NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**

ROY COOPER • Governor

MANDY COHEN, MD, MPH • Secretary

MARK PAYNE • Director, Division of Health Service Regulation

VIA EMAIL ONLY

April 15, 2021

Kristy Hubard
Kristy.hubard@nhrmc.org

Exempt from Review – Replacement Equipment
Record #:   **3532**
Date of Request: April 14, 2021
Facility Name: New Hanover Regional Medical Center
FID #:   943372
Business Name: Novant Health New Hanover Regional Medical Center
Business #:   3330
Project Description: Replace existing CT scanner
County: New Hanover

Dear Ms. Hubard:

The Healthcare Planning and Certificate of Need Section, Division of Health Service Regulation (Agency), determined that the above referenced project is exempt from certificate of need review in accordance with G.S. 131E-184(a)(7). Therefore, you may proceed to acquire without a certificate of need the GE Revolution Apex CT scanner to replace the GE BrightSpeed 16-slice CT scanner, serial number 3933309CN0. This determination is based on your representations that the existing unit will be sold or otherwise disposed of and will not be used again in the State without first obtaining a certificate of need if one is required. In addition, the replacement GE Revolution Apex CT scanner will be relocated from the location of the existing 16-slice GE BrightSpeed CT scanner (CT Department Room 1) to the ED and an existing 64-slice GE VCT scanner will be relocated from the ED to CT Department Room 1 as outlined in your letter.

It should be noted that the Agency's position is based solely on the facts represented by you and that any change in facts as represented would require further consideration by this office and a separate determination. If you have any questions concerning this matter, please feel free to contact this office.

Sincerely,

Tanya M. Saporito
Project Analyst

for

Lisa Pittman
Acting Chief, Certificate of Need

cc: Radiation Protection Section, DHSR
        Construction Section, DHSR

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES • DIVISION OF HEALTH SERVICE REGULATION

HEALTHCARE PLANNING AND CERTIFICATE OF NEED SECTION

LOCATION: 809 Ruggles Drive, Edgerton Building, Raleigh, NC 27603
MAILING ADDRESS: 809 Ruggles Drive, 2704 Mail Service Center, Raleigh, NC 27699-2704
https://info.ncdhhs.gov/dhsr/ • TEL: 919-855-3873

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

New Hanover Regional Medical Center

April 12, 2021

Ms. Lisa Pittman, Assistant Chief
Healthcare Planning and Certificate of Need Section
Division of Health Service Regulation
NC Department of Health and Human Services
2704 Mail Service Center
Raleigh, North Carolina 27699-2704

RE: Request for No Review Determination for Replacement of Equipment / New Hanover County

Dear Ms. Pittman:

Pursuant to 10A NCAC 14C.0202, Novant Health New Hanover Regional Medical Center ("NHNHRMC")
intends to replace its 16-slice GE BrightSpeed computed tomography (CT) scanner with a HD GE
Revolution Apex CT scanner and requests a determination that such replacement is exempt from review
because it falls within the definition of NCGS § 131E-184 (a)(7) and the regulations set out in 10A NCAC
14C.0303. The existing CT scanner at NHRMC was installed in June 2014, however the CT scanner was
reconditioned when purchased and has reached the end of its useful life. The existing CT scanner will be
traded-in to Brooks Medical Systems for a $45,000 credit.

The project will also involve the relocation of an existing CT scanner within NHRMC, as the following table
highlights:

CT Scanner	Current Location	Location After Project Completion
16-Slice GE BrightSpeed	NHRMC CT Department Room 1	Traded-In to Brooks Medical Systems
64-Slice GE VCT	NHRMC ED Department	NHRMC CT Department Room 1
HD GE Revolution Apex	To Be Purchased	NHRMC ED Department

Brooks Medical Systems will provide the following as a part of this project in exchange for traded-in
equipment totaling $55,000:
- 30-day interim mobile CT service with GE VCT 64-slice.
- Relocation of 64-Slice GE VCT to include de-installation, relocation, installation, and calibration.
- CT table exchange.

Construction costs associated with electrical and HVAC systems total $40,000.

Exemption from Review

Pursuant to NCGS § 131E-184(a): "The department shall exempt from certificate of need review a new
institutional health service if it receives prior written notice from the entity proposing the new institutional
health service, when notice includes an explanation of why the new institutional health service is required,
for any of the following: ... (7) To provide replacement equipment."

NCGS § 131E-176(22a) defines "replacement equipment" as equipment that costs less than $2,000,000 and is purchased for the sole purpose of replacing comparable medical equipment currently in use which will be sold or otherwise disposed of when replaced.

Applicable Regulations

10A NCAC 14C.0303 defines "comparable medical equipment" as equipment that "is functionally similar and which is used for the same diagnostic or treatment purposes." Replacement equipment is comparable if:

(1)   it has the same technology as the equipment currently in use, although it may possess expanded capabilities due to technological improvements; and

(2)   it is functionally similar and is used for the same diagnostic or treatment purposes as the equipment currently in use and is not used to provide a new health service; and

(3)   the acquisition of the equipment does not result in more than a 10% increase in patient charges or per procedure operating expenses within the first twelve months after the replacement equipment is acquired.

Replacement equipment is not comparable to the equipment being replaced if the replacement equipment is capable of performing procedures that could result in the provision of a new health service or type of procedure that has not been provided with the existing equipment.

Compliance

NHRMC hereby certifies that:

1. The estimated project costs for the replacement of the existing CT scanner is less than $2,000,000.
2. The replacement equipment will be purchased for the sole purpose of replacing comparable equipment currently in use, which will be traded in for disposal and removed from North Carolina. A comparison of the existing and replacement equipment is provided in Exhibit A.
3. The replacement equipment is functionally similar to existing equipment and will be used for the same diagnostic and/or treatment procedures as the equipment currently in use.
4. No increase in charges will occur within the first twelve months after the replacement equipment is acquired.
5. The average cost per CT scan will not increase as a result of the equipment replacement.

