

To: Donna Jerry, Senior Health Policy Analyst, Green Mountain Care Board

Date: 5/3/16

**RE:** Responses to Inquiries for Docket No. GMCB-005-15con, North Country Oncology Center (Norris Cotton Cancer Center-North) in St. Johnsbury, Proposed Construction of a Second Vault to House a New Linear Accelerator and Maintenance of **Existing Linear Accelerator to Provide Back-Up Service, Project Cost: \$4.8 million.**

### **Financial**

- 1. Table 1 shows \$2,300,000 for fixed equipment cost to be purchased with working capital. Table 3C should show the related depreciation expense. Table 4C should include the fixed equipment purchased. Please confirm that these costs are reflected in Table 3C and 4C and identify the line items where each is included. If not, please revise and resubmit tables.**

Table 3C reflects related depreciation expense, starting in Fiscal Year 2017. April, 2017 is the projected date it will go into service. This is reflected in Depreciation & Amortization line in Table 3C (Row 34). The fixed equipment purchase is reflected in Table 4C in the PP&E Fixed equipment line (Row 28). Please note that all Tables except Tables 1 and 2 reflect the figures in 000s.

- 2. Identify where “Related Project Costs, Other” is reflected on Table 3C.**

The Related Project Costs are capital costs and are therefore included in the depreciation calculation on Row 34 in Table 3C. Please note that all Tables except Tables 1 and 2 reflect the figures in 000s.

- 3. Table 4C shows total fund balance of \$529,774 in budget year 2016. Confirm whether the projected funds of \$4,807,365 used to fund the project are in an already established capital fund that is not included in this balance sheet.**

Yes, this is not being funded through a fund and is therefore not included in the fund balance. The cost is included as part of cash and investments. Please note that all Tables except Tables 1 and 2 reflect the figures in 000s.

- 4. Confirm whether Table 4C shows the capital cost of leasehold improvements as it relates to the 3,200 square foot space to be renovated and whether Table 3C reflects the related amortization expense. If not, please revise and resubmit Table 4C.**

Yes, Table 4C shows the capital cost of leasehold improvements. It is included on Row 27, Land, Buildings & Improvements. The related depreciation/amortization expense is on Row 34 in Table 3C and is inclusive of leasehold improvements. Please note that all Tables except Tables 1 and 2 reflect the figures in 000s.

**5. There appears to be no increase in revenues (Tables 6A and 6C) nor FTEs (Table 9) projected from the addition of the new linear accelerator. Please explain.**

As mentioned in the narrative, we do not anticipate simultaneous operation of the proposed new unit and backup unit other than in cases of extreme concentration of demand during focused windows of time. During these periods, the machines would only be run concurrently to reduce the need for excessive after-hours scheduling of radiotherapy treatments, postponing treatments, or shunting patients to the MHMH main campus in Lebanon, NH — none of which we consider to be a patient-centered care model.

As such, only one unit will be in operation at any given time for the vast majority of available office hours at NCCC-North. Hence, there would be no net new revenue realized because the number of patients and treatments would remain the same, only the time period of the treatments would change by engaging the second unit in a limited backup role.

Specifically to the issue of FTEs, for those limited times when a second unit would be in operation, we would shift staff within the system to address capacity or utilize per diem staff as we have done in the past.

**6. Identify and explain whether redundancy in technology costs are reflected in the financial tables submitted.**

Where practical, MHMH's biomedical engineering group will usually be the first responder to technical issues and Varian will be called if our internal group can't address the issue. As you will see in the response to Question 7, we have added Service Maintenance costs for the new Linear Accelerator for FY2019 (Year 3) under Other Operating Expense on Tables 3B and 3C. FY2019 will be the first year the machine will be off warranty. Total estimated cost is anticipated to be \$240K. With the service contract included all costs associated with the operation and maintenance of the proposed linear accelerator project are included in the tables.

**7. Explain whether additional operating costs (e.g. maintenance contract, preventive maintenance, quality control, quality assurance, annual calibration) have been included in cost projections in the financial tables submitted. If not, please revise the affected tables and resubmit.**

We have added Service Maintenance costs for the new Linear Accelerator for FY2019 (Year 3) under Other Operating Expense on Tables 3B and 3C. FY2019 will be the first year the machine will be off warranty. Total estimated cost is anticipated to be \$240K.

