



WBCSD ReNEWW HOUSE COLLABORATION 2016: A SUMMER OF LIVING LEARNING



Whirlpool Corporation's ReNEWW House is a traditional US home on the campus at Purdue University in Indiana. Following a deep energy and water retrofit, it now serves as a "live-in laboratory" where R&D teams can test and experience sustainable living. Whirlpool invited members of WBCSD's Sustainable Lifestyles working group to conduct product and behavior investigations, including the use of current products within its future-ready infrastructure, and exploring innovations that might serve as "unlocks" to more sustainable lifestyles.

During the summer of 2016, Whirlpool hosted R&D staff from Firmenich and P&G. Over the course of 8 weeks, 24 people were able to live in the house, each for a week at a time. The experience proved to be more powerful than expected, with benefits extending well beyond the company-specific investigations undertaken.

WBCSD, on behalf of the companies that have formed this partnership, is sharing some of the benefits of the collaboration

with the intention of inspiring other companies to build the business case for similar transformative collaboration exercises elsewhere in the world.

MAJOR CONCLUSION

The ReNEWW house decisively serves as a catalyst for mindset shift and habits change. The immersive nature of the "conservation mindset" fostered by the house raises residents' consciousness and inevitably compels change.

THE INTENDED BENEFITS

The participating companies created a repository of findings, including:

- the available technologies around energy and water management;
- how the companies' products interacted with the house and the available technologies;
- future product and service innovations.

Companies invested in the collaboration for these very reasons -- to have an "in-vivo" prototype, where R&D staff could explore and experience sustainable living.



FOOD



HOME



MOBILITY



GOODS



LEISURE



ReNEWW HOUSE

However, it was the immersive experience of actually being in the house that provided the partners with the most encouraging and fertile findings.

UNEXPECTED BENEFITS

Reviewing residents' exit interviews and the team online collaboration platform, it is clear that the ReNEWW House can impact the way that residents think about their own lifestyles, not just at ReNEWW, but back at their homes as well. The ReNEWW House acts as more than a "lighthouse" for what sustainable living could look like; it reveals technical and emotional pathways that might inspire and nudge others.

The experience at ReNEWW proved that sustainable living does not need to involve compromise; in fact, most residents felt as if they were living in their own homes.

But there were certain "moments of truth" that made residents aware that something special was going on. These ranged from technical solutions (e.g., a button to start heating up water prior to getting in the shower), to solutions that, while technical, revealed themselves in well-being (e.g., due to its super efficient insulation, the ReNEWW House is incredibly quiet and some residents even overslept!).

These magic moments delighted the residents to the extent that they began to question what was going on behind the scenes more – they wanted to know what else the house was doing for them to help them to live more sustainably. And once they were asking those sorts of questions, it was short step to them asking why the house wasn't doing other things to enable more sustainable lifestyles. It also revealed that while some things were performing services for the house and the residents, they were not embraced simply because they were unattractive or complicated.

It is clear that experiencing more sustainable living can effectively be used to investigate how awareness can be raised and sustainable behaviours can be encouraged. For the R&D teams that visited, their experience extended beyond exploring innovations that would advance their companies' ability to enable more sustainable lifestyles. It showed them that they could ask for a better lifestyle when they returned to the 'real world'.

Merging their professional lives with the residents' 'everyday' lives also moved thinking away from specific products and into questions of lifestyle, allowing much bigger ideas to be considered. It inspired a different way of thinking about how to design products and services that shape lifestyles, taking into account emotional cues, social currency and habits too.

The individuals returned to share their experience at the ReNEWW House with their teams. News spread fast! At P&G there is now a waiting list for employees who would also like to experience the ReNEWW House for themselves.

The partners even found benefits outside of the R&D teams who visited the House. In addition to the live-in benefits, the experience also led to a collaboration between the three communications teams, resulting in a video showcasing the companies' shared innovation agenda.

This will be an ongoing partnership. The ReNEWW House is a demonstration of how companies can work in an environment of very open trust to explore a common goal, and discover unexpected additional benefits on the journey.

