Health Systems Agency of Northern Virginia

**3040 Williams Drive, Suite 200**

**Fairfax, Virginia 22030**

# Phone: 703-573-3100 Fax 703-573-3101

**Email: hsanv@aol.com**

#### December 9, 2024

### TO: Board of Directors, HSANV

**Interested Parties**

**FROM: Dean Montgomery**

### SUBJECT: Certificate of Public Need Applications

**Inova Emergency Room-Reston/Herndon, Establish CT Service,**

**COPN Request VA-8784**

**Inova Fairfax Hospital, Expand CT Service, COPN Request VA-8785**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**I. Background and Summaries of the Proposals**

Two Inova Health Care Services (Inova) subsidiaries filed certificate of public need (COPN) applications in the current review cycle to add computed tomography (CT) capacity. Inova Emergency Room-Reston/Herndon (IERH) seeks COPN authorization to establish a CT service in Reston, Virginia. Inova Fairfax Hospital (IFH) proposes to add a CT scanner, increasing its on campus CT complement to eight.

Under Virginia law COPN applications filed in the same review cycle for the same or similar services are deemed competing proposals, requiring comparative review and evaluation. The discussion below places the IERH and IFH applications in the context of northern Virginia CT scanning service development and use and assesses them relative to required regional planning considerations.

**A. Inova Emergency Room-Reston/Herndon, Establish CT Service (COPN Request VA-8784)**

Inova Emergency Room-Reston/Herndon (IERH) is a subsidiary of Inova Health System. The emergency service is operated as an outpatient department of Inova Fairfax Hospital. Unlike the IFH satellite emergency service in Fairfax City, the Reston/Herson service does not have a CT scanner. The proposal is to acquire a scanner for the service.

Table 1 shows current CT capacity and recent CT service volumes at authorized northern Virginia services. IFH is now authorized to maintain eight CT scanners, seven on the hospital campus and one at the satellite emergency service in Fairfax City. Approval of the IERH proposal would increase the authorized IFH complement to nine scanners All of the IFH scanners were in service in 2022, the most recent year for which vetted region wide data is available. Average use was more than 2.3 times the nominal Virginia SMPF service volume standard of 7,400 patient visits per scanner per year.

Estimated capital costs are $3,326,018, more than two-thirds of which ($2,268,853) would be for the scanner and related equipment. The remainder (an estimated $1,057,165) would be for construction and related space development expenses. All capital costs would be paid from internal Inova funds. There would be no direct long-term financing expense

Inova Emergency Room-Reston/Herndon justifies the proposal on the grounds that:

* IERH has a growing outpatient caseload, sufficient to justify adding CT scanning capability.
* CT scanning capability is needed at the satellite emergency care center to avoid the transfer of urgent and emergency patients elsewhere for CT scans and, thereby, permit more convenient and more effective service.
* Projected capital costs are within the range seen for similar projects locally and statewide.
* There is no unused CT capacity within Inova Health System that could be relocated to IERH.
* The project is consistent with the public need provisions of the Virginia SMFP.

If authorized on schedule, the new CT service should open in early 2026.

1. **Inova Fairfax** Hospita**l , Expand CT Scanning Service (COPN Request VA-8785)**

Inova Fairfax Hospital (IFH) seeks COPN authorization to expand its CT scanning service, to acquire an additional CT scanner to add to the eight the hospital is now authorized to operate. The scanner acquired would be added to the on-campus CT service. The project would increase the number of CT scanners authorized for IFH to nine, eight on campus and one at Fairfax Emergency Care Center in Fairfax City. Table 1 shows current CT capacity and recent CT service volumes at Inova Fairfax Hospital.

Estimated capital costs are $3,484,561, nearly two-thirds ($2,112,406) of which would be for the scanner and related equipment. The remainder ($1,372,155) would be for construction expenses and related fees. All capital costs would be paid from internal Inova funds. There is no direct long-term financing expense.

Inova Fairfax Hospital justifies the proposal on the grounds that

* Inova Fairfax Hospital’s CT scanning service has high service volumes, with average annual scanner service volumes more than twice the Virginia service volume planning standard.
* There is no unused CT scanning capacity at IFH, or within other Inova medical facilities.
* Inova Fairfax Hospital specifically, and Inova Health System generally, has an internal, institution specific need for additional CT scanning capacity to respond to current and projected demand.
* Capital costs are within the range seen for similar projects locally and statewide.
* The nature of the project, a necessary facility specific service expansion, is consistent with precedent and should not affect competing services negatively.
* The project is consistent with applicable provisions of the Virginia State Medical Facility Plan (SMFP), including the institutional need provision of the plan.