Determination Requested

NHRMC requests that the Division of Health Service Regulation make a determination that the replacement of the CT scanner, as proposed herein, does not constitute new institutional health services and is thus exempt from certificate of need review.

If you require additional information concerning this request, please contact me at 910-667-5908.

Sincerely,

Kristy Hubard
Chief Strategy Officer
Novant Health New Hanover Regional Medical Center

Exhibit A - Existing/Replacement Equipment Comparison

New Hanover Regional Medical Center

EQUIPMENT COMPARISON

	EXISTING EQUIPMENT	REPLACEMENT EQUIPMENT
Equipment Location	NHRMC	NHRMC
Type of Equipment	CT	CT
Manufacturer	GE	GE
Model	BrightSpeed 16-Slice	Revolution Apex
Serial Number	3933309CN0	TBD at purchase
Date of Acquisition	June 2014	May 2021
Specify if Equipment Was/Is New or Used When Acquired	Used	New
Total Capital Cost of Project (Including Construction, etc.)	$235,246	$1,936,394 $40,000 (Electrical/HVAC Work) $55,000 (Brooks Medical Systems) $189,523 (AW Server) $1,651,871 (CT Scanner)
Total Cost of Equipment	$185,246	$1,651,871
Percent of Change in Patient Charges (by Procedure)	N/A	0%
Type of Procedures Currently Performed on Existing Equipment	Diagnostic CT scan	Diagnostic CT scan

QUOTATION

TO:

John Kahler

Manager Biomedical Imaging

New Hanover Regional Medical Center

2131 S. 17th Street

Wilmington, NC 28402

FOR: Interim Mobile CT Service and system relocation of GE Medical VCT 64 CT Scanner

- 30 days interim mobile service with GE Medical VCT 64

  Price: $ 30,000.00

- Relocate GE Medical VCT 64 CT scanner within same facility. This includes the de-installation of said system, labor to transport the system within the facility and installation of this scanner in the room which housed the GE Medical Brightspeed CT. Site must have proper environmental/power conditions. System would be installed and calibrated.

  Price: 18,000.00

- Installation of Model 1700 table, to be exchanged with existing Model 2000 table

  Price: 7,000.00

TOTAL PRICE: $ 55,000.00

PRICE: Brooks Medical Systems will accept the following items in trade for work and services

- GE Medical Brightspeed 16 CT Scanner, with new tube installed 3/21 $ 45,000.00
- GE Medical GOC6.6 console   6,000.00
- GE Medical misc. console parts from GOC5 console   2,500.00
- GE Medical Logic E9 with four (4) transducers   1,500.00

TOTAL EXCHANGED GOODS VALUE: $55,000.00

To Accept This Quotation

Please sign and return this quotation together with your
Purchase Order to:

Name: Pete Swyt

Email peter.swyt@ge.com

Phone: 843-810-0935

Fax:

Name: Jim Benecki

Email: jim.benecki@ge.com

Phone: (615) 390-3634

Fax: (910) 401-1049

Payment Instructions

Please **remit** payment for invoices associated with this
quotation to:

GE Precision Healthcare LLC
P.O. Box 96483
Chicago, IL 60693

FEIN: 83-0849145

New Hanover Regional Medical Center

Addresses:

| Bill To: | NEW HANOVER REGIONAL MEDICAL CENTER | NEW HANOVER REGIONAL MEDICAL, CENTER PO BOX 1649 WILMINGTON, NC, 28402-1649 |
| Ship To: | NEW HANOVER REGIONAL MEDICAL CENTER | CENTER 2131 S 17TH ST WILMINGTON, NC, 28401-7407 |

To Accept This Quotation

- Please sign the quote and any included attachments (where requested).
- If requested, please indicate your form of payment.
- If you include a purchase order, please make sure it references the following information:
    - The correct Quote number and Version number above
    - The correct Remit To information as indicated in **"Payment Instructions"** above
    - Your correct SHIP TO and BILL TO site name and address
    - The correct Total Price as indicated above

Upon submission of a purchase order in response to this quotation, GE Healthcare requests the following to evidence agreement to contract terms: Signature page on quote filled out with signature and P.O. number   **** OR**** Verbiage on the purchase order must state one of the following:

(i)Per the terms of Quotation # _____, (ii) Per the terms of GPO #_____; (iii) Per the terms of MPA# _____: or (iv) Per the terms of SAA # _____.

Include applicable quote/agreement number with the reference on the purchase order. In addition, Source of Funds (choice of Cash/Third Party Load or GE HFS Lease Loan or Third Party Lease through _____), must be indicated, which may be done on the Quote Signature Page (for signed quotes), or the Purchase Order (where quotes are not signed) or via a separate written source of funds statement (if provided by GE Healthcare)."

Catalog Item Details

Line	Qty.	Catalog	
1	1.00	Y0000LC	**Pricing Non-Disclosure Language**

This CONFIDENTIAL offer may not be shared with any third parties, buying evaluation groups or anyone not directly employed by customer. This offer is being extended in relation to a national show-site agreement, research partnership, or other non-standard transaction. If required for publishing, GE will happily provide a list price quote.

Line	Qty.	Catalog	
2	1.00	S7919AT	**Revolution Apex EL Digital**

Revolution Apex is the GE Healthcare next-generation, ultra-premium Computed Tomography scanner to provide the new way to your best image. Revolution Apex has achieved a breakthrough in image quality to have outstanding image definition, natural image appearance and low dose, all at the same time. You will have the image quality that you need to deliver a powerful first impression every time.

