

DATE: 05/23/2023

MEMO: TO TOWN OF JOHNSTOWN COUNCIL

RE: RECOMMENDATION TO ADOPT 2018 INTERNATIONAL ENERGY CONSERVATION CODE

Dear Town Council,

ProCode Staff respectfully recommends the adoption of the 2018 International Energy Conservation Code (2018 IECC). The reason behind moving or adopting the 2018 IECC is to come into compliance with state requirements of enforcing or adopting one of the last 3 published versions of the code. The state has been working for some time now on new requirements and regulations on energy compliance, but as of today, it is unclear which direction the state is headed.

By adopting/updating the energy code it would shield the town, for some time, from any new regulations that may be developed and mandated by the state.

CRS 31-15-602(3.5)(c) – “When adopting or updating a building code prior to July 1, 2023, the governing body of a municipality shall adopt and enforce an energy code that achieves equivalent or better energy performance than one of the three most recent editions of the international energy conservation code.”

The impact to building community in general should be minimal as most jurisdictions in the region have adopted the 2018 IECC or newer codes for some time now. Most builders are familiar with the requirements, and many are already building to comply with 2018 Energy code.

Options are: 2015, 2018 and or 2021 IECC (last three published versions of ICC). ProCode Staff is recommending adoption of 2018 IECC since it is more flexible and provides more options for compliance than previous versions.

Adoption would NOT result in higher permit fees unless fees are modified (not suggested).

The inserted graphic provides a table that indicates:

- Cost of Construction for new SFD under 2018 IECC would go up approximately \$40. The potential energy savings with new code is about \$91. Cost Effectiveness for Residential (payback yrs.) is indicated as “Immediate”.
- Cost of Construction for new SFD under 2021 IECC would go up approximately \$3609. The potential energy savings with new code is about \$264. Cost Effectiveness for Residential (payback yrs.) is estimated at 13.7 Years.

Average Single Family Added Cost \$

		Moving to this IECC Version				
		2009	2012	2015	2018	2021
Moving from this IECC Version	2006	\$833	\$2,430	\$4,028	\$4068	\$7,637
	2009		\$1,597	\$1,583	\$1623	\$5,192
	2012			Negligible	\$40	\$3,609
	2015				\$40	\$3,609
	2018					\$3,569
	2021					\$3,569

Average Single Family Annual Savings \$

		Moving to this IECC Version				
		2009	2012	2015	2018	2021
Moving from this IECC Version	2006	\$119	\$392	\$665	\$692	\$865
	2009		\$273	\$337	\$364	\$537
	2012			\$64	\$91	\$264
	2015				\$27	\$200
	2018					\$173
	2021					\$173

Single Family Simple Payback Years¹

		Moving to this IECC Version				
		2009	2012	2015	2018	2021
Moving from this IECC Version	2006	7	6.2	6.1	5.9	8.8
	2009		5.9	4.70	4.4	9.6
	2012			Immediate	Immediate	13.7
	2015				1.5	18.1
	2018					20.6
	2021					20.6

¹ Simple payback is the number of years required for energy cost savings to exceed the incremental first costs of a new code or code change proposals. Simple payback is not used as a measure of cost-effectiveness as it does not account for the time value of money, the value of energy cost savings that occur after payback is achieved, or any maintenance or replacement costs that occur after the initial investment.

Source:



National Cost Effectiveness of the residential provisions of the 2021 IECC. Office of Energy Efficiency and Renewable Energy. (2021, June). Retrieved from https://www.energycodes.gov/sites/default/files/2021-07/2021IECC_CostEffectiveness_Final_Residential.pdf

Sincerely,

Jose Gonzalez
 Building Official
 ProCode