

### This Week....

## Zero Energy Home - Mark Kunz

Mark Kuntz, chief executive officer of Mitsubishi Electric Trane HVAC US (METUS), wanted to find out. After buying an 11-acre property in Monroe, Ga., he wanted to meet three goals: build a house that consumes little energy; incur no debt; and utilize materials that are durable and relatively maintenance-free.

### A Net-Positive Home in Humid Georgia

By Camille LeFevre, Home Features Editor Last Updated: Jan 19, 2022

Mark Kuntz has enjoyed a long and fruitful career with Mitsubishi Electric—one that's led Kuntz and his wife Denise into a new, net-positive, sustainable home. He first set foot on that path early in his career while working in Chicago.

He had been collaborating with architect Tom Bassett-Dilley on the <u>first passive house in Chicago</u>. Tom Bassett-Dilley Architecture specializes in <u>Passive House</u> technology, zero-energy buildings, and <u>biophilic design</u>. After installing two mini-splits in the home, which provided supplemental heat during a 20-degree-below cold spell, Kuntz checked on his customers: No complaints. They were happy with the mini-split performance.

Then, during a trip to Japan, he toured an electric, smart house in Ofuna that Mitsubishi Electric had constructed. While the home included many bells and whistles, Kuntz especially liked the bi-directional electric car and charger. "In the case of a grid outage, you could back feed from the car battery and run it through the house to all the critical systems," he explained in a case study. "Coupled with a solar array, you could do that for days on end. It was a great demonstration of how a fully-integrated, high-performance house can be even more impactful to the owner."

Now the chief executive officer of <u>Mitsubishi Electric Trane HVAC\_US</u> (METUS), Kuntz purchased a lakeside property five years ago outside Atlanta, Georgia. His purpose was to build an electric, net-positive home. That's not all. "It was our lifelong dream to build this house," he says. "As we started contemplating retirement, we thought: What if we could build a house without a mortgage, with no maintenance, and with no energy requirements? Would that be a load off our minds for the last 30 years of our lives?"

So they did just that. The Kuntzes found the Imery Group, a Certified B Corporation, and began working with Luis Imery, who designs and builds custom sustainable homes. "Luis said our no maintenance requirement was a bit of a stretch," Kuntz says with a laugh. "But we certainly could build with life-long components and with nothing too specialized that I couldn't handle as a do-it-yourself handyman."

Having noticed a modern farmhouse in a magazine, the Kuntzes asked Imery to emulate that style. Today, the couple lives in a 1,800-square-foot, two-level modern farmhouse at the tip of a lake. Is it sustainable? Net-zero? Kuntz laughs: "It's net positive, with a recent <u>HERS</u> score of -13!"

### An Air-Tight Envelope

"The whole mindset of farmhouses and sustainability and self-sufficiency has always appealed to us," Kuntz says. The notion of building something for generations to come that reflects something in our background was important. "Denise and I both have an agricultural heritage." Once the couple met Imery, everything clicked. "We wanted a high-performance home with a tight envelope, mechanical ventilation with a continuous supply of fresh air, and as much Mitsubishi equipment we could come up with."

"Luis is an expert at high-performance construction in the South," he continues. "Humidity is such an enemy here. Mold growth is real. We needed someone from the South with a specialty in this type of construction. Luis had the knowledge and resources to create the right building envelope."

Imery set a goal of building a <u>DOE\_Zero\_Energy\_Ready Home</u> for the couple. That meant planning for the healthiest and most energy-efficient home *before* installing renewable energy or energy-efficient systems. To create an air-tight thermal envelope around the house, the contractors installed below-grade slab insulation. They clad the walls in <u>ZIP\_System® R-Sheathing</u> (from Huber Engineered Woods). They further insulated the shell with spray cellulose, a recycled paper product. Combined, these materials prevent air leaks and help ensure peak mechanical performance. When completed, the walls were rated at R-28, and the roof R-50—both significantly higher than code requirements.

#### Smart Mechanicals

Kuntz and the Imery Group collaborated with Energy Vanguard on the layout and load calculations for the mechanical system. The team selected three MSZ-FH Wall-Mounted Indoor Units (one for each bedroom) and one Horizontal-Ducted Indoor Unit (PEAD) to provide heating and cooling on the first floor. They also installed Mitsubishi Electric's mobile app and web service, <u>kumocloud®</u>, so that the couple can control their comfort levels from their devices.

The home also includes an <u>energy recovery ventilator</u>, dehumidifier, and <u>photovoltaic solar panels</u>. A prototype hot water and space conditioning heat pump from Mitsubishi Electric is "a split system: half outdoors (so it's not cannibalizing heat) and half indoors to provide hot water, heating, and cooling to the rest of the downstairs," Kuntz explains. "When in air-conditioning mode, it's capturing heat inside the house and putting it in the water; it's essentially gathering free heat."