Revolution Apex delivers an uncompromised set of clinical solutions for your most challenging patients to ensure you achieve your best images for all patients:
• 1-beat Cardiac at any heart rate, even in Atrial Fibrillation
• High resolution coronary imaging, even for patients with heavily calcified coronaries
• Low kV TAVI planning, even for patients with impaired renal function
• Dynamic whole-heart myocardial perfusion, without the need to shuttle the table
• Low kV imaging, even for adults and obese patients
• Uncompromised image quality for excessively obese patients
• Low-dose chest CT within one second for patients who cannot hold their breath
• Acute ischemia stroke CT workup in less than 5 minutes
• Pediatric imaging, with minimal need for sedation

With the power of a new image chain, Revolution Apex has elevated what you can expect from industry leading spatial resolution, temporal resolution, coverage and spectral imaging:
• Maximum 1,300 mA X-ray output
• 160 mm z-coverage in a single axial exposure
• 1-beat Cardiac with 29 ms effective temporal resolution
• TrueFidelity CT Images generated by deep learning for stellar image quality on every exam
• 50 cm FOV
• Ultra-fast kV switching and spectral imaging ready
• 80 cm bore size

Revolution Apex has been designed with future upgradability as a key goal to ensure longevity of the state of the art technology to help you continually provide best in class care to your patients.
The Revolution Apex EL Digital configuration additionally includes the following:
• Smart Phase – which can be utilized following a cardiac scan to determine the optimal phase location for coronary imaging within the acquired range
Integrated cardiac module
• Smart Subscription for Revolution APEX - At GE Healthcare CT, we believe great care happens by design. Smart Subscription's design, started with a broad vision: to help you deliver the best patient care, not just today but for the life of your CT investment. We understand your challenges: declining reimbursements, increased workloads, shortage of radiologists, workflow challenges, aging fleets and lack of capital funds. In response, we designed Smart Subscription, a subscription service that provides convenient and continuous access to the latest commercially available software for your CT scanners for one simple annual subscription. As part of implementing the Smart Subscription solution on your site, GE Healthcare may provide additional hardware (e.g., a server) to enable functionality.

Line	Qty.	Catalog	
3	1.00	B7919JM	**NG2000V heavy patient table**

The NG2000V heavy patient table has been exclusively designed for GEHC Ultra-premium CT systems.

The patient table features:
Maximal metal free horizontal scannable range: 2000 mm
Maximal table load: 306 kg / 675 lbs.
Maximal horizontal travel speed: 300 mm/s (standard) (437.5 mm/s optional with HyperDrive)
Horizontal positioning accuracy +/- 0.25 mm from any direction
Motor-driven table height adjustment from min. 550 mm to max. 1030 mm
Maximal vertical travel speed: 40 mm/s
10x more stiffness design to meet AAPM TG66 guideline specification.
Integrated ECG module with waveform and configuration through the gantry display
Workflow hub area with a see-through tray to give you the most flexibility in placing scanning related supplies, etc. without limiting visibility to the integrated ECG inputs.
IV Pole integrated at the foot-end of the table helps to prevent IV lines from becoming crossed and tangled and helps keep lines in place during patient table travel.
The X-strong foot switch cover, capable of supporting 612 kg / 1350 lbs. load, has been specially designed to support physicians or technologies to stand atop of it to implement diagnostic and/or treatment procedures to patients.

Line	Qty.	Catalog	
4	1.00	B7919AE	**Standard cable set for GEHC ultra-premium CT systems**

Line	Qty.	Catalog	
5	1.00	B7918EN	**English keyboard**

Line	Qty.	Catalog	
6	1.00	B7919KG	**ICM Accessories 2000 Table**

The accessories of Integrated Cardiac Monitor (ICM) for 2000mm regular and heavy tables on Revolution Apex, Revolution CT, Revolution CT ES.

Line	Qty.	Catalog	
7	1.00	B7919FF	**Neuro MultiPhase CTA Protocols**

• Neuro Multiphase CTA protocols is the group of CT acquisition protocols for multiphase CT angiography, an imaging tool that provides three time-resolved images of pial arterial filling in the whole brain, that can be used to predict clinical outcomes in patients with acute ischemic stroke.
• Neuro Multiphase CTA Protocols is the purchasable option of Revolution CT 2016 summer release.

Line	Qty.	Catalog	

| 8 | 1.00 | B7919FX | HyperDrive on GE ultra-premium CT systems |

HyperDrive is an unmatched high pitch scan mode on GE ultra-premium CT systems that combined wide coverage acquisition with high pitch helical techniques to achieve speeds up to 437 mm/s with uncompromised 50 cm field of view and image quality. This additional scan mode is especially beneficial in trauma or pediatrics environments.

Line	Qty.	Catalog	
9	1.00	B75002CD	**CT Operator Console Desk**

The CT workspace is an ergonomic working environment specifically designed for use with the GE Healthcare imaging systems. The sleek table design enables the efficient use of space while enhancing clinical workflow and technologist comfort.

The workspace provides a minimalist footprint to improve patient visibility and giving the user easier access to patients in the imaging suite.

It can also help reduce noise and heat with remote location options of the console. It is 51.2" long x 35.25" wide x 33.5" in height and weighs 122.8 lbs.   1300mm long x 895mm wide x 850mm in height and weighs 55.8kg

Line	Qty.	Catalog	
10	1.00	B7660B	**Chair**

Chair for CT scanner

Line	Qty.	Catalog	
11	1.00	B77292CA	**CT Service Cabinet**

Service cabinet for system accessories storage

Line	Qty.	Catalog	
12	1.00	B7864PZ	**Eaton 14.4 KVA 3-Phase Partial System UPS for GE CT and PET/CT Scanners**

Eaton's 14.4 KVA 3-Phase partial system UPS (Uninterruptible Power Supply) has been specifically configured to coordinate with compatible GE CT and PET/CT scanners.

