



Report of Recommendations: Energy, Water & Waste Audit

Prepared For:



VIDANT HEALTH™

Attention:

**VP of Operations &
Supporting Staff**



Initial Report of Findings

UTIL AUDITORS received a data set from Greenville Utilities Commissions for Vidant Health inclusive of 12 consecutive months of utility invoices spanning from July 2016 through August 2017, per the table below:

Service Address	Account #	Audit Types
[REDACTED] 0 Stantonsburg Rd - Main Hospital	4 [REDACTED]	EGW
[REDACTED] 0 Stantonsburg Rd - ER Department	91 [REDACTED]	E
[REDACTED] 0 Beasley Dr - Computer Center	11 [REDACTED]	EGW
[REDACTED] Moyer Blvd - Daycare	81 [REDACTED]	EGW
[REDACTED] 0 Venture Tower Dr	12 [REDACTED]	EGW
[REDACTED] 0 W Arlington Blvd	3 [REDACTED]	EW
[REDACTED] 0 Stantonsburg Rd - Police	79 [REDACTED]	E
[REDACTED] 0 Stantonsburg Rd - Outpatient	30 [REDACTED]	EW
[REDACTED] Bethesda Dr - Surgical Center	68 [REDACTED]	EGW
[REDACTED] 0 Stantonsburg Rd - Wellness Center	56 [REDACTED]	EGW
[REDACTED] Wellness Dr	30 [REDACTED]	EW
[REDACTED] 0 Stantonsburg Rd - Viquist	25 [REDACTED]	EGW
[REDACTED] Moyer Blvd - Kitchen	[REDACTED]	G
[REDACTED] Moyer Blvd - Heart Center	89 [REDACTED]	EGW
[REDACTED] Moyer Blvd - Boiler	58 [REDACTED]	G
[REDACTED] Service Dr - Gaskin-Leslie	38 [REDACTED]	EGW
[REDACTED] 0 E Tenth St	80 [REDACTED]	EW

These were consolidated statements comprised of 17 accounts reflecting Electricity, Natural Gas, and Water/Sewer metering and associated charges from Vidant Health's NC municipal provider, Greenville Utilities.

The following provides an overview and summary of initial findings in each area of spend:

Energy - Electric & Natural Gas

Util has performed an initial investigation of rate, tax, tariff and structure on which Vidant Health is billed for its energy.

Demand Observation

Vidant is billed for its electricity on a Large Coincident Peak (CP) demand structure, under which the utility determines allocated base demand using 3, 60-minute interval measures per year, each taken during the grid's peak demand.

The purpose is that during times when the grid (the utilities entire area of service) is at its highest demand (requirement for actual power - KW), the relative percentage of that demand that the customer is utilizing at that time is the capacity that the customer should be allocated.

This demand resets 3 times each year, and following its determination, each time the customer's demand exceeds the allocated base demand they are billed an excess demand charge.



Unlike facility based demand, where the peak demand is reset monthly, this type of demand structure can unfortunately lead to a facility being overcharged annually based on high usage that occurred over just a few hours on 3 specific days.

Although it is impossible to predict on exactly which 3 dates, and which hour on those dates, the utility will base the coincident demand peak intervals, there are methodologies that can be utilized to create savings here.

Recommendation:

SHIFT Energy's Energy Optimization Systems (EOS) and Daryl Letto, VP of Solutions Engineering.

EOS communicates with the existing building systems to collect data from the complex mix of equipment that ensure a safe, healthy and comfortable environment for patients and staff. The equipment can include chillers, boilers, heat pumps, air handlers, radiant heating and cooling, exhaust fans, energy recovery ventilators, terminal units and more. EOS analyses all of the data along with compliance requirements and building schedule to determine what set-point changes to the equipment would result in the optimal conditions at minimum energy consumption. EOS determines the best way to deliver heating or cooling to the building.

EOS makes changes to set points in the building systems as often as every five minutes to ensure that a safe, healthy and comfortable environment is maintained at minimum energy cost.

Rate & Tariff Observations

Util Auditors has identified potential for tariff changes on 2, and possibly 3, energy accounts.

Please find attached our tariff analysis for each account, identifying the most appropriate tariff on which the account can be billed, and reflected the anticipated cost savings based on historical billing.

Recommendations:

Location	Current Rate	Proposed Rate	Current Spend	Proj. Spend	Est. Savings	Notes
Beasley Dr - Computer Center	MGS	MGS-CP	\$358,429	\$332,513	\$25,916	No changes in operation required. If location has ability to curtail, savings can be amplified.
Stantonsburg Dr - Emergency Dept.	LGS-CP	MGS-CP	\$350,075	\$332,936	\$17,140	Request 1000 kW contract demand to be removed and change rate from the LGS-CP to MGS-CP

Additional possible savings:

There is a billing discrepancy in November 2016 at the Heart Center. The load factor came out to be 103% for that month. This could be a \$6,000 swing, in either direction, depending on what the error was.

We will need some additional information here, on how the operations were running last November. Error investigation is a but tricky, because we want to assure the error was in your favor prior to approach GUC!



Curtaiment Potential:

You have one account curtailing during coincident peaks that is presently saving about \$40,000 per event. If we can get the largest account for the Main Hospital doing this it could easily be \$100,000+ in additional savings. It is possible that SHIFT's EOS could provide a means by which this could be accomplished, and more.

