

VIRGINIA DEPARTMENT OF HEALTH

Office of Licensure and Certification

Division of Certificate of Public Need

Staff Analysis Report

September 19, 2022

COPN Request No. VA-8641

Sentara Hospitals d/b/a Sentara Norfolk General Hospital

Norfolk, Virginia

Expand CT Services with the Addition of One Fixed CT scanner

Applicant

Sentara Hospitals d/b/a Sentara Norfolk General Hospital (SNGH) is a wholly-owned subsidiary of Sentara Healthcare (Sentara). Sentara is a 501(c)(3) not-for-profit, non-stock corporation headquartered in Norfolk, Virginia. SNGH is located in Norfolk, Virginia, Health Planning Region (HPR) V, Planning District (PD) 20.

Background

SNGH is a 525-bed hospital providing advanced clinical services, many of which are only available in the region at SNGH. These include the only Level I trauma center and burn center in the region, and the only Comprehensive Stroke Center in PD 20. SNGH also offers an open heart surgery program and an organ transplant program, advanced vascular and neuroscience services and has an area of the hospital dedicated to cardiac care, the Heart Hospital. SNGH is the primary teaching institution for the Eastern Virginia Medical School (EVMS).

SNGH is one of twenty-nine COPN-authorized fixed-site providers of CT services in PD 20 (**Table 1**). SNGH has a total of six CT scanners, four of which are utilized for diagnostic CT scans; one is solely for the use of CT simulation; and one is dedicated to intraoperative scans. The latter two have been excluded from this analysis. In 2020, the last year for which the Division of Certificate of Public Need (DCOPN) has data available from Virginia Health Information (VHI), SNGH's four diagnostic CT scanners operated at 181.5% of the State Medical Facilities Plan (SMFP) utilization threshold, (Table 4). The applicant states that CT volumes have continued to grow since 2020 and has reported 62,884 procedures in 2021, equal to 212.4% of the SMFP threshold on its four diagnostic scanners.

Table 1. PD 20 COPN-Authorized Fixed CT Units

Fixed Units	Number of Scanners
Facility	
Bon Secours Harbour View Hospital	1
Bon Secours Health Center at Harbour View	1
Bon Secours Maryview Medical Center	2
Bon Secours Southampton Memorial Hospital	1
Chesapeake Bay ENT P.C. Corporate Landing	1
Chesapeake Bay ENT P.C. Suffolk	1
Chesapeake Regional Medical Center	4
Children's Hospital of The King's Daughters	2
Children's Hospital of The King's Daughters Health and Surgery Center at Concert Drive	1
Children's Hospital of The King's Daughters Health Center at Fort Norfolk	1
First Meridian d/b/a MRI & CT Diagnostics - Virginia Beach	1
First Meridian d/b/a MRI & CT Diagnostics -Chesapeake	1
Hanbury Imaging Center	1
Lakeview Medical Center	1
Riverside Regional Diagnostic Center -- Isle of Wight	1
Riverside Smithfield Hospital ²	1
Sentara Advanced Imaging Center - Belleharbour	2
Sentara Advanced Imaging Center - Greenbrier Healthplex	1
Sentara Advanced Imaging Center - Leigh	1
Sentara Advanced Imaging Center - Princess Anne	1
Sentara Advanced Imaging Center at First Colonial	1
Sentara Advanced Imaging Center-Fort Norfolk	1
Sentara Independence	1
Sentara Leigh Hospital ³	4
Sentara Norfolk General Hospital ⁶	4
Sentara Obici Hospital	2
Sentara Princess Anne Hospital	2
Sentara Virginia Beach General Hospital	3
Vann-Virginia Center for Othopaedics, P.C. d/b/a Atlantic Orthopaedic Specialists	1
Total PD 20 Fixed CT Scanners	45

Notes:

1-Per 12VAC5-230-100 B., The 8 CT Scanners in PD 15 that are for the sole purpose of CT simulation are not included in this calculation.

2-COPN VA-04781 authorized Riverside Smithfield Hospital, which has not yet opened, to transfer 1 CT from Riverside Diagnostic Center-Smithfield

3-One CT scanner was formerly reported at Sentara AIC-Leigh, now moved to Brock Cancer Center/Sentara Leigh Hospital; and COPN No. VA-04786 added a 4th CT scanner at Sentara Leigh Hospital.

4-Bonsecours DePaul closed in April 2021.

5-Sentara AIC St. Luke's operates a low-volume mobile CT scanner, not included in this analysis.

6-One of Sentara Norfolk General's CT scanners is dedicated to CT-Guided and interventional procedures and is not available for diagnostic imaging. This scanner was excluded from analysis.