The partial system UPS provides clean, reliable, constant voltage power to the scanner electronics. It helps protect the system's sensitive electronic components from damaging power anomalies such as high frequency noise transients and over voltage and under voltage conditions.

Utilizing the Partial system UPS can help maintain user productivity and improve system reliability. It can also help to reduce service costs and prevent system downtime.

Specifications:
1. Rating: 14.4 KVA
2. Input voltage range: three phases; 102-132V/phase

3. Input frequency range: 45-65 Hertz
4. Input power factor: >95% typical
5. Output frequency: 50 or 60 Hertz, autosensing
6. Output regulation: <3% steady state for all conditions of line and load
7. Voltage distortion: <5% threshold
8. Overload capacity: 110% for 10 minutes; 125% for 1 minute; 149% for 5 seconds.
9. Efficiency: >90% typical
10. Battery backup time: >10 minutes typical
11. Battery recharge time: < 3 hours to 80% capacity typical
12. Operating temperature: 50°F - 104°F (10°C - 40°C)
13. Floor heat dissipation: 5122 BTU/hour typical @11.5 KVA
14. Humidity: 20-80% relative humidity, non-condensing
15. Audible noise (norm mode): <60 dBA @1 meter
16. Dimensions (H x W x D): 49 inches x 12 inches x 32 inches (1245 mm x 305 mm x 813 mm)
17. Weight: 620 lbs (277 kg)

NOTE: THE PARTIAL SYSTEM UPS HAS DIFFERENT INTERACTIONS WITH COMPATIBLE SCANNERS, BASED ON DIFFERENT SCANNER POWER ARCHITECHURE. REFER TO THE PARTIAL SYSTEM UPS PRODUCT DATA SHEET FOR DETAILS.
NOTE: ITEM IS NON-RETURNABLE AND NON-REFUNDABLE
NOTE: REMOVAL/DISPOSAL OF OLD UPS IS THE CUSTOMERS RESPONSIBILITY
NOTE: CONTACT GE SERVICE OR EATON FOR START-UP ASSISTANCE

Line	Qty.	Catalog	
13	1.00	B7900LC	Low Dose CT Lung Screening Option with Indication For Use

This option provides lung screening reference protocols that are tailored to the CT system, patient size (small, average large), and the most current recommendations from a wide range of professional medical and governmental organizations. Now, qualified GE Healthcare CT scanners with this option are formally indicated for, and can be confidently used by physicians for low dose CT lung cancer screening of identified high-risk patient populations. These protocols deliver low dose, short scan times, and clear and sharp images for the detection of small lung nodules. Early detection from an annual lung screening with low dose CT in high-risk individuals can prevent a substantial number of lung cancer-related deaths.

All new GE 64-slice and greater CT scanners, and virtually all of the 16-slice CT scanners that GE Healthcare sells are qualified for this screening option. This solution is also available to thousands of qualified GE CT scanners currently in use, increasing access to the quality scanners that satisfy both patient and physician needs. The new protocols, do include the choice for the user to be able to utilize GE Healthcare's industry-leading technologies such as ASiRTM, ASiR-VTM and VeoTM that are designed to reduce image noise, which is undesirable for physicians looking for small nodules.

This option contains two documents. Lung Cancer Screening Option Reference Protocol Guide, and the Lung Cancer Screening Option User Manual / Technical Reference Manual

i) The following GE Healthcare CT scanners are qualified to receive the new low dose CT Lung Cancer Screening Option: LightSpeed 16, BrightSpeed Elite, LightSpeed Pro16, Optima CT540, Discovery CT590 RT, Optima CT580, Optima CT580 W, Optima CT590 RT, LightSpeed Xtra, LightSpeed RT16, LightSpeed VCT, LightSpeed VCT XT, LightSpeed VCT XTe, LightSpeed VCT Select, Optima CT660, Revolution EVO, Discovery CT750 HD, Revolution HD, Revolution CT, Revolution Frontier.

ii) Moyer V. Screening for Lung Cancer: U.S. Preventive Services Task Force Recommendation Statement. Ann Intern Med. 2014;160:330-338.

http://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/lung-cancer-screening

Line	Qty.	Catalog	
14	1.00	Virtual_SS_Revolution_Apex	Smart Subscription Revolution Apex

Line	Qty.	Catalog	
15	1.00	B7919MR	**Smart Subscription Core for Revolution APEX**

Smart Subscription is a subscription service that provides convenient and continuous access to the latest commercially available software for your CT scanners for one simple annual subscription. As part of implementing the Smart Subscription solution on your site, GE Healthcare may provide additional hardware (e.g., a server) to enable functionality. If hardware is provided by GE Healthcare to implement Smart Subscription, you are responsible for its safe keeping while on your site and for removing any data on it before returning the hardware to GE Healthcare. Smart Subscription Core is the platform that enables the deployment of Smart Subscription applications, this platform is not sold to the end user but is included with the paid subscription.

Line	Qty.	Catalog	
16	1.00	B7931CT	**Smart Subscription Reconstruction Package for Revolution CT/CT ES/APEX**

The Reconstruction Package, included with Smart Subscription Base Edition, provides continuous access to the latest commercially available reconstruction software capabilities. These technologies allow users to lower dose1 considerably compared to filtered back-projection (FBP) reconstruction (the standard reconstruction algorithm) while continuing to deliver high-quality diagnostic images. GE Healthcare reserves the right to determine which applications are included with each package.

1 The amount of dose reduction achievable is dependent on each clinical scenario.

Line	Qty.	Catalog	
17	1.00	B7931CX	**Smart Subscription Image Quality Package for Revolution CT/CT ES/APEX**

The Image Quality Package, included with Smart Subscription Base Edition, provides continuous access to the latest commercially available image quality improvement and artifact reduction application software package, including features such as Smart MAR reconstruction technology that helps reduce artifacts from photon starvation and beam hardening caused by metal in the body, such as hip implants.
GE Healthcare reserves the right to determine which applications are included with each package.

