Examples of Challenges and Resolutions that LZE Initiative Builders Experienced

The builders who participated in the Low and Zero Emission Housing Initiative — both those building and modifying home plans to meet ENERGY STAR NextGen or Zero Energy Ready Home certification requirements — each experienced unique challenges as they tackled LZE building and design. The following list summarizes some of these encountered challenges and how the builder addressed them/lessons other builders can take from those challenges.

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Challenge	**Resolution / Takeaway**
A builder was unsure how to source the right heat pump and air handler for their all-electric home that also met cold climate specifications.	The builder referenced ENERGY STAR heat pump product finder to identify the model they landed on the Lennox SL25XPV SERIES heat pump model.
A builder encountered supply delays when they requested new technology from their supplier, from whom they usually ordered gas furnaces and were now requesting a sole air handler unit.	The builder had to import their preferred air handler from out of state. As good practice in the future, builders should communicate with their suppliers ahead of time about the equipment their all-electric home will require.
A builder was concerned about fitting a large heat pump water system into their mechanical room, which had already been sized.	The builder's home was able to accommodate a larger-than-normal mechanical room, but other builders should plan to size their mechanical room in advance according to the size of their water heating and HVAC units.
A builder was nervous about entering the all-electric building space because they were unsure whether all-electric homes performed adequately in cold climates.	The builder's concerns were dissuaded by proof of all-electric homes performing well in similarly cold climate like Colorado and found, through practice, that cold climate heat pumps work effectively.
A builder was worried that, should they build all-electric homes, they might encounter potential push-back or disinterest from buyers.	The builder educated their sales associates to handle common and expected complaints from buyers (i.e., how to answer questions about electric cooking) and found that buyers didn't have an aversion to all-electric homes. Example sales kit from Zero Energy Project.
A builder felt that the suppliers and contractors they regularly worked with were under-educated about all-electric appliances and zero-emission building practices.	One builder made efforts to educate their suppliers and contractors, and thinks that this issue will resolve itself as more iterations of energy efficient homes are built and more experience is gathered. Another builder had to

	get new contractors to help with aspects of their construction, who had previous experience with building to LZE standards.
A builder moved past initial phases for their project when they learned they had to make further adjustments to meet LZE certification standards.	The builder received technical assistance from a residential energy efficiency professional to make adjustments to their design that allowed them to still meet their chosen building certification standard. Future builders should ensure that their home design meets all desired LZE specifications before entering the construction phase.