Conclusion:

We are confident that proceeding with implementation of these recommendations will produce a net-positive impact on Vidant's bottom-line.

The minimum immediate achievable energy billing savings is: **\$43,000/year**

With additional measures, the possible savings could eclipse **\$400,000/year**

Water & Sewer

Water & Sewer billing can be prone to errors because of several factors including not only physical system inadequacies, such as an aging infrastructure or faulty metering, but also due to the complexities of newly increased regulatory requirements.

The Water & Sewer Rules and Regulations of the Greenville Utilities Commission offer a 6.5% allowance based on water consumption, on which they bill for sewer.

They also offer consumers the ability to be billed for Irrigation at 50% of combined water/sewer costs, as well as 100% of actual sewer, with some stipulations.

Based on the most recent 12 months of invoice data for the 2 largest water/sewer accounts, you can see how the number of gallons billed for sewer is exactly 93.5% of the gallons billed for water.

Vidant Heart Center Account# ██████████ 900000				
Service Month	Water Volume (Kgal)	Water Charge	Sewer Volume (kgal)	Sewer Charge
Jul-16	3,322.62	\$ 10,732.06	3,106.65	\$ 19,478.70
Aug-16	3,378.72	\$ 10,913.27	3,159.10	\$ 19,807.56
Sep-16	2,849.88	\$ 9,205.11	2,664.64	\$ 16,707.29
Oct-16	2,313.56	\$ 7,472.80	2,163.18	\$ 13,563.14
Nov-16	1,691.98	\$ 5,465.10	1,582.00	\$ 9,919.14
Dec-16	1,627.65	\$ 5,257.31	1,521.85	\$ 9,542.00
Jan-17	1,567.06	\$ 5,061.60	1,465.20	\$ 9,186.80
Feb-17	1,529.66	\$ 4,940.80	1,430.23	\$ 8,967.54
Mar-17	1,748.08	\$ 5,646.30	1,634.45	\$ 10,248.00
Apr-17	1,985.94	\$ 6,414.59	1,856.85	\$ 11,642.45
May-17	2,950.86	\$ 9,531.28	2,759.05	\$ 17,299.24
Jun-17	4,751.30	\$ 15,346.70	4,442.46	\$ 27,854.22
Jul-17	3,809.56	\$ 12,304.88	3,561.94	\$ 22,333.36
	33526.87	\$ 108,291.80	31347.60	\$ 196,549.44
Water vs. Sewer Gallons (31347.6/33526.87) =				93.5%
Total Cost of Water/Sewer =				\$ 304,841.24
Ratio Water:Sewer Cost =				1 to 1.82



Vidant Main Hospital - Account # [REDACTED] 900000				
Service Month	Water Volume (Kgal)	Water Charge	Sewer Volume (kgal)	Sewer Charge
Jul-16	9,877.34	\$ 31,903.81	9,235.31	\$ 57,905.39
Aug-16	9,118.12	\$ 29,451.53	8,525.44	\$ 53,454.51
Sep-16	8,108.32	\$ 26,189.87	7,581.28	\$ 47,534.63
Oct-16	6,663.18	\$ 21,522.07	6,230.08	\$ 39,062.60
Nov-16	6,499.37	\$ 20,992.97	6,076.91	\$ 38,102.23
Dec-16	5,657.87	\$ 18,274.92	5,290.11	\$ 33,168.99
Jan-17	4,071.36	\$ 13,150.49	3,806.73	\$ 23,868.20
Feb-17	4,103.53	\$ 13,254.40	3,836.80	\$ 24,056.74
Mar-17	4,658.54	\$ 15,047.08	4,355.74	\$ 27,310.49
Apr-17	3,973.38	\$ 12,834.02	3,715.11	\$ 23,293.74
May-17	4,651.06	\$ 15,022.92	4,348.74	\$ 27,266.60
Jun-17	6,147.06	\$ 19,855.00	5,747.50	\$ 36,036.83
Jul-17	6,101.44	\$ 19,707.65	5,704.84	\$ 35,769.35
	79,630.57	\$ 257,206.73	74,454.59	\$ 466,830.30
Water vs. Sewer Gallons (74454.59/79630.57) =				93.5%
Total Cost of Water/Sewer =				\$ 724,037.03
Ratio Water:Sewer Cost =				1 to 1.82

At a typical healthcare facility as much as 30% of the facility's water consumption is lost to evaporation through its cooling systems. We took the following picture while on-site

The largest usage occurs on 2 accounts; [REDACTED] Stantonsburg Rd - Main Hospital and [REDACTED] Moye Blvd - Heart Center, that have spent \$1,028,878.27 between them on water and sewer over the most recent 12 months.

Based on our initial observations we believe there to be significant potential for cost reduction here by more accurately assessing the actual discharge water from the facility. There are 2 possible options on how this could be accomplished:

Sub-Metering:

The cooling towers and other areas of high water consumption, such as laundry. By sub-metering the input and output of these areas in specific, we can obtain an accurate figure on the amount of water that is, in fact, not returning to the sewer for wastewater treatment. This should be treated just as irrigation water is, and thus would not be billed for both water and sewer, but just irrigation.