Line	Qty.	Catalog	
18	1.00	B7931CM	**Accipio Ix on Smart Subscription**

Accipio Ix on Smart Subscription, included with Smart Subscription Base Edition (delivered with Smart Subscription Core), for a term of 36 months. It provides a highly accurate tool for the automatic identification, prioritization, and triage of a suspected intracranial hemorrhage (ICH) from the DICOM non-contrast head CT images.
MaxQ AI's Accipio IxTM will support the Radiologist, Emergency Room, and Neuro-radiologist teams with a fully-automated solution for identification, prioritization, and triage of a suspected intracranial hemorrhage (ICH) from the DICOM non-contrast head CT images. It automatically analyzes cases using an artificial intelligence algorithm and auto-returns a near real-time case-level summary report to the operator console or PACS worklists informing if a suspected ICH has been found.
Updates to Accipio Ix are included with the Smart Subscription Base Package.
Upgrades to Accipio Ix are NOT included. Upgrades will be available through a separate package that customer can subscribe to for a separate annual fee.

Line	Qty.	Catalog	
19	1.00	M81601BP	**VM_Smart Subscription**

This is the Virtualized Server for Smart Subscription application only.

Line	Qty.	Catalog	
20	1.00	B7931CZ	**AWE for Revolution CT/CT ES/APEX**

Smart Subscription AWE Connection Option Key provides the access to AW virtual machine which is running on Smart Subscription.

Line	Qty.	Catalog	
21	1.00	B7931CR	**Smart Subscription Cardiology Package**

Smart Subscription Cardiology Package, included either with Smart Subscription Add On Edition or Unlimited Edition, is designed to increase reliability and repeatability of complex cardiac imaging procedures and readability of resulting images. It includes:
SnapShot Freeze 2:
Motion artifacts represent a technical challenge in Cardiac CT. Cardiac motion can influence the accurate assessment of the structures of the heart such as coronary arteries, valves and chambers; especially in patients with high or variable heart rates. Residual cardiac motion can degrade the image quality for cardiac evaluation and in some cases render the data undiagnostic. Technical developments in CT systems have improved the temporal resolution, including increased gantry rotation speeds, larger coverage or dual-source CT approach. However cardiac motion still remains, and an intelligent motion correction algorithm is needed to compensate for the residual motion.

SnapShot Freeze 2, intelligent whole-heart motion correction algorithm, is designed to deliver:
- Coronary motion correction
- Valve motion correction
- Chambers, myocardium and great vessels motion correction

Snapshot Freeze 2 exploits information from adjacent cardiac phases to the targeted phase within a single cardiac cycle to characterize vessel and whole heart motion (both path and velocity) in order to determine the actual vessel and cardiac structure position at the prescribed target phase and adaptively compensate for any residual motion at that phase, effectively compressing the reconstruction temporal window.

This results in delivering an effective temporal resolution of 29 msec at 0.35 sec rotation speed or 24msec2 with 0.28s rotation speed.

SnapShot Freeze 2 processing is fully automated, the Cardiac CT dataset is automatically reconstructed with without any manual interaction and can then be sent directly to the prescribed host stations for review and cardiac evaluation (PACS, workstations, server) or from the operator console itself.

2 As demonstrated in phantom testing
3 Snapshot Freeze 2, in conjunction with 0.28s/rotation gantry speed, provides a reduction in coronary motion artifacts that is equivalent to a 0.047s/rotation equivalent gantry rotation speed with effective temporal resolution of 24 msec. As demonstrated in phantom testing using a commercially available motion phantom and also with a mathematical cardiac phantom with linear motion of variable velocity. The 0.047 s/rotation images are modeled without application of Snapshot Freeze 2. Results may vary in clinical applications.
CardIQ Xpress 2.0
CardIQ Xpress 2.0 is an easy to use, efficient way to display, reformat, and analyze 2D or 3D cardiac CT images for qualitative or quantitative assessment of heart anatomy and coronary arteries from a single or multiple cardiac phase image data set. When used with SnapShot Freeze 2 images, CardIQ Xpress 2.0 can automatically process, and display motion-blur reduced images of coronary anatomy.

GE Healthcare

Smart Subscription Cardiology Package will provide you access to CardIQ Xpress 2.0 directly from the operator console or from a remote client.

Smart ScoreTM 4.0

SmartScore 4.0 is designed to identify the presence of regional and global coronary artery calcification from a CT scan, then measure and score the results. Scores can be calculated using a standard Agatston/Janowitz (AJ) method. When correlated with a patient's personal information, the score can yield an estimation of a patients risk for coronary artery disease.

GE Healthcare reserves the right to determine which applications are included with each package.

Line	Qty.	Catalog	
22	1.00	B7931CS	**Smart Subscription Neurology Package**

 Smart Subscription Neurology Package, included either with Smart Subscription Add On Edition or Unlimited Edition, is designed to provide Radiologist, Emergency Room, and Neuro-radiologist teams with a fast and efficient review of CT stroke workup images. It includes FastStroke, Perfusion 4D and Dynamic Shuttle applications.

FastStroke & Perfusion 4D

FastStroke provides a comprehensive workflow solution for reviewing stroke workup images with exceptional flexibility, simplicity and performance. It is a streamlined approach that smartly adapts to your scan practices and allows you to review and post-process all your images simultaneously.
The application provides quick loading and clinically relevant organization of all the scanned series, which are synchronized and displayed in a manner that enables you to review, efficiently and with high confidence.
FastStroke also provides ColorViz to aid in the visualization of the timing of collateral vessels using the multi-phase CTA series.
FastStroke has full integration with CT Perfusion 4D to provide automatic neuro perfusion analysis as part of the workflow.
Smart Subscription Neurology Package will provide you access to FastStroke review directly from the operator console or from remote clients (up to 4) for quick results sharing and communication with the stroke team without any time lost networking images.

