement:** The project team will convene a group of key industry and community stakeholders to discuss the feasibility of a microgrid project at the Florence Elementary School Emergency Shelter .
2. **Data Collection:** The project team will collect community, utility, and energy consumption data relevant to the system sizing and financial and environmental impact analysis of a potential microgrid at the emergency shelter.
3. **System Sizing and Analysis**: The project team will evaluate up to four (4) preliminary microgrid scenarios. Based on stakeholder feedback, the project team will conduct a detailed system design of one of the modeled scenarios. The sizing and analysis will consider community function as the primary resilience objective and metric: Providing power to the emergency shelter to provide critical services when the grid is down is of utmost importance for the microgrid design and study.
4. **Financial and Environmental Impact Analysis**: The project team will conduct a benefit-cost analysis of one of the modeled scenarios to determine economic feasibility.

*Figure 2.0 - **Feasibility Study Methodology***

Source: Smart Electric Power Alliance, 2021

Evaluation of Site-Specific Information

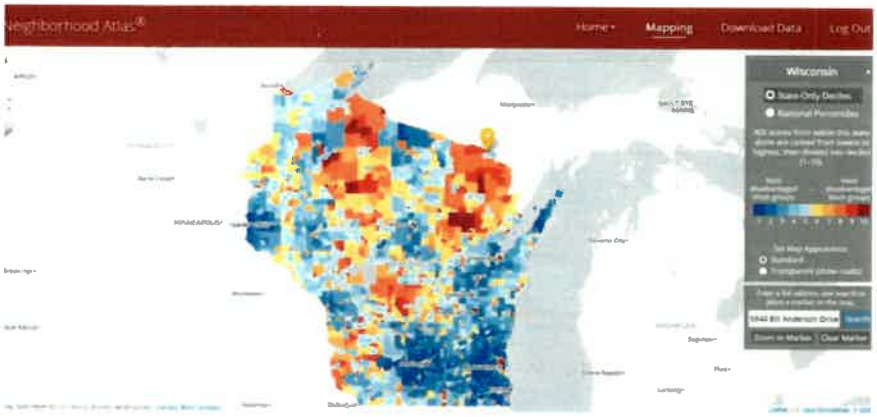
The elementary school is located at the end of Bill Anderson Drive as seen in Figure 2.1 below. The elementary school facility footprint is 54,000 square feet and sits on a parcel that is 35.575 acres. The existing site has a 480 kW diesel standby generator that is no longer functioning and will be removed. This proposed microgrid study would evaluate the feasibility of installing solar PV, battery energy storage, and natural gas standby back-up generation, along with microgrid controller functionality to allow for sustained islanding capabilities during a grid outage.

*Figure 2.1 - **Site Boundaries and Aerial Imagery***

Source: Statewide Parcel Map Initiative, V7 Statewide Parcel Data (2021) and GeoData@Wisconsin, WROC Aerial Mosaic (WTM) Florence County, WI 2020 (2020)

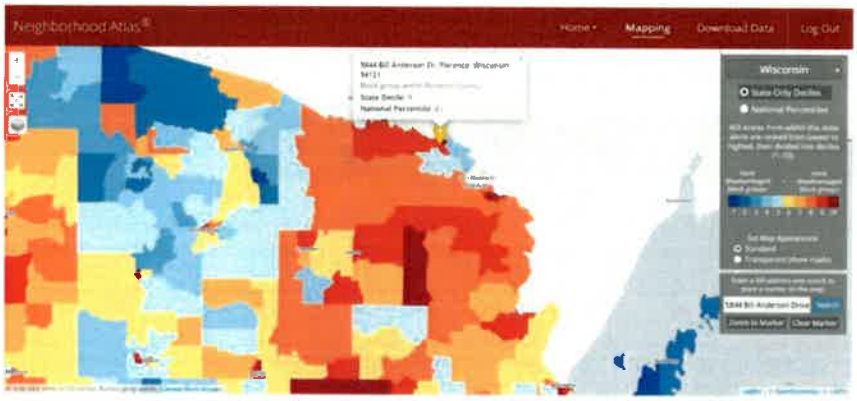
Figure 2.2 and 2.3 below show census block groups in Wisconsin categorized by their Area Deprivation Index score. The yellow marker on the map indicates the location of the site. The emergency shelter site is near some of the most disadvantaged census block groups in the state.

*Figure 2.2 - **State View: Area Deprivation Index by Census Block Group***



Source: University of Wisconsin-Madison, Neighborhood Atlas Map (2021)

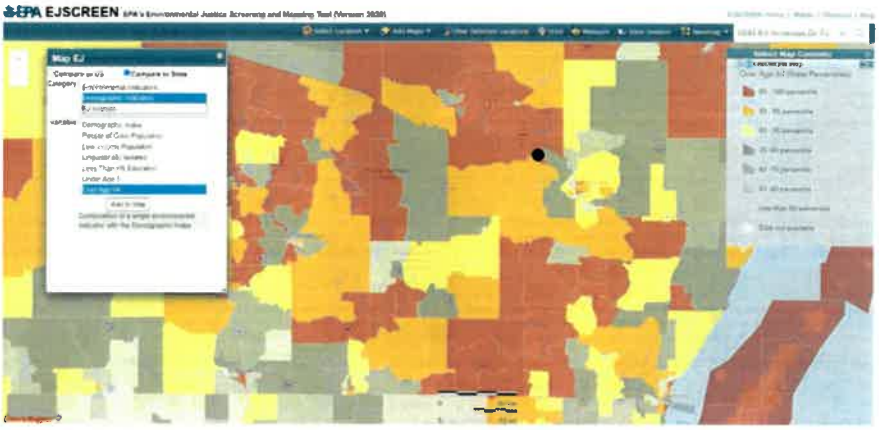
Figure 2.3 - ***Local View: Area Deprivation Index by Census Block Group***



Source: University of Wisconsin-Madison, Neighborhood Atlas Map (2021)

The EPA's Environmental Justice Screening and Mapping tool, highlighted in Figure 2.4 below, shows that the emergency shelter site is located in an area where the percent of the population that is over the age of 64 is in the 90-100th percentile of the state, making this an intriguing site for equitable resilience benefits.

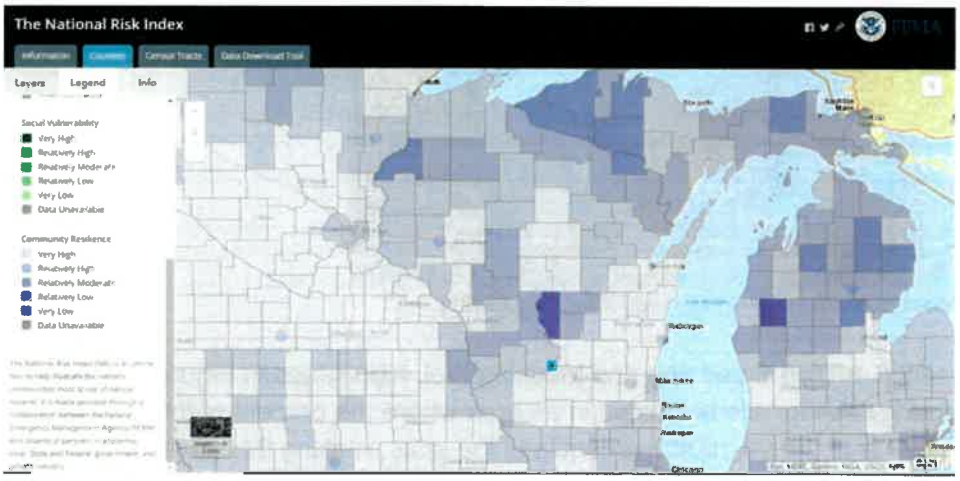
Figure 2.4 - ***Percentile of Population over 64 by Census Block***



Source: Environmental Protection Agency, EJSCREEN (2020)

Figures 2.5 indicates that the emergency shelter site is located in an area that has relatively low to relatively moderate community resilience risk.

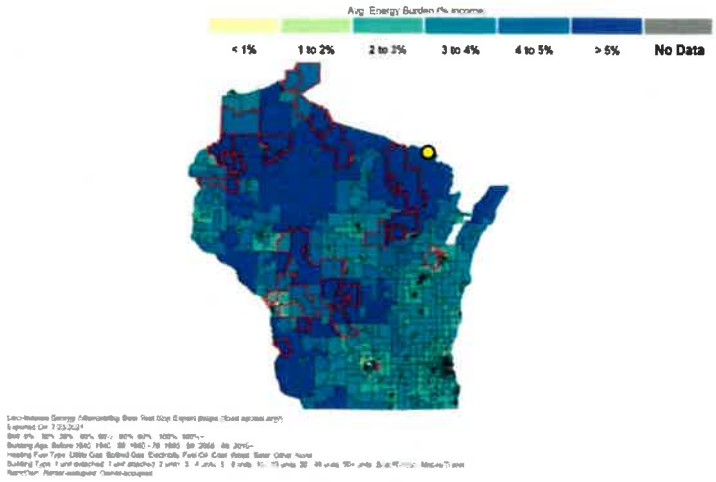
Figure 2.5 - ***Level of Community Resilience by County***



Source: FEMA, The National Risk Index (2021)

Figures 2.6 indicates that the emergency shelter site is located in an area where the energy burden is significant (>5%). The red outline on Figure 2.6 also delineates indigienous land, which is also adjacent to the emergency shelter, making this an intriguing microgrid project for disadvantaged community access.