Source: DCOPN Records

Proposed Project

The applicant proposes to expand its CT services through the addition of one fixed site CT scanner located in renovated existing support space adjacent to the three current CT scanners located in SNGH's Radiology Department. The proposed project would result in seven total fixed site CT scanners at SNGH: four in the Radiology Department; one in the cardiac area of the hospital; one CT simulator; and one dedicated to intraoperative procedures in the Vascular and Interventional Procedure lab, which does not perform diagnostic CT scans. The applicant states that SNGH has an institutional need to expand its CT services.

The total capital and financing cost of the proposed project is \$2,427,511 (**Table 2**). The applicant states that the proposed project will be financed using SNGH's accumulated reserves. The applicant asserts that the proposed project will not impact negatively the costs of providing care in the facility.

Table 2. Capital and Financing Costs

Direct Construction Costs	\$857,000
Equipment Not Included in Construction Contract	\$1,432,011
Architectural and Engineering Fees	\$138,500
TOTAL Capital and Financing Costs	\$2,427,511

Source: COPN Request No. VA-8641

Project Definition

Section 32.1-102.1:3 of the Code of Virginia defines a project, in part, as “[t]he addition by an existing medical care facility described in subsection A of any new medical equipment for the provision of...computed tomographic (CT) scanning...” A medical care facility includes “[a]ny facility licensed as a hospital, as defined in § 32.1-123.”

Required Considerations -- § 32.1-102.3 of the Code of Virginia

In determining whether a public need exists for a proposed project, the following factors shall be taken into account when applicable:

- 1. The extent to which the proposed project will provide or increase access to health care services for people in the area to be served and the effects that the proposed project will have on access to health care services in areas having distinct and unique geographic, socioeconomic, cultural, transportation, and other barriers to access to health care;**

The applicant proposes to expand its CT services through the addition of one fixed CT scanner. As discussed above, the applicant asserts that SNGH has an institutional need to expand its CT services, which is supported by the most recent VHI data available to DCOPN (**Table 4**). The applicant maintains that additional CT capacity is necessary for its increasingly busy emergency department, Level One Trauma Center and Comprehensive Stroke Center. CT volumes from these services take priority and displace inpatient and scheduled outpatient CT scans, which has led to delays in patient access to needed CT services. Additionally, the applicant states that the proposed dual source CT scanner with advanced cardiac CT scanning will expand access to cardiac services which currently have five to seven week wait times. DCOPN concludes that

approval of the proposed project would help to address the burden on SNGH's existing CT scanners and improve access to emergent, non-emergent and inpatient services in general and CT procedures in particular.

Geographically, SNGH is located on Gresham Drive in Norfolk and is accessible via various highways and local routes. As for public transportation, Hampton Roads Transit has a bus stop on the SNGH campus, and the region's first light rail service, The Tide, which extends 7.4 miles from the EVMS Campus through downtown Norfolk, ending at the border of Virginia Beach. The applicant did not address any difficulties or benefits related to transportation or parking at SNGH.

The applicant contends that its service area demographics have an above-average utilization for hospital services due to social determinants of health, existing health inequities and a fast-growing population over age 65. In addition, the applicant states that patients of the Sentara Ambulatory Care Clinic (ACC), located across SNGH's campus, which was developed to serve low-income, uninsured and under insured patients, are in particular need of CT imaging services. DCOPN infers that the proposed project will help provide access to SNGH's patient populations that face socioeconomic barriers to health care.

2. The extent to which the proposed project will meet the needs of people in the area to be served, as demonstrated by each of the following:

(i) the level of community support for the proposed project demonstrated by people, businesses, and governmental leaders representing the area to be served;

DCOPN received three letters of support from physicians associated with SNGH and the EVMS. Collectively, these letters articulated the high and growing utilization of the existing CT scanners at SNGH and risky delays in care caused to emergency, trauma, cardiac and stroke patients in particular, due to the delays in CT imaging. The letters pointed out that SNGH is a referral center due to the tertiary and quaternary health services not available in the surrounding areas and that these life-saving services depend on the availability of CT imaging. They mentioned the large and growing older population and that many in the surrounding community are from underprivileged backgrounds. In addition, the proposed state-of-the-art dual source CT will aid SNGH as the primary teaching hospital for the EVMS radiology residency program, in the training of future doctors

Public Hearing

DCOPN provided notice to the public regarding this project on July 11, 2022. The public comment period closed on August 25, 2022. Section 32.1-102.6 of the Virginia Code mandates that "in the case of competing applications or in response to a written request by an elected local government representative, a member of the General Assembly, the Commissioner, the applicant, or a member of the public, [DCOPN] shall hold one hearing on each application in a location in the county or city in which the project is proposed or a contiguous county or city." The proposed project is not competing, and no public hearing was requested by the applicant, the Commissioner, an interested party, or member of the public. As such, no public hearing was held.

(ii) the availability of reasonable alternatives to the proposed project that would meet the needs of the people in the area to be served in a less costly, more efficient, or more effective manner;

The status quo is not a viable alternative to the proposed project. As shown in **Table 4** below, SNGH's four fixed diagnostic CT scanners operated at 185% of the SMFP threshold in 2020, the last year for which DCOPN has data from VHI. The applicant asserts that CT volumes have continued to grow. Under the status quo, the utilization of the existing fixed CT scanners at SNGH above capacity would continue and worsen.