Dynamic Shuttle

Dynamic Shuttle provides the ability for a bone free visualization of the vasculature in a dynamic CT angiography exam. It extracts CT angiography data from a CT Perfusion scan and provide visualization of the flow of contrast from the arteries to the veins.

GE Healthcare reserves the right to determine which applications are included with each package.

Line	Qty.	Catalog	
23	1.00	B7919NE	**Smart Subscription Workflow Package Revolution APEX**

 The Workflow Package, included either with Smart Subscription Add On Edition or Unlimited Edition, provides continuous access to the latest commercially available workflow improvement application software, including features such as Imaging Protocol Manager.

Imaging Protocol Manager

Imaging Protocol Manager+ is a cloud-based, multimodality, protocol-management solution that provides access, insight, and governance for protocols on imaging devices to help providers effortlessly deliver the right exam for each patient and meet regulatory and accreditation requirements in an efficient manner.

Intelligent Protocoling

Intelligent Protocoling is an application leveraging machine algorithms to help guide users to effortlessly assign the correct protocol for an exam order using a standard protocol library and patient clinical information, and it further automates the scanner protocol selection creating a seamless workflow. This helps to reduce time on protocoling, and ensure the right exam is delivered for the patient in an efficient manner.

GE Healthcare reserves the right to determine which applications are included with each package.

Line	Qty.	Catalog	
24	1.00	B7931FB	**Smart Subscription General Imaging Package**

The General Imaging Package, included either with Smart Subscription Add On Edition or Unlimited Edition, provides continuous access to the latest commercially available workflow improvement application software, including features such as Bone VCAR, Vessel IQ Xpress and Autobone Xpress.

Bone VCAR

Bone VCAR provides an automated spine labeling application based on a deep learning model. It can identify and label segments of the spine or the entire spine in a matter of seconds. Additionally, let Bone VCAR generate the curved reformats of the spine along with the perpendicular oblique views to easily see the true cross section of the vertebral bodies and disc spaces. Utilize these timesaving features to assist in your reading experience. Bone VCAR can also improve the reporting efficiency for identifying and remembering key landmarks that are included in the report dictation.

VesselIQTM Xpress with Autobone TM

VesselIQTM Xpress with Autobone is a post-processing software package for the Advantage Workstation (AW) platform, AW Server, CT scanners and PACS reading stations. It is a tool to analyze CT angiographic data including stenosis analysis, thrombus, pre and post stent planning procedures, and directional vessel tortuosity visualization. Autobone provides zero-click bone segmentation for head, neck and other anatomy. The automation and ease of use streamlines workflow.

Line	Qty.	Catalog	
25	1.00	B7931GM	**Smart Subscription Spectral Imaging Package Revolution APEX**

The Spectral Imaging package, included either with Smart Subscription Add On Edition or Unlimited Edition, is designed to enhance your GSI experience from scanning to reconstruction and visualization.
It includes:
Gemstone Spectral Imaging Xtream
GSI Xtream is the first volume spectral CT technology designed to improve small lesion detection and tissue characterization across different anatomies and clinical use cases, with a simplified workflow you can make part of your daily practice.
GSI Xtream utilizes ultrafast kVp switching x-ray source (0.25msec switching between two different energy levels of Xrays from view to view during a single rotation) and ultra-fast response Gemstone Clarity Detector to acquire almost perfectly registered volumetric dual energy CT data. The data is then processed through projection domain material decomposition algorithms to generate material density maps (MD), monochromatic images (MC) and virtual unenhanced images (VUE). This data can be utilized to identify material specific differences in attenuation material decomposition images, allowing monochromatic and material representations.
Gemstone Spectral Imaging (GSI) Neuro for Quantix
GSI Neuro for Apex allows Revolution Apex system to achieve neuro dual energy spectral imaging with head scan field-of-view.

GE Healthcare reserves the right to determine which applications are included with each package.

Line	Qty.	Catalog	
26	1.00	B7931DS	**Annual Fee for 5 Year Smart Subscription - Unlimited Edition**

Provides access to the latest commercially available version of the Smart Subscription packages set forth in the Quotation (the "Software").

The initial term for this license subscription is 60 months, commencing upon Go Live (the date installation is complete) and will automatically renew annually for subsequent terms having the same duration as the initial term, unless otherwise agreed between the parties. However, either party may elect to not renew the subscription after the initial subscription term or any subsequent renewal period by providing at least 60 days written notice prior to the renewal date. Subscription renewal pricing is based on then current GE Healthcare pricing. Price increases will be communicated with at least 60 days prior written notice. Billing for the first 12 months of the subscription term and each subsequent term occurs in accordance with the billing term identified on the Quotation, with subsequent annual payments due on each anniversary thereafter. Subscriptions are not cancellable.

The quantity on the quote indicates the number of CT scanners covered by the subscription.

Subscription licenses and installation services shall be deemed delivered as of the date of delivery of the equipment associated with the subscription.

As long as Customer has paid all currently due fees associated with Smart Subscription, GE Healthcare will provide, unless otherwise indicated and at no additional charge: (i) updates and/or upgrades to the Software when and if available and only if they are provided at no additional charge to all GE Healthcare customers with a subscription agreement for the Software; and (ii) support for Software-related issues that: (a) materially and adversely interfere with Customer's use of the Software and (b) result from a failure of the Software to materially conform to the Documentation. Support does not include the following, which will incur an additional charge: (1) updates or upgrades that are offered for an additional charge to all GE Healthcare customers with a support agreement; (2) fixes for issues that do not materially affect the Software; (3) training beyond that described in this Quotation; (4) interface modifications; (5) data migration or data conversion; (6) additional services; and (7) separately billable hardware, software or services.