## Other

8. In a table format, show the capacity, actual volumes, and percent of capacity used for the existing linear accelerator for the most recent twelve-month period (broken down by month), as well as the capacity, projected volumes, and percent of capacity used for the new linear accelerator for proposed Years 1, 2 and 3.

Month	April 2015	May 2015	June 2015	July 2015	Aug 2015	Sept 2015	Oct 2015	Nov 2015	Dec 2015	Jan 2016	Feb 2016	Mar 2016	Total
Working Days	22	20	22	22	21	21	22	20	21	20	21	23	255
Capacity	638	580	638	638	609	609	638	580	609	580	609	667	7395
# of Treatments	596	394	388	365	448	435	514	606	644	511	538	501	5940
% Capacity	93.4%	67.9%	60.8%	57.2%	73.6%	71.4%	80.6%	104.8%	105.8%	88.1%	88.3%	75.1%	80.32%
<b>Projected 2016-2017</b>													
Capacity	614	406	400	376	461	448	529	624	663	526	554	516	6118
% Capacity	96.2%	69.9%	62.6%	58.9%	75.7%	73.5%	82.9%	107.6%	108.9%	90.7%	90.9%	77.3%	82.7%
<b>Projected 2017-2018</b>													
Capacity	632	418	412	387	475	461	545	643	683	542	571	532	6302
% Capacity	99.1%	72.0%	64.5%	60.6%	78.0%	75.7%	85.4%	110.8%	112.1%	93.4%	93.7%	79.6%	85.2%
<b>Projected 2018-2019</b>													
Capacity	651	431	424	399	490	475	562	662	704	558	588	547	6491
% Capacity	102.0%	74.2%	66.4%	62.5%	80.3%	78.0%	88.0%	114.1%	115.5%	96.2%	96.5%	82.0%	87.7%

9. In a table format, show the days per week and hours per day the current equipment is available and any after hour scheduling and provide the same information for the proposed new equipment for Year 1, 2, and 3.

Normal hours of operation for the linear accelerator are Monday - Friday from 7:30 a.m. to 5:00 p.m. (9.5 hours per day). Historically, we have extended treatment days by up to 2 hours per day on an as-needed basis Monday through Friday. We anticipate that such overtime ("after hours") operation will not be needed in years 1-3 since we plan to use the backup linear accelerator during normal hours of operation to accommodate times of high patient census.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Hours	9.5	9.5	9.5	9.5	9.5	0	0
Overtime	2	2	2	2	2	0	0
Year 1	9.5	9.5	9.5	9.5	9.5	0	0
Year 2	9.5	9.5	9.5	9.5	9.5	0	0
Year 3	9.5	9.5	9.5	9.5	9.5	0	0

**10. Are there wait lists for linear accelerator services? Explain fully.**

As a matter of practice, we do not wait list people for linear accelerator services and have historically employed one of the following strategies as needed to accommodate patients during periods of high demand or system down time. While patient satisfaction is critically important, patient safety and ensuring the best possible outcomes remains our top priority.

- We add additional hours to the normal hours of operation.
- We determine if the patient's schedule and treatment plan has sufficient flexibility to allow for them to be re-scheduled at the St. Johnsbury location.
- For patients who are able to travel or for those patients for whom a delay in treatment would adversely impact their care plan resulting in potential disease progression, we reschedule patients for the MHMH campus in Lebanon.

**11. Explain whether the price of treatments will change once the new equipment is on line. If prices will change, explain the cause of the changes.**

There will be no immediate price increases directly associated with the acquisition and installation of the proposed equipment and related facility construction.

Historically, gross charges for the overall Dartmouth-Hitchcock health system (of which Mary Hitchcock Memorial Hospital and Norris Cotton Cancer Center are components) are updated annually. The average annual increase has historically been around 3% and it is not expected that the annual charge increase for radiotherapy treatment would exceed that level. In addition, contracted rates with external payors are re-negotiated on a regular basis and small increases to cover general inflation pressures are expected over the next three years.

