

Approved: March 6, 2001

Carl Dean Holmes  
Date

MINUTES OF THE HOUSE COMMITTEE ON UTILITIES.

The meeting was called to order by Chairman Carl D. Holmes at 9:13 a.m. on February 15, 2001 in Room 526-S of the Capitol.

All members were present except:   Rep. Annie Kuether  
  Rep. Jerry Williams

Committee staff present:     Lynne Holt, Legislative Research  
  Mary Torrence, Revisor of Statutes  
  Jo Cook, Committee Secretary

Conferees appearing before the committee:   George Barbee, Kansas Society of Architects

Others attending:     See Attached List

**HB 2475 - Requiring consideration of life-cycle costs in the design phase of construction of and major repairs and improvements to state buildings**

Mr. George Barbee, appearing on behalf of the American Institute of Architects in Kansas, stated that they would normally support a bill like **HB 2475**, however, it requires additional services currently uncompensated (Attachment 1). Mr. Barbee also distributed a brochure that outlines the proposed replacement of the fee cap on architectural services with a fair and reasonable fee (Attachment 2). Mr. Barbee responded to questions from the committee.

Written comments from Gene Meyer, Engineering Extension and Kansas State University instructor, addressed concerns about the bill (Attachment 3).

Chairman Holmes stated that, due to information received about current statute K.S.A. 77-3739 regarding life-cycle costs, a resolution could be introduced to request those agencies affected to report to the Legislature about their actions taken.

Lynne Holt, Principal Analyst, distributed information requested at the joint meeting on February 13 (Attachment 4).

Meeting adjourned at 9:29 a.m.

Next meeting is Monday, February 19, 2001.

# HOUSE UTILITIES COMMITTEE GUEST LIST

DATE: February 15, 2001

NAME	REPRESENTING
Jon Miles	KEC
Bruce GRAHAM	KEPCo
Tom DAY	KCC
Ferry Nuckolls	KCC
George Barbee	AIA & KCE
Thaine Hoffman	DOAS
Mike O'Neil	Pinegar - Smith

February 15, 2001



TO: Chairman Holmes and Members of the House Utilities Committee  
FROM: George Barbee  
RE: Position on HB 2475

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Trudy Aron, Hon. AIA, CAE  
aron@aiaks.org

Good morning, Mr. Chairman and Members of the Committee. I am George Barbee representing the American Institute of Architects in Kansas (AIA Kansas) where I serve as a legislative consultant. I want to thank you for the opportunity to address your committee today regarding our position on HB 2475.

AIA Kansas is a statewide association of architects and intern architects. Most of our 700 members work in over 100 private practice architectural firms designing a variety of project types for both public and private clients including justice facilities, schools, hospitals and other health facilities, industrial buildings, offices, recreational facilities, housing, and much more. The rest of our members work in industry, government and education where many manage the facilities of their employers and hire private practice firms to design new buildings and to renovate or remodel existing buildings.

HB 2475 requires the design team – architects and engineers – to provide an assessment of the energy life-cycle cost for new and remodeled buildings.

First, we applaud your efforts to look at this very important and costly part of the operations of our state buildings. When based on the life-cycle cost of a project, utilities represent the third highest cost – after staffing and construction. See the graph in the enclosed brochure. Second, we believe requiring the assessment during the design phase of a new or remodeled project is the one place it will have the desired affect to mitigate or lower energy costs.

AIA Kansas would normally support a bill like HB 2475; however, in order to provide the additional services this bill requires additional and reasonable compensation is also required. The amount of fee the state pays for architectural services is limited and includes the cost of the entire design team – architects, engineers, and other consultants needed on a project-by-project basis. As the State increases the services expected by the design team, the fee caps create a barrier to providing those services. Coincidentally, the brochure I distributed was developed to support HB 2461 that replaces the fee cap on architectural services by providing the design team with a fair and reasonable fee based on the requirements of each project.

When the fee cap on architectural services is removed, the design team will be able to provide cost analysis on energy and a myriad of other building components that can and will save costs on the construction and operation of our State buildings.

Thank you for your time, I hope we can soon whole-heartedly support HB 2475.



established goals. The schematic design portion of this phase converts the written concepts established in programming to conceptual design drawings. The work of the design team during this phase greatly impacts not only the remainder of the building design and construction process, but also the operations and maintenance of the building for the rest of its useful life. **FEE CAPS RESTRICT INNOVATION.**

**Design Development, Construction Documents:**

This is the phase where the design team finalizes the project and produces the drawings, specifications, and manual that will be used by contractors and subcontractors to bid and build the project. **FEE CAPS RESTRICT TIME AND LEVEL OF SERVICE.**

**Construction Administration:** During this phase the design team's primary task is to observe the construction for conformance to the construction documents. However, the design team also reviews the contractor's shop drawings and material and sample submittals; reviews the results of construction tests and inspections; reviews the contractor's payment requests; evaluates and processes requests for design changes; and administers the completion, start-up and contract close-out process for the owner. It is important that the design team is allowed adequate time during this phase so that the State gets the building that was designed. **FEE CAPS RESTRICT ON-SITE OBSERVATION DURING THE CRITICAL CONSTRUCTION PHASE.**