Another option is to relocate the underutilized CT scanner at Sentara Fort Norfolk Advanced Imaging Center (AIC) from across the SNGH campus to into the hospital. Though the Sentara Fort Norfolk AIC operated at only 25% during the VHI 2020 reporting period, this was the first year of the COVID pandemic, which generally dampened diagnostic volumes. In addition, relocating it to SNGH would not relieve overutilization of the hospital-based CT units. Combining SNGH's and Sentara Fort Norfolk AIC's diagnostic CT volumes yields a utilization of 150.2% of the SMFP threshold across both sites, still over capacity. Moreover, the applicant asserts that efforts have been made to decant outpatient cases to the Sentara Fort Norfolk AIC and other AICs, so the site is already serving a purpose of providing an alternative site for scheduled outpatient CT procedures to aid in freeing up hospital-based CT scanners.

(iii) any recommendation or report of the regional health planning agency regarding an application for a certificate that is required to be submitted to the Commissioner pursuant to subsection B of § 32.1-102.6;

Currently there is no organization in HPR V designated by the Virginia Department of Health to serve as the Health Planning Agency for PD 20. Therefore, this consideration is not applicable to the review of the proposed project.

(iv) any costs and benefits of the proposed project;

As discussed above, the total capital and financing cost of the proposed project is \$2,427,511 (**Table 2**), which would be funded using accumulated reserves. Although the costs for the project are somewhat higher than other previously approved projects to add one CT scanner, much of the cost difference is in a more expensive, advanced and higher-functioning CT scanner. For example, COPN VA-04778 issued to Northern Virginia Community Hospital, LLC d/b/a Stone Springs Hospital Center to add one CT scanner and VA-04786 issued to Sentara Leigh Hospital to add a CT scanner quoted the costs for their proposed CT scanners at less than half the cost of SNGH's proposed CT scanner. The higher-cost CT scanner with more advanced functions proposed by SNGH is capable of supporting tertiary and quaternary services, a comprehensive stroke center and advanced cardiac imaging, as well as SNGH's training mission as a primary teaching hospital for EVMS. The proposed project would offer major benefits over the status quo. It would reduce the burden on SNGH's four over-utilized diagnostic CT scanners. The additional capacity would reduce wait times in the ED, inpatient and outpatient

services, support additional CT capacity in services such as stroke and cardiac imaging and support the teaching mission of SNGH.

(v) the financial accessibility of the proposed project to the people in the area to be served, including indigent people; and

According to regional and statewide data regularly collected by VHI, for 2020, the average amount of charity care provided by the facilities in HPR V that reported such charity care for that year was 2.5% of all reported total gross patient revenues. During this period, the applicant reported charity care of 2.84% of all reported total gross patient revenues (**Table 3**). Recent changes to § 32.1-102.4B of the Code of Virginia now require DCOPN to place a charity care condition on every applicant seeking a COPN. Should the proposed project be approved, SNGH should be subject to charity care consistent with the Sentara Hampton Roads 4.8% system-wide charity care condition, in addition to any new requirements as found in the revised § 32.1-102.4B of the Code of Virginia.

Table 3. HPR V 2020 Charity Care Contributions

Hospital	Gross Patient Revenues	Adjusted Charity Care Contribution	Percent of Gross Patient Revenue:
Riverside Tappahannock Hospital	\$165,747,566	\$8,843,478	5.34%
Riverside Shore Memorial Hospital	\$247,007,286	\$10,695,992	4.33%
Riverside Doctors' Hospital Williamsburg	\$149,491,510	\$6,064,567	4.06%
Riverside Walter Reed Hospital	\$252,482,633	\$9,401,927	3.72%
Bon Secours DePaul Medical Center	\$363,165,760	\$12,756,832	3.51%
Sentara Careplex Hospital	\$909,090,883	\$31,651,344	3.48%
Sentara Obici Hospital	\$914,294,131	\$26,301,718	2.88%
Sentara Virginia Beach General Hospital	\$1,265,310,067	\$36,146,887	2.86%
Sentara Norfolk General Hospital	\$3,753,299,758	\$106,756,170	2.84%
Sentara Leigh Hospital	\$1,330,835,003	\$34,335,012	2.58%
Riverside Regional Medical Center	\$2,191,107,102	\$53,859,556	2.46%
Chesapeake Regional Medical Center	\$986,713,280	\$21,292,946	2.16%
Hampton Roads Specialty Hospital	\$46,913,449	\$1,010,073	2.15%
Sentara Princess Anne Hospital	\$1,032,703,976	\$21,443,232	2.08%
Bon Secours Maryview Medical Center	\$1,148,940,309	\$22,068,850	1.92%
Bon Secours Mary Immaculate Hospital	\$620,268,395	\$11,887,663	1.92%
Sentara Williamsburg Regional Medical Center	\$655,360,428	\$11,516,832	1.76%
Bon Secours Rappahannock General Hospital	\$70,546,600	\$1,148,522	1.63%
Children's Hospital of the King's Daughters	\$1,120,616,182	\$4,135,241	0.37%
Bon Secours Southampton Memorial Hospital	\$211,414,625	\$460,731	0.22%
Lake Taylor Transitional Care Hospital	\$44,295,918	\$0	0.00%
Hospital For Extended Recovery	\$30,370,572	\$0	0.00%
Total \$ & Mean %	\$17,509,975,433	\$431,777,573	2.5%