Figure 2.6 - ***Average Energy Burden Near Proposed Site***



Source: Department of Energy, Low-Income Energy Affordability Data (LEAD) Tool (2021)

Technologies Under Consideration

The existing facility previously had a 480 kW diesel standby generator that is no longer functioning. The proposed microgrid study for the emergency shelter will consider solar PV, battery energy storage, and natural gas generation technologies, as well as microgrid controller technologies. Given the site's existing natural gas feed-in, including the consideration of natural gas will allow for scenarios of longer duration that are more cost effective. The site will be assessed for solar potential to determine how much solar PV can be installed on-site. Battery energy storage will be assessed to smooth the solar generation and allow for charging to occur for resilience benefits and energy cost savings.

This microgrid study will evaluate different technologies to provide resilience benefits at the site, including but not limited to solar PV, battery energy storage, natural gas generation, and microgrid capabilities.

Cost Match

The grant request is for a total of $50,000, with a cost share of $29,500 bringing the project total to $79,500. The cost share includes in-kind labor contributions by the local distribution utility, microgrid end-use customer, the wholesale electricity supplier, and the site architect. This also includes in-kind scope contributions by SEPA for industry outreach. The applicant requests the award amount of $50,000 to fund the tasks necessary to complete a microgrid feasibility study. The project team labor contribution will allow for the necessary project coordination to develop a comprehensive microgrid feasibility study that includes stakeholder engagement, data collection, system sizing analysis, and financial and environmental impact analysis. Funding for a microgrid feasibility study is essential in determining whether it is feasible for Florence Utilities, the School District of Florence County and the other key stakeholders to move forward with a microgrid system in replacing the obsolete diesel generator to provide critical power to the Florence Elementary School emergency shelter.

*Table 2.3 - **Summary of Project Costs***

PSC Grant Request ($):	Applicant Cost Share ($):	Project Total ($):
$50,000	$29,500	$79,500

Source: Smart Electric Power Alliance, 2021

*Table 2.4 - **Cost Share Breakdown***

Project Team	Cost Share	Explanation
Florence Utilities (applicant)	75 hours of in-kind labor ($7,500 value)	Participating in regular stakeholder meetings, supporting data collection and site assessment, preliminary engineering analysis
SEPA	$12,000	Lead stakeholder engagement, data collection, system sizing analysis, financial and environmental impact analysis, industry outreach
School District of Florence County	50 hours of in-kind labor ($5,000 value)	Participating in regular stakeholder meetings, supporting data collection and site assessment
WPPI	50 hours of in-kind labor ($5,000 value)	Participating in regular stakeholder meetings, supporting data collection and site assessment

Source: Smart Electric Power Alliance, 2021

Data Collection Plan

The project team will convene regular stakeholder meetings to collect data and input relevant to the microgrid study. Florence Utilities has already shared the Florence Elementary School energy usage data (see dataset included as a reference). Florence Utilities and the School District of Florence County also have access to maps showing where the current utilities run to the

elementary school. In order to determine the value of resiliency and reliability, utility reliability data has been shared by Florence Utilities and can be utilized in the study. SEPA will leverage internal GIS capabilities to collect and analyze data from EIA, DHS, and FEMA to conduct analysis on the site's vulnerabilities and criticality to serve a public good during an outage event.

Additional data collection efforts are included in the sections below on system sizing analysis and financial analysis.

Systems Sizing Analysis

The emergency shelter is intended to provide critical services to be included in a microgrid study but not limited to: phone charging, cook stoves, space heating, air conditioning, food preparation and storage, medical, refrigeration, oxygen, WiFi, server storage, charging critical tools, and emergency response dispatch.

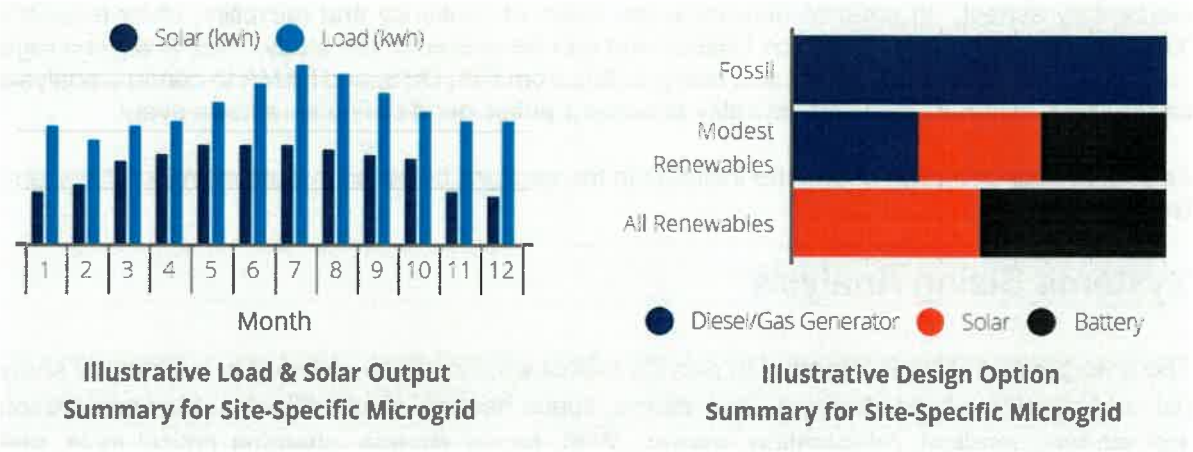
The microgrid design scenario modeling will include system sizing analysis of different microgrid packages, which will look at different load serving, generating technologies, storage, fossil fuel back-up, grid services, and islanding capabilities to determine the cost-effectiveness of different scenarios.

In 2020, the average demand for the site is 75.7kW with an average annual electrical usage of 183,840kWh. The site is winter peaking and has an average load factor of 29%.

Careful consideration is needed when sizing microgrids as every situation offers unique challenges. Host load factor and shape along with cost concerns and environmental issues can lead to a broad range of microgrid sizes and costs. Setting these goals upfront will help tailor the microgrid as desired. Alternatively multiple scenarios can be studied that will help guide the decision process.

The system sizing analysis will include siting considerations such as utility interconnection and microgrid operating modes during normal and emergency operation. During emergency operation, the microgrid will be evaluated to serve critical functions at the emergency shelter.

Figure 2.7 - ***Annual Overview of Load and Solar Output & Summary of Design Options***



Source: Smart Electric Power Alliance, 2021

As part of the stakeholder meetings, the project team will work with key stakeholders to identify the critical loads and desired resilience needs of the emergency shelter. Then, the project team will work to appropriately size the microgrid to provide both grid and customer services in both grid-connected and islanded modes. Data gathered for this microgrid study will help the Florence Utilities and School District of Florence County estimate cost and design options for a potential microgrid for the emergency shelter.

Financial Analysis

The project team will conduct financial analysis that builds on the technical analysis, and focuses on developing a high-level inventory of potential costs and benefits for the microgrid project to assess the net benefit. When making investments in microgrid projects, it is important to evaluate the costs of the projects compared with the expected benefits. The goal of the financial analysis conducted in this study will be to quantify utility and societal benefits in economic terms, and determine how these economic benefits compare to the costs of implementing, operating, and maintaining the project over its lifespan. In order to do so, the local electric distribution utility will provide the necessary inputs for the project team to calculate potential ancillary service values, value of reliability and resiliency, wholesale benefits, and energy savings. These inputs part of the data collection plan may include inputs on frequency support and black start, reliability statistics on SAIDI, SAIFI and CAIDI, applicable customer energy and demand rates, available demand response programs, and energy usage data.

The elementary school is currently served under the CP-1 (Small Power) retail rate, which includes an energy charge of $0.0863 per kWh and a demand charge of $9.00 per kW. In 2020, the School District of Florence County paid $31,766.05 in total for electricity at the Florence County Elementary School.

The benefits and costs will be quantified economically, and the multi-year cash flow will be translated into a Net Present Value (NPV). A benefit/cost ratio will be computed based on the NPV of all benefits divided by the NPV of all costs. A summary of potential costs and benefits are as follows:

- **Costs**: Generation (PV / NG), Battery Energy Storage System and Replacement, Microgrid Controller and Communications, Distribution Upgrades, Operations and Maintenance
- **Benefits**: Solar Generation, Congestion Relief, Avoided Capacity Costs, Avoided Transmission Costs, Avoided REC Compliance Costs, Emissions Reductions, Value of Resiliency, Energy Savings, Peak Load Support

Financing options that will be explored as part of the study may include a combination of investments made by Florence Utilities, the School District of Florence County, Town of Florence and Florence County, along with leveraging funding sources from FEMA and other government agencies to construct and install the microgrid.

