

### Operational Efficiencies

- Energy Management
  - Building automation system controls schedule and temperatures to conserve energy
    - Occupied Setpoints: Heating 68F-72F, Cooling 76F-80F
    - Unoccupied Setpoints: Heating 60F, Cooling Units Off
    - Occupied Schedules: ES 6:30-7:00 am through 3:30-4:00, 6:00 pm (Extended care areas)
    - Occupied Schedules: MS 6:30-7:00 am through 3:00
    - Occupied Schedules: HS 5:30-6:00 am through 2:00/3:00/5:00/10:00
  - Electricity rates are locked in through May 2019 at \$.06086 cents per KWH
  - Electricity rates June 2019 through May 2024 locked in at \$.05256 cents per KWH
  - Natural Gas managed purchases to secure lowest rates

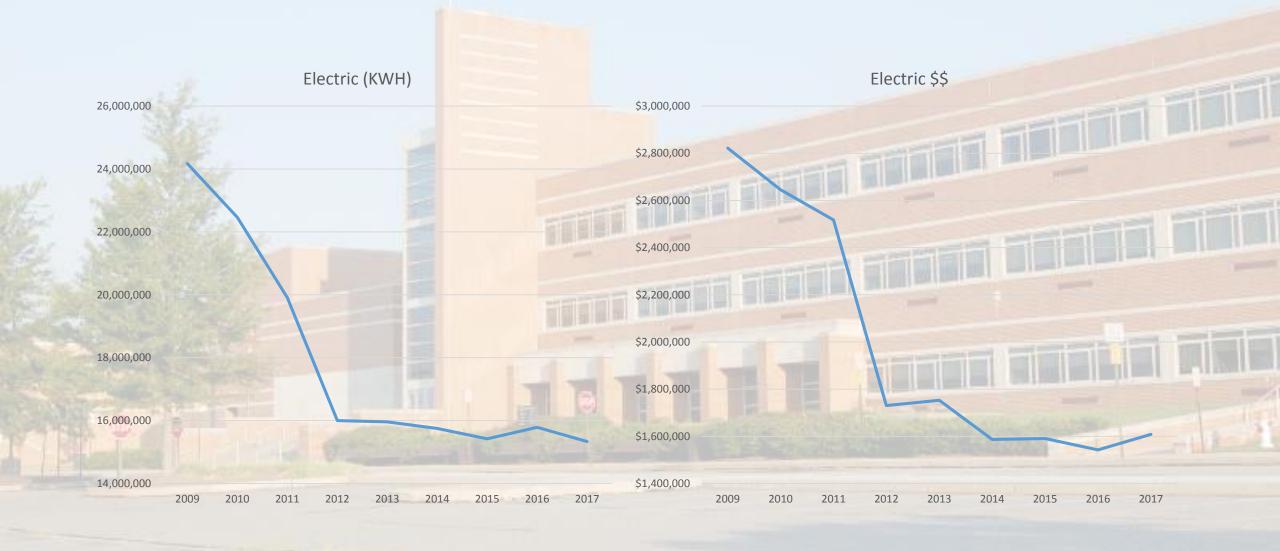
### Natural Gas Purchases

					North Pe	nn School	District						
					Natural G	as Position	Report						12
						Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	CY 2016
Baseline Volumes (MMBtu)						332	505	505	907	3,918	6,873	10,692	23,732
NYMEX (Natural Gas) 50%						\$1.963	\$2.917	\$2.672	\$2.853	\$2.952	\$3.141	\$3.141	¢2.000
NYMEX (Natural Gas) 50%						\$1.963	\$2.917	\$2.672	\$2.853	\$2.952	\$3.141	\$3.141	\$3.068
Basis Charge						\$0.52	\$0.52	\$0.52	\$0.52	\$0.52	\$0.52	\$0.52	
Est. Utility + Balancing						\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	
TOTAL						\$5.98	\$6.94	\$6.69	\$6.87	\$6.97	\$7.16	\$7.16	
Estimated Monthly Cost						\$1,985.69	\$3,502.18	\$3,378.45	\$6,232.00	\$27,308.46	\$49,203.81	\$76,544.03	\$168,154.61
	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	CY 2017
Baseline Volumes (MMBtu)	12,257	10,144	8,473	4,826	1,991	614	505	505	907	3,918	6,873	10,692	61,705
NYMEX (Natural Gas) 50%	\$3.141	\$3.141	\$3.141	\$3.175	\$3.142	\$3.236	\$3.067	\$2.969	\$2.961	\$2.974	\$2.817	\$3.045	