Source: VHI

(vi) at the discretion of the Commissioner, any other factors as may be relevant to the determination of public need for a proposed project.

DCOPN did not identify any other discretionary factors, not discussed elsewhere in this staff analysis report, to bring to the attention of the Commissioner as may be relevant to determining a public need for the proposed project.

3. The extent to which the proposed project is consistent with the State Health Services Plan;

Section 32.1-102.2:1 of the Code of Virginia calls for the State Health Services Plan Task Force to develop, by November 1, 2022, recommendations for a comprehensive State Health Services Plan (SHSP). In the interim, DCOPN will consider the consistency of the proposed project with the predecessor of the SHSP, the SMFP.

The SMFP contains criteria/standards for the establishment or expansion of CT services. They are as follows:

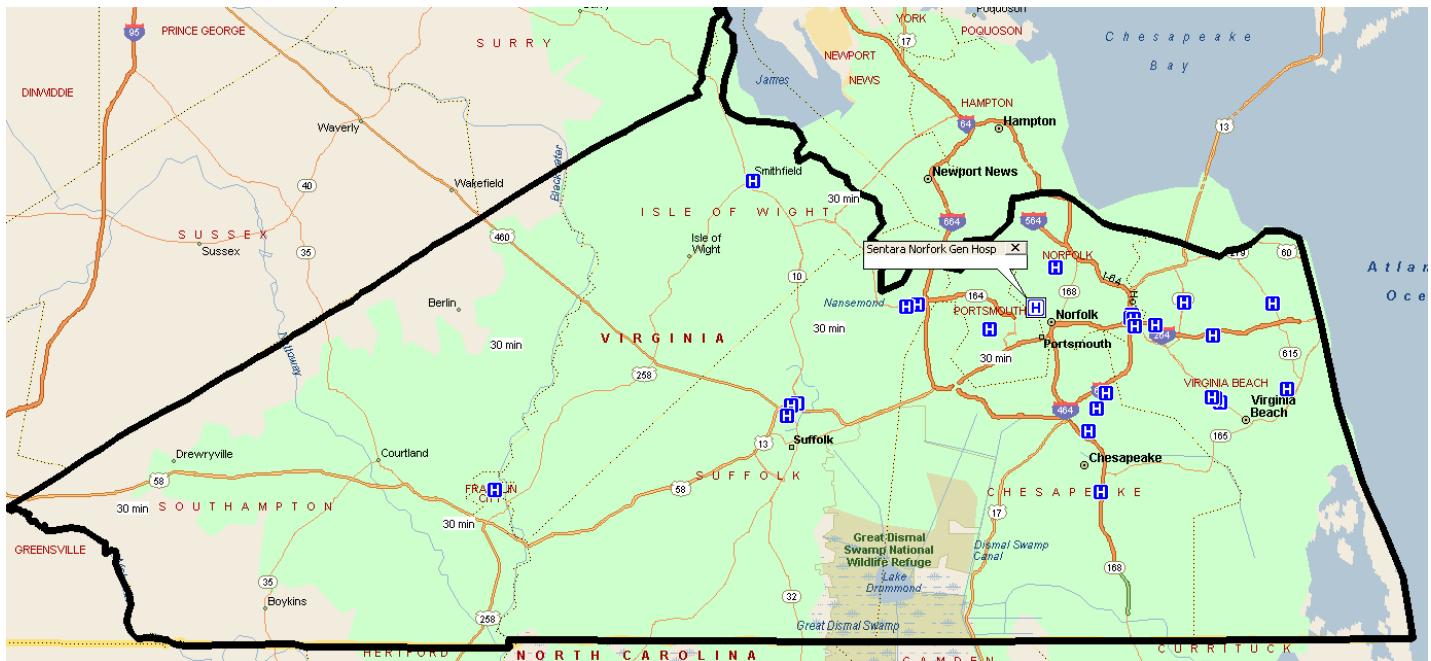
Part II
Diagnostic Imaging Services
Article 1
Criteria and Standards for Computed Tomography

12VAC5-230-90. Travel time.

CT services should be available within 30 minutes driving time one way under normal conditions of 95% of the population of the health planning district using mapping software as determined by the commissioner.

