LG Electronics' Sustainability

ESL 1700

Ha Rim Kim

3 December 2018

Have you seen the famous slogan for LG, “Life’s Good,” with red smiling face on the left? It is a future-oriented and powerful representation that emphasizes the philosophy of humanity. LG Electronics is one of the biggest multinational companies headquartered in Seoul, South Korea. LG, the entire corporation, is founded on the main five pillars- Energy, Global, Technology, Tomorrow and Humanity.[1] As a result of pursuing their vision of innovation and sustainable efforts, LG electronics has achieved many honorable awards by various associations and organizations such as “CES Innovations Awards” and the glory of having strong partnership with ICC. LG Electronics, the makers of the world class energy efficient air conditioner, have adopted new technologies like Variant Refrigerant Flow (VRF) and constantly stayed ahead of emissions reduction targets, which have been effective ways to support sustainability.

LG Electronics supply businesses with innovative VRF technology to adapt it to the right applications for VRF and ensure that building systems are laid out well to implement maximum efficiency. According to the study by Green Proving Ground Program, they mention VRF HVAC systems that “These systems can recover heat from spaces being cooled for use in spaces being heated and vice versa.” “VRF systems combine many of the features of other HVAC systems, which offer energy efficiency with a limited number of components relative to systems with central plants.” “VRF systems can achieve 30% and higher HVAC energy cost savings relative to minimally code conventional compliant systems, or older inefficient systems and a range of building types.”[2] LG Multi V is introduced as LG’s Variable Refrigerant

[1] Syed Fida Hussain Shah, Tahira Nazir, Khalid Zaman, “Brand Analysis of LG Electronics: A Case Study,” *Oeconomics of Knowledge*, Spring 2013

[2] Brian Thornton and Anne Wagner, “Variable Refrigerant Flow Systems,” *Green Proving Ground Program*, Dec. 2012, p.4, p.6. https://www.gsa.gov/cdnstatic/GPG_VRF_Report_-_FINAL_DRAFT_4-16-13.pdf

Flow(VRF) which provides complete HVAC solution for every types of buildings and this solution will bring huge sustainable energy benefits.

One example of LG Electronics success in implementing the energy efficient VRF technology is their part in a building redesign in Imperial Hotel. According to the journal, '*Engineered Systems*', there has been a challenge of transforming a deserted Imperial Hotel into residential housing that needs various requirements and its consequential goal was a heating and cooling system that saves energy. The city of Atlanta then installed LG Multi V III Heat Recovery system with Variable Refrigerant Flow (VRF) technology. This technology enables the heat to be captured for the reuse and increases the system's energy efficiency. The journalist made a compliment that "Given the higher energy efficiency and longer piping capabilities of the Multi V III, it was a sensible choice." In addition, The Commons at Imperial Hotel has achieved the U.S Green Building Council's LEED (Leadership in Energy and Environmental Design) Gold certification, the benefit of installing new HVAC units without damaging design, and it saved money and resources by energy savings.[3] LG Electronics demonstrates air conditioners that deliver on not only efficiency but also quality with more efficient building infrastructure with cost-effective solutions for architects and designers.

Overall, LG Electronics has turned the usual company line into green hype making sustainability concepts a priority and making sure that an energy conversation is at the center of development. To keep up with their emissions reduction targets, LGE USA has come up with

---

[3] "LG Multi V III." *Engineered Systems*, Feb. 2015, p. 55. Academic OneFile, http://link.galegroup.com/apps/doc/A413787238/AONE?u=nysl_me_newsch&sid=AONE&xid=62f64a0b. Accessed 26 Nov. 2018.

universal approach to industrial ecology and signed up for a broad memorandum of understanding with the U.S. Environmental Protection Agency. And this include the Green Power Partnership, Waste Wise, WaterSense and Energy Star. These efforts let LG Electronics to achieve EPA's "Energy Star Most Efficient" designation, saving consumers more than $150 million in utility costs and reducing greenhouse gas emissions by about 930 million pounds over the life of the products. For the last, Mike Bellamente, the director of Climate Counts suggests that "It would seem that LG has a unique opportunity to further distinguish itself as a corporate leader through consumer engagement. Another way that LG can break away from the pack would be by reaching out to U.S. policymakers as they've done in other parts of the world to express support for carbon legislation. After all, "Life's Good" should be the mantra for future generations as much as it is for ours."[4]

As a conclusion, LG Electronics launched high-performance VRF technologies to achieve the energy conversion loss on the surface to be reduced and the efficiency of total energy to be increased. LG announced that "LG Electronics has set a target to reduce to 150,000 tons of production-level GHG emissions by 2020."[5] LG VRF Technologies are devised to minimize energy consumption by saving on the cost of large distribution fans, multiple water pumps operation and water piping. Therefore, consumers achieved sustainable designs by purchasing LG's air conditioners. Started with smallest footprint, LG Electronics are still on innovating the better versions to maintain their highly reputed sustainable air conditioners. Would LG Electronics be the 'winner' of the Green building company prize? Yes. Many experts

[4] Mike Bellamente, "LG turns up the volume on its energy and climate strategy," *GreenBiz*, June 21, 2013. https://www.greenbiz.com/blog/2013/06/21/lg-turns-volume-its-energy-and-climate-strategy

[5] https://www.lg.com/global/sustainability/environment/operational-efficiency/energy-and-ghg-emissions

anticipate LG Electronics' sustainable Air Conditioning Technology commercial ideas and promotion in the future.

Bibliography

Syed Fida Hussain Shah, Tahira Nazir, Khalid Zaman, "Brand Analysis of LG Electronics: A Case Study," *Oeconomics of Knowledge*, Spring 2013

Brian Thornton and Anne Wagner, "Variable Refrigerant Flow Systems," *Green Proving Ground Program*, Dec. 2012, p.4, p.6. https://www.gsa.gov/cdnstatic/GPG_VRF_Report_-_FINAL_DRAFT_4-16-13.pdf

"LG Multi V III." *Engineered Systems*, Feb. 2015, p. 55. Academic OneFile, http://link.galegroup.com/apps/doc/A413787238/AONE?u=nysl_me_newsch&sid=AONE&xid=62f64a0b. Accessed 26 Nov. 2018.

Mike Bellamente, "LG turns up the volume on its energy and climate strategy," *GreenBiz*, June 21, 2013. https://www.greenbiz.com/blog/2013/06/21/lg-turns-volume-its-energy-and-climate-strategy

https://www.lg.com/global/sustainability/environment/operational-efficiency/energy-and-ghg-emissions