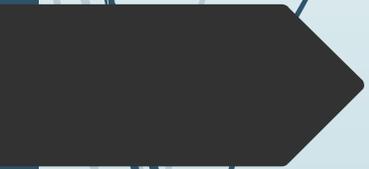




FSL

Faith · Service · Life





AZ Department of Housing

2016 Arizona Housing Forum

FSL Real Estate Services



What are we looking for in a modern multi-family project?

- ▶ Sustainability
- ▶ Lower operating costs
- ▶ Stable operating costs
- ▶ **Adaptable to changing energy costs, pricing and opportunities**
- ▶ Defensive posture
- ▶ Plan on 20 and 30 year horizons



Create a multi-family ecosystem that can adapt to change in the energy market

- ▶ **Third party**
 - ▶ **Community sources**
 - ▶ **Storage – Shared storage it introduces choice**
- ▶ **Onsite generation**

Advanced Controls

- ▶ Multiple units working together in the aggregate to achieve common mission and goals
- ▶ New Generation Controls



Advanced Controls

- ▶ Next Generation Onboard Diagnostics
- ▶ Last generation system wide control systems are migrating into our thermostatic controls
- ▶ Owner paid, owner controlled...not paid by the resident





Onboard diagnostic controls Next Generation Systems

- ▶ Prevents catastrophic failures
- ▶ The filter in Unit 12 had reduced air flow
- ▶ The compressor on Unit 32 is running hot
- ▶ Real time diagnostics and repair extend the life of equipment and comfort of the units
- ▶ Confidence that the repair work being done is what is needed

FSL approach is to focus on strategic investment



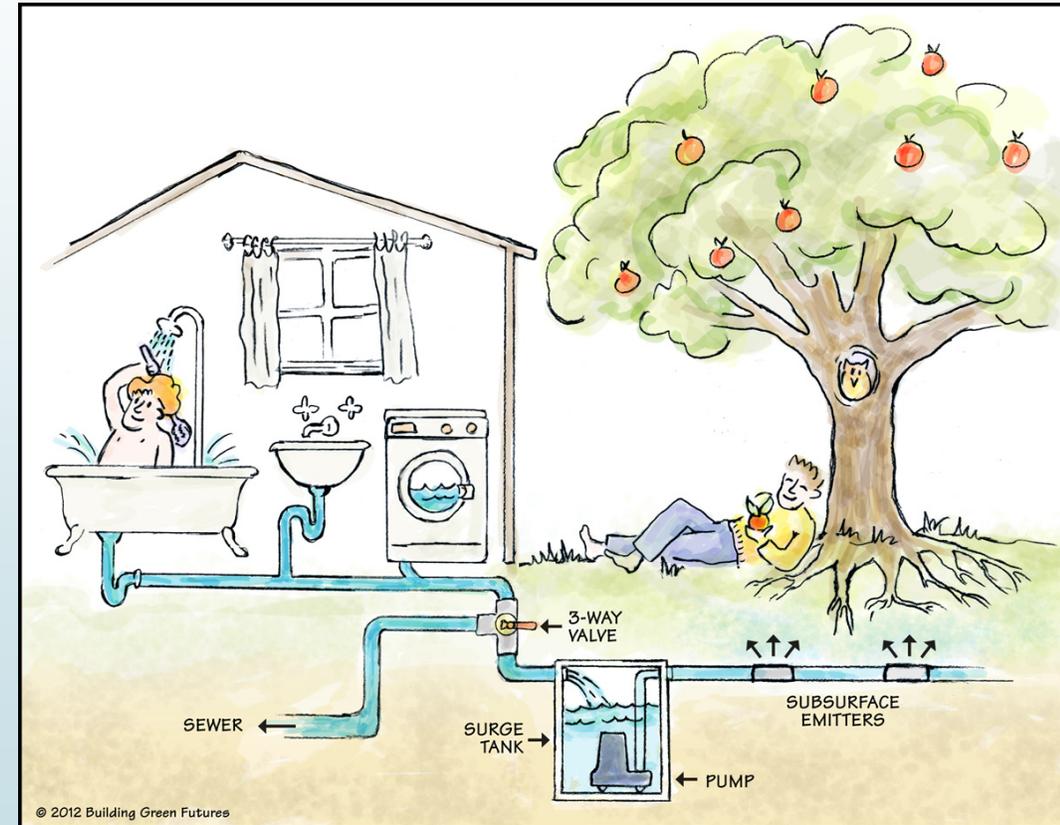
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Where it begins