Currently, there are twenty-nine COPN authorized providers of fixed CT services in PD 20. The heavy black line in **Figure 1** is the boundary of PD 20. The blue H icons indicate facilities that currently offer fixed diagnostic CT services and the applicant is located by a white H and the facility name. The green shading illustrates the area that is within a thirty-minute drive one way under normal driving conditions of all CT service providers in PD 20. As the applicant is an existing provider of CT services, approval of the proposed project will not affect the geographic availability of CT services for those individuals not already within a thirty-minute drive one way under normal driving conditions. However, given that the only areas in the planning district not covered by CT services are sparsely populated, **Figure 1** illustrates that CT services are likely to be within a thirty-minute drive one way under normal driving conditions of 95% of the residents of the planning district.

Figure 1



12VAC5-230-100. Need for new fixed site or mobile service.

A. No new fixed site or mobile CT service should be approved unless fixed site CT services in the health planning district performed an average of 7,400 procedures per existing and approved CT scanner during the relevant reporting period and the proposed new service would not significantly reduce the utilization of existing providers in the health planning district. The utilization of existing scanners operated by a hospital and serving an area distinct from the proposed new service site may be disregarded in computing the average utilization of CT scanners in such health planning district.

Not applicable. As the applicant is an existing provider seeking to expand its fixed site diagnostic CT services, this section is addressed to illustrate the deficit or surplus of fixed diagnostic CT services in PD 20.

Calculated Needed Fixed CT Scanners in PD 20

Calculated Needed CT scanners =

288,885 scans in the PD / 7,400 scans / scanner = 39 diagnostic CT scanners needed

PD 20 Calculated Need = 39 diagnostic CT scanners

PD 20 COPN-authorized diagnostic CT scanners = 45

PD 20 Calculated Surplus = 6 diagnostic CT scanners

Table 4. PD 20 COPN Authorized Fixed Diagnostic CT Units: 2020

Facility	Number of Scanners	Number of Scans	Utilization Rate
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Bon Secours DePaul Medical Center ¹	2	10,529	71.1%
Bon Secours Maryview Medical Center	4	22,730	76.8%
Chesapeake Regional Imaging - Kempsville	1	1,350	18.2%
Chesapeake Regional Medical Center	4	35,387	119.6%
Children's Hospital of The King's Daughters	2	4,307	29.1%
First Meridian d/b/a MRI & CT Diagnostics - Virginia Beach	1	4,108	55.5%
First Meridian d/b/a MRI & CT Diagnostics -Chesapeake	1	2,773	37.5%
Riverside Diagnostic Center - Smithfield	1	673	9.1%
Sentara Advanced Imaging Center - Belleharbour	1	9,350	126.4%
Sentara Advanced Imaging Center - Greenbrier Healthplex	1	3,303	44.6%
Sentara Advanced Imaging Center - Leigh	1	1,836	24.8%
Sentara Advanced Imaging Center - Princess Anne	1	4,287	57.9%
Sentara Advanced Imaging Center at First Colonial	1	4,718	63.8%
Sentara Advanced Imaging Center-Fort Norfolk	1	1,850	25.0%
Sentara Independence	1	8,230	111.2%
Sentara Leigh Hospital	3	36,351	163.7%
Sentara Norfolk General Hospital ²	4	53,734	145.2%
Sentara Obici Hospital	2	24,052	162.5%
Sentara Princess Anne Hospital	2	28,350	191.6%
Sentara Virginia Beach General Hospital	3	30,967	139.5%
2020 Total and Average	38	288,885	102.7%

Source: VHI & DCOPN interpolations

Notes: 1-Bon Secours DePaul closed in April 2021

2-SNGH correctly reported five CT scanners; the intraoperative CT scanner has been excluded.

- B. Existing CT scanners used solely for simulation with radiation therapy treatment shall be exempt from the utilization criteria of this article when applying for a COPN. In addition, existing CT scanners used solely for simulation with radiation therapy treatment may be disregarded in computing the average utilization of CT scanners in such health planning district.**

DCOPN has excluded the eight existing CT scanners, used solely for simulation prior to the initiation of radiation therapy, from its inventory and average utilization of diagnostic CT scanners in PD 20 with respect to the proposed projects.

12VAC5-230-110. Expansion of fixed site service.

Proposals to expand an existing medical care facility's CT service through the addition of a CT scanner should be approved when the existing services performed an average of 7,400 procedures per scanner for the relevant reporting period. The commissioner may authorize placement of a new unit at the applicant's existing medical care facility or at a separate location within the applicant's primary service area for CT services, provided the proposed expansion is not likely to significantly reduce the utilization of existing providers in the health planning district.

As noted in **Table 4** above, the four diagnostic CT scanners located at SNGH operated at 181.5% of the 7,400 procedures per scanner necessary to expand fixed CT scanning services under this section of the SMFP in 2020, the latest year for which DCOPN has data available from VHI. The applicant has met this standard.