Discharge Metering:

The installation of a meter on the main discharge from the hospital would provide an accurate means by which to assess the actual wastewater. GUC would then invoice for the water meter, and sewer meters on the same invoice, but using actual consumption for each, versus the present allowance.



Recommendation:

Approach GUC and negotiate the implementation of more accurate sewer assessments based on actual discharge, from either equipment or the facility.

Util Auditors is willing to perform this function for Vidant. We are confident that our relative experience, and past success in implementation of this measure will enable us to deliver the best, and most efficient possible outcome for Vidant. The faster we can advance with this, the sooner the facility will begin saving.

Conclusion:

Sub-Metering the cooling towers alone will produce a projected 20% reduction on sewer charges. This would be a \$93,366 savings at the Main Hospital, and another \$39,309 at the Heart Center.

This is a combined projected savings of over **\$132,000/year** representing a **12.83% reduction in the total water and sewer spend at these 2 facilities.**

A discharge meter across all of the facilities would provide for the most accurate assessment of actual wastewater being returned to the sewer system, and that should be assessed wastewater fees. If additional usage data can be provided per facility, a more accurate analysis can be offered.

Solid Municipal Waste & Recycling

Waste Industries Service Account # [REDACTED] 35258

The primary objective of this Municipal Solid Waste (MSW) and Recycle Audit for Vidant Medical Center is to analyze current charges and fees for market competitiveness and to identify all cost saving opportunities to reduce future invoice charges. Util Auditors secondary objective is to identify any invoice overcharges and/or Service Agreement violations that would warrant a credit/refund by the current waste hauler, Waste Industries.

Municipal Solid Waste/Recycle Facts and Recommendations

1. The current Waste Industries Service Agreement for account # [REDACTED] 5258 is dated November 1, 2011 and includes a non-renewable service term period of sixty months. As of November 1, 2016, this Agreement has no binding effect.
2. A total of sixteen (16) service locations are billed on account # [REDACTED] 5258. The current services and charges for each location are as follows;



➤ **Pitt County Memorial Hospital (████ Moyo Blvd.)**

(a) ONE 30 yd. MSW (non-hazardous trash) compactor, serviced 3X/wk.

- Waste content billed at \$60.16/ton
- Pull charge at \$143.58 each
- Compactor rental at \$320.00/month
- Fuel Surcharge per pull at 8%

(b) ONE 30 yd. OCC (cardboard only) compactor, serviced 1X/wk.

- Content billed at \$60.16/ton
- Pull charge at \$143.58 each
- Compactor rental at \$330.00/month
- Fuel Surcharge per pull at 8%

(c) ONE 30 yd. commingled RECYCLE compactor, serviced 3X/wk.

- Content billed at \$60.16/ton
- Pull charge at \$143.58 each
- Compactor rental at \$320.00/month
- Fuel Surcharge per pull at 8%

➤ **PCMH Heart Institute (████ Moyo Blvd.)**

(a) ONE 30 yd. MSW (non-hazardous trash) compactor, serviced 1X/wk.

- Content billed at \$60.16/ton
- Pull charge at \$148.08 each
- Compactor rental at \$400.00/month
- Fuel Surcharge per pull at 8%

(b) ONE 30 yd. OCC (cardboard only) compactor, serviced 1X/wk.

- Content billed at \$60.16/ton
- Pull charge at \$147.30 each
- Compactor rental at \$400.00/month
- Fuel Surcharge per pull at 8%

(c) ONE 30 yd. commingled RECYCLE compactor, serviced 1X/wk.

- Content billed at \$60.16/ton
- Pull charge at \$148.08 each
- Compactor rental at \$400.00/month
- Fuel Surcharge per pull at 8%

➤ **Plant Operations Warehouse (████ Moyo Blvd.)**

(a) ONE 8 yd. MSW loose container, serviced 1X/wk.

- Billed at \$155.84/mo.
- Fuel Surcharge at 11%

(b) ONE 8 yd. OCC loose container, serviced 1X/wk.

- Billed at \$ 89.80/mo.
- Fuel Surcharge at 11%



- **West End Building (█████ Beasley Dr.)**
 - (a) ONE 8 yd. MSW loose container, serviced 2X/wk.**
 - Billed at \$310.60/mo.
 - Fuel Surcharge at 11%
 - (b) ONE 8 yd. OCC loose container, serviced 2X/wk.**
 - Billed at \$156.22/mo.
 - Fuel Surcharge at 11%

- **PCMH Support Building #1 (█████ Beasley Dr.)**
 - (a) TEN 96 gal. RECYCLE carts, serviced 1X/wk.**
 - Billed at \$15.10 each/mo.
 - Fuel Surcharge at 0.0%

- **PCMH Support Building #2 (█████ Beasley Dr.)**
 - (a) ONE 8 yd. MSW loose container. serviced 3X/wk.**
 - Billed at \$454.90/mo.
 - Fuel Surcharge at 11%

- **PCMH – A Child’s Place (█████ medical Drive)**
 - (a) ONE 8 yd. MSW loose container, serviced 2X/wk.**
 - Billed at \$310.60/mo.
 - Fuel Surcharge at 11%

- **Pain Management (█████ W. Arlington Blvd.)**
 - (a) ONE 8 yd. MSW loose container, service 1X/wk.**
 - Billed at \$155.84/mo.
 - Fuel Surcharge at 11%
 - (b) ONE 8 yd. OCC loose container, serviced 1X/wk.**
 - Billed at \$82.00/mo.
 - Fuel Surcharge at 11%

- **MED Direct (█████ W. Arlington Blvd.)**
 - (a) ONE 8 yd. MSW loose container, serviced 3X/wk.**
 - Billed at \$454.90/mo.
 - Fuel Surcharge at 11%
 - (b) ONE 8 yd. OCC loose container, serviced 1X/wk.**
 - Billed at \$89.80/mo.
 - Fuel Surcharge at 11%



➤ **Cardiovascular & Pulmonary Rehab (Stantonburg Shopping Ctr., [REDACTED] W. Arlington Blvd.)**

(a) ONE 4 yd. MSW loose container, serviced 1X/wk.