- ▶ Start with the six-sided box
- ▶ Start small and work up...build a property, build a program
- ▶ Our generation multi family

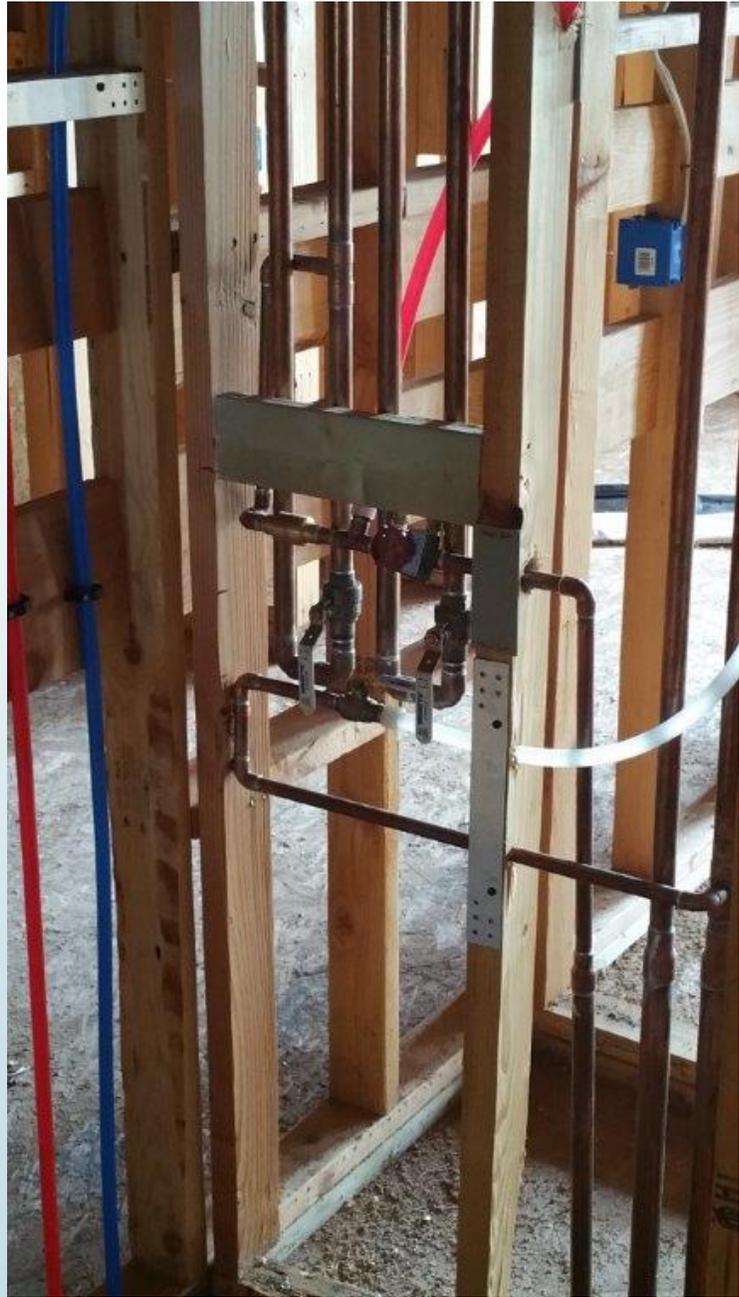
We can do more with less

- ▶ Saving water – What is one of the most wasteful daily uses of water?
 - ▶ Looped preheated water systems
- ▶ Blue piping and gray water systems