12VAC5-230-120. Adding or expanding mobile CT services.

- A. Proposals for mobile CT scanners shall demonstrate that, for the relevant reporting period, at least 4,800 procedures were performed and that the proposed mobile unit will not significantly reduce the utilization of existing CT providers in the health planning district.
- B. Proposals to convert authorized mobile CT scanners to fixed site scanners shall demonstrate that, for the relevant reporting period, at least 6,000 procedures were performed by the mobile CT scanner and that the proposed conversion will not significantly reduce the utilization of existing CT providers in the health planning district.

Not applicable. The applicant is not seeking to add or expand mobile CT services or to convert authorized mobile CT scanners to fixed site scanners.

12VAC5-230-130. Staffing.

CT services should be under the direction or supervision of one or more qualified physicians.

The applicant asserts that radiologists on the medical staff of SNGH who provide direction and supervision of existing CT services at the hospital will continue to supervise the proposed expanded CT services.

Part 1
Definitions and General Information

12VAC5-230-80. When Institutional Expansion is Needed.

- 1. Notwithstanding any other provisions of this chapter, the commissioner may grant approval for the expansion of services at an existing medical facility in a health planning district with an excess supply of such services when the proposed expansion can be justified on the basis of a facility's need having exceeded its current service capacity to provide such service or on the geographic remoteness of the facility.

Although PD 20 has a calculated surplus of six diagnostic CT scanners, SNGH has exceeded its current service capacity. In 2020, the last year for which the DCOPN has data available from VHI, SNGH's four diagnostic CT scanners operated at 181.5% of the SMFP utilization threshold. CT volumes have continued to grow since 2020 and the applicant has reported 62,882 CT scans in 2021, an average of 15,721 per diagnostic scanner, or 212.4% of the SMFP threshold.

- 2. If a facility with an institutional need to expand is part of a health system, the underutilized services at other facilities within the health system should be reallocated, when appropriate, to the facility with the institutional need to expand before additional services are approved for the applicant. However, underutilized services located at a health system's geographically remote facility may be disregarded when determining institutional need for the proposed project.

Sentara's hospital-based CT scanners across all of its hospitals had average volumes of 163.7% of the SMFP threshold as reported to VHI in 2020 (Table 5). Its AICs, however, average 57.1% of the SMFP threshold, well below full-utilization. The AIC across campus from SNGH, Sentara Fort Norfolk AIC, operated at only 25% during the VHI 2020 reporting period. This was the first year of the COVID pandemic, however, which generally dampened diagnostic volumes. Offering sites dedicated to outpatient CT scans is more convenient and cost-effective for appropriate patients (and preferred by insurers). Transferring a CT unit from any of Sentara's AICs would necessitate closing that outpatient facility as an access point.

Additionally, locating Sentara Fort Norfolk's CT unit to SNGH would not relieve overutilization of SNGH's hospital-based CT units. Combining SNGH's and Sentara Fort Norfolk AIC's diagnostic CT volumes yields a utilization of 150.2% of the SMFP threshold across both sites, still over capacity. Moreover, Sentara Fort Norfolk AIC is already serving a purpose of providing an alternative site for scheduled outpatient CT procedures to aid in freeing up hospital-based CT scanners. Reallocation of underutilized services from AICs, in this case, is not appropriate.

3. This section is not applicable to nursing facilities pursuant to §32.1-102.3:2 of the Code of Virginia.

The proposed project does not involve nursing facilities.

4. Applicants shall not use this section to justify a need to establish new services.

This is not applicable since the applicant is not seeking to establish a new service.

Table 5 Sentara Health System PD 20 COPN Authorized Diagnostic CT Units & Utilization: 2020

Facility	Number			
	of Scanners	Number of Scans	Procedures /Unit	Utilization Rate
Sentara Advanced Imaging Center - Belleharbour	1	9,350	9,350	126.4%
Sentara Advanced Imaging Center - Greenbrier Healthplex	1	3,303	3,303	44.6%
Sentara Advanced Imaging Center - Leigh	1	1,836	1,836	24.8%
Sentara Advanced Imaging Center - Princess Anne	1	4,287	4,287	57.9%
Sentara Advanced Imaging Center at First Colonial	1	4,718	4,718	63.8%
Sentara Advanced Imaging Center-Fort Norfolk	1	1,850	1,850	25.0%
AIC CT Scanners	6	25,344	4,224	57.1%
Sentara Independence	1	8,230	8,230	111.2%
Sentara Leigh Hospital	3	36,351	12,117	163.7%
Sentara Norfolk General Hospital	4	53,734	13,434	181.5%
Sentara Obici Hospital	2	24,052	12,026	162.5%
Sentara Princess Anne Hospital	2	28,350	14,175	191.6%
Sentara Virginia Beach General Hospital	3	30,967	10,322	139.5%
Hospital-based CT Scanners	15	181,684	12,112	163.7%
Grand Total, Sentara CT Scanners	21	207,028	9,858	133%