- Billed at \$116.64/mo.
- Fuel Surcharge at 11%

➤ **Pitt County Memorial Hospital ([REDACTED] Venture Dr.)**

(a) ONE 8 yd. MSW loose container, serviced 2X/wk.

- Billed at \$290.00/mo.
- Fuel Surcharge at 11%

(b) ONE 8 yd. OCC loose container, serviced 1X/wk.

- Billed at \$82.00/mo.
- Fuel Surcharge at 11%

➤ **Transportation Facility ([REDACTED] Memorial Dr.)**

(a) ONE 8 yd. MSW loose container, serviced 1X/wk.

- Billed at \$168.48/mo.
- Fuel Surcharge at 11%

(b) ONE 8 yd. OCC loose container, serviced 1X/wk.

- Billed at \$82.00/mo.
- Fuel Surcharge at 11%

➤ **PCMH Wound Healing Center ([REDACTED] 10th St.)**

(a) ONE 8 yd. MSW loose container, serviced 2X/wk.

- Billed at \$290.00/mo.
- Fuel Surcharge at 11%

(b) ONE 8 yd. OCC loose container, serviced 1X/wk.

- Billed at \$82.00/mo.
- Fuel Surcharge at 11%

➤ **Pitt County Memorial Hospital ([REDACTED] Smith Blvd.)**

(a) ONE 8 yd. MSW loose container, serviced 1X/wk.

- Billed at \$155.84/mo.
- Fuel Surcharge at 11%

(b) ONE 8 yd. OCC loose container, serviced 1X/wk.

- Billed at \$290.00/mo.
- Fuel Surcharge at 11%



➤ **Surgical Center of East Carolina (██████████Bethesda Dr.)**

(a) FOUR 96 gal. RECYCLE carts, serviced 1X/wk.

- Billed at \$12.50 each/mo.
- Fuel Surcharge at 0.0%

➤ **Pitt County I.T. Support (██████████Stantonburg Rd.)**

(a) TWO 96 gal. RECYCLE carts, serviced 1X/wk.

- Billed at \$13.00 each/mo.
- Fuel Surcharge at 0.0%

(b) ONE 8 yd. MSW loose container, serviced 1X/wk.

- Billed at \$155.84/mo.
- Fuel Surcharge at 11%

(c) ONE 8 yd. OCC loose container, serviced 1X/wk.

- Billed at \$82.00/mo.
- Fuel Surcharge at 11%

3. Vidant Medical's current Waste Industries Service Agreement does not include language to limit annual rate increases. This language is extremely necessary on future Service Agreements to avoid unwarranted and excessive rate hikes. UtilAuditors **recommends** an annual rate increase limit of no more than three **(3%)** percent.
4. For all future waste hauler Service Agreements, UtilAuditors **recommends** that Vidant Medical Center omit all provisional language related to "automatic" renewal periods and the waste haulers "right of first refusal". By omitting said provisional language, Vidant Medical will enhance its negotiable control over each waste hauler Agreement.
5. UtilAuditors has reviewed the option for Vidant Medical to purchase six 30 yard compactor containers in order to eliminate the current rental charges that total \$2,170.00 per month. After several in-depth discussions with Marathon Equipment Company, UtilAuditors **recommends** that Vidant Medical continue to rent its six compactor containers. The primary reasons in favor of renting said compactors are (a.) the lack of qualified technicians in the surrounding area to adequately service compactors when failures occur, (b.) waste haulers are reluctant to service compactors they do not own, (c.) waste hauler repair charges to compactors not owned are excessive, and (d.) repair service agreements may equal the cost of current rental charges.
6. UtilAuditors **recommends** that all six 30 yard compactors be equipped with a pressure gauge to maximize fill levels and minimize future haul/pull charges. From our audit, approximately thirty-five percent **(35%)** of all compactor hauls/pulls are currently unnecessary based on weight **(below 5.0 tons)**. By incorporating a pressure gauge to each compactor, fill volumes can be easily monitored to assure that tonnage levels are adequate before each haul/pull. Average number of compactor hauls/pulls per month currently equals forty-seven **(47)**.