**12. Explain why overtime peaks are concentrated during the winter months and the same across the health network.**

It is difficult to point to an empirical cause for the concentration of overtime during the winter months in particular. Across the Dartmouth-Hitchcock health system we typically see overall demand for clinical services decline during the winter months. This is historically less true for inpatient (i.e. higher acuity) services than for ambulatory (i.e. less acute) services.

Given the general severity of cancer as a diagnosis we could postulate that patients are less likely to defer or delay care as they might for a non-emergent medical issue. While this translates into less "seasonality" for cancer treatment it does not fully explain the concentration of overtime in the winter months. As a care provider, we have no control over when patients require treatment, but make every attempt to treat as soon as possible to stop the progression of the disease.

**13. Overtime peaks average about 3-4 hours per week. Explain the potential for different scheduling to even out such peaks.**

Historically, we have addressed periods of high patient demand by adding extra treatment hours to the normal business hours 7:30 a.m. to 5:00 p.m. Additionally we have addressed system downtime by rescheduling patients in St. Johnsbury or transferring their appointments to the Mary Hitchcock Memorial Hospital campus in Lebanon. Going forward, by adding the second linear accelerator and by using the existing machine to cover periods of primary system outage, it is our intent to eliminate overtime by staffing the backup machine for limited hours when needed from our per-diem staffing pool or from the MHMH Lebanon campus resources.

**14. Explain staffing for those periods when the new and existing accelerators are in concurrent use.**

As mentioned in the response to question 13, staffing for the concurrent use of machines will be provided from our per-diem staffing pool or from staff who are normally assigned to work at the MHMH Lebanon campus. Each treatment machine will be staffed by two therapists in accordance with national norms.

**15. Given that the new equipment is more precise than the 10-year old equipment you are maintaining for back-up, explain how patients will be educated about any potential differences in treatment/outcomes.**

This is an important distinction that we will need to be prepared to explain to our patients. There is an inherent tendency among consumers to assume that any newer machine is better and that if given the option, they would prefer to utilize that option.

As we will be prepared to explain to any patient as the issue arises, while increased accuracy is available on the new accelerator, it is frankly not necessary for many of the conditions treated with this therapeutic modality. In keeping with Dartmouth-Hitchcock's history and philosophy as a national leader in shared decision making, the choice of delaying treatment versus receiving treatment on the backup accelerator will be a shared decision between the physician and the patient which offers the best possible outcomes based on their unique circumstances and care plan. If the patient does not express a clear choice or defers to the physician, we will always choose the most medically appropriate course of action for the patient including offering treatment at our Lebanon facility if specific conditions warrant.

**16. Identify whether any of the following applications will be included: a) intracranial and extracranial stereotactic treatment capability; b) advanced IGRT and motion management (e.g. beacon-based imaging of soft tissue); c) radiation treatment planning modules to support advanced treatment applications.**

- a. Intracranial and extra-cranial stereotactic treatments require multi-disciplinary subspecialty care. We view these treatment scenarios as most appropriate for our Lebanon campus where all subspecialty resources are available. The machine being acquired for the St. Johnsbury facility will therefore not be configured for delivery of SRS and SBRT which would limit its usefulness for the majority of patients.
- b. Advanced IGRT and motion management is already offered in St. Johnsbury on the existing equipment and we anticipate that continuing.
- c. All of the radiation treatment planning modules to support advanced treatment applications are already owned and in place throughout the Dartmouth-Hitchcock system (e.g. volumetric-modulated arc therapy [VMAT]).

**17. Confirm whether all software costs and software costs for treatment planning modules for use with stereotactic body radiotherapy are included in the total project cost.**

There are no added software cost for this proposed accelerator project. SRS and SBRT software already exists in the NCCC system. As a result, patients from the St. Johnsbury campus may have their treatment planning performed seamlessly in St. Johnsbury or in Lebanon. As mentioned above, we anticipate continuing to provide more specialized treatment delivery needs at the MHMH campus in Lebanon as needed based on the advanced interdisciplinary requirements of each patient's individual case.