Line	Qty.	Catalog	
27	1.00	E8007WJ	**CTM-400 Cardiac Trigger Module - America and Asia**

Ivy Biomedical's CTM-400 Cardiac Trigger Module is a sophisticated Computer Tomography (CT) gating module that synchronizes a patient's ECG to remove motion artifacts when generating cardiac or other physiological images. The CTM-400 is completely integrated with GE Healthcare CT Revolution™ scanner and installed directly into the gantry table. It communicates with the CT system via a standard serial communications link and requires less than 5 watts from a +8 to +24V medical grade power supply.

Imaging Applications
The CTM-400 module is intended primarily for use on patients in applications requiring precision R-wave synchronization such as timed imaging studies Simultaneously ECG vectors and the ECG trigger are sent to the CT system.

Intuitive Operation
Built-in LED indicators provide visual status of power, and system communication while a varied intensity light pipe illuminates the perimeter of the module during use. An RS-422 D-sub 15-position standard density network interface connector provides two-way communications between the module and the external console.

The Ivy CTM-400 Cardiac Trigger module is completely integrated with the CT Revolution scanner and installed directly into the gantry table.

Line	Qty.	Catalog	
28	1.00	E8016DA	**CT Table Slicker for CT Revolution 2000 Table only**

The GEHC Revolution CT and Revolution Apex table slicker is specifically designed to maximize contaminant protection. Manufactured to be used in conjunction with the table restraining belts, this slicker adds versatility to your CT procedures. Latex free, it is strongly suggested that the slicker is cleaned with a water/bleach solutioj prior to every procedure.

Features:
- Table gray cushion sealed in vinyl slicker Dimension 2403 x 788
- Table extender gray cushion sealed in vinyl slicker Dimension 406 x 788
- Cover for catheter bag hanger
- Increase system uptime by protecting table from spills and particulate contaminants
- Easy to install and comfortable for patients
- Will not interfere with normal operation of CT table
- Clear PVC plastic facilitates faster cleanup of blood and fluids
- Prevents contaminant build up in hard to clean areas
- Thermosealed seams and flaps
- Recommended for trauma centers and sites concerned about exposure to blood and fluid-borne disease

Line	Qty.	Catalog	
29	1.00	E8016DC	**Foot Slicker for CT Revolution**

The GEHC Revolution CT Foot Switch slicker is specifically designed to maximize contaminant protection. Latex free, it is strongly suggested that the slicker is cleaned with a water/bleach solution prior to every procedure.

Line	Qty.	Catalog	
30	1.00	E4502BG	**UL Main Disconnect Panel 380-480V 50/60Hz 175A for CT Rev2.0**

The MDP (Main Disconnect Panel) and UPS Control Panels serve as the main facility power disconnect source installed ahead of the Revolution CT system. On systems where the optional partial system UPS is included in the system, the panel provides NEC mandated UPS emergency power-off control function via a UPS control cable included with the UPS. The MDP saves time, installation labor, and valuable mounting space by consolidating the main circuit breaker, control power source and required indicator lights into a compact factory manufactured panel.

Applications For general installations of GE Revolution Apex™.

Designed for reliability and easy installation
- The MDP saves time, installation labor, and valuable mounting space by consolidating the main circuit breaker, the feeder overcurrent devices, magnetic contactors and UPS emergency power-off into one compact panel
- The system provides stock availability of otherwise special-order devices, saving time and installation costs
- Reduces installation time and cost by eliminating delays in obtaining individually enclosed components and by eliminating on site assembly
- UPS emergency power-off functions are included for future, partial system UPS addition
- Disconnects system power on first loss of incoming power, preventing damage to system components
- Provides a standardized platform for UPS or other future GE engineered modifications or upgrades

Built for investment protection
- UL, cUL listed
- Supplied with low voltage, cover mounted Push to Stop, Twist to Restore pushbutton and long life LED pilot lights
- Provides overcurrent and short circuit protection
- Suitable for use on systems with 25,000A of short circuit current. It is the installer's responsibility to verify that the available shout circuit current is 25,000A or less for compliance to all electrical codes.

- An optional partial system UPS provides clean uninterrupted power to the system computer, maintaining system integrity during power loss while also providing a solution to power quality problems.
- Emergency-off disconnects power to both the PDU and optional partial system UPS output, per National Electric Code
- Main power disconnect operating handle can be padlocked in the Off position for servicing safety and OSHA lock out/tag out
- The door has provisions for padlocking
- Enclosure door is interlocked with On / Off disconnect handle to prevent unauthorized access if disconnect is in the On position
- Factory wired and tested
- Panel disconnect provides OSHA lockout / tag out provisions
- The main disconnect panel may be used as a stand-alone main disconnect, with the optional GE partial system UPS or with a GE full system UPS

Remote EPO (Emergency Power Off)
Includes two normally closed contact blocks attached to the back of the emergency off push button. Two are included with each MDP.
NOTES:
- Customer is responsible for arranging for installation with a qualified party
- ITEM IS NON-RETURNABLE AND NON-REFUNDABLE

Line	Qty.	Catalog	
31	1.00	W0313ALL	**Smart Subscription Clinical Education – 16 credits**

Ongoing clinical education is clinical education that extends beyond any training that occurs with the delivery of Equipment. Ongoing clinical education credits are designed to provide flexible training options to be used in promoting learner retention, supporting employee turnover needs and allows for efficient and effective skill development. Credits may be used by Customer employees for clinical education on GEHC diagnostic imaging products (MR, CT, Mammography, PET, Nuclear Medicine, Vascular and XR located at Customer's facilities and included in the Smart Subscription offering. Any unused credits existing at the end of the Smart Subscription Term are forfeited without refund or credit.