Environmental Impact

Florence Utilities is committed to reduce emissions while providing resiliency within the community in the event of a catastrophic event. Florence Utilities provides their customers with incentives and loans to install renewable energy systems, such as solar PV. Florence Utilities and the project team is committed to using as much renewable energy as possible and has a desire to evaluate energy conservation and greenhouse gas emission reduction as part of a microgrid study. The microgrid would incorporate solar PV to offset electric usage from the grid. The project team will calculate greenhouse gas emissions reductions associated with the project and the reductions will be utilized to compute the societal benefits from the emissions reductions.

3.0 Reference Materials List

- Florence Elementary School Electricity Usage 2016 through 2021 (attached separately)
- Florence Elementary School Master Plan from 1998 (attached separately)
- Florence Utilities Annual Reliability Data (attached separately)
- School District of Florence County Letter of Support (attached separately)
- Town of Florence Letter of Support (attached separately)
- Florence Volunteer Fire Department Letter of Support (attached separately)
- Florence County Highway Commission Letter of Support (attached separately)
- WPPI Letter of Support (attached separately)
- Statewide Parcel Map Initiative Parcel Data (included in Narrative)
- GeoData@Wisconsin Aerial Mosaic of Florence County (included in Narrative)
- University of Wisconsin-Madison Neighborhood Atlas Map (included in Narrative)
- Environmental Protection Agency EJSCREEN Tool (included in Narrative)
- The National Risk Index from FEMA (included in Narrative)
- Low-Income Energy Affordability Data (LEAD) Tool from Department of Energy

Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR

2016

Year	Month	Retail rate code	Bill Days	On-Peak [kWh]	Off-Peak [kWh]	Total [kWh]	On-Peak Demand [kW]	Off-Peak Demand [kW]	Billed Demand [kW]	Load Factor [%]	Total Cost [$]	Average Cost [$/kWh]
2016	January	Cp1	29			22,400	95.3		95.3	34%	$3,063.20	$0.1368
2016	February	Cp1	31			23,040	83.7		83.7	37%	$2,911.75	$0.1264
2016	March	Cp1	31			21,520	96.7		96.7	30%	$2,984.71	$0.1387
2016	April	Cp1	29			19,920	91.2		91.2	31%	$2,684.54	$0.1348
2016	May	Cp1	32			18,560	92.4		92.4	26%	$2,625.91	$0.1415
2016	June	Cp1	30			13,120	86.5		86.5	21%	$2,112.35	$0.1610
2016	July	Cp1	32			12,240	83.4		83.4	19%	$2,004.30	$0.1638
2016	August	Cp1	30			12,240	64.1		64.1	27%	$1,881.41	$0.1537
2016	September	Cp1	30			17,840	87.4		87.4	28%	$2,639.48	$0.1480
2016	October	Cp1	31			19,920	98.9		98.9	27%	$2,925.22	$0.1468
2016	November	Cp1	30			19,520	85.0		85.0	32%	$2,789.35	$0.1429
2016	December	Cp1	30			22,960	91.6		91.6	35%	$3,143.83	$0.1369
Total						**223,280**	**1,056.2**		**1,056.2**		**$31,766.05**	
Minimum						**12,240**	**64.1**		**64.1**	**19%**	**$1,881.41**	**$0.1264**
Maximum						**23,040**	**98.9**		**98.9**	**37%**	**$3,143.83**	**$0.1638**
Average						**18,607**	**88.0**		**88.0**	**29%**	**$2,647.17**	**$0.1423**

Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR

2017

Year	Month	Retail rate code	Bill Days	On-Peak [kWh]	Off-Peak [kWh]	Total [kWh]	On-Peak Demand [kW]	Off-Peak Demand [kW]	Billed Demand [kW]	Load Factor [%]	Total Cost [$]	Average Cost [$/kWh]
2017	January	Cp1	32			23,360	97.4		97.4	31%	$2,950.27	$0.1263
2017	February	Cp1	29			20,800	88.1		88.1	34%	$2,816.84	$0.1354
2017	March	Cp1	30			23,200	91.2		91.2	35%	$2,948.70	$0.1271
2017	April	Cp1	31			19,760	92.6		92.6	29%	$2,719.77	$0.1376
2017	May	Cp1	30			19,120	90.0		90.0	30%	$2,754.00	$0.1440
2017	June	Cp1	30			17,440	89.0		89.0	27%	$2,505.59	$0.1437
2017	July	Cp1	31			7,760	71.9		71.9	14%	$1,667.55	$0.2149
2017	August	Cp1	31			13,040	83.0		83.0	21%	$2,360.19	$0.1810
2017	September	Cp1	29			18,560	86.1		86.1	31%	$2,793.93	$0.1505
2017	October	Cp1	31			21,440	89.0		89.0	32%	$2,860.15	$0.1334
2017	November	Cp1	31			22,880	89.2		89.2	34%	$2,963.79	$0.1295
2017	December	Cp1	29			21,680	83.8		83.8	37%	$2,904.50	$0.1340
Total						**229,040**	**1,051.4**		**1,051.4**		**$32,245.28**	
Minimum						**7,760**	**71.9**		**71.9**	**14%**	**$1,667.55**	**$0.1263**
Maximum						**23,360**	**97.4**		**97.4**	**37%**	**$2,963.79**	**$0.2149**
Average						**19,087**	**87.6**		**87.6**	**30%**	**$2,687.11**	**$0.1408**

Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR

2018

Year	Month	Retail rate code	Bill Days	On-Peak [kWh]	Off-Peak [kWh]	Total [kWh]	On-Peak Demand [kW]	Off-Peak Demand [kW]	Billed Demand [kW]	Load Factor [%]	Total Cost [$]	Average Cost [$/kWh]
2018	January	Cp1	31			24,000	85.7		85.7	38%	$2,902.88	$0.1210
2018	February	Cp1	30			23,520	86.2		86.2	38%	$2,828.89	$0.1203
2018	March	Cp1	30			22,720	89.8		89.8	35%	$2,903.28	$0.1278
2018	April	Cp1	31			20,240	86.8		86.8	31%	$2,523.09	$0.1247
2018	May	Cp1	31			18,960	81.6		81.6	31%	$2,327.68	$0.1228
2018	June	Cp1	29			13,360	81.6		81.6	24%	$2,149.57	$0.1609
2018	July	Cp1	32			11,920	63.5		63.5	24%	$1,888.43	$0.1584
2018	August	Cp1	31			21,040	71.5		71.5	40%	$2,870.19	$0.1364
2018	September	Cp1	31			23,680	92.6		92.6	34%	$2,975.33	$0.1256
2018	October	Cp1	31			19,920	92.6		92.6	29%	$2,578.40	$0.1294
2018	November	Cp1	29			19,920	88.9		88.9	32%	$2,625.88	$0.1318
2018	December	Cp1	31			19,440	88.4		88.4	30%	$2,507.17	$0.1290
Total						**238,720**	**1,009.1**		**1,009.1**		**$31,080.79**	
Minimum						**11,920**	**63.5**		**63.5**	**24%**	**$1,888.43**	**$0.1203**
Maximum						**24,000**	**92.6**		**92.6**	**40%**	**$2,975.33**	**$0.1609**
Average						**19,893**	**84.1**		**84.1**	**32%**	**$2,590.07**	**$0.1302**

Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR

2019

Year	Month	Retail rate code	Bill Days	On-Peak [kWh]	Off-Peak [kWh]	Total [kWh]	On-Peak Demand [kW]	Off-Peak Demand [kW]	Billed Demand [kW]	Load Factor [%]	Total Cost [$]	Average Cost [$/kWh]
2019	January	Cp1	31			22,640	94.6		94.6	32%	$2,666.47	$0.1178
2019	February	Cp1	29			19,440	86.6		86.6	32%	$2,464.82	$0.1268
2019	March	Cp1	31			18,560	78.4		78.4	32%	$2,363.76	$0.1274
2019	April	Cp1	29			18,560	81.8		81.8	33%	$2,472.97	$0.1332
2019	May	Cp1	31			19,760	82.7		82.7	32%	$2,409.11	$0.1219
2019	June	Cp1	31			12,800	82.5		82.5	21%	$1,991.20	$0.1556
2019	July	Cp1	30			11,440	65.8		65.8	24%	$1,876.95	$0.1641
2019	August	Cp1	32			12,800	66.6		66.6	25%	$2,073.34	$0.1620
2019	September	Cp1	30			19,200	95.9		95.9	28%	$2,649.60	$0.1380
2019	October	Cp1	31			22,560	93.0		93.0	33%	$2,593.01	$0.1149
2019	November	Cp1	31			19,280	88.7		88.7	29%	$2,446.57	$0.1269
2019	December	Cp1	30			18,640	88.7		88.7	29%	$2,412.45	$0.1294
Total						**215,680**	**1,005.4**		**1,005.4**		**$28,420.25**	
Minimum						**11,440**	**65.8**		**65.8**	**21%**	**$1,876.95**	**$0.1149**
Maximum						**22,640**	**95.9**		**95.9**	**33%**	**$2,666.47**	**$0.1641**
Average						**17,973**	**83.8**		**83.8**	**29%**	**$2,368.35**	**$0.1318**

Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR

2020

Year	Month	Retail rate code	Bill Days	On-Peak [kWh]	Off-Peak [kWh]	Total [kWh]	On-Peak Demand [kW]	Off-Peak Demand [kW]	Billed Demand [kW]	Load Factor [%]	Total Cost [$]	Average Cost [$/kWh]
2020	January	Cp1	31			22,800	90.3		90.3	34%	$2,667.56	$0.1170
2020	February	Cp1	29			20,240	98.0		98.0	30%	$2,659.36	$0.1314
2020	March	Cp1	31			16,560	85.0		85.0	26%	$2,225.65	$0.1344
2020	April	Cp1	30			12,160	58.6		58.6	29%	$1,679.12	$0.1381
2020	May	Cp1	31			10,560	58.6		58.6	24%	$1,631.82	$0.1545
2020	June	Cp1	30			8,480	46.8		46.8	25%	$1,415.17	$0.1669
2020	July	Cp1	31			8,240	38.4		38.4	29%	$1,345.93	$0.1633
2020	August	Cp1	31			10,800	78.3		78.3	19%	$1,877.32	$0.1738
2020	September	Cp1	30			19,120	95.1		95.1	28%	$2,823.81	$0.1477
2020	October	Cp1	31			18,960	89.1		89.1	29%	$2,574.75	$0.1358
2020	November	Cp1	30			16,480	82.9		82.9	28%	$2,226.23	$0.1351
2020	December	Cp1	31			19,440	86.8		86.8	30%	$2,566.25	$0.1320
Total						**183,840**	**907.8**		**907.8**		**$25,692.97**	
Minimum						**8,240**	**38.4**		**38.4**	**19%**	**$1,345.93**	**$0.1170**
Maximum						**22,800**	**98.0**		**98.0**	**34%**	**$2,823.81**	**$0.1738**
Average						**15,320**	**75.7**		**75.7**	**27%**	**$2,141.08**	**$0.1398**

Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR

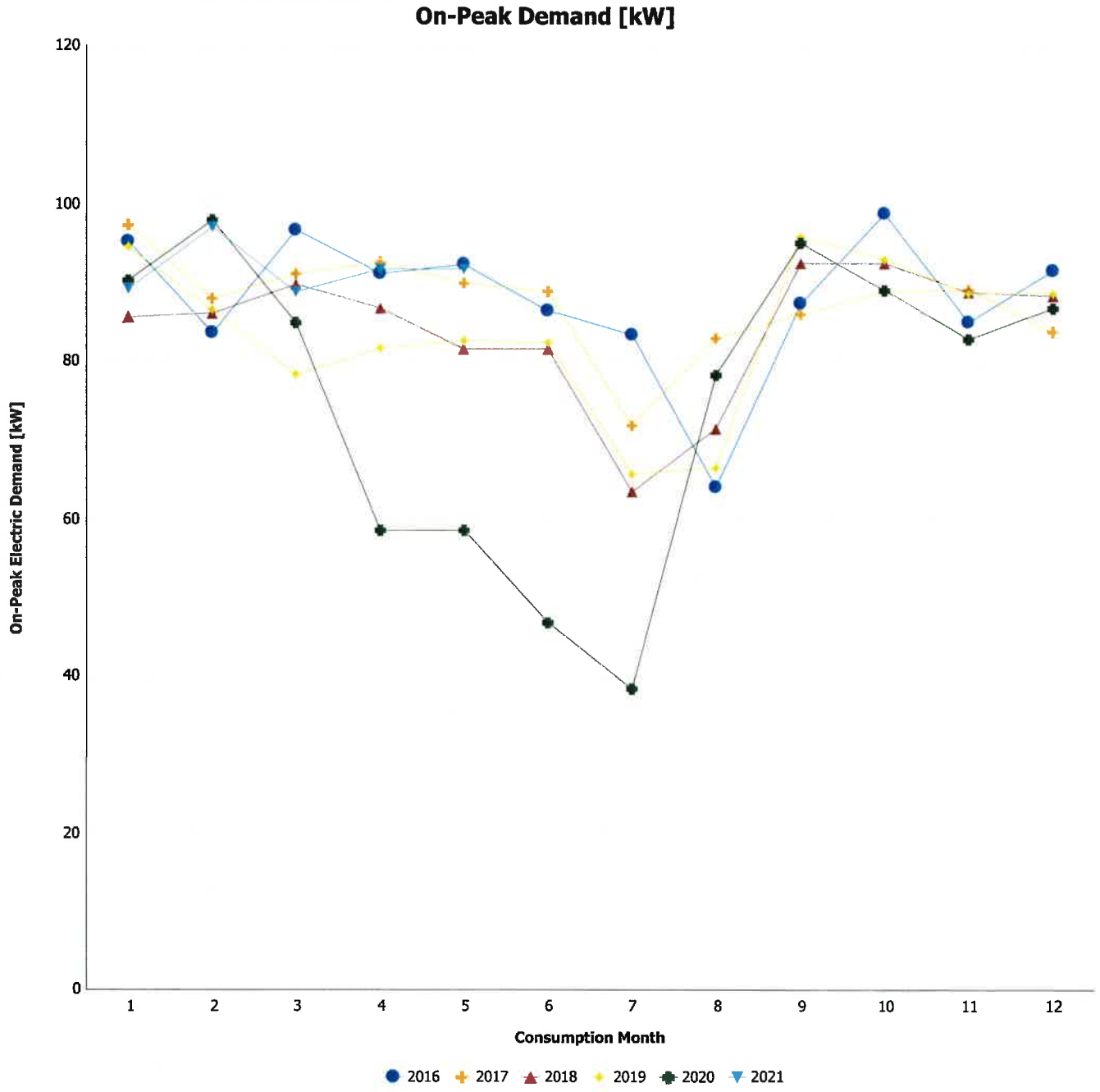
2021

Year	Month	Retail rate code	Bill Days	On-Peak [kWh]	Off-Peak [kWh]	Total [kWh]	On-Peak Demand [kW]	Off-Peak Demand [kW]	Billed Demand [kW]	Load Factor [%]	Total Cost [$]	Average Cost [$/kWh]
2021	January	Cp1	31			19,840	89.3		89.3	30%	$2,570.31	$0.1296
2021	February	Cp1	28			21,360	97.1		97.1	33%	$2,607.42	$0.1221
2021	March	Cp1	31			19,360	88.9		88.9	29%	$2,543.39	$0.1314
2021	April	Cp1	30			19,520	91.8		91.8	30%	$2,708.84	$0.1388
2021	May	Cp1	31			19,600	91.8		91.8	29%	$2,656.66	$0.1355
Total						**99,680**	**458.8**		**458.8**		**$13,086.62**	
Minimum						**19,360**	**88.9**		**88.9**	**29%**	**$2,543.39**	**$0.1221**
Maximum						**21,360**	**97.1**		**97.1**	**33%**	**$2,708.84**	**$0.1388**
Average						**19,936**	**91.8**		**91.8**	**30%**	**$2,617.32**	**$0.1313**

Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

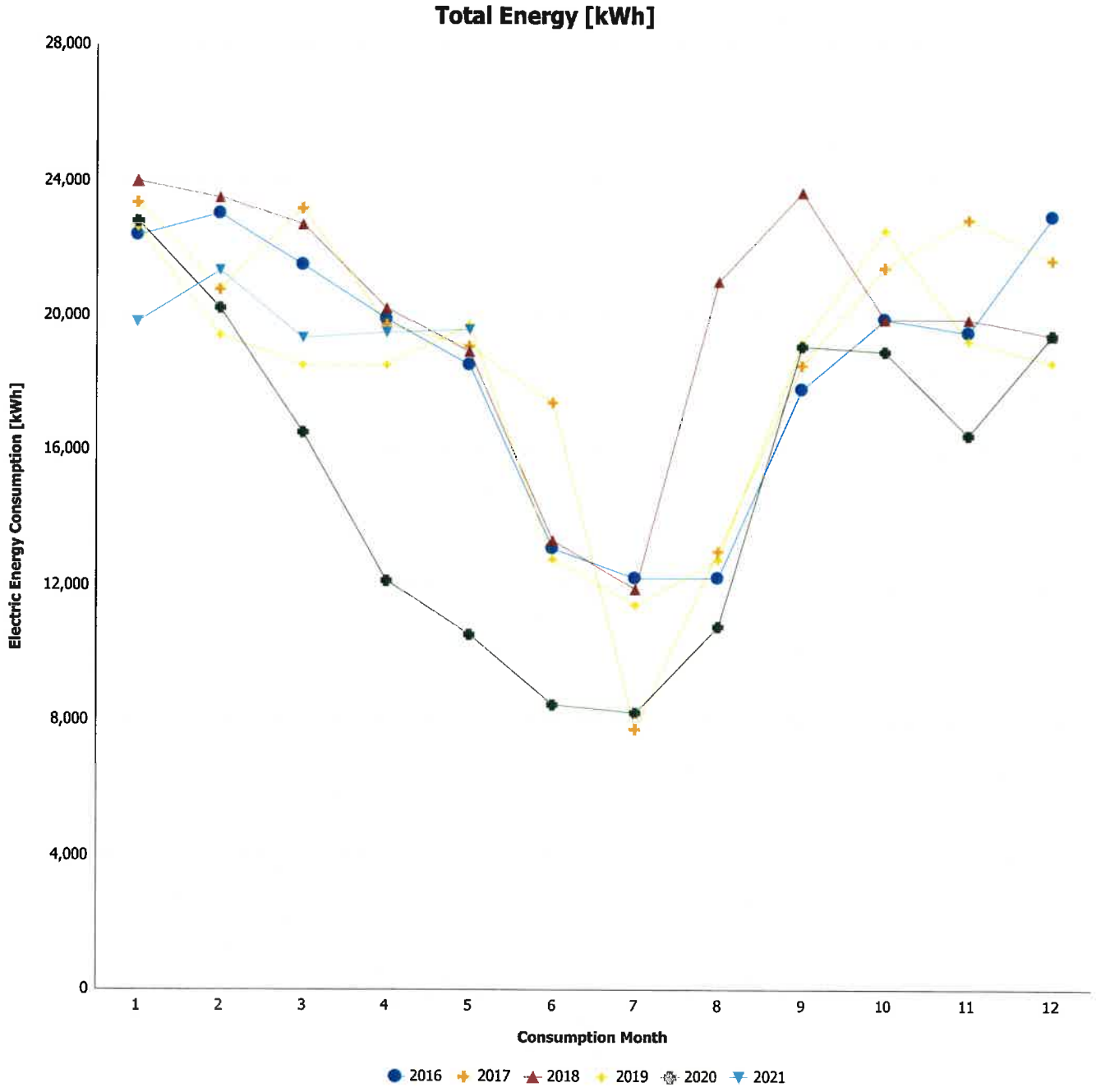
Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR



Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

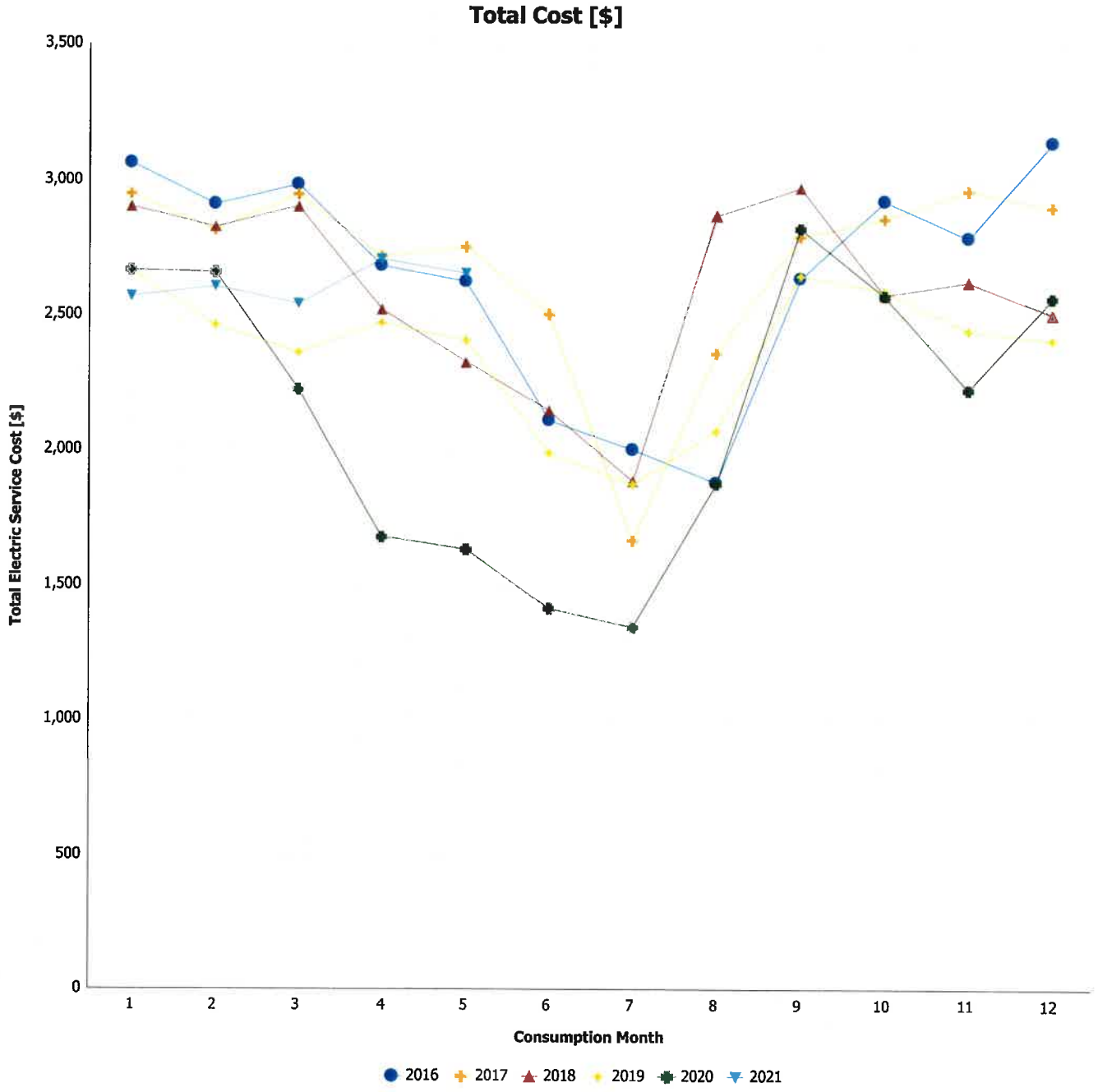
Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR



Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR



Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR

2016

Year	Month	Retail rate code	Bill Days	On-Peak [kWh]	Off-Peak [kWh]	Total [kWh]	On-Peak Demand [kW]	Off-Peak Demand [kW]	Billed Demand [kW]	Load Factor [%]	Total Cost [$]	Average Cost [$/kWh]
2016	January	Cp1	29			22,400	95.3		95.3	34%	$3,063.20	$0.1368
2016	February	Cp1	31			23,040	83.7		83.7	37%	$2,911.75	$0.1264
2016	March	Cp1	31			21,520	96.7		96.7	30%	$2,984.71	$0.1387
2016	April	Cp1	29			19,920	91.2		91.2	31%	$2,684.54	$0.1348
2016	May	Cp1	32			18,560	92.4		92.4	26%	$2,625.91	$0.1415
2016	June	Cp1	30			13,120	86.5		86.5	21%	$2,112.35	$0.1610
2016	July	Cp1	32			12,240	83.4		83.4	19%	$2,004.30	$0.1638
2016	August	Cp1	30			12,240	64.1		64.1	27%	$1,881.41	$0.1537
2016	September	Cp1	30			17,840	87.4		87.4	28%	$2,639.48	$0.1480
2016	October	Cp1	31			19,920	98.9		98.9	27%	$2,925.22	$0.1468
2016	November	Cp1	30			19,520	85.0		85.0	32%	$2,789.35	$0.1429
2016	December	Cp1	30			22,960	91.6		91.6	35%	$3,143.83	$0.1369
Total						**223,280**	**1,056.2**		**1,056.2**		**$31,766.05**	
Minimum						**12,240**	**64.1**		**64.1**	**19%**	**$1,881.41**	**$0.1264**
Maximum						**23,040**	**98.9**		**98.9**	**37%**	**$3,143.83**	**$0.1638**
Average						**18,607**	**88.0**		**88.0**	**29%**	**$2,647.17**	**$0.1423**

Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR

2017

Year	Month	Retail rate code	Bill Days	On-Peak [kWh]	Off-Peak [kWh]	Total [kWh]	On-Peak Demand [kW]	Off-Peak Demand [kW]	Billed Demand [kW]	Load Factor [%]	Total Cost [$]	Average Cost [$/kWh]
2017	January	Cp1	32			23,360	97.4		97.4	31%	$2,950.27	$0.1263
2017	February	Cp1	29			20,800	88.1		88.1	34%	$2,816.84	$0.1354
2017	March	Cp1	30			23,200	91.2		91.2	35%	$2,948.70	$0.1271
2017	April	Cp1	31			19,760	92.6		92.6	29%	$2,719.77	$0.1376
2017	May	Cp1	30			19,120	90.0		90.0	30%	$2,754.00	$0.1440
2017	June	Cp1	30			17,440	89.0		89.0	27%	$2,505.59	$0.1437
2017	July	Cp1	31			7,760	71.9		71.9	14%	$1,667.55	$0.2149
2017	August	Cp1	31			13,040	83.0		83.0	21%	$2,360.19	$0.1810
2017	September	Cp1	29			18,560	86.1		86.1	31%	$2,793.93	$0.1505
2017	October	Cp1	31			21,440	89.0		89.0	32%	$2,860.15	$0.1334
2017	November	Cp1	31			22,880	89.2		89.2	34%	$2,963.79	$0.1295
2017	December	Cp1	29			21,680	83.8		83.8	37%	$2,904.50	$0.1340
Total						**229,040**	**1,051.4**		**1,051.4**		**$32,245.28**	
Minimum						**7,760**	**71.9**		**71.9**	**14%**	**$1,667.55**	**$0.1263**
Maximum						**23,360**	**97.4**		**97.4**	**37%**	**$2,963.79**	**$0.2149**
Average						**19,087**	**87.6**		**87.6**	**30%**	**$2,687.11**	**$0.1408**

Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR

2018

Year	Month	Retail rate code	Bill Days	On-Peak [kWh]	Off-Peak [kWh]	Total [kWh]	On-Peak Demand [kW]	Off-Peak Demand [kW]	Billed Demand [kW]	Load Factor [%]	Total Cost [$]	Average Cost [$/kWh]
2018	January	Cp1	31			24,000	85.7		85.7	38%	$2,902.88	$0.1210
2018	February	Cp1	30			23,520	86.2		86.2	38%	$2,828.89	$0.1203
2018	March	Cp1	30			22,720	89.8		89.8	35%	$2,903.28	$0.1278
2018	April	Cp1	31			20,240	86.8		86.8	31%	$2,523.09	$0.1247
2018	May	Cp1	31			18,960	81.6		81.6	31%	$2,327.68	$0.1228
2018	June	Cp1	29			13,360	81.6		81.6	24%	$2,149.57	$0.1609
2018	July	Cp1	32			11,920	63.5		63.5	24%	$1,888.43	$0.1584
2018	August	Cp1	31			21,040	71.5		71.5	40%	$2,870.19	$0.1364
2018	September	Cp1	31			23,680	92.6		92.6	34%	$2,975.33	$0.1256
2018	October	Cp1	31			19,920	92.6		92.6	29%	$2,578.40	$0.1294
2018	November	Cp1	29			19,920	88.9		88.9	32%	$2,625.88	$0.1318
2018	December	Cp1	31			19,440	88.4		88.4	30%	$2,507.17	$0.1290
Total						**238,720**	**1,009.1**		**1,009.1**		**$31,080.79**	
Minimum						**11,920**	**63.5**		**63.5**	**24%**	**$1,888.43**	**$0.1203**
Maximum						**24,000**	**92.6**		**92.6**	**40%**	**$2,975.33**	**$0.1609**
Average						**19,893**	**84.1**		**84.1**	**32%**	**$2,590.07**	**$0.1302**

Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR

2019

Year	Month	Retail rate code	Bill Days	On-Peak [kWh]	Off-Peak [kWh]	Total [kWh]	On-Peak Demand [kW]	Off-Peak Demand [kW]	Billed Demand [kW]	Load Factor [%]	Total Cost [$]	Average Cost [$/kWh]
2019	January	Cp1	31			22,640	94.6		94.6	32%	$2,666.47	$0.1178
2019	February	Cp1	29			19,440	86.6		86.6	32%	$2,464.82	$0.1268
2019	March	Cp1	31			18,560	78.4		78.4	32%	$2,363.76	$0.1274
2019	April	Cp1	29			18,560	81.8		81.8	33%	$2,472.97	$0.1332
2019	May	Cp1	31			19,760	82.7		82.7	32%	$2,409.11	$0.1219
2019	June	Cp1	31			12,800	82.5		82.5	21%	$1,991.20	$0.1556
2019	July	Cp1	30			11,440	65.8		65.8	24%	$1,876.95	$0.1641
2019	August	Cp1	32			12,800	66.6		66.6	25%	$2,073.34	$0.1620
2019	September	Cp1	30			19,200	95.9		95.9	28%	$2,649.60	$0.1380
2019	October	Cp1	31			22,560	93.0		93.0	33%	$2,593.01	$0.1149
2019	November	Cp1	31			19,280	88.7		88.7	29%	$2,446.57	$0.1269
2019	December	Cp1	30			18,640	88.7		88.7	29%	$2,412.45	$0.1294
Total						**215,680**	**1,005.4**		**1,005.4**		**$28,420.25**	
Minimum						**11,440**	**65.8**		**65.8**	**21%**	**$1,876.95**	**$0.1149**
Maximum						**22,640**	**95.9**		**95.9**	**33%**	**$2,666.47**	**$0.1641**
Average						**17,973**	**83.8**		**83.8**	**29%**	**$2,368.35**	**$0.1318**

Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR

2020

Year	Month	Retail rate code	Bill Days	On-Peak [kWh]	Off-Peak [kWh]	Total [kWh]	On-Peak Demand [kW]	Off-Peak Demand [kW]	Billed Demand [kW]	Load Factor [%]	Total Cost [$]	Average Cost [$/kWh]
2020	January	Cp1	31			22,800	90.3		90.3	34%	$2,667.56	$0.1170
2020	February	Cp1	29			20,240	98.0		98.0	30%	$2,659.36	$0.1314
2020	March	Cp1	31			16,560	85.0		85.0	26%	$2,225.65	$0.1344
2020	April	Cp1	30			12,160	58.6		58.6	29%	$1,679.12	$0.1381
2020	May	Cp1	31			10,560	58.6		58.6	24%	$1,631.82	$0.1545
2020	June	Cp1	30			8,480	46.8		46.8	25%	$1,415.17	$0.1669
2020	July	Cp1	31			8,240	38.4		38.4	29%	$1,345.93	$0.1633
2020	August	Cp1	31			10,800	78.3		78.3	19%	$1,877.32	$0.1738
2020	September	Cp1	30			19,120	95.1		95.1	28%	$2,823.81	$0.1477
2020	October	Cp1	31			18,960	89.1		89.1	29%	$2,574.75	$0.1358
2020	November	Cp1	30			16,480	82.9		82.9	28%	$2,226.23	$0.1351
2020	December	Cp1	31			19,440	86.8		86.8	30%	$2,566.25	$0.1320
Total						**183,840**	**907.8**		**907.8**		**$25,692.97**	
Minimum						**8,240**	**38.4**		**38.4**	**19%**	**$1,345.93**	**$0.1170**
Maximum						**22,800**	**98.0**		**98.0**	**34%**	**$2,823.81**	**$0.1738**
Average						**15,320**	**75.7**		**75.7**	**27%**	**$2,141.08**	**$0.1398**

Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR

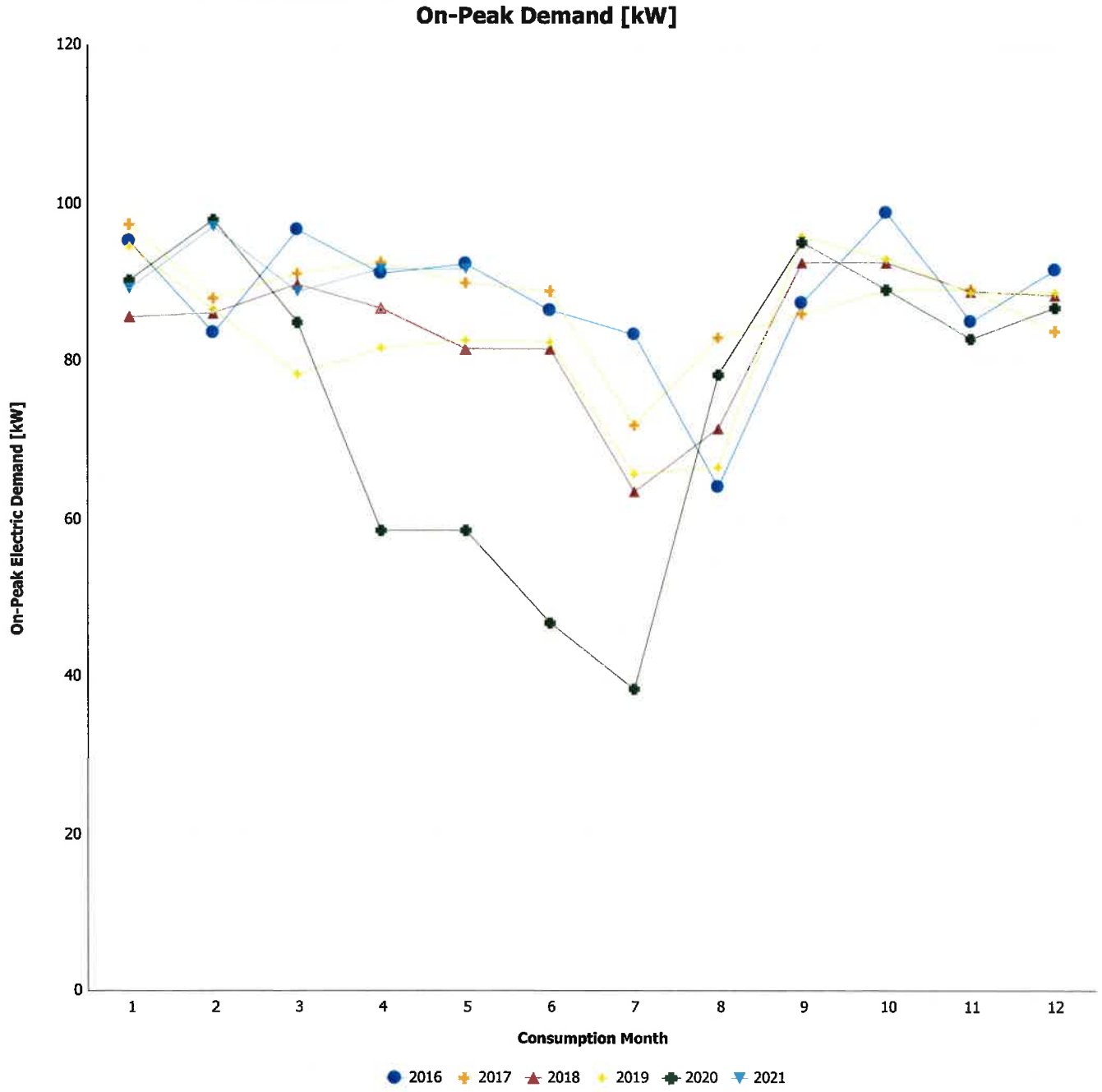
2021

Year	Month	Retail rate code	Bill Days	On-Peak [kWh]	Off-Peak [kWh]	Total [kWh]	On-Peak Demand [kW]	Off-Peak Demand [kW]	Billed Demand [kW]	Load Factor [%]	Total Cost [$]	Average Cost [$/kWh]
2021	January	Cp1	31			19,840	89.3		89.3	30%	$2,570.31	$0.1296
2021	February	Cp1	28			21,360	97.1		97.1	33%	$2,607.42	$0.1221
2021	March	Cp1	31			19,360	88.9		88.9	29%	$2,543.39	$0.1314
2021	April	Cp1	30			19,520	91.8		91.8	30%	$2,708.84	$0.1388
2021	May	Cp1	31			19,600	91.8		91.8	29%	$2,656.66	$0.1355
Total						**99,680**	**458.8**		**458.8**		**$13,086.62**	
Minimum						**19,360**	**88.9**		**88.9**	**29%**	**$2,543.39**	**$0.1221**
Maximum						**21,360**	**97.1**		**97.1**	**33%**	**$2,708.84**	**$0.1388**
Average						**19,936**	**91.8**		**91.8**	**30%**	**$2,617.32**	**$0.1313**

Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

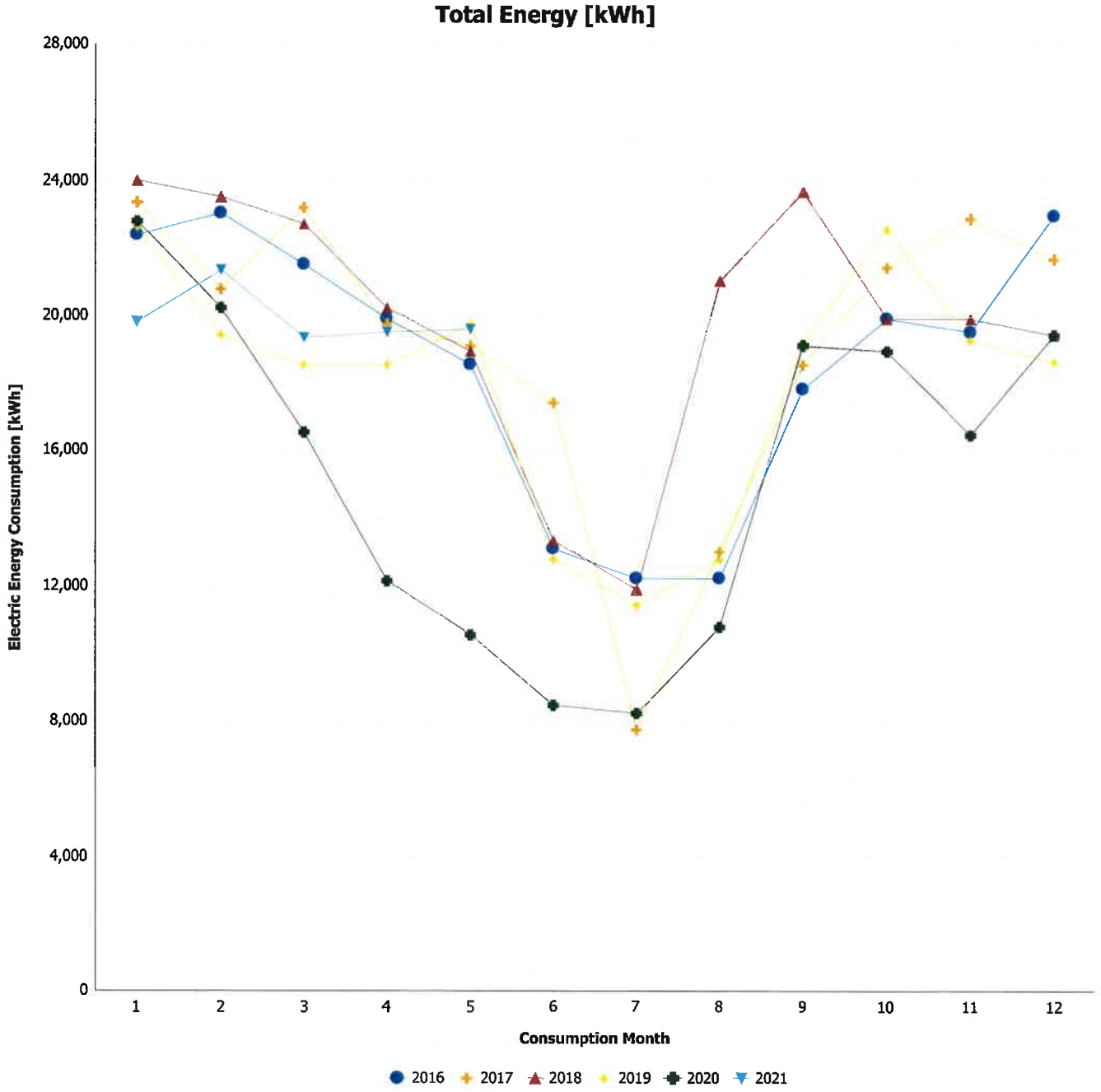
Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR



Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

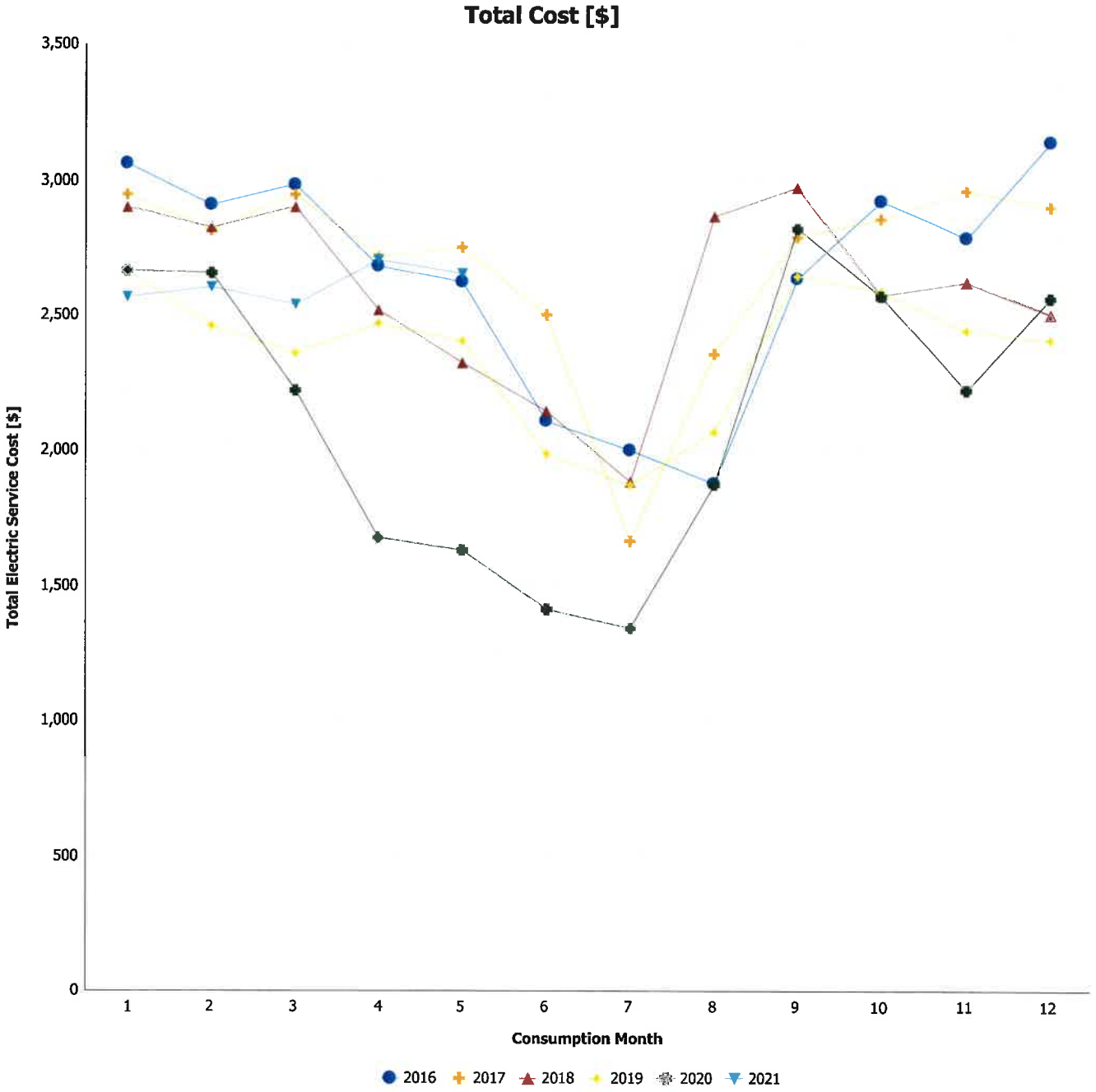
Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR



Energy Use and Cost History - Florence Utilities

January 2016 to December 2021

Customer: SCHOOL DIST OF FLORENCE CTY
Account No: 2444
Location: 5844 BILL ANDERSON DR



Independent Statistics & Analysis
U.S. Energy Information Administration

FORM EIA-861

ANNUAL ELECTRIC POWER INDUSTRY REPORT

OMB No. 1905-0219
Approval Expires: 5/31/2023
Burden Hours: 12.75

Entity Name: ***Florence Utility Comm***
Entity ID: ***6424***

Data Year: 2020

Part B: SAIDI and SAIFI in accordance with IEEE 1366-2003 standard or IEEE 1366-2012 standard

Wisconsin State

		Including Major Event Days	Excluding Major Event Days
3	SAIDI Value for the Year	143.214	59.136
4	SAIDI Value: Major Event Days Included minus loss of supply (see instructions)	59.136	
5	SAIFI Value for the Year	1.185	0.657
6	SAIFI Value: Major Event Days Included minus loss of supply (see instructions)	0.657	

7 Total number of customers used in these calculations '524

8 What is the highest voltage that you consider part of the distribution system, as opposed to the supply system? 12.47 kV

9 Is information about customer outages recorded automatically? Yes [ ] No [X]

Thank you for completing this Part. Skip Part C and go directly to Schedule 4 Part A.

Independent Statistics & Analysis
U.S. Energy Information Administration

FORM EIA-861

ANNUAL ELECTRIC POWER INDUSTRY REPORT

OMB No. 1905-0219
Approval Expires: 5/31/2023
Burden Hours: 12.75

Entity Name: ***Florence Utility Comm***
Entity ID: ***6424***

Data Year: 2020

SCHEDULE 3. PARTS B and C.
DISTRIBUTION SYSTEM RELIABILITY DATA

Who is required to complete this schedule?

This schedule collects System Average Interruption Frequency Index (SAIFI) and System Average Interruption Duration Index (SAIDI) statistics. If your organization does not compute these indexes, answer 'no' to Question 1 and then skip to Schedule 4A. You do not have to complete any other part of this schedule 3B or 3C.

Should you complete Part B or Part C?

If your organization computes the SAIFI and SAIDI indexes and determines Major Event Days using the IEEE 1366-2003 or the IEEE 1366-2012 standard, answer 'YES' to Questions 1 and 2, and complete Part B. Then skip to Schedule 4A. (You do not complete Schedule 3, Part C.)

If your organization does not use the IEEE 1366-2003 or the IEEE 1366-2012 standard but calculates SAIDI and SAIFI indexes via other method, answer 'yes' to question 1 and 'no' to question 2 and complete Part C. Then go to Schedule 4A.

1 Do you calculate SAIDI and SAIFI by any method? If Yes, go to Question 2. If No, go to Schedule 4, Part A.	Yes [X]	No [ ]
2 Do you calculate SAIDI and SAIFI and determine Major Event Days using the IEEE 1366-2003 standard or IEEE 1366-2012 standard? If Yes, complete Part B. If No, complete Part C.	Yes [X]	No [ ]

FLORENCE VOLUNTEER FIRE DEPARTMENT

PO BOX 463

FLORENCE WI 54121

July 27, 2021

To Whom It May Concern:

The Florence Utilities Commission is applying for a grant to replace an obsolete generator at the Florence Elementary School. Our community utilizes the Florence Elementary School as shelter for area residents when evacuations are necessary. This project would improve emergency response capabilities.

Florence County has a Hazard Mitigation Plan; which has a mitigation action of acquiring emergency power generators to be used at facilities that affect health and safety. The Florence Elementary School does fit into this category of facility.

In 2019, Florence Health Services (a nursing facility), had a lightning strike its building and start a fire severe enough to have the residents evacuate. The Florence School is located within two blocks of this facility, allowing residents to be moved quickly and safely to a dependable location.

Replacing this obsolete generator would provide our community confidence in a safe place in the event of an outage emergency.

The Florence Volunteer Fire Department fully supports the Florence Utilities Commission with their efforts in applying for this grant.

We ask for your consideration to this extremely important project to our area.

Joe Witynski

Joe Witynski

Chief – Florence Volunteer Fire Department

Florence County Highway Commission

Joe Witynski -- Commissioner

Gary Steber – Committee Chairperson

July 26, 2021

To Whom It May Concern:

The Florence County Highway Commission fully supports the Florence Utilities Commission with their efforts in applying for a grant to replace the obsolete generator at the Florence Elementary School.

This project would have a positive effect on the entire community, as the Florence Elementary School is right in town and provides a safe, reliable facility for evacuations. Having a location with sufficient generation will improve the emergency response and service capabilities for the community.

Over the years, Florence has had several different events where evacuations were necessary and a safe, reliable shelter was necessary. Having sufficient generation provides confidence in knowing we are ready for an outage emergency.

Thank you for your consideration to this extremely important project to our area.

FLORENCE COUNTY HIGHWAY COMMISSION

Gary Steber
Chairman

Joe Witynski
Commissioner

5471 County Road 'N' Florence, WI 54121 • Phone: 715-528-4253 • Fax: 715-528-5158

SCHOOL DISTRICT OF FLORENCE COUNTY
WE POSITIVELY AFFECT THE LIVES OF CHILDREN

School Board Members
Don Dumke, President
Jim Gehlhoff, Vice-President
Jim Churchill, Treasurer
Ron Yadro, Clerk
Amber Neuens, Member
Shawn McLain, Member
Mike Theis, Member

July 26, 2021

Karl B. Morrin
District Administrator
School District of Florence County
425 Olive Ave.
Florence, WI. 54121

The School District of Florence County is pleased to provide this letter to Florence Elementary School Emergency Shelter microgrid study.

The project application will support a stakeholder engaged process for evaluating and conducting a microgrid feasibility study. The team will study and identify potential deployment strategies for solar photovoltaics (PV), energy storage, and other microgrid technologies to bolster resilience at the Florence Elementary School Emergency Shelter against power outages. The study will also model and analyze load profiles, microgrid designs, and project costs/benefits.

The School District of Florence County understands the value of this project and looks forward to contributing as a strategic and technical partner of the applicant.

If you wish to discuss this further, please feel free to contact me at your convenience.

Yours in Education,

Karl B. Morrin
District Administrator
School District of Florence County
(715)-528-3217

District Administrator
Karl B. Morrin
715-528-3217 Ext: 1404
Fax 715-528-5338
morrink@myflorence.org

Dir. Of Pupil Services/Elem. Prin.
Vanessa Schimmelpfenning
715-528-3217 Ext: 1618
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Asst. Principal – Elem.
Stacy Brock
715-528-3217 Ext: 1601
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Principal – MS/HS
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Shelly VanPembrook, Clerk/Treasurer svanpembrook@florwi.org
Jessica Klumpp, Deputy Clerk/Treasurer jklumpp@florwi.org

July 23, 2021

To Whom It May Concern:

The Town Board of Supervisors, of the Town of Florence supports the Florence Utilities Commission efforts to apply for a grant to replace the obsolete generator at the Florence Elementary School located at 5759 Bill Anderson Drive, Florence, WI.

Within the Florence County Hazard Mitigation Plan adopted in 2013, one of the primary mitigation actions listed was the acquisition of emergency power generators for critical facilities that impact health and safety when the power supply is temporary interrupted. This project is replacing a generator that is obsolete, with a combination of energy sources like solar and natural gas combined to charge batteries for storage.

This project will have a positive effect on the entire community by being able to provide safe, reliable and sufficient emergency generation. As, well as being critical for the safety of students and staff ensuring to be able to continue the day-to-day operations with little to no interruptions.

Florence County is susceptible to lightning and thunderstorms as well as winter ice storms. Having a sufficient emergency generation provides the needed confidence that we're ready in the event of an outage emergency.

We respectively ask for your consideration to this extremely important project to our area.

TOWN OF FLORENCE

Tim Bomberg
Town Chairman
TB/svp

WPPI ENERGY

1425 Corporate Center Drive Sun Prairie, WI 53590-9109 608.834.4500 wppienergy.org

August 2, 2021

Public Service Commission of Wisconsin
Office of Energy Innovation
4822 Madison Yards Way
Madison, WI 53705

Dear Administrator Nieto:

WPPI is pleased to provide this letter of support for the Florence Elementary School Emergency Shelter microgrid study.

The project application will support a stakeholder engaged process for evaluating and conducting a microgrid feasibility study. The team will study and identify potential deployment strategies for solar photovoltaics (PV), energy storage, and other microgrid technologies to bolster resilience at the Florence Elementary School Emergency Shelter against power outages. The study will also model and analyze load profiles, microgrid designs, and project costs/benefits.

WPPI understands the value of this project and looks forward to contributing as a strategic and technical partner of the applicant.

Regards,

Jake Oelke

Jake Oelke, P.E.
Vice President – Energy Services

cc: Kevin Inman, General Manager, Florence Utilities