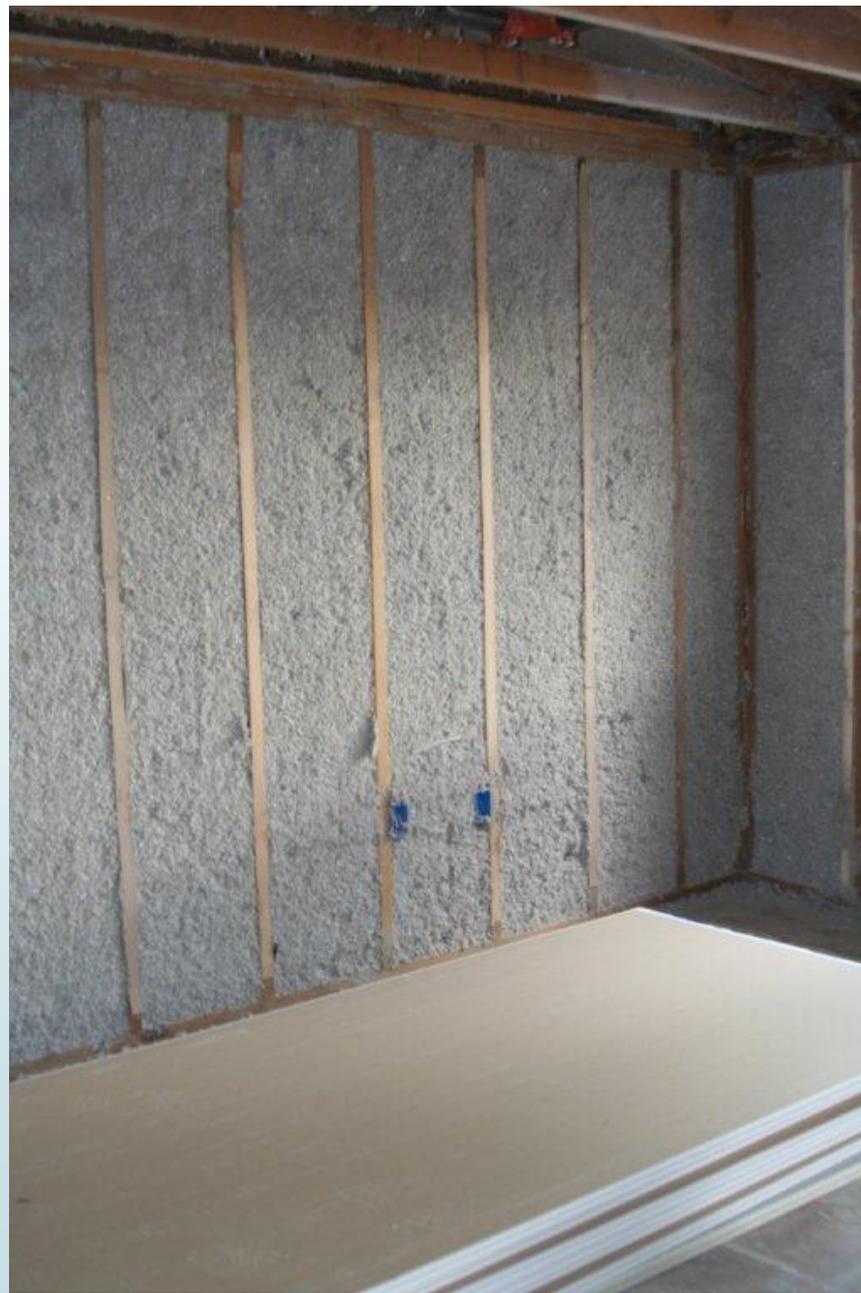




A dark blue arrow points to the right from the left edge of the slide. Several thin, curved lines in shades of blue and grey originate from the left side and sweep across the page towards the text.

Reduced demand for power production

- ▶ LED lighting
- ▶ Insulation
 - ▶ Icynene
 - ▶ ICF walls system











Weatherization – building analysis

- ▶ Blower door test on every unit
- ▶ Example of 50 unit apartment complex
 - ▶ Duct work only – reduce leakage by 14,081 CFM
 - ▶ Equal to 32 tones of A/C
 - ▶ 20 year savings of \$72,000

Weatherization – building analysis



► As Found



A decorative graphic on the left side of the slide. It features a dark blue vertical bar on the far left. A black arrow points to the right from the top of this bar. Several thin, curved lines in shades of blue and grey originate from the bottom left and sweep upwards and to the right, crossing behind the text.

