

Docket No. GMCB-017-15con
Certificate of Need Application
Replacement Boiler Plant

Southwestern Vermont Medical Center

Green Mountain Care Board
October 27, 2016





SVMC team here today

- Stephen D. Majetich, CFO and VP of Finance
- James Trimarchi, Director Planning
- Willy Hall, Director Engineering

- Marc Quail, Account Executive, Trane Inc.

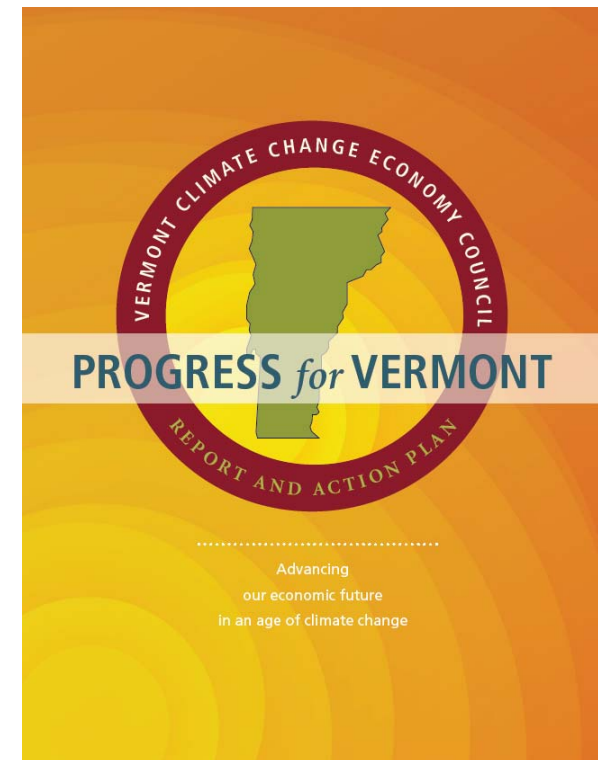
Why replace SVMC's boilers?

- Current boilers are 35 years old and 10 years beyond their useful life
- Burn # 6 oil
 - #6 oil is difficult to obtain
 - #6 oil is dirty and creates pollution
- Inefficient (only 78%)
- High maintenance costs
- Significant risk for critical failure



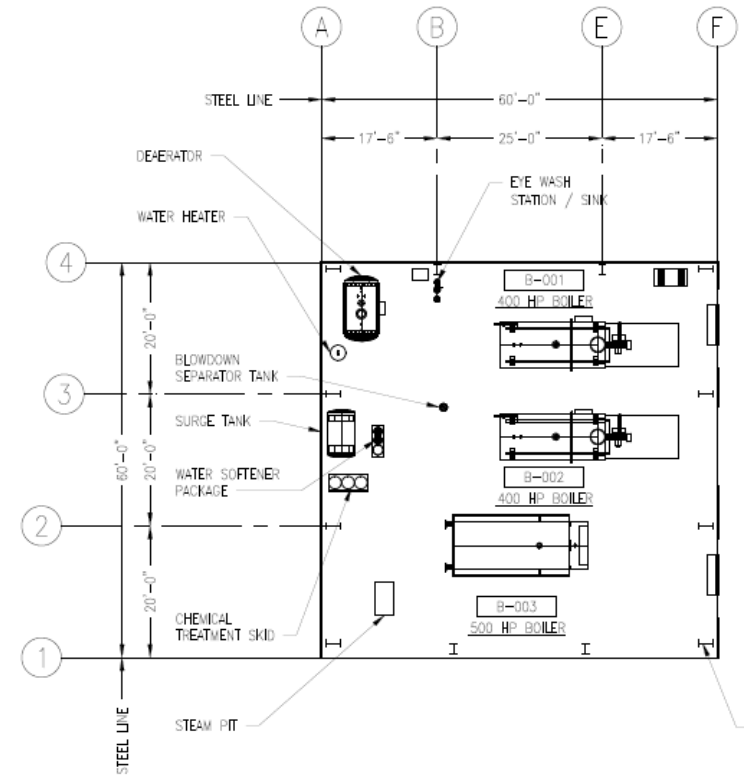
Replacement boiler plant benefits

- Reduce carbon dioxide emissions by nearly 2,000 metric tons (equivalent to removing nearly 400 automobiles)
- Increase patient and staff safety
- Increase boiler reliability
- Reduce operating expenses by more than \$200,000 annually
- Decrease Hazardous Air Contamination fees
- Increase future fuel flexibility
- No direct impact on healthcare costs, access, or quality



The replacement boiler plant project

- 3,600 sq ft prefabricated metal building, 200 yards from patient care
- Two 400 bhp Superior Boiler Works boilers
- One 500 bhp Hurst convertible boiler
- Install pipes from boiler plant to hub of former boilers to distribute steam throughout campus
- Boiler control system
- Primary fuel compressed natural gas; secondary fuel #2 oil
- Fuel storage system
 - Natural gas decompression station
 - 20,000 gallon above ground #2 oil tank
- Removal of two 20,000 gallon underground #6 oil tanks, decommission former boilers