7. At present, all compacted OCC (cardboard) and compacted commingled recyclables are being disposed as Municipal Solid Waste (MSW) by Waste Industries. UtilAuditors has discussed this issue with each waste hauler under consideration and the East Carolina Vocational Center (ECVC). All parties have stated that uncontaminated OCC (cardboard) can be accepted by ECVC **FREE** of any disposal cost (haul/pull rates do apply) and a rebate between **\$65.00** and **\$102.00** per ton will be paid to Vidant Medical... **OCC must be uncontaminated!**
8. All future uncontaminated commingled recyclables accepted by ECVC will include a disposal cost that's approximately **50%** less than the current disposal cost (haul/pull rates do apply).
9. Any future compactor OCC and/or comingled recyclable containers rejected by ECVC (due to contamination) will be charged at the re-negotiated municipal solid waste tonnage rate.
10. UtilAuditors **recommends** that Vidant Medical incorporate strict compactor container guidelines related to the disposal of OCC and commingled recyclables to assure that the contents from each container will be regularly accepted by ECVC. A representative from ECVC is prepared to meet with Vidant Medical as often as deemed necessary to assist with compliance guidelines.
11. UtilAuditors has analyzed area market rates for the collection/disposal of municipal solid waste, cardboard (OCC) and commingled recyclables. Based on our analysis, UtilAuditors has held multiple meetings with three area waste haulers to discuss Vidant Medical's current rates and to negotiate new lower rates that will substantially improve Vidant's annual municipal solid waste/recycle budget.

Below are the rates that UtilAuditors has negotiated with Waste Industries, Pak-R Disposal & Recycling Inc. and Republic Services. UtilAuditors highly **recommends** that Vidant Medical review all waste hauler quotes and interview each waste hauler before any commitment to a new Service Agreement.

Waste Industries Inc. Compactor Services Bid

Site ID: [REDACTED] 257 - Support / Pitt County Memorial Hospital, [REDACTED] Moye Dr.

\$900.00 - Total monthly rental rate for three trash/recycle compactors (**\$300.00** ea.). This represents a **7.2%** reduction in the current compactor rental total.

\$ 48.45 - Cost per ton of municipal solid waste (MSW). This represents a **19.5%** reduction in the current tonnage rate.

\$ 0.00 - Cost per ton of non-contaminated OCC (cardboard). This represents a **100%** reduction in the current tonnage rate. (**NOTE:** East Carolina Vocational Center will rebate Vidant Medical up to **\$102.00** per ton for non-contaminated OCC (cardboard) delivered to their facility. All contaminated OCC deliveries rejected by the East Carolina Vocational Center will be deemed as MSW and charged the MSW rate of **\$48.45** per ton.)



\$ 30.80 - Cost per ton for non-contaminated commingled recyclables. This represents a **48.9%** reduction in the current tonnage rate. (**NOTE:** All contaminated commingled recyclables rejected by the East Carolina Vocational Center will be deemed as MSW and charged the MSW rate of **\$48.45** per ton.)

\$120.00 - Cost per haul/pull on each compactor. This represents a **16.4%** reduction in the current haul/pull rate.

3% - Fuel/Environmental fee charged to each haul/pull. This represents a **62%** reduction in the current fuel/environmental fee.

Site ID. [REDACTED] 073 - PCMH Heart Institute, [REDACTED] Moye Dr.

\$900.00 - Total monthly rental rate for three trash/recycle compactors (**\$300.00** ea.). This represents a **25%** reduction in the current compactor rental total.

\$ 48.45 - Cost per ton of municipal solid waste (MSW). This represents a **19.5%** reduction in the current tonnage rate.

\$ 0.00 - Cost per ton of non-contaminated OCC (cardboard). This represents a **100%** reduction in the current tonnage rate. (**NOTE:** East Carolina Vocational Center will rebate Vidant Medical up to **\$102.00** per ton for non-contaminated OCC (cardboard) delivered to their facility. All contaminated OCC deliveries rejected by the East Carolina Vocational Center will be deemed as MSW and charged the MSW rate of **\$48.45** per ton.)

\$ 30.80 - Cost per ton for non-contaminated commingled recyclables. This represents a **48.9%** reduction in the current tonnage rate. (**NOTE:** All contaminated commingled recyclables rejected by the East Carolina Vocational Center will be deemed as MSW and charged the MSW rate of **\$48.45** per ton.)

\$120.00 - Cost per haul/pull on each compactor. This represents a **16.4%** reduction in the current haul/pull rate.

3% - Fuel/Environmental fee charged to each haul/pull. This represents a **62%** reduction in the current fuel/environmental fee.

Waste Industries, Inc. Off-Site Locations Bid

Site ID. [REDACTED] 735 - Stantonburg Shopping Ctr. / Health Steps

\$129.47 - Current Trash 4yd, 1X/wk.

\$ 75.19 - Proposed Trash 4yd, 1X/wk.

\$ 54.28 - Gross Savings per month (41.9%)

Site ID. [REDACTED] 860 - Transportation Facility, [REDACTED] Memorial Dr.

\$278.03 - Current Containers, (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.

\$141.37 - Proposed Containers (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.



\$136.66 - Gross Savings per month (49.2%)

Site ID. [REDACTED] 288 - Child's Place, [REDACTED] Medical Dr.

\$344.77 - Current Container, (1) Trash 8yd, 2X/wk.

\$189.52 - Proposed Containers (1) Trash 8yd, 2X/wk.

\$155.25 - Gross Savings per month (38%)

Site ID. [REDACTED] 677 – Venture Tower, [REDACTED] Venture Tower Dr.

\$412.92 - Current Containers, (1) Trash 8yd, 2X/wk. and (1) OCC 8yd, 1X/wk.