If authorized on schedule, the CT scanner acquired would in service in about a year, in the fall of 2025.

#### II. Discussion

1. **Northern Virginia CT Scanning Capacity, Use, Trends**

Northern Virginia has 75 CT scanners authorized for use in diagnostic imaging.[[1]](#footnote-1) They are distributed widely in hospitals, in satellite hospital emergency department services, and in nonhospital freestanding imaging centers. Distribution by setting is as follows:

* Thirty-six are in hospitals or in buildings on a hospital campus,
* Ten are in freestanding (satellite) hospital emergency departments,
* Six are hospital services in off-campus sites with other imaging services, and
* Twenty-three are in freestanding settings not linked to a hospital.

Given the number, distribution and service volumes of local CT scanning services, most approvals of additional CT scanning capacity over the last two decades have been at hospital-based services with high service volumes and increasing demand.

CT capacity has increased by two-thirds (67%) during the last decade. In addition to the increase in the number of scanners, replacement of older and less capable equipment with newer, faster, and more capable scanners that accommodate larger numbers of patients has significantly increased the functional capacity at most CT scanning services.[[2]](#footnote-2)



Region wide, average CT service caseloads, an estimated 10,784 scans per scanner in 2022, are significantly above the *minimum* Virginia State Medical Facilities Plan (SMFP) target levels (7,400 scans per scanner per year). There is wide variation among CT programs and substantial unused capacity, principally in nonhospital freestanding services. The average service volume in hospital and hospital-

affiliated settings was 14,251 procedures per scanner in 2022, about 93% above the nominal planning standard. Average volumes in freestanding imaging centers are relatively low, 6,699 procedures per scanner in 2022, about 9% below the recommended minimum caseload.

Thus, the average 2022 service volume of hospital CT services was about 2.1 times the average volume of nonhospital freestanding services, and nearly twice the Virginia SMFP minimum volume standard. Most hospital-based services routinely operate at annual service volumes much higher than the SMFP standard.

As these data suggest, the Virginia SMFP CT service volume standard of 7,400 scans per scanner per year is a recommended *minimum* operating threshold, not a measure of capacity or an operating level that in and of itself justifies adding capacity. Most of the unused CT scanning capacity in the region is in chronic low volume freestanding services. There is little unused capacity among hospital and hospital-affiliated services.

Though local demand for CT scanning continues to increase at a higher rate of growth than most other medical services, it is worth noting that northern Virginia resident CT scanning use rates are lower than those reported nationally, in the Washington metropolitan area, and elsewhere in Virginia. The local 2022 use rate was about 15% lower than the statewide Virginia rate, and about 20% lower than the average rate elsewhere in the state (Table 2).



CT scanning service volumes are likely to continue to increase statewide with population growth and greater reliance on diagnostic imaging in medical practice. Regional trends and variations are longstanding and not likely to change appreciably soon.

***Consistency with Planning Guidelines and Principles***

The Virginia State Medical Facilities Plan (SMFP) provides guidance in assessing COPN proposals seeking authorization to establish new CT services or to expand existing services: The applicable provisions, sections 12VAC-230-100 and 12VAC5-230-110, state:

**“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.

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.

**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.” **Virginia State Medical Facilities Plan, P. 9.**

The IERH proposal calls for the establishment of a new CT scanning service. Section 12VAC-230-100 applies. The IFH application calls for the expansion of an existing scanning service. Section 12VAC-230-110 applies.

With the sharp reported increase in CT scanning caseloads in 2021 and 2022, application of the SMFP public need guidance, as interpreted and applied in recent years, suggests a regional public need for between 71 and 83 CT scanners.[[3]](#footnote-3) Including the CT scanners authorized between 2022 and 2024, the authorized regional complement is now 75 diagnostic scanners. Application of the public need determination formula specified in the Virginia SMFP suggests that up to nine additional CT scanners may be authorized.

.