Fuel choice: compressed natural gas

- Readily available
- Low emissions when burned
- Safe if accidentally released
- Small site requirements for storage
- Relatively low cost (VT Fuel Price Report, Sept 2016)



| Fuel Type | \$/MMBTU |
|--------------------|-----------------|
| Propane | \$ 29.56 |
| Wood Pellets | \$ 20.96 |
| #2 Fuel Oil | \$ 18.57 |
| Natural Gas | \$ 17.67 |
| Wood (cord) | \$ 17.21 |

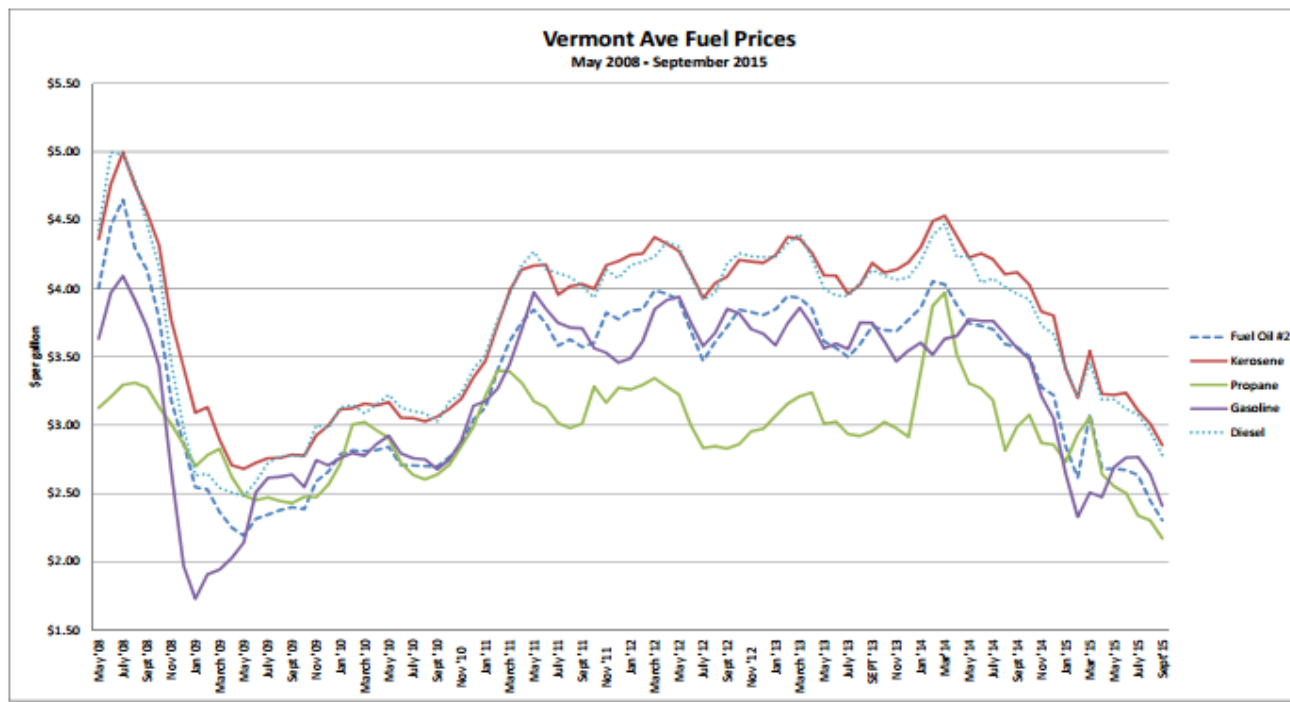
- Boilers burning natural gas are;
 - Efficient (80-82% efficient)
 - Low maintenance

Future fuel flexibility

Fuel prices and fuel availability fluctuate over time

US Energy Information Administration (EIA) predicts natural gas prices to increase at 1.2% per year over the next 15 years (compared to 4.3% for #2 fuel oil)

SVMC's replacement boiler plant design allows future consideration of most fuel options including, biomass



Future fuel flexibility- biomass

SVMC replacement boiler plant has several features priming it to be converted to burn biomass fuel when financial conditions make it favorable;

- Building is larger than needed for natural gas and large enough to accommodate a biomass burning operation
 - Space has been allocated for the hopper to store biomass
 - Space has been allocated for the conveyor to move biomass to the boiler
 - Space has been allocated for additional pollution and ash control
- Building is sited to accommodate turning and unloading of trucks carrying biomass
- A convertible boiler is being purchased;
 - Large enough to serve as SVMC's primary boiler (500HP)
 - Easily converted to burn biomass by adding a combustor