Source: VHI (2020)

Required Considerations Continued

- 4. The extent to which the proposed project fosters institutional competition that benefits the area to be served while improving access to essential health care services for all people in the area to be served;**

DCOPN does not anticipate that the proposed project would foster beneficial competition. The applicant is an existing provider of CT services. Moreover, the health system with which the applicant is associated controls 56.8% of the total number of diagnostic CT scanners in the planning district. Additionally, in 2020, the last year for which DCOPN has data available from VHI, the health system with which the applicant is associated was responsible for 71.7% of the total CT scans performed that year in PD 20. As all this data clearly shows, the applicant is a strong primary provider of CT services for the area, the applicant's addition of another CT scanner would not foster beneficial competition in PD 20.

- 5. The relationship of the proposed project to the existing health care system of the area to be served, including the utilization and efficiency of existing services or facilities;**

SNGH is a facility within PD 20 that provides services not offered elsewhere in the area, such as Level One Trauma, a burn center and a comprehensive stroke center. CT imaging supports these and other services at SNGH. It is important to maintain adequate access to CT imaging at this facility. The CT scanners at SNGH were operating significantly in excess of the SMFP threshold in 2020, the last year for which DCOPN has data from VHI. Moreover, DCOPN has not

received any opposition to the proposed project from any providers of CT services in PD 20. As such, DCOPN concludes that it is highly unlikely that the proposed project would detrimentally effect the utilization and efficiency of other provider of CT services in PD 20.

6. The feasibility of the proposed project, including the financial benefits of the proposed project to the applicant, the cost of construction, the availability of financial and human resources, and the cost of capital;

The Pro Forma Income Statement (**Table 6**) provided by the applicant projects a net profit of \$17,418,148 by the end of the first year of operation and a net profit of \$18,245,010 by the end of year two for the proposed project. Based on the number of scans anticipated, DCOPN notes that the projected income statement would reflect the total CT scanners at SNGH rather than solely the newly added scanner. The total capital and financing cost of the proposed project is \$2,427,511 (**Table 2**). Approximately 35.3% of the total costs is attributed to direct construction costs and 59.0% is attributed to the costs of equipment. The applicant states that the proposed project would be funded entirely using accumulated reserves. Accordingly, there are no financing costs associated with the proposed project. Analysis of the financial documents provided with the application show that this method of funding the proposed project is viable. The applicant additionally asserts that the proposed project will not impact negatively the costs of providing care in the facility. As such, DCOPN concludes that the proposed project is feasible with regard to financial costs in both the immediate and the long-term.

With regard to staffing, the applicant anticipates a need for three full-time equivalent positions (FTEs), all Radiologic Technologists. SNGH has seven vacancies for radiologic technologists prior to the proposed project, which will require three more. This may be indicative of shortages of technologists in PD 20. Regarding recruitment practices, the applicant sites online and print advertisements, career fairs and strong relationships with colleges, universities and training programs including the Sentara College of Health Sciences. The applicant also references recognition of Sentara as among the best employers in the nation and an announcement in February about a large investment in pay increases and benefits. These efforts may well be effective in bringing SNGH to full staffing and may also have the effect of attracting employees from other surrounding providers.

Table 6. SNGH Pro Forma Income Statement

	Year 1	Year 2
Gross Revenue	\$313,430,843	\$324,225,402
Deductions from Revenue	\$274,343,402	\$283,185,286
Net Patient Services Revenue	\$39,087,441	\$41,040,116
Total Operating Expenses	\$21,669,293	\$22,795,106
Excess Revenue Over Expenses	\$17,418,148	\$18,245,010

Source: COPN Request No. VA-8641 & DCOPN interpolations

7. The extent to which the proposed project provides improvements or innovations in the financing and delivery of health care services, as demonstrated by; (i) the introduction of new technology that promotes quality, cost effectiveness, or both in the delivery of health care services; (ii) the potential for provision of health care services on an

**outpatient basis; (iii) any cooperative efforts to meet regional health care needs; and
(iv) at the discretion of the Commissioner, any other factors as may be appropriate; and**

Some CT scans must take priority over others, such as trauma and emergency cases. As the only Level One Trauma center in the area, and with rapidly growing emergency room volumes (**Table 7**), SNGH has stated that inpatient and non-emergent OP scans are often delayed. Inadequate CT capacity for emergent scans can congest the emergency room, and displacement of inpatient scans can delay discharge, both of which slow throughput and access, and unnecessarily increase the cost of care. The applicant states that cardiac CTs have five to seven week wait times and that the advanced capabilities of the proposed additional scanner will expand access to cardiac studies and diagnosis and treatment of stroke patients. The addition of capacity to address the significantly high utilization of the existing CT scanners would reduce the instances of delayed or rescheduled outpatient procedures as well. DCOPN concludes that the proposed project would improve the provision of health care services, including those provided on an outpatient basis.

