



## Facilitator — February/March 2013



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### It's Not Easy Being Green

André LaRivière

This magazine has published a number of helpful articles describing the many long-term benefits of sustainability initiatives at foodservice operations, such as Chili's Grill & Bar's "Kitchen of the Future" implementation (June/July 2012 issue).

No one would ever describe this type of initiative as falling-off-a-log easy or as second nature to this industry, and it is certainly not without risk. With tight competition in a still-challenging economic market, even the boldest and most environmentally committed companies often hesitate to engage in substantial change, let alone innovation, to their standard business model.

Certainly some operations are seeing the light, such as Darden's upgrade to energy-efficient LED lighting across its entire system (December 2012/January 2013 issue). However, Don Fisher, co-founder of the PG&E Food Service Technology Center and tireless advocate of energy efficiency, has often remarked that he's still surprised that, given the amount of positive evidence generated by his lab and other authorities, the adoption of ENERGY STAR and other proven high-efficiency technologies continues to be very low.

"We figure it's still less than 10 percent," Fisher said, "and that's after some of this equipment has proven its efficiency and value for a decade or more. There's still too much 'green' being left on the table, and that needs to change."

Fisher and his colleagues have also long pointed out the need for a special type of change agent. Unlike standard foodservice facility design and implementation, there is a lack of tried-and-true, market-tested green facility models that deliver dependable, measurable performance, environmental benefits and return on investment. And this is particularly true for concepts that aim to serve sustainability goals with both facilities and operations, including menus built on local, farm-to-table ingredients and supported by zero-waste systems.

While LEED methodologies have offered clear guidance for new buildings, developing a reliable guide for renovations—which is obviously the greatest opportunity in foodservice—is a whole other animal. But taming that animal has been the primary goal of an in-novative, collaborative project in Vancouver, British Columbia, called The Next Course.

#### Defining The Next Course

Stimulating out-of-the-box thinking that offers the best chance for efficient facilities and greener operations requires a larger meeting table and a process that challenges the comfort zone of designers, engineers and operators.

Though it demands an above-average level of facilitation, stacking the planning table minimizes departmental thinking and encourages unconventional ideas to emerge and be reckoned by the breadth of expertise at the table, from design and engineering to purchasing and culinary to management and marketing.

This approach is best known as a "design charrette," or an integrated design process, and it can lead to the kind of innovation that pays off handsomely across the board. And though it's been successfully applied to many large-scale building and facilities projects, it has rarely been tried in foodservice. Until now.

Over the past 18 months, a project initiated in Vancouver by the Technical Innovation Group at BC Hydro, a regional electric utility, and dubbed The Next Course, brought stakeholder partners together to create a design

model/template for an efficient and sustainable restaurant renovation.

From the start, the meeting table included the project architect, interior designer, mechanical and electrical engineers, consultants from the Green Table Network, a Vancouver-based sustainability solution provider, and Fisher from the PG&E Food Service Technology Center. Of course, anchoring the table was the entire management team of O'Doul's Restaurant & Bar, the facility to be given The Next Course treatment and which reopened this past December as the very sustainable forage restaurant.

And because breaking new ground is not without cost, the consortium also brought funding, including an investment by the provincial government's LiveSmartBC business incentive program, to energize this soon-to-be model project. This started with the installation of gas and electric meters on key kitchen and front-of-house systems to capture plenty of specific "before" data from the restaurant.

#### The Project

O'Doul's Restaurant & Bar had been a popular walk-up destination on Vancouver's trendy Robson Street for nearly 40 years, evolving from a sporty public house to a jazz club and casual dining destination. Throughout, its kitchen also supported dining room, room service and banquet services for The Listel Hotel, a boutique hotel with 130 guest rooms and suites, meeting space, and other amenities.

"We were fortunate to have a great partnership in this renovation project and hoped it might help smooth out the inevitable bumps," said Jim Mockford, general manager of the Listel Hotel. "But, naturally, when you're breaking new ground you create new unexpected bumps, and we learned a lot from those, too."

The original scope of The Listel renovation included a complete teardown, remodel and downsizing of O'Doul's service area from 140 seats to an efficient 75 for the cozy, neighborhood ambiance of the new concept. The kitchen needed some key upgrades to support Head Chef Chris Whittaker's desire for a higher level of farm-to-table provisioning and production, as well as improved capacity to drive more catering/banquet business on- and off-site.

This wish list dovetailed perfectly with that of the The Next Course partnership; its goal was to model a holistically sustainable facility using readily available commercial solutions, while producing total energy savings of 30 percent (beyond standard building/operation code). Those meters, monitored and analyzed by Vancouver-based Prism Engineering, will reveal this spring whether that goal has been attained. Along the way, The Next Course design table also welcomed leading manufacturers, such as Garland Canada, Master-Bilt, True and Halton Indoor Climate Systems, to contribute their leading-edge expertise to the process.

However, with that many "cooks" involved, one of the primary outcomes of the project was to document the entire integrated development process to show how good, and better, decisions were made and, it's hoped, produce a template that other operators can follow to achieve similar results.

Widespread replication of this process is what Irfan Rehmanji, a manager for BC Hydro's Technical Innovation group and chief instigator of The Next Course project, plans to encourage for all the right reasons.

