Energy Efficiency in Older New Orleans Homes with Dr. Myron Katz on **25Feb21**

1. What is the single biggest improvement you can make to improve the energy efficiency (EE) of your home?

A. You asked the “doctor”. My advice is: This is the wrong question.

 What you really want is more reliability, comfort, safety, health, durability, and less pests etc. for LESS MONEY and can get all of that and also a NEGATIVE CARBON FOOTPRINT. WE CAN DO THAT!

Rx: 80% EE upgrade, WIFI control, Batteries or Electric Vehicle, Microgrid, more Load Flexibility (LF) than Load & a 3-year payback.

1st Get a taste of success with a Wifi Controlled, super energy efficient, Heat Pump Water Heater, then

2nd Make your home tighter than 1/3 Natural Air Changes per Hour (NACH), & very well insulated, & then

3rd Make your home effectively “built on a slab”.

1. What are the most practical and cost-effective ways to improve the EE of an older, raised home in New Orleans?
2. What questions should you ask to hire someone to weatherize your home?
3. How do you make it tighter than 1/3 NACH & well insulated? also see Q #’s 14, 16 A [air-seal-home](https://goenergypro.com/air-seal-home/) and [very well insulate it](https://www.service1attic.com/insulation). [Use membranes](https://www.buildingscienceinnovators.com/uploads/1/0/6/2/106256229/membranesimproveinsulationefficiency.pdf).

4. What are the best practices for dealing with the underside (flooring and pipes) of an older house on piers? I.e., what are the concerns about adding insulation under original floorboards of a raised house?

1. How do you make your home “built on a slab”? see Q #’s 9, 11, 12, 13,

[ClosedCrawlSpaces-AdvancedEnergy](https://1aquq1xmkqgd37a83amhkb19-wpengine.netdna-ssl.com/wp-content/uploads/2019/12/2.pdf) [ClosingCrawlSpaceInHistoricHomes](https://www.buildingscienceinnovators.com/uploads/1/0/6/2/106256229/closingcrawlspacesinhistorichomes-v6.pdf) [EnergyVanguard](https://energyvanguard.com/knowledge/crawl-space-encapsulation/crawl-space-building-science/) & [pictures from “A Work In Progress](https://www.buildingscienceinnovators.com/closed-crawlspaces-in-historic-homes.html)”

5. What is the potential for solar shading (trees, awnings) to impact comfort in the summer?

A. <which-trees-wreak-havoc-on-your-foundation-> [solar screens](https://solarscreenoutlet.com/)

6. What should people know about the sizing, design/install and operation of HVAC equip?

A. see Q #’s 9, [top-5-air-duct-issues-how-to-fix-them](http://willardductcleaning.com/top-5-air-duct-issues-how-to-fix-them) why-an-oversized-air-conditioner-is-a-bad-idea/ [Go Ductless MiniSplit](https://www.costco.com/mrcool-diy-12k-btu-115v-mini-split-air-conditioner-and-heat-pump-with-wi-fi-smart-controller.product.100573059.html).

7. What are the first signs of moisture/condensation that might result from a flawed system or building envelope?

A[warped floors](https://www.wagnermeters.com/moisture-meters/wood-info/can-wood-floor-cupping-be-fixed/) [sweating vents](https://www.belfor.com/en/us/mold/mold-removal-remediation) [leaky pipes](https://www.tdi.texas.gov/takefive/when-are-water-damage-and-mold-covered-by-insurance.html) [sweating ducts](https://www.floridamoldtesting.net/paston-effect-humidity-problems-attic-mold-in-hot-humid-climates.htm) [mold](https://www.alzdiscovery.org/cognitive-vitality/blog/can-mold-harm-your-brain) [rising damp](http://diyandbuild.com/moisture-in-the-house-rising-damp/) [efflorescence](https://www.idealresponse.co.uk/blog/efflorescence-the-salty-deposits-affecting-your-property/) go back to “[a work in progress”](https://www.buildingscienceinnovators.com/closed-crawlspaces-in-historic-homes.html)

1. What types of energy efficient adaptations would you recommend for mid-century residential homes that have aluminum windows? — With this era coming of age in terms of historic preservation, more districts will need options and convincing arguments to preserve — such as Pontchartrain Park, how can we encourage people to keep their historic aluminum windows and support energy efficiency. **Amanda Coleman**from theHistoric Preservation Office City of Houston Planning & Development Department
2. Is foam insulation (open and closed cell) harmful in humid climates — particularly for floors over open crawlspaces? I would love to add that under my shotgun to warm up the floors! **Alan Roller**
3. What the best method is for soundproofing?  Not sure if this is the right forum for this question, but I have an old house I just bought with multiple apartments.  We are looking to soundproof between apartments for sake of sanity before renting out.  I’ve been told adding a second layer of sheetrock that is a different thickness over existing Sheetrock and plaster with green glue should help a lot.  Any advice here on **Brantley Bissette:**
4. Is there good "comfort value" in further insulating flexible heat runs under a house on piers?
5. Are there any good solutions to insulating the floors under a house on piers given the moisture and termite risks?
6. Are there concerns with insulating pipes under the house?
7. [How to make historic district windows air and water-tight](https://www.youtube.com/watch?v=PYOhxK0yauE)?... during a full renovation are often left "as is" due to inability to replace.  However, they are frequently loose and, in some cases, leak water despite the remodel.  Are there solutions to refurbishing the windows such that they are tighter fitting (sashes especially), and especially leak-proof?
8. Why are we continuously sweeping brick dust in the 2 years we've owned the home? We are using chimney balloons to seal them better.  However, 1 of 2 chimneys sheds a seemingly large amount of brick dust from the interior and exposed brick area in the house.  Interestingly, the dust falls only on the sides of the exposed area, not on the face or the mantle.  There is also no brick dust falling from the 2nd chimney's exposed brick, although this 2nd chimney is no longer exposed through the roof to the outside.  **Brian McEwan:**
9. How to solve? High energy bills in winter & HVAC runs 24 hours but does not warm home. above 61 degrees. Thank you! **Daphne Tassin:**
10. Do you recommend mini split system for heating/cooling as opposed to a central air system? **Elizabeth Robinson:**

Hi, I'm Dr. Myron Katz, co-owner of a company called Building Science Innovators. I'd like to thank Susan Langenhennig and the Preservation Resource Center for inviting me to answer your most pressing questions on promoting Energy Efficiency in Old New Orleans Homes.

I’ll start right out by addressing a series of questions that have been sent in, answering those first that have been prioritized as being most useful to the largest number of people.  After this, there’s a Q & A.  I won’t get to all of the questions listed on my handout but you can always contact me and I’ll see what I can do.

I’m going to address questions 1, 2 & 3 together since they are related.

I’m working from a Word document that has all of the ACTIVE links. I will be happy to share it. Perhaps, I’ll put it on my website.