Table 7. Emergency Department Growth and Impact on CT Utilization, SNGH

	2017	2018	2019	2020	2021	5-Year Growth
ED Visits	69,960	69,831	73,272	66,508	78,371	12.0%
ED CT Scans	12,834	12,602	12,240	14,696	21,614	68.4%

Source: COPN Request No. VA-8641

- 8. In the case of a project proposed by or affecting a teaching hospital associated with a public institution of higher education or a medical school in the area to be served,**
- (i) **The unique research, training, and clinical mission of the teaching hospital or medical school.**
- (ii) **Any contribution the teaching hospital or medical school may provide in the delivery, innovation, and improvement of health care for citizens of the Commonwealth, including indigent or underserved populations.**

SNGH is the primary teaching facility for the EVMS. Dr. Lester Johnson is the radiology residency program director at EVMS and states in his letter of support:

“[SNGH] ...has an exceptional responsibility to our community to provide the best tertiary/quaternary clinical care to our patients and also teaching to our trainees. Both our patients and our trainees need and deserve the most modern state-of-the-art equipment for optimal care and learning. The additional CT scanner will offer the most modern technology and also fill the coverage gap...”

The applicant states that its Sentara Ambulatory Care Clinic (ACC), located across SNGH's campus, was opened decades ago as a solution to low-income, uninsured and under insured patients using the emergency department for routine care. The ACC is staffed, in part, by EVMS residents. It asserts that the ACC's services for congestive heart failure, cardiac clinics and the orthopedic clinic are in particular need of CT services, which the proposed project will alleviate.

DCOPN Staff Findings and Conclusion

DCOPN finds that the proposed project to expand CT services at Sentara Norfolk General Hospital through the addition of one fixed CT scanner is consistent with the applicable criteria and standards of the SMFP and the Eight Required Considerations of the Code of Virginia. The applicant has met the necessary utilization threshold to expand CT services at SNGH under 12VAC5-230-110 and 12VAC5-230-80.

Moreover, DCOPN finds that the status quo is not a viable alternative to the proposed project. Under the status quo, the overutilization of the existing fixed CT scanners at SNGH would continue, hindering access and throughput to several essential services, some of which are not available elsewhere in PD 20. Additionally, under the status quo, inpatient and outpatient CT scanning procedures would continue to be delayed or rescheduled for emergency cases, with the result of decreasing throughput and access, and unnecessarily increasing costs. As such, DCOPN concludes that the status quo is not a viable alternative to the proposed project.

Finally, DCOPN finds that the total capital costs of the proposed project are \$2.427,511 (**Table 2**), which would be financed using accumulated reserves. Though the costs for the project are somewhat higher than many previously approved projects to add one CT scanner, they are reasonable for the CT scanner with advanced capabilities needed to support the tertiary and quaternary services offered at SNGH and for its teaching mission.

Staff Recommendation

The Division of Certificate of Public Need recommends **conditional approval** of Sentara Norfolk General Hospital's COPN request to expand CT services with the addition of one fixed CT scanner, for a total of six authorized CT scanners for the following reasons:

1. The project is consistent with the applicable criteria and standards of the State Medical Facilities Plan and the Eight Required Considerations of the Code of Virginia.
2. The project would address the overutilization of the existing CT scanners at Sentara Norfolk General Hospital.
3. There was no public opposition to the project.
4. The status quo is not a viable alternative to the proposed project.
5. The capital costs are reasonable for projects of this type.

Recommended Condition

This project shall be subject to the 4.8% system-wide charity care condition applicable to Sentara Hospitals Hampton Roads, as reflected in COPN No. VA – 04534 (Sentara Hospitals Hampton Roads system-wide condition). Provided, however, that charity care provided under the Sentara Hospitals Hampton Roads system-wide condition shall be valued under the provider

reimbursement methodology utilized by the Centers for Medicare and Medicaid Services for reimbursement under Title XVIII of the Social Security Act, 42 U.S.C. § 1395 et seq.

Sentara Hospitals d/b/a Sentara Norfolk General Hospital will accept a revised percentage based on the regional average after such time regional charity care data valued under the provider reimbursement methodology utilized by the Centers for Medicare and Medicaid Services for reimbursement under Title XVIII of the Social Security Act, 42 U.S.C. § 1395 et seq. is available from Virginia Health Information. In addition to any right to petition the Commissioner contained in the Sentara Hospitals Hampton Roads system-wide condition, to the extent Sentara Hospitals d/b/a Sentara Norfolk General Hospital expects its system-wide condition as valued under the provider reimbursement methodology utilized by the Centers for Medicare and Medicaid Services for reimbursement under Title XVIII of the Social Security Act, 42 U.S.C. § 1395 et seq. or any revised percentage to materially alter the value of its charity care commitment thereunder, it may petition the Commissioner for a modification to the Sentara Hospitals Hampton Roads system-wide condition to resolve the expected discrepancy.