\$223.77 - Proposed Containers (1) Trash 8yd, 2X/wk. and (1) OCC 8yd, 1X/wk.

\$189.15 - Gross Savings per month (45.8%)

Site ID. [REDACTED] 553 - Pain Management, [REDACTED] W. Arlington Blvd.

\$264.00 - Current Containers, (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.

\$141.37 - Proposed Containers (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.

\$122.63 - Gross Savings per month (46.5%)

Site ID. [REDACTED] 121 - Surgi Center of East Carolina, [REDACTED] Bethesda Dr.

\$ 50.00 - Current Containers, (4) 96 Gal. Recycle Carts, 1X/wk.

\$ 32.00 - Proposed Containers (4) 96 Gal. Recycle Carts, 1X/wk.

\$ 18.00 - Gross Savings (36%)

Site ID. [REDACTED] 609 - PCMH I.T. Support Bldg., [REDACTED] Stantonburg Rd.

\$290.00 - Current Containers, (1) Trash 8yd, 1X/wk., (1) OCC 8yd, 1X/wk. and (2) Recycle Carts 1X/wk.

\$157.37 - Proposed Containers (1) Trash 8yd, 1X/wk., (1) OCC 8yd, 1X/wk. and (2) Recycle Carts 1X/wk.

\$132.63 - Gross Savings per month (45.7%)

Site ID. [REDACTED] 463 – PCMH Support Building, [REDACTED] Beasley Dr.

\$167.83 - Current Containers, (10) 96 Gal. Recycle Carts, 1X/wk.

\$ 80.00 - Proposed Containers, (10) 96 Gal. Recycle Carts 1X/wk.

\$ 87.83 - Gross Savings (52.3%)

Site ID. [REDACTED] 441 – PCMH Support Building [REDACTED] Beasley Dr.

\$504.94 - Current Trash 8yd, 3X/wk.

\$270.89 – Proposed Trash 8 yd, 3X/wk.

\$234.05 - Gross Savings (46.4%)

Site ID. [REDACTED] 276 – West End Building, [REDACTED] Beasley Dr.

\$518.17 - Current Containers, (1) Trash 8yd, 2X/wk. and (1) OCC 8yd, 2X/wk.

\$258.03 - Proposed Containers (1) Trash 8yd, 2X/wk. and (1) OCC 8yd, 2X/wk.

\$260.14 - Gross Savings per month (50.2%)

Site ID. [REDACTED] 289 – Plant Operations Warehouse, [REDACTED] Moyer Dr.

\$272.66 - Current Containers, (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.

\$141.37 - Proposed Containers (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.

\$131.29 - Gross Savings per month (48.2%)



Site ID. [REDACTED] 707 – MED Direct, [REDACTED] W. Arlington Blvd.

\$604.62 - Current Containers, (1) Trash 8yd, 3X/wk. and (1) OCC 8yd, 1X/wk.

\$305.14 - Proposed Containers (1) Trash 8yd, 3X/wk. and (1) OCC 8yd, 1X/wk.

\$299.48 - Gross Savings per month (49.5%)

Site ID. [REDACTED] 348 – PCMH Wound Healing Center, [REDACTED] 10th St.

\$412.92 - Current Containers, (1) Trash 8yd, 2X/wk. and (1) OCC 8yd, 1X/wk.

\$223.77 - Proposed Containers (1) Trash 8yd, 2X/wk. and (1) OCC 8yd, 1X/wk.

\$189.15 - Gross Savings per month (45.8%)

Site ID. [REDACTED] 381 – Pitt County Memorial Hospital, [REDACTED] Smith Blvd.

\$272.66 - Current Containers, (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.

\$141.37 - Proposed Containers (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.

\$131.29 - Gross Savings per month (48.2%)

Summary of Cost Savings with Waste Industries, Inc.

Vidant Medical Compactor Locations

\$25,053.32 - Current Average Monthly Charges/Fees

\$18,544.41 - Proposed Average Monthly Charges/Fees, Excluding OCC Rebate.

\$ 6,508.91 - Gross Monthly Savings (26%)

Vidant Medical Off-Site Locations

\$4,522.99 - Current Monthly Charges/Fees

\$2,381.16 - Proposed Monthly Charges/Fees

\$2,141.83 - Gross Monthly Savings (47.4%)

All Vidant Medical Locations (Account [REDACTED] 358)

\$29,576.31 - Current Average Monthly Charges/Fees

\$20,925.57 - Proposed Average Total Charges/Fees, Excluding OCC Rebate

\$ 8,650.74 - Gross Average Monthly Savings (29.2%), Excluding OCC Rebate



PAK-R Disposal & Recycling Compactor Services Bid

Site ID. [REDACTED] 257 - Support / Pitt County Memorial Hospital, [REDACTED] Moye Dr.

\$1,152.00 - Total monthly rental rate for three trash/recycle compactors (\$384.00 ea.). This represents a 18.8% increase in the current compactor rental total.

\$ 48.00 - Cost per ton of municipal solid waste (MSW). This represents a 20.2% reduction in the current tonnage rate.