NYMEX (Natural Gas) 50%	\$3.141	\$3.141	\$3.141	\$3.175	\$3.142	\$3.236	\$3.067	\$2.969	\$2.961	\$2.974	\$2.817	\$3.045	\$3.077
Basis Charge	\$0.52	\$0.52	\$0.52	\$0.52	\$0.52	\$0.52	\$0.52	\$0.52	\$0.52	\$0.52	\$0.52	\$0.52	
Est. Utility + Balancing	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	
TOTAL	\$7.16	\$7.16	\$7.16	\$7.19	\$7.16	\$7.25	\$7.09	\$6.99	\$6.98	\$6.99	\$6.84	\$7.06	
Estimated Monthly Cost	\$87,747.86	\$72,620.90	\$60,658.21	\$34,713.42	\$14,255.56	\$4,453.96	\$3,577.93	\$3,528.44	\$6,329.95	\$27,394.66	\$46,976.96	\$75,517.60	\$437,775.42
	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18							CY 2018
Baseline Volumes (MMBtu)	12,257	10,144	8,473	4,826	1,991	614							38,305
NYMEX (Natural Gas) 50%	\$3.049	\$3.049	\$2.782	\$2.728	\$2.707	\$2.738							42.027
NYMEX (Natural Gas) 50%	\$3.049	\$3.049	\$2.782	\$2.728	\$2.707	\$2.738							\$2.927
Basis Charge	\$0.52	\$0.52	\$0.52	\$0.52	\$0.52	\$0.52							
Est. Utility + Balancing	\$3.500	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50							
TOTAL	\$7.07	\$7.07	\$6.80	\$6.75	\$6.73	\$6.76							
Estimated Monthly Cost	\$86,620.22	\$71,687.65	\$57,616.40	\$32,556.20	\$13,389.48	\$4,148.18							\$266,018.12

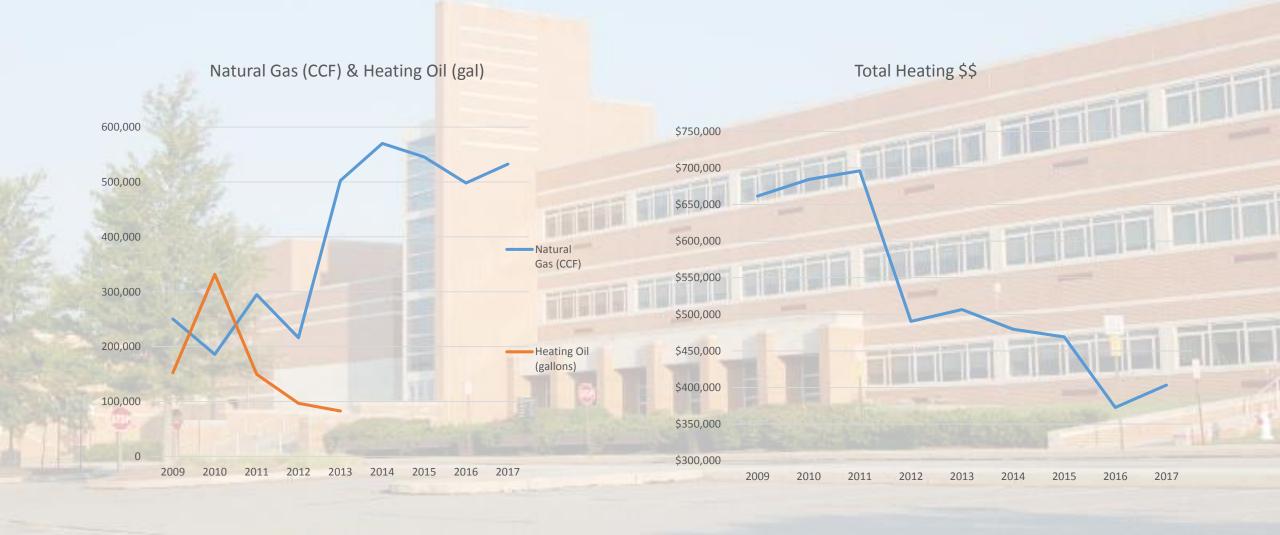
## Operational Efficiencies

- Conversion to LED lighting
  - Renovation projects
  - Fixture replacement NP Staff
- Demand Response Program 2018
  - PJM Emergency Load Response Program (Projected Revenue = \$27,561)
  - PECO ACT 129 Program (Projected Revenue = \$2,091)
- Summer energy conservation (modified set points/schedule)
  - HVAC Systems are shut down Thursday evening through Monday morning
  - Setpoints are raised a few degrees (depending on the area of the building)

# Historical Electric Consumption



# Historical Heating Fuel Consumption



# North Penn School District **Support Services** Questions/Comments/Thoughts