1. **Cost Considerations**

Inova Emergency Room-Reston/Herndon proposes a capital outlay of $3,326,018 to establish a CT scanning service in Reston, VA. Inova Fairfax Hospital proposes spending $3,484,561 to add a scanner. Collectively, the projects entail an expenditure of about $6.81 million to add two scanners to the regional licensed complement.

Projected capital costs of the projects are similar in most respects. The outlays are comparable, about $3.3 million for IERH and about $3.5 million for IFH. Roughly two-thirds of each, about $2.3 million at IERH and about $2.1 million at IFH, would be for the scanner and associated technology. The remainder, $1.1 million at IERH and $1.4 million at IFH, would be for construction and related space development expenses.

The cost of both projects would be paid from internal Inova funds. There is no direct long-term financing expense.[[4]](#footnote-4)

Though the projected capital costs are higher than average, there is nothing inherently problematic about the capital cost of either project. Both are within the capital expenditure range seen for similar projects locally and statewide.

The projects are economically viable as described. The *pro forma* budgets for the initial two years of operations indicate that the projects to be profitable. Projected operating returns in the second operational year are between 2.0% (IFH) and 25% (IERH). Operating returns are profit margins are likely to increase significantly over the useful lives of the scanners, as depreciation and amortization costs decrease, and expenses are allocated to larger service volumes. The marginal cost of providing a scan will decrease as demand and service volumes increase.

As subsidiaries of Inova Health System, both applicants can be expected to follow established Inova charity care policies and practices and serve the medically indigent equitably.

##### Access Considerations

With 39 CT service delivery sites and 75 widely distributed scanners, northern Virginians have ready geographic access to CT scanning. All residents are within less than 30 minutes driving time of a service. Neither additional services nor additional scanning capacity are necessary to ensure reasonable access. The IFH project would add capacity as the largest, and most heavily used, CT service in the region. Arguably it is needed to maintain reasonable access and operational flexibility at the hospital. The IERH project would establish a new service in Reston. It would be located within about 10 minutes’ travel of existing CT services. Of course, new services and additional capacity increase potential physical access by adding new service delivery sites and making scheduling more convenient.

The applicants are Inova Health System subsidiaries and would incorporate Inova’s charity care policies and practices. They commit to providing a reasonable amount of charity care and to serving the medically indigent equitably. There is no reason to doubt these assurances. Economic access to care is not likely to change appreciably with the approval or denial of either. Both *pro forma* budgets assume a charity care expense of 3.9% of gross charges.

**D. Health System Considerations**

The Virginia SMFP public need determination formulae suggests that there is a regional need for additional CT scanning capacity, more than the two additional scanners proposed by IERH and IFH. Both projects are consistent with the public need determination provision of the plan (Section 12VAC5-230-100 and Section 12VAC5-230-110) as that guidance has been interpreted and applied in recent years.

IERH is the only satellite emergency service in the region without CT scanning capability. Given the regional need for additional CT capacity, the high use of Inova Health System scanners, and the increasing patient visit caseload at IERH, adding onsite CT scanning is warranted.

IERH expects to serve 4,432 CT patients in the second year operations (2027). This is generally consistent with the experience at IFH’s satellite emergency department in Fairfax City which reported 5,521 CT scans in 2023.

There is no indication of likely negative health system effects from either proposal.

. **III. Conclusions and Alternatives for Agency Action**

**A. Summary Conclusions and Findings**

The IERH and IFH applications, and the related data and information gathered, support the following findings and conclusions.

1. Though Northern Virginia CT scanning use rates are relatively low, recent increases in demand, and higher service use rates, suggest additional CT capacity is warranted and is likely to be used efficiently.
2. The Virginia SMFP public need determination formulae suggests that there is a regional need for several additional CT scanners.
3. The applicants, subsidiaries of Inova Health System, have acceptable charity care policies and practices.
4. The capital costs of the proposals, though higher than average, are within the capital cost range commonly seen for similar projects locally and elsewhere in Virginia.
5. There is no indication of potential or likely negative health system effects.

**B. Alternatives for Agency Action**

* 1. The Health Systems Agency of Northern Virginia may recommend to the Commissioner of Health that a Certificate of Public Need authorizing the projects be granted. Support for the proposals could be based on concluding that:

* + There is a regional need for additional CT scanning capacity within the planning horizon, over the next three to five years.
  + The two additional scanners proposed are likely to be used efficiently.
  + Projected capital outlays are within the range commonly seen ranges for similar projects.
  + There is no indication that either project is likely to result in negative health system effects.
  + Both proposals are consistent with applicable provisions of the Virginia State Medical Facilities Plan.