Harkening back to the Ofuna smart home, Kuntz installed an <u>electric car charging station</u> in the garage, with a bidirectional charger planned for the future. The all-electric low-load home, drawing energy from photovoltaic panels on the roof, brings the residence to <u>net positive</u>. The house officially meets <u>DOE Zero Energy Ready Home, ENERGY STAR®, EPA Indoor airPLUS</u>, and <u>EarthCraft<sup>TM</sup></u> certifications. The home also exceeds the 2009 and 2012 <u>International Energy Conservation Code®</u> (IECC). Kuntz's house should realize an annual savings of \$2,837 compared to the average new U.S. home with solar panels.

#### A Year Later

The <u>couple moved in last October</u> and have no regrets. "What we love most is we don't have any energy costs," Kuntz says. "We're putting twice as much energy on the grid as we take off." As for pleasant surprises, he adds, "We love how quiet the home is. If we want to hear the birds, the trees, the lake, we can open the windows. But when we close the <u>triple-pane windows</u>, it's calm and quiet."

Kuntz says he also enjoys the fresh air circulating throughout the home. "There isn't any sense of stagnant air in any part of the house. I attribute that to the recovery ventilator, which continuously brings in the fresh air."

The couple also has a wood-burning fireplace—"which is antithetical to a high-performance home," he says. (Homes can lose substantial heat through the chimney; see <u>Heat Loss is a Cold Reality of a Wood Burning Fireplace</u>.) "But what's a farmhouse without a fireplace? We had a sealed combustion system with air brought in through a firebox. We love the aesthetic of a fireplace in a tightly insulated home."

As for what the couple might have done differently? "We made our master bedroom a bit too small," he says. "With a home and views like this, why spend any time in the bedroom? Still, it could have been a little bigger. The home is perfect, though, he adds, for his growing family—which now includes four grandchildren.

"Our grandkids will grow up knowing how to fish, what zero energy means, and what photovoltaic panels are for," Kuntz says. "With our home, we're educating the next generation."

**Disclaimer:** This article does not constitute a product endorsement; However, Rise does reserve the right to recommend relevant products based on the article's content to provide a more comprehensive experience for the reader.

# Birthdays

Chuck Hall March 29th

#### Wedding Anniversaries

Maureen E Wood March 8th Wayne Robinson March 18th Kendall K Ellington March 31st

Years of Service

Al A. Myers Jr 08-01-1985 40 Years Albert A. Myers III 03-23-2000 25 Years Daniel S. Digby 09-30-2004 Beth Andersen 06-30-2005 20 Years Vince G. Evans 10-06-2005 20 Years Suchet L. Loois 02-22-2007 18 Years Wayne Robinson 03-29-2007 18 Years Scott G. Slaughter 08-25-2009 16 Years Thua G. Barlay Dorothy E. Bala 02-10-2011 14 Years Michael W. Lassiter 06-30-2011 Wendy A. Bear 01-12-2012 13 Years Kenneth Gaylord 02-14-2013 12 Years Shelli Siebert 08-08-2013 12 Years Michael Hutcheson 08-09-2018 7 Years Terry Oatts 09-13-2018 7 Years Bryan Hilburn 01-08-2019 6 Years Laura Sistrunk 6 Years James F Cabe 11-14-2019 Ann George 07-16-2020 5 Years Stephen Boyle 10-01-2020 5 Years 4 Years Kendall K Ellington 05-12-2022 3 Years Cari Trueblood 07-21-2022 3 Years Martin Jones

11-02-2022 3 Years 3/13/2025 - TBD

# **Upcoming Programs and Events...**

- 3/20/2025 Colorectal Cancer 3/27/2025 - Senior Awards 04/3/2025 - Vocational Tour at Lighthouse Village 4/10/2025 - EV Education - Dr. Tavarez Holston 4/17/2025 - State of the County - JaNice VanNess
- 4/24/2025 No Meeting 4/25/2025 - Golf Tournament - Cherokee Run

## **Rotary Announcements**

# Should you have to miss, please make-up:

Meeting Makeup Opportunities Social Circle Club - Magnolia Manor - Mondays @ 12 Noon Covington Club - First Methodist Church - Tuesdays @ 12:15 pm Rockdale Club - Premier Inn - Wednesdays @ 7:15 am Loganville Club - I Hop Restaurant - Thursdays @ 7:15 am RotaryEClubOne.org (Online makeup options) RotaryEClubOfTheSouth.org (Live on the 2nd & 4th Tuesdays @ 6:30 PM)