New partners will join the ReNEWW collaboration in 2017, exploring areas such as connected living and mobility. Fossil will investigate how to improve the home environment and experience through monitoring devices, while Ford will be investigating how eMobility links into, and supports, the ReNEWW House and its residents. We also plan to investigate waste, and the kitchen itself, more closely. Finally, Novozymes will bring its innovative expertise into the collaboration in 2017.



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HOW THE EXPERIENCE WAS RECORDED

Rose (great / awesome!)

What other ways of eliminating CO2 or stale air can we develop?

Bud (has potential)

Can products for the shower (soap/shampoo/conditioner) be also beneficial to prevent gray water systems from having micro build-up issues?

Thorn (not great / weakness)

Kitchen appliances/tools don't seem to be

Why is the regular setting for your washing machine not Cold Water setting?

Get consumers to stop pre-

Do we need to develop a service model to take care of

Create devices/machines and utensils/dishes that are actually easier to clean.

Customized For Me =!

Quiet Is The New Wow

The insulated 'soundproof' metal roof with solar panels

Does Sustainable Have To Mean High Maintenance?

Water system equipped maintenance services we were in the house, checking the house to orient the storage.

Some kitchen appliances are too heavy to move back and forth from storage, require lots of counter space.

Biowall has tons of potential, but not yet functional.

The self-watering system is the only "water" system that can be used during the summer, light and heat during the winter.

Recycling could be more easily integrated into the system, but separate labeled cans would be used to make it easy without labeling.

HE dryer left clothes too damp on "less dry" setting and made my clothes smell like mildew

It's A Miss When There's An Obvious Gap vs Current (Non-Sustainable) Way To Do It

The low flow water fixtures (shower heads, faucets) are beautiful and better than some low flow options I've encountered, but I can still tell its low flow in a negative way!

Preheated Shower Saving water AND reducing the awful "mystery shower temp phnom?" Sign me up.

So Much Passion & Potential For Making Use of "Waste" / One Man's Trash Is Another Man's Treasure

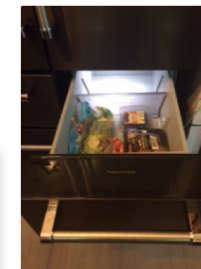
Stephen's basement experiment taking waste heat from refrigerator and using it to be used for dishwasher has potential.

Love Stephen's system to use fridge motor to heat dishwasher water. Seems compact, intuitive and retrofitable.

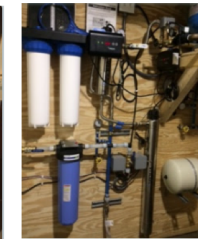
Geothermal - great to tap into the 50F temp. below the ground for heating and cooling needs

Importance of Instagrammable Moments / High Impact Visuals

The rain water reserves in the front yard are unsightly and likely pretty hard to move around.



So Simple, Yet so Elegant!



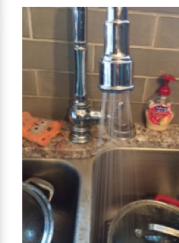
The filters for the rain water system - not as bulky as you would think.



Metrics



The Solar Panels stand out to a crowd!



Less water, more pressure!



Super Delicious Meal

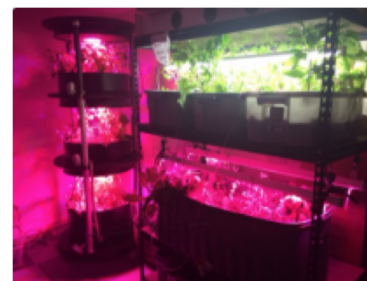


I liked this at first - but it gets uglier by the day. Sustainability should be beautiful!



Warm water while doing dishes- don't mind if I do!

With just a press of a button, I have warm water to wash my dishes with! No more waiting for it to warm up!



I want to eat the Basil in this!



My air freshener is beautiful and artsy - We need a modern-hipster side to Febreze!



Window Film That Blocks The UV Rays

The black shadowy forms appearing on the window are areas that react to heat and light and darken to prevent UV rays from coming in and heating up the room. I could watch the patterns change all day if I had the time, it's almost like abstract art on the window.



The button the button, who will press the button?

Hot water recirc - again it gives the consumer a choice to be sustainable. It just makes you feel good to use this tool!



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