

Establishing A Policy Requiring Consideration Of Use Of Hemp Insulation In Certain Ulster County Capital Construction Projects

Referred to: The Energy, Environment and Sustainability Committee (Chairman Hewitt and Legislators Donaldson, Greene, Litts, Nolan, Stewart, and Walls), The Public Works, Capital Projects and Transportation Committee (Chair Nolan and Legislators Donaldson, Kovacs, Litts, and McCollough), and The Ways and Means Committee (Chairman Gavaris and Legislators Collins, Hansut, Kovacs, Nolan, and Roberts)

Chairman of the Energy, Environment and Sustainability Committee, Chris Hewitt, offers the following:

WHEREAS, with U.S. homes and commercial buildings consuming 27.6% of the country's total energy in 2023, government agencies have been working with partner agencies and organizations to develop unique approaches to improving building energy efficiency, and to produce healthier, more sustainable alternatives to conventional, toxic thermal insulation; and

WHEREAS, the advantages of hemp insulation are plentiful, including that it is not harmful to skin or lungs, and is repellent to mold, pests, and insects; and

~~WHEREAS, hemp plants have the ability of take carbon dioxide from the atmosphere, giving us cleaner air to breathe; and~~

WHEREAS, on average, hemp insulation requires 14 times less energy to produce than polyurethane that offers an identical level of thermal performance; and

WHEREAS, hemp insulation is a renewable, biodegradable, and non-toxic material that absorbs more carbon than it consumes during construction; and

WHEREAS, the R value of hemp insulation exceeds that of fiberglass, mineral wool, vermiculite, and blown cellulose attic insulation and is comparable to open cell spray foam and other, more toxic, products; and

WHEREAS, hemp insulation is also waterproof and performs similar to a towel or sponge when exposed to water; and

WHEREAS, the United States Office of Energy Efficiency & Renewable Energy published an article touting the economic impact the opening of hemp manufacturing facility in Jerome, Idaho with the U.S. Department of Agriculture's State Director for rural development in Idaho stating that the facility, "...is a testament to the power of harnessing rural agriculture for

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manufacturing industries. Not only will it create jobs and stimulate economic growth ... but it also highlights the value of sustainable and resilient building materials. As we strive for healthier and more equitable housing infrastructure, it's crucial that we prioritize using natural and renewable resources like hemp to reduce our carbon footprint and support local farmers. This facility represents a brighter and more prosperous future ... where we can build stronger communities by preserving and leveraging the power of agriculture and sustainability to benefit current and future generations.”; and

WHEREAS, the United States Department of Energy’s Advanced Research Projects Agency-Energy (ARPA-E) partnered with Texas A&M University providing \$3.47 through their Harnessing Emissions into Structures Taking Inputs from the Atmosphere (HESTIA) program to 3D print hempcrete insulation for use in affordable housing construction, and

WHEREAS, according to the National Center for Biotechnology Information the US has increased hemp production from 9000 hectares in 2016 to 93,000 ha in 2019, and further reported the market size was estimated at \$4.13b in 2021 and was expected to grow at a compound annual growth rate (CAGR) of 16.8% from 2022 to 2030; and

WHEREAS, damage from the volatile organic compounds (VOCs) in expanding polyurethane foam continues to cause concerns, with prolonged exposure to elevated levels of VOCs leading to a variety of health issues, ranging from respiratory problems to more severe conditions like organ damage and cancer; and

WHEREAS, Resolution No. 283 unanimously adopted by the Ulster County Legislature in 2010 stated that the “avoidance of toxic substances and conditions, as they might influence not only the environment but human health more directly, is a longstanding concern of the Ulster County Legislature”, and further required that the county use low- or no- VOC paints and sealers that meet Green Seal GS-11 Standards or equivalent on all new, renovation and repair projects in county-owned and leased facilities; and

WHEREAS, in addition to serious health threats VOCs also react with nitrogen oxides to produce ozone pollution; and

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~~WHEREAS, the advantages of hemp insulation are plentiful, including that it is not harmful to skin or lungs, and is repellent to mold, pests, and insects; and~~

WHEREAS, Ulster County, a Climate Smart leader, has a proven record of supporting successful green initiatives; and

WHEREAS, hemp plants have the ability to take carbon dioxide from the atmosphere, with one hectare of hemp absorbing between 8 – 15 tons of CO₂ in comparison to forests which capture 2 – 6 tons, giving us cleaner air to breathe; and

WHEREAS, according to studies at his soil lab, Ben Dobson, farmer, researcher and President of Hudson Carbon in Hudson, NY, calculates that if the US planted 50 million acres of hemp, a couple hundred million tons of carbon could be sequestered per year on that acreage; and

WHEREAS, according to the National Center for Biotechnology Information researchers believe that hemp can be successfully used as a cover crop since it can remediate contaminated soils through phytoremediation and can be produced without pesticides, hemp residues can act as botanical insecticides or miticides and inhibitors to soil nematodes and pathogenic fungi and it can replenish the soil by killing and displacing other tiny crops or weeds and absorbing heavy metals from soils; and

WHEREAS, local government support and promotion of hemp insulation as a sustainable, healthy, climate conscience alternative will boost local demand and accelerate cost stabilization; now, therefore, be it

RESOLVED, it shall be the policy of Ulster County that prior to the allocation of any County funding toward any housing development projects in Ulster County, or toward Ulster County capital projects proposed after the effective date of this policy that require use of insulation for purposes of construction and development of space used for delivering a county service, it shall be required that such housing development projects and Ulster County capital projects include consideration of hemp insulation as a component of said project; and, be it further

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RESOLVED, in furtherance of this policy, the determination that hemp insulation is or is not reasonable for use in any housing development or Ulster County capital project shall be included in the documentation accompanying the initial funding request for the project at the time the request is submitted to the Ulster County Legislature for consideration; and, be it further

RESOLVED, that no section of this resolution shall be interpreted as augmenting the existing legislative process for expenditures,

and moves its adoption.

ADOPTED BY THE FOLLOWING VOTE:

AYES: NOES:

Postponed in Committee: Energy, Environment and Sustainability on June 4, 2024 with consent

Postponed in Committee: Energy, Environment and Sustainability on July 2, 2024 with consent

Passed Committee: Energy, Environment and Sustainability on _____.

Passed Committee: Public Works, Capital Projects and Transportation on _____.

Passed Committee: Ways and Means on _____.

FINANCIAL IMPACT:
TBD