\$ 0.00 - Cost per ton of non-contaminated OCC (cardboard). This represents a 100% reduction in the current tonnage rate. (NOTE: East Carolina Vocational Center will rebate Vidant Medical up to \$102.00 per ton for non-contaminated OCC (cardboard) delivered to their facility. All contaminated OCC deliveries rejected by the East Carolina Vocational Center will be deemed as MSW and charged the MSW rate of \$48.00 per ton.)

\$ 30.00 - Cost per ton for non-contaminated commingled recyclables. This represents a 50.1% reduction in the current tonnage rate. (NOTE: All contaminated commingled recyclables rejected by the East Carolina Vocational Center will be deemed as MSW and charged the MSW rate of \$48.00 per ton.)

\$ 125.00 - Cost per haul/pull on each compactor. This represents a 12.9% reduction in the current haul/pull rate.

0.0% - Fuel/Environmental fee charged to each haul/pull. This represents a 100% reduction in the current fuel/environmental fee.

Site ID. [REDACTED] 073 - PCMH Heart Institute, [REDACTED] Moye Dr.

\$1,152.00 - Total monthly rental rate for three trash/recycle compactors (\$384.00 ea.). This represents a 4% reduction in the current compactor rental total.

\$ 48.00 - Cost per ton of municipal solid waste (MSW). This represents a 20.2% reduction in the current tonnage rate.

\$ 0.00 - Cost per ton of non-contaminated OCC (cardboard). This represents a 100% reduction in the current tonnage rate. (NOTE: East Carolina Vocational Center will rebate Vidant Medical up to \$102.00 per ton for non-contaminated OCC (cardboard) delivered to their facility. All contaminated OCC deliveries rejected by the East Carolina Vocational Center will be deemed as MSW and charged the MSW rate of \$48.00 per ton.)

\$ 30.00 - Cost per ton for non-contaminated commingled recyclables. This represents a 50.1% reduction in the current tonnage rate. (NOTE: All contaminated commingled recyclables rejected by the East Carolina Vocational Center will be deemed as MSW and charged the MSW rate of \$48.00 per ton.)

\$ 125.00 - Cost per haul/pull on each compactor. This represents a 15.6% reduction in the current haul/pull rate.

0.0% - Fuel/Environmental fee charged to each haul/pull. This represents a 100% reduction in the



current fuel/environmental fee.

PAK-R Disposal & Recycling Off-Site Locations Bid

Site ID. ████████735 - Stantonburg Shopping Ctr. / Health Steps

\$129.47 - Current Trash 4yd, 1X/wk.

\$ 75.00 - Proposed Trash 4yd, 1X/wk.

\$ 54.47 - Gross Savings per month (42.1%)

Site ID. ████████860 - Transportation Facility, ████████Memorial Dr.

\$278.03 - Current Containers, (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.

\$152.00 - Proposed Containers (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.

\$126.03 - Gross Savings per month (45.3%)

Site ID. ████████288 - Child's Place, ████████Medical Dr.

\$344.77 - Current Container, (1) Trash 8yd, 2X/wk.

\$189.00 - Proposed Containers (1) Trash 8yd, 2X/wk.

\$155.77 - Gross Savings per month (45.2%)

Site ID. ████████677 - Venture Tower, ████████Venture Tower Dr.

\$412.92 - Current Containers, (1) Trash 8yd, 2X/wk. and (1) OCC 8yd, 1X/wk.

\$234.00 - Proposed Containers (1) Trash 8yd, 2X/wk. and (1) OCC 8yd, 1X/wk.

\$178.92 - Gross Savings per month (43.3%)

Site ID. ████████553 - Pain Management, ████████Arlington Blvd.

\$264.00 - Current Containers, (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.

\$152.00 - Proposed Containers (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.

\$112.00 - Gross Savings per month (42.4%)

Site ID. ████████121 - Surgi Center of East Carolina, ████████Bethesda Dr.

\$ 50.00 - Current Containers, (4) 96 Gal. Recycle Carts, 1X/wk.

\$ 24.00 - Proposed Containers (4) 96 Gal. Recycle Carts, 1X/wk.

\$ 26.00 - Gross Savings (52%)

Site ID. ████████609 - PCMH I.T. Support Bldg., ████████Stantonburg Rd.

\$290.00 - Current Containers, (1) Trash 8yd, 1X/wk., (1) OCC 8yd, 1X/wk. and (2) Recycle Carts 1X/wk.

\$167.00 - Proposed Containers (1) Trash 8yd, 1X/wk., (1) OCC 8yd, 1X/wk. and (2) Recycle Carts 1X/wk.

\$123.00 - Gross Savings per month (42.4%)

Site ID. ████████463 - PCMH Support Building, ████████Beasley Dr.

\$167.83 - Current Containers, (10) 96 Gal. Recycle Carts, 1X/wk.

\$ 60.00 - Proposed Containers, (10)96 Gal. Recycle Carts 1X/wk.

\$107.83 - Gross Savings (64.2%)

Site ID. ████████441 - PCMH Support Building ████████Beasley Dr.

\$504.94 - Current Trash 8yd, 3X/wk.

\$271.00 - Proposed Trash 8 yd, 3X/wk.

\$233.94 - Gross Savings (46.3%)



Site ID. [REDACTED] 276 – West End Building, [REDACTED] Beasley Dr.