Power Production

- ▶ Innovative HVAC
- ▶ PV solar
- ▶ Battery systems – smooth out the duck curve
- ▶ Building orientation/Shading
- ▶ Balanced systems



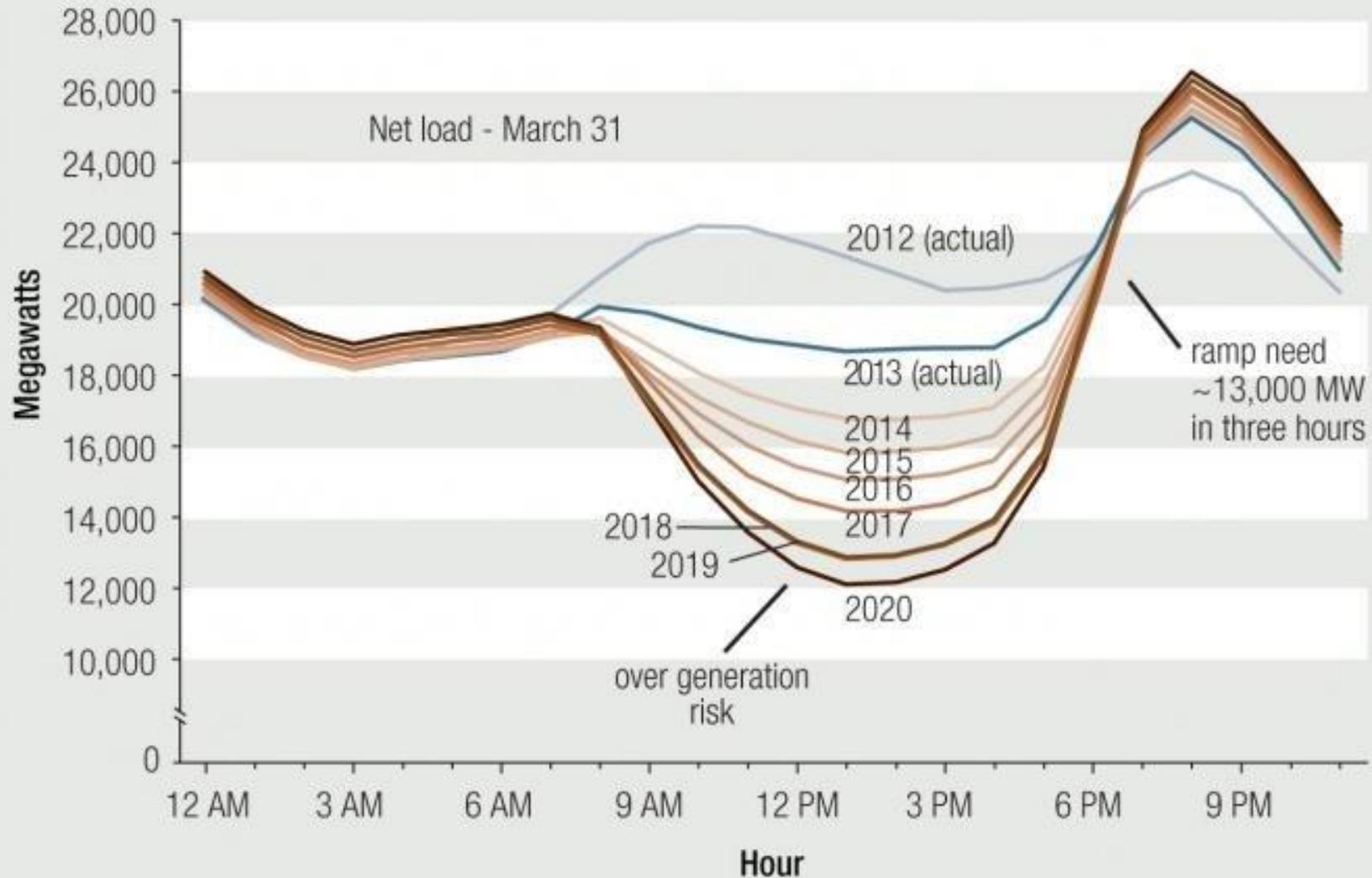


FIG. 1

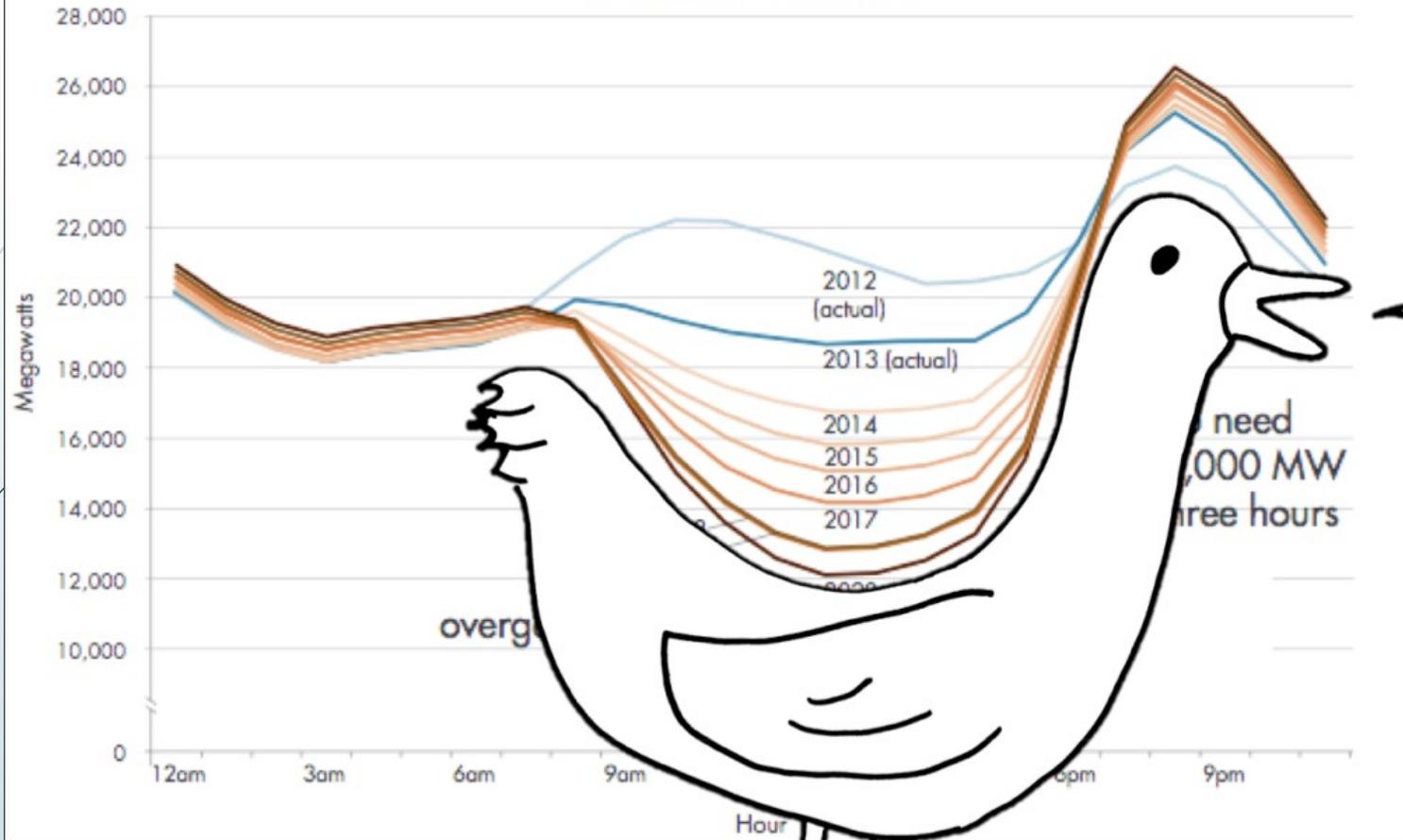
CALIFORNIA'S DUCK CURVE

Source: California ISO

Trends in resource development are leading toward a growing need for flexible generating capacity starting in 2015.



Net load - March 31







Healthy homes

- ▶ **Quality duct seals**
 - ▶ Sucking junk into the home from behind the air filter, from the attic and beyond
- ▶ **Balanced systems**





We take duct sealing very seriously

**These holes are
under a lot of
pressure**



A dark grey arrow points to the right from the left edge of the slide. Below it, several thin, curved lines in shades of blue and grey sweep across the left side of the slide.

Healthy homes

- ▶ No VOCs and maintain it that way
 - ▶ In laminates
 - ▶ Adhesives
 - ▶ Paint
 - ▶ YST story



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Healthy homes

- ▶ **Quiet**

- ▶ **Between floors, between walls**

- ▶ **Spaces**

- ▶ **Walk in closets**

- ▶ **Gathering by floor**



Marist on Cathedral Square



Saving money – be happy

For the residents or for the project or both!





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Thank you, from FSL Real Estate Services