BY PAMELA YOUNG

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SUNNYBROOK AND HONEYWELL TEAM UP

A major hospital has signed on with an energy services company for a $28-million facility renewal program

The phrase "performance-based contracting" refers to an agreement in which an energy service company guarantees the savings that a client will realize through implementing specific facility upgrades and energy-saving initiatives. Over the period of the agreement, reductions in operating expenses achieved via these measures are expected to recoup the capital outlay required for them – and if they don't, the energy service company is on the hook to pay the shortfall back to the client.

In September, Sunnybrook Health Sciences Centre in Toronto and Honeywell launched a $28-million energy and facility renewal program that will take two years to complete; it is expected to save Sunnybrook $2.7 million annually and acheive a blended payback in 10.5 years.

One of Canada's largest single-site hospitals, Sunnybrook is located on a 100-acre site northeast of Toronto's core. It occupies more than 2.5 million square feet of facility space, some of it dating back to the late 1940s.

Recently *CFM&D* had an opportunity to sit down with some senior people from Sunnybrook and Honeywell to discuss their performance-based contracting program. Taking part in the discussion were:

from Sunnybrook:

- **Michael Young**, Executive Vice President, Corporate
- **Harry Taylor**, Director of Facilities

from Honeywell – Automation & Control Solutions/Building Solutions:

- **Luis Rodrigues**, Vice President, Energy Solutions Canada
- **Michael Pringle**, Business Development Manager, Energy Solutions Canada
- **Lori Hunter**, Program Manager, Communications & Awareness

Edited excerpts from the discussion appear below.

CFM&D: Why did Sunnybrook enter into this agreement with Honeywell?

Michael Young: We were looking to be environmentally conscious, to reduce our environmental footprint, and we were definitely looking for ways to save operating dollars. Our utility costs continue to escalate way beyond the cost of inflation and funding – that's a huge challenge for us. The third element that Harry brought forward, and it was eye-opening to me, was the need for further facility infrastructure investment that we just didn't have the dollars for. We have limited capital budgets. When a boiler needs replacing after 35 years, we stretch it to 37, we stretch it to 40; it's hard to make that a priority, unfortunately, versus replacing [medical equipment such as] an MRI, even though in reality it's equally important. [....]

We needed to achieve all three aims in a way that minimized the risk to Sunnybrook. In the model that Honeywell brought forward, the energy savings would be known up front. They would commit to them and they would guarantee them, which gave us the ability to very confidently approach a bank and borrow the money. [....]

Harry Taylor: We were really looking for a partner – not someone saying, 'Buy this and we'll take over from here'. We have a talented onsite engineering group that, prior to involving Honeywell, had already done quite a few things to reduce energy use and save water. Three years ago we had aspirations to do much if not all of this ourselves ... but it quickly became apparent that we couldn't tackle the scope of the work, and we really wanted to get on with it. And secondly, energy savings and environmental sustainability takes a lot of people; we needed some outside expertise to come in and help us fashion some of the strategies and solutions that we ultimately implemented.

Michael Young: "As well as bringing this program to us, at the same time Honeywell integrated and brought to us through a subcontracted relationship a full facilities assessment. When we and our board were needing to make decisions as to the cutoff point [for the energy and facility renewal program] we had a much better understanding of how much of our facility was in the red zone of being way over its useful life.

CFM&D: What sort of staff presence did Honeywell bring to the partnership?

Michael Pringle: I brought five energy design engineers and three facility condition assessment engineers to

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For an overview of the projects in the Sunnybrook/Honeywell program, go to www.honeywell.com and search "Sunnybrook."

SOURCE: WWW.HONEYWELL.COM

the site. They teamed up with Harry's guys and together they came up with 120 projects to target. [....] We have four staff remaining onsite for the next year and a half: a project manager, two project coordinators and a measurement and verification specialist.

Michael Young: And Lori [Hunter] is here working with [Sunnybrook's manager of environmental sustainability] Beverley Townsend to have our 10,000 staff be energy conscious, both here and at home.

Lori Hunter: Yes, a lot of work on this project is behind the scenes, and it needs to be drawn to the staff's attention, so they understand what's going on.

CFM&D: How did you go about choosing the 120 projects that comprise the program?

Michael Young: We did what Honeywell called a targeting exercise. All of these initiatives could be looked at individually – how much do they cost? how much do they save? what's the payback on that individual item, and what's the risk associated with it? [....] At the flip of a button we were able to toggle them on or off to see how they impacted the overall project. It was a very transparent process, one of the best I've ever been through.

CFM&D: What was one of the biggest-bang-for-the-buck projects?

Michael Pringle: [Installing] variable-speed drives on the ventilation is a $2-million measure with a 3.5 year payback.

CFM&D: What's something you decided to do even though the payback would be relatively slow?

Michael Young: We're hoping to have Canada's largest solar [photovoltaic] installation. It's a $1.5 million project with a very long payback [estimated at 18 years]. We did it because it was the right thing to do from an environmental stewardship perspective and it didn't have a huge impact on the overall payback.

CFM&D: Obviously an institution like Sunnybrook has a lot of in-house expertise. What's an example of an energy-saving project you might not have come up with and implemented on your own, without Honeywell's input?

Michael Young: We have these old-style radiators here that put as much heat outside the building as inside the room. Honeywell went out with their thermal cameras and measured how much heat was going the wrong way, right through the bricks. [....] These radiators aren't controllable, and one of the biggest complaints from staff – myself included – is 'my office is too cold'. Honeywell came up with a solution that will have heat reflectors to redirect the heat back in, and also involves changing the valves, so that we'll have some controllability by zone.

Harry Taylor: There's another sort of advantage to the expertise Honeywell brings. Our [in-house] team can say, 'You know what? We should be installing variable-speed units on 10 of our fans, because we know that's going to save energy'. Honeywell knows the strategies around selection, the problems associated with particular manufacturers. Having Honeywell there to say 'These are the best options for your facility' is huge.

CFM&D: From Honeywell's perspective, what's changing in terms of what your clients are looking for?

Luis Rodrigues: As little as five or 10 years ago, clients were wanting to know, 'What can you do for us that's going to get us the quickest payback?' Then it expanded into infrastructure renewal, and within the last five years environmental concerns have become important as well. [....] Energy projects have evolved. It used to be that the typical measures were lighting retrofits, and sometimes better heating. But today clients are coming to us for innovation, to the point where we've gone out and hired people whose sole focus is innovative technology.

Michael Young: There are a couple of other initiatives we've talked about with Honeywell, one being biomass and one involving a potential water source underneath our ground. Things that aren't viable today might become quite reasonable five years from now. [....] And I know in the back of my mind that the payback [for the projects in the initial agreement] won't be ten and a half years – it'll be less than that. It's that amount based on today's energy costs. Three or four years from now, those savings are going to be even greater. | **CFM&D**

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