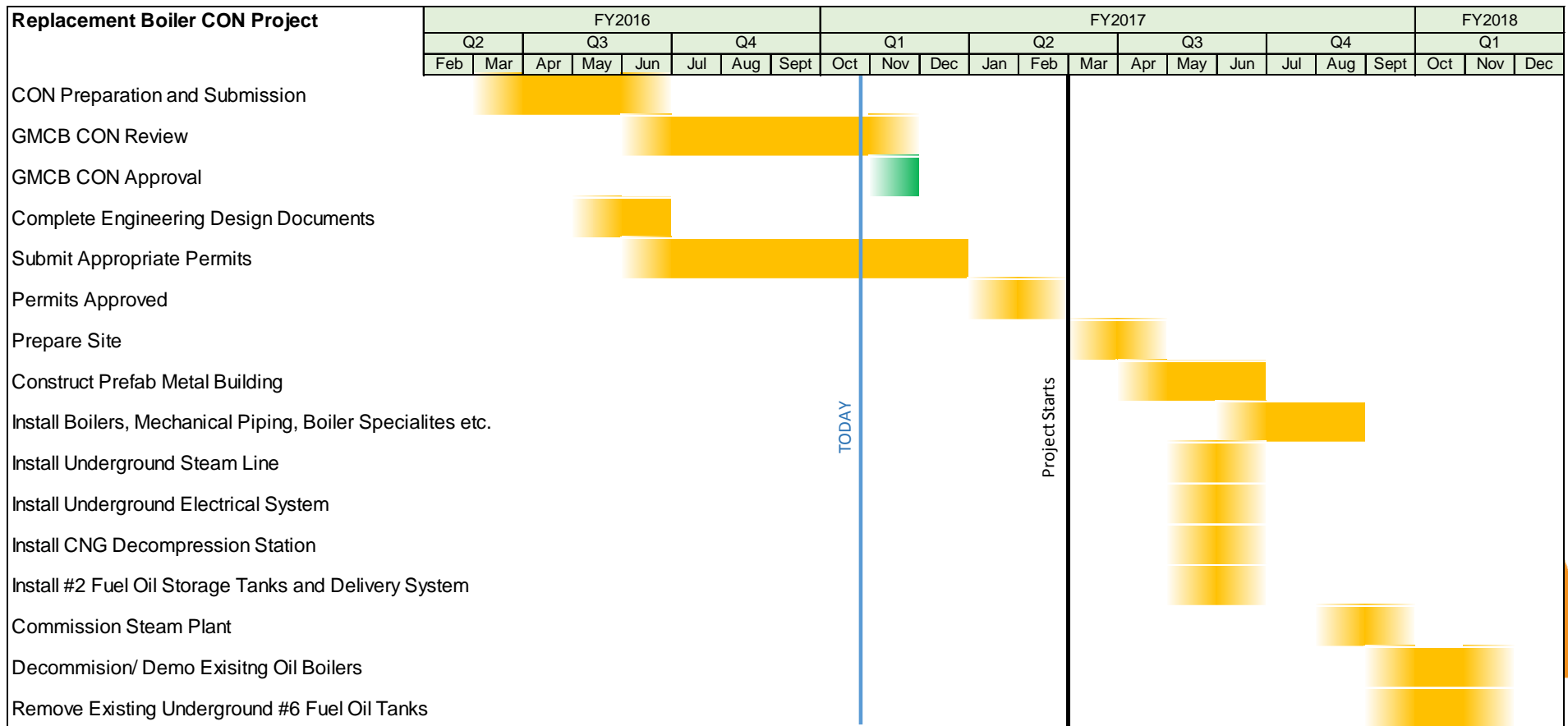
Cost of the replacement boiler plant project

| Component | Cost |
|---|---------------------|
| Two 400HP Boilers | \$ 452,000 |
| One 500HP Convertible Boiler | \$ 380,000 |
| Metal Building and decompression station | \$ 696,000 |
| Control system, installation, permits and contingency | \$ 2,222,000 |
| TOTAL | \$ 3,750,000 |

- SVMC will utilize cash flows from operations to fund the project

Replacement boiler plant project time line

- SVMC requests approval of the CON so the new boilers will be functional at the beginning of the 2017-2018 heating season



Summary- replacement boiler plant project

- SVMC is committed to reducing its energy costs, improving efficiency, and shrinking its carbon footprint
- SVMC's current boilers are aged, outmoded, inefficient and polluting
- SVMC proposes to build a new boiler plant and install efficient boilers that burn natural gas
- The design of the boiler plant provides future fuel flexibility including the potential to transition to burn biomass when financial conditions are favorable
- The cost of the project is \$3,750,000. This cost is reasonable and affordable for SVMC
- The project will yield \$200,000 in annual operational savings
- The proposed project is a logical, a strong step forward, and will not increase healthcare spending by Vermonters

SVMC requests approval of the CON to ensure implementation and functioning of the new boiler plant for the 2017-2018 heating season