Any club function including Board Meetings, Service Project, Fundraiser or Social Function also counts as a make-up,

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# **Membership Roster 2025**

Roster-2025

								Tommy O. Morgar
Last Name	First Name	Email	Classification	Member Type	Participation Data	Code	Participation	07-28-2024 1 Year
Andersen	Beth	beth7754@gmail.com	Insurance-Life & Health	Active-R85	PHF,PP,PAS 2005,ROTY 2007,PHFn,4106	ALU	ALUMNI or Rotary	William T. Rogers 07-29-2024 1 Year
Bala	Dorothy	dotti@copycentral.comcastbiz.net	Printing Services	Active-R85	PHF,BS,PP,PAS 2012,ROTY 2014,PHFn,4106	В	Benefactor	Kesner Ganthier 08-29-2024
Barlay	Thua	tbarlay@luederlaw.com	Attorney	Active	PHF,B,PP,PHFn,4106	BS	Bequest Society	1 Year
Bear	Wendy	wendy@wendybear.net	Insurance	Active-R85	PHF,PHFn,4106	СМ	Charter Member	Christ-Lee Lizaire- Ganthier
Boyle	Stephen	sboylemd@gmail.com	Surgeon - Retired	Active-R85	PHF,PP,PRY 22,4106,4107	DSA	Distinguished Service Award	09-05-2024 1 Year
Brown	Andrew	andy@brownwm.com	Investment Advisor	Honorary	PHF,PP	DSM	Double Sustaining Member	Tasha Cox 09-19-2024
						GRSP	Georgia Rotary Student Program(GRSP)+	1 Year
Cabe	James	jfcabe25@gmail.com	Law Enforcement	Active		4106	GRSP Will Watt Fellow	Tanya Kitchens
Cowan	Edward	sandrazetheredge@gmail.com	Hardware- Retailing	Honorary	PHF,PP,PHFn,4106,4107	4107	GRSP Hue Thomas Fellow Jr.	09-20-2024 1 Year
Сох	Tasha	Tasha_cox@ucbi.com	Banking	Active- Corporate				Sandra Etheredge 10-09-2024
5.5	Daniel	dsdigby@gmail.com	Military - Reserve		PHF,PP,PHFn,4106	4108	GRSP Ronnie Waller Fellow	1 Year
Dunn	Rachel	rldunn1994@gmail.com	Funeral Director	Active		MSA	Meritorious Service Award	Edward L Cowan 10-09-2024
Edwards	Jennifer	jennifer.edwards@conyersga.gov	Municipality	Active- Corporate		PDG	Past District Gov / District Served:	1 Year
Ellington	Kendall	kellington@ssemc.com	Electric Power - Member Service	Active		PP	Past President	Kelbie Milon 11-21-2024
Etheredge	Sandra	sandrazetheredge@gmail.com	Hardware- Retailing	Honorary	PHF,PHFn,4106	PDRI	Past RI Director	1 Year Toni Kelecheck
Evans	Vince	vinceevans@bellsouth.net	Pharmacy - Retail	Active-R85	PHF,PHFn,4106,4107	PAS	Perfect Attendance Since:	11-21-2024 1 Year
Fuller	Avery	fulleravery@yahoo.com	Heating/Air Conditioning Service	Active- Corporate		PHFN	Paul Harris Fellow (PHF)+	Club Leaders
Ganthier	Christ-Lee	christlee@pelagie.org	Resouce Center	Active- Corporate		PHF	Paul Harris Fellow	Bryan
Ganthier	Kesner	kernes@pelagie.org	Resource Center	Active- Corporate		PHFS	Paul Harris Society	Hilburn President
Gaylord	Kenneth	ken.gaylord@truist.com	Banking - Commercial	Active	PHF,SM,4106	PRY	Previous Rotary Years in other clubs	James F Cabe President-
George	Ann	fpnr1204@gmail.com	Executive Director Non- profit	Active-LOA	PHF	ROTY	Rotarian of the Year	Elect GRSP Chair
Glaze	Kim	kglazerotary@gmail.com	Human Resource Management	Staff Position	PHF	SAS	Service Above Self Award	Debra L McGlaun Secretary
Hall	Chuck	chuck@chuckemail.com	Business Coach	Active		SM	Sustaining Member	Secretary
Harris	D'Anthony	harrisdt4@gmail.com	Clinical Therapist	Active				Scott G.
Hilburn	Bryan	hilburn@hillsacademyga.com	Private School - Headmaster	Active	PHF			Slaughter Treasurer
Hughes	Robert	rhughes@restorationstorehouse.org	Non-profit Economic Development	Active				Michael W. Lassiter Membership
Hutcheson	Michael	mjhutcheson@comcast.net	Non-Profit Children &	Active	PHF,PP			Chair <u>Furman R</u>