\$518.17 - Current Containers, (1) Trash 8yd, 2X/wk. and (1) OCC 8yd, 2X/wk.
\$250.00 - Proposed Containers (1) Trash 8yd, 2X/wk. and (1) OCC 8yd, 2X/wk.
\$268.17 - Gross Savings per month (51.8%)

Site ID. [REDACTED] 289 – Plant Operations Warehouse, [REDACTED] Moye Dr.

\$272.66 - Current Containers, (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.
\$152.00 - Proposed Containers (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.
\$120.66 - Gross Savings per month (44.3%)

Site ID. [REDACTED] 707 – MED Direct, [REDACTED] W. Arlington Blvd.

\$604.62 - Current Containers, (1) Trash 8yd, 3X/wk. and (1) OCC 8yd, 1X/wk.
\$316.00 - Proposed Containers (1) Trash 8yd, 3X/wk. and (1) OCC 8yd, 1X/wk.
\$288.62 - Gross Savings per month (47.7%)

Site ID. [REDACTED] 348 – PCMH Wound Healing Center, [REDACTED] 10th St.

\$412.92 - Current Containers, (1) Trash 8yd, 2X/wk. and (1) OCC 8yd, 1X/wk.
\$234.00 - Proposed Containers (1) Trash 8yd, 2X/wk. and (1) OCC 8yd, 1X/wk.
\$178.92 - Gross Savings per month (43.3%)

Site ID. [REDACTED] 381 – Pitt County Memorial Hospital, [REDACTED] Smith Blvd.

\$272.66 - Current Containers, (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.
\$152.00 - Proposed Containers (1) Trash 8yd, 1X/wk. and (1) OCC 8yd, 1X/wk.
\$120.66 - Gross Savings per month (44.3%)

Summary of Cost Savings with PAK-R Disposal & Recycling

Vidant Medical Compactor Locations

\$25,053.32 - Current Average Monthly Charges/Fees
\$19,013.00 - Proposed Average Monthly Charges/Fees, Excluding OCC Rebate.
\$ 6,040.32 - Gross Monthly Savings (24.1%)

Vidant Medical Off-Site Locations

\$4,522.99 - Current Monthly Charges/Fees
\$2,428.00 - Proposed Monthly Charges/Fees
\$2,094.99 - Gross Monthly Savings (46.3%)

All Vidant Medical Locations

\$29,576.31 - Current Average Monthly Charges/Fees
\$21,441.00 - Proposed Average Total Charges/Fees, Excluding OCC Rebate
\$ 8,135.31 - Gross Average Monthly Savings (27.5%), Excluding OCC Rebate



12. At present, the average monthly OCC (cardboard) volume that Vidant Medical disposes into its two OCC only compactor containers equals **32.65** tons. Should all OCC deliveries to ECVC be accepted (uncontaminated), then Vidant Medical can expect a rebate that will range from **\$2,122.00** to **\$3,918.00** per month.

13. East Carolina Vocational Center (ECVC) follows these basic guidelines for acceptance of OCC (Cardboard);
 - Cardboard **cannot** include Styrofoam, box strapping, plastic, wood, medical waste or waxed cardboard.
 - Cardboard **must** be dry with a **2%** moisture acceptance level.

14. At present, UtilAuditors **cannot** determine the average monthly commingled recyclable volume. The current commingled recyclable volumes are being disposed and charged as municipal solid waste. For ECVC to accept Vidant Medical's two commingled recyclable compactor container volumes at **\$30.00** or **\$30.80/ton**, the following guidelines are provided;
 - Commingled material **cannot** include plastic bags, Styrofoam, ceramic, glassware, plastic food trays, pots and pans, electronics, box strapping, food items.

Prior to the implementation of a new Service Agreement, UtilAuditors will assist Vidant Medical as follows;

- UtilAuditors will schedule meetings between Vidant Medical and each waste haulers,
- UtilAuditors will schedule an initial meeting with ECVC officials regarding the disposal of OCC (cardboard) and commingled recyclables,
- UtilAuditors will advise Vidant Medical of terms and conditions that must be included in the new Service Agreement,
- UtilAuditors will privately review all waste hauler bids with Vidant Medical officials to assure a confident final decision.



Approval/Denial and the Implementation Process

Approval/Denial of Recommendations – Vidant to provide:

Client to approve or deny pursuit of cost reduction measure, and/or refunds identified in Initial Audit.

Implementation - Util to provide:

Where client-approved, Util will work directly with utility provider to implement the cost reduction measures recommended.

Validation of Cost Reductions/ Refunds – Util to provide:

Util will validate that cost reductions have been implemented by verifying cost savings on the first billing cycle following implementation.

Invoice (As Savings are Received and Validated) – Util to provide:

Following validation of Vidant's receipt of a realized benefit for the client-approved, cost reduction recommendation Util will invoice per the agreed upon terms.

Util will provide ongoing analysis to demonstrate how cost savings are being achieved.

Conclusion

Our audit team is prepared to discuss the recommendations made herein, as soon as you are. Thank you for your cooperation and assistance in the completion of this process for the water/sewer and energy cost centers.

I personally look forward to the seeing these recommendations through to completion, and verifying cost savings for the Vidant Health organization.

With some additional cooperation from Vidant staff we hope to deliver results for the Merchant Processing, and possibly the Workers' Comp Premium audits upon receipt of the initial data required.

Respectfully Yours,

William Kurtzner
Managing Util Auditor