2. The Health Systems Agency of Northern Virginia may recommend to the Commissioner of Health that a Certificate of Public Need not be granted to one or both applicants.

An unfavorable recommendation for one or more of the proposals could be based on concluding that:

* There is no indication of a regional need for additional satellite emergency department CT services in northern Virginia.
* A substantial number of the recently authorized CT scanners, some within Inova Health System, are not in service. Additional capacity should not be authorized until these scanners are placed in service and their use assessed.

**IV. Checklist of Mandatory Review Criteria**

* + 1. **Maintain or Improve Access to Care**

Northern Virginia residents have ready access to diagnostic imaging services, including CT scanning. All are within 30 minutes travel time of a CT service. With more than two dozen service delivery sites most residents have access to multiple CT services within a 15 to 20 minutes commute. Although the proposed services would help maintain ready access to care, neither is necessary to address a geographic barrier to care or otherwise improve access.

1. **Meet Needs of Residents**

There is no indication that Inova Health System services do not try to meet the needs of the patients and communities they serve. The projects described should permit each to continue to respond to the clinical needs of their service area populations.

1. **Consistency with Virginia State Medical Facilities Plan (SMFP)**

Both proposals are consistent with the Virginia SMFP public need criteria and standards and the planning principles in which the plan is grounded.

1. **Beneficial Institutional Competition while Improving Access to Essential Care**

The applicants are subsidiaries of Inova Health System. Both projects would contribute to maintaining and improving access to care in some respect. There is no indication or expectation that either project would generate measurable price or quality competition.

1. **Relationship to Existing Health Care System**

Inova Health System is a successful operator of multiple CT scanning services locally. Neither project poses a significant health system conflict or problem.

1. **Economic, Financial Feasibility**

The capital outlays proposed are substantial but within the range commonly seen for CT scanning projects locally and statewide. Both are financially feasible and are likely to be profitable directly and indirectly.

**7. Financial, Technological Innovations**

Neither project entails innovative technologies, practices or economic aspects that warrant special consideration.

**8. Research, Training Contributions and Innovations**

Neither project has significant research or training elements that warrant special consideration.

1. This count includes fourteen scanners authorized recently that were not in service in 2022 and not included in the Virginia Health Information inventory data shown in Table 1. It excludes CT scanners dedicated to radiation therapy treatment planning and operating room use. It includes one “extra-legal” scanner, Fair Oaks Imaging Center (FOIC), which does not have, and has not sought, COPN authorization. FOIC, established by Reston Radiology Associates, the professional radiology group now known as Reston Radiology Consultants (RRC), provides professional radiology services at Reston Hospital Center. FOIC reported 2,864 scans in 2022, higher than several authorized services. Though never authorized, the service is in the Virginia Department of Health inventory and reports its service volumes as part of the annual licensing survey. [↑](#footnote-ref-1)
2. Onsite replacement of existing diagnostic imaging equipment is not subject to COPN review. Replacement equipment is registered with the Virginia Department of Health. Services usually replace dated scanners with state-of-the-art equipment that serves a wider array and larger number of patients. High speed CT services are commonplace locally. They are added to the regional inventory as older equipment is retired. Replacement scanners usually incorporate technology that reduces exposure to ionizing radiation. Most CT scans in northern Virginia are obtained from such services.

   [↑](#footnote-ref-2)
3. Recent reported service volume increases are unusually large. The regional compound annual growth rate (CAGR) between 2018 and 2022 was 9.93%. The reported 2022 service volume (657,815 scans) was about 36% higher than the 2019 service volume (482,783 scans), the year for the COVID-19 induced service disruptions. These are unusually large increases.

   The lower need estimate (71 scanners) is based on the reported service volumes of the last five years (2018-2022). The high estimate (83 scanners) is based on the average volume over the last two years (2021-2022), the most recent years for which vetted service volume reports are available. Partial service specific caseload reports suggest that demand in 2023 and 2024 has continued to increase. [↑](#footnote-ref-3)
4. The implicit financing cost is essentially the corporate bond rate for Inova Health System. Inova maintains a strong credit rating. [↑](#footnote-ref-4)