Morgan Tabb 04-18-2023

Chuck Hall 05-05-2023

2 Years

2 Years

2 Years Shonta Manuel 04-11-2024

Brad Smith 04-21-2024

Robert Hughes 05-20-2024

Jennifer Ray 07-11-2024 1 Year

Avery Fuller 07-11-2024 1 Year

Kameron Kelley

Jennifer Edwards 07-14-2024

Byron F Wilson 07-14-2024

Rachel L Dunn 07-14-2024

Jocelyn Alex Louis 07-14-2024

1 Year

1 Year

1 Year

Corey A Williams 05-14-2023

Johannes W van der Spek 05-31-2023

Debra L McGlaun 06-19-2023

Maureen E Wood 08-01-2023

			Families		
Jones	Martin martinbjones@bellsouth.net		Economic Development	Honorary	PHF,4106,4107
Kelley	ey Kameron kareron.kelley@conyersga.gov		Municipality	Active Corporate	PP,4106
Kitchens	Tanya	tanya_kitchens@ucbi.com	Bankind	Active- Corporate	
Lambert	Leslie	lambertleslie@icloud.com	Retired	Active-LOA	PHF
Lassiter	Michael	mwl_clu@msn.com	Insurance - Retirement Planning	Active-R85	PHF,PP,PAS 1980,ROTY 2013,GRSP 5,PHFn,4106,4107,410
Loois	Suchet	SuchetLL@yahoo.com	Sustainable Dev.	Active-R85	PHF,B,DSA,ROTY 2009, 2015,PHFn,4106
Louis	Alex	Alexjlouis@hotmail.com		Active	
Lucas	Tony	ajlucas50@outlook.com	Municipal Director		PHF,4107
Luton	Stephanie	stephanie.luton@q-staffing.com	5 5 5	Active	
Manuel	Shonta	shonta.manuel@gmail.com	Scientific Research	Active	
McGlaun	Debra	debbiemcglauncpa@gmail.com		Active	
Morgan	Tommy	tommymorgan861@gmail.com	Fire Consultant	Honorary	PHF,PP,PHFn,4106,410
Morris	Janice	janice.morris@rockdalecountyga.gov	Court Administration	Active	PHF
Myers	AI	aamii@att.net	Presbyterian	Active-R85	PHF,PP,DSA,PAS 1993,GRSP 5,PHFn,4106,4107,410
Myers	Albert	albertamyersiii@hotmail.com	Law	Active	PHF,PP,PAS 2000,4106,4107
Oatts	Terry	toatts@rockdale.k12.ga.us	Schools	Active	
Plummer	Tommy	tommyplummer@comcast.net	Transportation Inspector - Retired	Active	
Ray	Jennifer	jenniferray.premier@yahoo.com		Active- Corporate	
Robinson	Wayne	robi3088@bellsouth.net	IT-Information Technology	Active-R85	PHF,ROTY 2018,PHFn,4106
Rogers	Furman	furmanrogers7@gmail.com		Active	
Rogers	William	beth7754@gmail.com	Insurance- Wholesale Student	Active-R85	PHF,PAS 1984,PHFn,4106,4107
Sayago	Megan	msayago@rockdale.k12.ga.us	Education- Dir.Family Engagement	Active	
Siebert	Shelli	ssiebert@conyersarts.org	Executive Director - Arts Council	Active	PHF,ROTY 2016,PHFn,4106
Simpson	Brian	bsimpson@hpplum.com		Corporate- Active	
Sistrunk	Laura	Laura.Sistrunk@gmail.com	Director of Community Relations	Active	
Slaughter	Scott	scott@jajohnson.com	J	Active	PHF,PP,PHFn,4106
Smith	Brad	BradleyDSmith462@gmail.com	Awards & Recognition Retail		
Tabb	Morgan	morgantabb@tabbinsurance.com		Active	
Trueblood	Cari	truebloodway@icloud.com		Active-LOA	PHF
van der Spek	Johannes	john.w.spek@gmail.com	Coverage	Active	
Williams	Corey	cwilliams1@rockdale.k12.ga.us	Academy	Active	
Wilson	Byron	headmaster@thewilsonacademy.org	Private Co-ed School Owner	Active	
Wood	Maureen	maureen.wood@rockdalecountyga.gov		Active	
Worthey	Angela	angela.rpc4@gmail.com	Family Resource - Executive Director		PHF





Chair Shonta Manuel Club Programs Chair





Megan Sayago Youth Services Chair

Shelli Siebert iPast President