

POLICY NOTE

Proposed Spokane 'green building' ordinance would increase costs and increase energy use

Councilmembers don't have to look very far to see that "green" buildings cost more and even use more energy

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It is said that a second marriage represents the triumph of hope over experience. The Spokane City Council is now considering the "green" version of a second marriage: ignoring the failures of "green" buildings in their own community and mandating all new public buildings meet the failed standard.

Despite costing more to build and actually increasing energy use, city council members now want to mandate "green" building which than many officials across the country are now rejecting.

Next Monday, the Spokane Council will consider ORD C35379, which would "require the City to seek and obtain LEED Silver Certification from the United States Green Building Council" for public buildings above 5,000 square feet. Designed by the U.S. Green Building Council (USGBC), LEED is a system requiring builders to incorporate a range of costly elements to accumulate design points which add up to certification.

Spokane and Washington state already have lots of experience with these types of buildings and the results are poor. Ironically, the Council packet even cites buildings with poor results as supposedly positive examples, without mentioning the bad results. Here are a few of the errors and omissions in the packet offered to the council.

Ignoring failure in Seattle and the state

The resolution supporting the new requirement notes, "the state of Washington requires that many new public buildings meet LEED standards, as do the cities of Bellingham, Everett, and Seattle, King County, and the federal government." There is real irony here.

First, Seattle City Hall was built to LEED Gold standards, and promised significant energy savings over the aging and inefficient old building. The new city hall is even smaller than the previous building. Yet, despite predictions, the energy use is actually higher in the new building.

Second, Washington state's analysis shows the same trend for public school buildings. Statewide, the Legislature's auditing agency, known as JLARC, found that most schools built to LEED performed worse than the average school in the same district. These are new schools which are less efficient than the average school in the same area, which is often decades old.

If the Spokane Council wants to cite Seattle and the state as examples, it cannot ignore the results of their experience.

Spokane's LEED schools fail

The same is true in Spokane. The JLARC study specifically examined one of the Spokane schools mentioned in the packet: Lincoln Heights Elementary. Analysts found the school cost more and saved little energy.

As *The Spokesman-Review* noted, "Lincoln Heights Elementary cost an extra \$458,826 for all 'high performance features' in its design," noting that without special state subsides – which are no longer available – "the savings on energy bills wouldn't cover the extra construction costs for almost 30 years," longer than the likely lifespan of the building.

What's more, Lincoln Heights school is the best-performing green school in the district. Analysis of all Spokane elementary schools over more than three years found that Ridgeview and Lidgerwood elementary green schools perform even worse. Put simply, even when advocates cherry pick the best-performing green school from Spokane, it still fails to live up to the Green Building Council's promises.

It should be noted that we chose to analyze schools, because they provide an excellent apples-to-apples comparison. Buildings are rarely similar and it can be difficult to compare the marginal benefits of LEED certification. That is not true with schools in the same district. They are about the same size, with the same elements, similar numbers of users and they share the same climate. Estimates of energy savings and other projections can be tested where comparisons between other types of buildings simply cannot. When held to that standard, LEED consistently fails the test.

Savings projections are incorrect

Despite these examples of repeated failure in Spokane, Seattle and the state, the packet for the ordinance still claims dramatic energy savings. For example, it claims, "Estimated energy savings range from 19 to 50 percent." There are several problems with these projections.

First, the projections do not match reality. Spokane School officials admitted Lincoln Heights did not meet promised savings projections. The same is true with Seattle City Hall. The JLARC study provides other examples.

This is not only true in Washington state, it is true nationwide. We have published analyses for green schools in Nevada, Colorado and North Carolina. All found that green schools use more energy than traditional non-LEED construction. In New Mexico, where we will be releasing results soon, officials at the Santa Fe School District say they will not build to LEED standards any more because the additional cost yields no benefit.

USA Today reported its own analysis of schools nationwide and found LEED buildings "promise huge energy savings and rising student performance, but do not always deliver, despite their extra cost."

Second, the report from the Department of Enterprise Services (DES), cited in the packet, is not an actual measurement of results, but a comparison of costs to projections. These projections and calculations are extremely inaccurate.

For example, at Bellevue College, savings estimates were provided to DES despite the fact that the LEED-certified building shared a meter with other buildings and the building design was changed after the energy use was modeled, making the comparison completely invalid.

Additional costs

The council packet also claims very low additional cost to meet the standards. It cites two studies, a report to the California Sustainable Building Task Force in 2003, and one from 2006 that examined libraries. The packet cites no findings in the last decade or in Washington state. The Green Building Council has changed its LEED rules since that time and such projections are simply inaccurate.

As noted, officials at the Spokane School District acknowledge it cost more to build to the LEED standards. Quotes from architects and engineers in the packet admit this as well. For example:

- "...there will be some additional time, administration support, and increased construction costs associated with the pursuit of LEED Silver certified projects."
- "...the administrative cost has restricted its usefulness for all projects all the time."

Even those who have a financial incentive to support LEED admit such projects cost more to build, which is one reason they support the requirements – they can charge more and collect more money for doing the work.

Ironically, one way contractors keep costs low is to undermine the very goals of LEED. One comment in the packet admits, "Most LEED requirements are met with clever enough spec writing." In other words, the LEED building is not much different from other buildings – adding costs to comply on paper but yielding few real benefits.

In fact, studies of how buildings achieve LEED status find officials often choose projects that do little for the environment. Spokane School officials admit they add large bike racks at schools that go unused, but the racks do count toward LEED certification. The environment gains nothing despite the additional cost.

Importantly, however, is that even if the costs can be contained to just two percent, the energy and other savings are so low, they do not pay for themselves in any reasonable timeline.

Phantom additional benefits

Interestingly, many advocates of green buildings admit the costlier projects do not always save energy or live up to promises. They quickly point out, however, that LEED buildings have other benefits, such as being healthier for their occupants.



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What they never claim, however, is that a new LEED building is any better than a new building without LEED. In other words, adding LEED certification to a new building does not add to the health of the building.

Indeed, our analysis of Spokane's schools found no measurable difference in the number of sick days for students attending LEED-certified schools compared to those without the "green" certification. As with energy savings, the projected health benefits evaporate when real-world data is examined.

As with so many fashionable environmental policies, a desire to appear green often trumps the data. City councils and school boards are quick to highlight their own commitment to the environment by mandating LEED certification, relying on the testimony of architects and builders who have a financial incentive to increase the cost of construction. Independent research and real-world data demonstrate, however, these promises often fail. The public gets symbolism, and architects and builders collect larger fees.

Spokane can join the club of cities that chose trendy environmentalism over environmental results, or it can do the hard work of finding real ways to do more with less; that is at the heart of true environmentalism.

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