"Total electricity consumption in the BC restaurant sector meters in at approximately 2,700 gigawatt/ hours per year," he said. "Adopting an effective solution that conserves 30 percent energy would represent \$64 million in bottom-line savings to our clients. That's a good news story all around."

Rehmanji and other consortium partners note that future The Next Course project outcomes will model how small/medium-sized foodservice businesses can remedy the time and resource crunch in researching sustainable options by leveraging expertise in the trades and design community. They also hope to overcome the sensitivity to upfront capital costs and lower the threshold for payback/ROI with measurable benefits beyond simple payback.

#### Deciding the Next Course

With a core goal to reduce O'doul's energy use by 30 percent below code, there were some obvious technologies to consider in the backof- house area. Other selections were added to enhance operational efficiencies, increase production and storage capacity, and replace some equipment at or near the end of its lifecycle.

Some of the highlights include:

1) Adding demand control ventilation. As in most kitchens, the exhaust hood and make-up air fans were set to one speed (100 percent) and ran a minimum of 18-20 hours every day, regardless of whether the kitchen was operating. Fisher's onsite assessment determined a hood retrofit would enhance heat/smoke capture and better realize the benefits of adding a DCV system.

Halton stepped in with a retrofitready version of its Capture Jet air curtain and installed its M.A.R.V.E.L. DCV system.

“While refitting and upgrading existing hood systems can be a challenge, we also know that many operators are eyeing the performance and bottom-line benefits of DCV technologies, so Halton is, via projects like this one, gearing up to provide renovation-ready solutions,” said Dan O'Brien, a Sales Director at Halton.

2) Addition of a second walk-in cooler. The evolution of both the localized menu and catering operations suggested a need to upgrade the efficiency and configuration of refrigeration in the main kitchen.

In addition, another of chef Whittaker's sustainability goals is to become one of the first hotel-scale kitchens in British Columbia to eliminate the use of canned commodity products, which are typically imported, of uneven quality and rarely from sustainable sources. The emphasis would be placed on farm-direct purchasing and in-house processing of local products for sauces, purées, condiments and other season-extending uses. But, unlike tin cans, this would require a dependable and efficient cold pantry for these high-value products that need to be vacuum-packed using the in-house sous vide machine.

To support these goals, an ultra-efficient LEED qualified walk-in cooler supplied by category leader and vendor sponsor Master-Bilt was installed to replace the existing reach-in units.

3) Replacement of gas range/griddle with gas range/electric induction griddle. The existing open-burner gas range with dual ovens and a large griddle was at the end of its lifecycle. A new gas/electric hybrid range, incorporating new induction griddle technologies from Garland, presented the best solution to support the new menu, with an estimated net savings of 50 percent energy.

4) Replace six-pan steamer with mini combi-oven. While the boiler unit was retained to power a steam kettle (with once-weekly use), the Cleveland six-pan steamer, which saw limited use, was replaced by a high-efficiency Cleveland ConvoTherm Mini combination oven/steamer for its versatility, efficiency and water-saving boilerless technology.

5) Upgrade standard fryer to ENERGY STAR fryer. The Frymaster H55 will cost 30 percent less to run and, with its built-in filter system, save 25 liters of cooking oil per week.

#### Detailing the Next Course

There was just as much, and often more, attention paid to the measure of sustainability in the renovated dining room and bar for forage.

Using LEED and other guidelines, the design team selected a wide variety of premium-quality eco-friendly materials and fixtures, beginning with local sources, then from international sources demonstrating a third-party certified commitment to sustainability.

Some of these include:

- 1) Forest Stewardship Council-certified wood products: All wood flooring, millwork and veneers are ecofriendly hardwood certified by the Forest Stewardship Council.
- 2) Fabric feature wall: As an innovative alternative to conventional vinyl or composite wall coverings, designer David Nicolay at EVOKE International Design Inc. created a distinctive art installation wall composed of strips of 100 percent wool felt, dyed in natural food-inspired colors with all-vegetable inks. At some future date, this wall covering can be removed and sent to compost.
- 3) Low and no-VOC materials and finishes: All banquettes and chairs are upholstered with Spinneybeck leather, which have a GREENGUARD Certification for indoor air quality. All paint, finishes, adhesives and other applied materials at forage are rated low- or no-VOC.
- 4) Low-carbon dishware. To complement the casual “earthiness” of the local-focused menu, chef Whittaker selected Evolution dishware by Dudson, which is molded and fired using 79 percent less energy than conventional china.

Though all the metered data has yet to be fully analyzed, the project's primary outcome, forage, is already a success according to all The Next Course consortium partners (and many satisfied diners). And, to most every participant, the face-to-face collaboration around the design table was the key to their success.

And they're hardly alone in that view. A recent GlobeScan/SustainAbility survey of 800 sustainability professionals in 74 countries found “a growing appetite for collaboration to accelerate more sustainable business models.” Nearly half of those experts cite “access to diverse perspectives and expertise and pooling risk as keys to the business case for collaboration; cost reduction is not seen as a primary reason to collaborate.”

Collaborating for a better future? Sounds like a good plan.

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