

August 11, 2023

Building Energy Code Study Committee Meeting

From: Walter Adams

Path to better energy code compliance.

This letter is solely my thoughts as a user of the code. I have no affiliated organization.

Reality check: Of the projects I have submitted to the Department of Fire Service office in Williston, not one has been approved in less than 30 days for years.

Step 1: Information gathering.

Commercial: Every commercial project is required to have a permit from DFS, so I think the submission to DFS should include pages of information about the energy performance of the proposed building with contact information and signature from the submitter. That get some information into the state's hands about the building or renovation design.

Residential: Every entity that can issue a residential building permit should also be provided forms to provide information about the energy performance of the proposed residence, including contact info and signature of the submitter.

Building permit issuers can decide to review and approve that information in house, if the state allows, before permit issuance, or forward that info to the state for review.

Step 1a: Information review.

Now that the data is available to be reviewed the state can review it and gather information as to who is providing this information, note any deficiencies and call the certifier for some follow up training and discussion of deficiencies.

This also provides a mailing list of the folks that are certifying so that when energy training is happening a list of folks that many be interested in attending already exists.

Note that I have not said who is looking at this info from the state.

After two cycles of code update meetings its clear that DPS sees this as a burden, and works hard to limit how much time they invest in the update process or the public comment.

Everyone who has to pay the DFS fee for a building review thinks the fee is outrageous. Someone decided that new construction should fund the DFS and the fees reflect that. If they are charged with providing more services, IE; energy permit review, I'm sure that the cost of the fee would far exceed the cost of the review to recover some, if not all, the lost fees from towns that do their own public safety reviews. And more towns want to do it because the fee collected is much larger that the cost of performing the service.

My preference would be that this belongs to DPS, not DFS

Step 2: Reviews and reviewers.

The state adopts language that requires that the building get an energy use permit based on the provided information before a permit can be issued. That suggests the reviewers are hired, trained, and start reviewing submitted data for compliance with the adopted code, either commercial or residential. And that DFS would not issue a permit until that review and approval, and their review and approval, has happened. For residential building, permit issuers, would be required to have the approval letter/email/something from the energy reviewers before they could issue a building permit.

Step 3: On site Inspections.

People are hired and trained and equipped to provide on site inspections of construction. This could require two sets, one residential, and one commercial, or persons cross-trained to do both. The approval letters would start providing required site visits, contact info etc. to insure that construction visits are timed to see the key energy components of the building. The inspector would be invited to the CO inspection to complete the file and confirm that all necessary information is displayed, and/or provided to the owner.

Please note that the 2023 CBES will require a 3' x 5' bulletin board, at least, to display all the requested information, not just a certificate attached to the power panel cover.

The above gets us to the nirvana state of perfection. These steps provide the opportunity to see how actual compliance improves along the way, and provides information to the law makers and Governor if each step is not successful in improving the compliance rates to allow the next step.

Other stuff:

In the good old days you would see pictures of building owners receiving a rebate check, and celebrating energy efficiency. My clients are building buildings that are 15% better than code in the envelope, 20-30% better than code for interior lighting and 80% better than code for exterior lighting, yet the owner doesn't get a rebate check, because the ever shrinking lighting rebate is being applied, or maybe not, at the wholesale house and he never sees it. There are not rebates for envelope but it's what leads to lower energy bills. My clients never know how good their buildings is because all they see are the good utility bills, not the one that a bad building would bring.

The new 2023 CBES code is going to be ineffective in improving the commercial building stock because we lost the underfloor insulation, and reversed the window and exterior wall improvements that were in the final version.

Why are we building residential buildings that are energy use worse than our commercial buildings? Why aren't the required energy standards for single family houses based on the size of the house.

<1500 sf	use code
1501-2000 sf	15% better than code
2001-3000 sf	20% better than code
3001-5000 sf	30% better than code
5000 and above	40% better than code

Why are we demanding DDC control systems and energy use breakdowns for building that are using less and less energy each code cycle. (My average building uses less that 50 cents per square foot for fuel and electricity per year and has site EUI's under 20). Those very costly code requirements could be used to improve the envelope even more or provide roof top solar that might eliminate the electric bill completely and get the building very close to the net zero goal for 2030. A goal that will not be reached at the current pace.

I do want to thank all the contributors for their hard work to compile the information I have read so far.

Very educational.

Thank you.