This program contains:
- Clinical Training credits – 16 credits per Smart Subscription Term.
- Answerline Support-Access to GEHC experts for clinical, non-emergency applications assistance via phone or by using the iLinq button on the imaging console
- Remote Training with a GEHC expert for enhanced support (1hour = 1 credit).
- On Demand courses-On healthcare learning system. Self-paced courses and webinars (CE and non-CE).

Credits may be used by Customer employees for trainings conducted at Customer's facility and via remote training sessions as follows:
- On-site training at Customer's facility = 8 credits per day (limited to 1 GE Healthcare trainer per visit)
- Remote training session = 1 credit per session per hour

Credits are valid for the length of the subscription Term. Any unused credits existing at the end of the Smart Subscription Term are forfeited without refund or credit.   Additional credits may be available for purchase separately.

Line	Qty.	Catalog	
32	1.00	R0067CT	**CT Revolution Proficient Service Training**

Line	Qty.	Catalog	
33	1.00	R0055CT	**REVOLUTION CT SVC TRNG**

The Revolution CT course takes a blended approac to presenting the material to the learner. This course provides the learner with a prework assignment using computer based training (CBT) followed by an instructor led training (ILT) session. The CBT section of the training consists of equipment safety procedures and sub-system component description, location, and identification. Upon completion of the CBT, the learner shall attend 40 hour in-residence instructor led training event with an exam. The ILT portion of the training will consist of combination of classroom lecture and discussion as well as lab demonstration and performance based activities. The lab activities have been developed to provide the learner with system specific knowledge, reinforce current skills,and develop new skills associated with maintaining the Revolution CT system.The learner will have previously completed training on VCT, HD750, and or LightSpeed 7x and Optima 660.

Line	Qty.	Catalog	
34	1.00	R0039CT	CT GLOBAL OPR CONSOLE 6

This course will prepare the GE Field Engineer and In House engineers for servicing the new Global Operators Console 6 (GOC6). This course must be taken within 2 years from the purchase date.

Line	Qty.	Catalog	
35	1.00	R0901CM	Troubleshooting Basics Service (web)

This Course is Intended for Individuals Involved in Servicing Medical Equipment. By Taking This Course, You will Learn a Proven Process for Troubleshooting Problems with Medical Equipment. You will Also Learn How to Use Various Tools in a Troubleshooting Situation and How to Interpret Error Messages. This Course Does Not Address How to Troubleshoot Specific Products. It is Recommended That you Have Fundamental Training in a Modality Prior to Taking This Course. This course must be taken within 2 years from the purchase date.

Line	Qty.	Catalog	
36	1.00	R0907CM	NETWORKING & DICOM BASIC

Training will prepare engineers on configuring and troubleshooting networks, which use the DICOM protocol for transferring patient data and how to read and use DICOM Conformance Statements.

This course covers the following:
Introduction to 7 layer OSI and 5 layer TCP/IP protocols (Basic model only)
Identify hardware used in networking
Review of the most used networking devices, cables, NIC, switch and routers
Simple network connection with 2 to 5 devices
Dicom definitions, theory and configuration
This course must be taken within 2 years from the purchase date.

Line	Qty.	Catalog	
37	1.00	W0301CT	TIP CT Scanner 1 Training Program

This training program is designed for customers purchasing a GEHC CT system to include Optima, EVO, or Cardiographe. GEHC will work with the designated Customer contact to agree upon a reasonable training schedule for a pre-defined group of core technologists that will leverage blended content delivery and may include a combination of onsite days and virtual offerings, to include TiP Virtual Assist, the GEHC Answerline and available on-demand courses ("Virtual Inclusions"). This blended curriculum with multiple delivery platforms promotes learner retention and allows for an efficient and effective skill development.

This program may contain:

- Onsite training (generally 10 days)
- Virtual Inclusions may include:
- Remote instructor-led training: Instructor leads a remote training session one-on-one or in a group, typically for 1 hour
- Answerline Support-Access to GEHC experts for clinical, non-emergency applications assistance via phone or by using the iLinq button on the imaging console
- Tip Virtual Assist-Direct interactive access to a GEHC expert for enhanced support.
- On Demand courses-On healthcare learning system. Self-paced courses and webinars (CE and non-CE).

Training will be delivered at a mutually agreed upon time between the customer and GE Healthcare (excluding GE Healthcare holidays and weekends), are subject to availability and generally will not exceed 14 days. This training program has a term of six (6) months commencing on Acceptance, where all onsite training must be scheduled and completed within six (6) months of Acceptance and all Virtual Inclusions also expire at the end of such six (6) month period. Additional onsite days may be available for purchase separately. All GEHC "Training" terms and conditions apply. Given the unique nature of this program, if this program is purchased as part of a purchase under a Governing Agreement, including any Master Purchase Agreement, Group Purchasing Organization Agreement, or Strategic Alliance Agreement, this program shall take precedence over any conflicting training deliverables set forth therein.

Line	Qty.	Catalog	
38	1.00	R21013AC	**Standard Service License**

GE Healthcare has reclassified its service tools, diagnostics and documentation into various classes (please refer to the Service Licensing Notification statement at the beginning of this Quotation). The Standard License provides access to service tools used to perform basic level service on the Equipment and is included at no charge for the warranty period.

Total Quote Subtotal:	**$1,651,870.76**
Total Quote Net Selling Price:	**$1,651,870.76**

If applicable, for more information on this devices' operating system, please visit GE Healthcare's product security portal at: https://securityupdate.gehealthcare.com/en/products

Hi Tanya,

Hope you are doing well. Attached please find an equipment replacement letter for New Hanover Regional Medical Center.

David Legarth

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