**There is a Better Way**

**Negotiate a Fair and Reasonable Fee Based on the Specific Requirements of Each Project**

**AIA Kansas**

A Chapter of the American Institute of Architects

**Mission:**

**To Foster the Capacity of the Profession of Architecture to Serve Society**

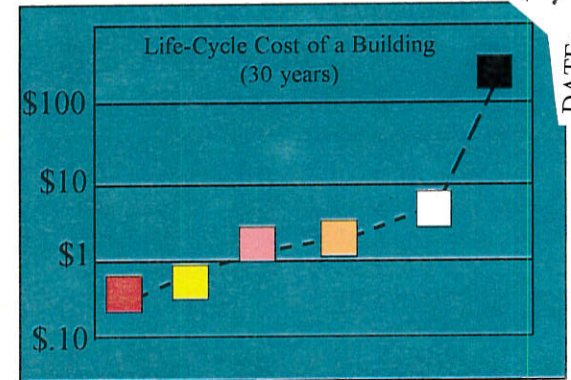
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**Penny Wise and Pound Foolish?**



- Salaries, \$150 sq. foot, per year
- Construction, \$6.22 sq. foot, per year
- Utilities, \$1.82 sq. foot, per year
- Maintenance, \$1.06 sq. foot, per year
- Janitorial, \$0.87 sq. foot, per year
- Architectural fee, \$0.44 sq. foot, per year

**The decisions made when buildings are designed have the most impact on the future costs of the building**

**Is There a Better Way to Get the Most for the Dollars We Spend?**

**ABSOLUTELY!**

HOUSE UTILITIES  
DATE: 2-15-01  
ATTACHMENT 2



## Facts

- Architects fees are the lowest cost of a building project, yet the work architects do has the **greatest** impact on the future life cycle costs of a building
- Architects are the **only** profession on which the State imposes a fee cap - not accountants, doctors, or attorneys
- Kansas is the **only** State that has a statute imposed fee cap
- There is **no fee cap on engineering projects**, but when engineers are hired under the architect's contract they are subject to the cap
- State of Kansas is a sophisticated client who understands the cost of architectural services and marketplace fees
- A typical **realtor gets more fee for selling a building than the State pays to design one**. The time commitment for these professions to accomplish their task, regardless of the other differences in education, training, testing, and responsibility for public safety and welfare, is immense. The design process takes months and sometimes years and includes scores of people
- Today's architectural **projects are much more complex** than those of even a decade before. There have been significant changes in energy, technology, controls, audio/video capabilities, and commissioning (getting all systems up and running properly and providing training for the owner's maintenance staff)
- Because of today's more sophisticated buildings, the design team is **required to spend more time on site during the construction phase**; all within the fee cap

## There is a Better Way

### Negotiate a Fair and Reasonable Fee Based on the Specific Requirements of Each Project

## State Buildings Getting a Handle on Costs

We all agree that the State of Kansas spends an enormous amount of funds on the maintenance and operation of our state buildings. Preventative maintenance is often delayed until it reaches crisis proportions and often requires more costly fixes than would have been necessary if handled in an expeditious manner.

Can the decisions architects and their design team make when designing new buildings or renovating older ones have an impact on the costs of that building after it is constructed? **YES!**

The chart on the cover shows the costs of a typical low rise office building with 1-4 stories and a construction cost of \$70 per square foot. The costs are amortized over 30 years. It is easy to see that nearly **96% of a building's cost is post construction**.

### Decisions Made as Buildings are Designed Can Have Tremendous Impact on the Cost of the Building Over It's Life Expectancy

As the design team (architects, engineers and other consultants) and the owner define the project, the decisions they make will affect the costs the owner will not only pay in construction but will affect the cost of on-going maintenance, energy use, and operation. In addition, their decisions can affect the costs of future renovation and upgrade of buildings.

### Examples

**A truly efficient building will relate well to the natural environment.** Site orientation and the design of a building exterior have a major impact on the energy efficiency of a building. The choice of glazing, its design and its location on a building determines whether or not natural daylighting can be used to reduce the use of artificial lighting. Natural daylighting and views also increase the well being of the building occupants, which increases productivity.

**The choice of heating, ventilating and cooling (HVAC) systems and equipment has a significant effect on utility costs**, as well as operations and maintenance costs. Sophisticated equipment may require additional maintenance – will the building staff be able to maintain it? The choice of HVAC systems and equipment will also greatly impact the comfort of the building occupants.

**The selection and design of building components from roofing to toilet partitions determines maintenance requirements.** Will a roofing system need major repairs or replacement in ten years or thirty years? Should toilet partitions be graffiti resistant? Although the initial cost for those components may be high, the cost for maintenance, repair and replacement may ultimately be many times more than their initial cost.

**Flexibility of space is critical.** The program requirements of today's buildings are dynamic. Advances in technology and changing use demand flexibility. Building occupants must be able to reconfigure spaces to meet their needs. The more flexibility initially designed into a building, the less it will cost to remodel the building.

### Limiting Design Fees is Counter Productive

The fee cap establishes an arbitrary maximum fee that can be spent on architectural services for the design team. The design team includes the architect, engineers and other consultants under the architectural services contract. Each building is a unique structure needed for a specific purpose. Adequate time must be spent on each design phase to meet the requirements for a successful building.

**Pre Design** (Programming/Schematic Design): The programming and schematic design phase is the very beginning of the project for the design team and the time that the initial concept for the building project is established. The more time the design team can spend with the owner's representatives discussing their needs, desires and expectations for the building during programming, the closer the building will come to meeting the

HB 2475 By Committee on Utilities

Testimony from

Gene M. Meyer, P.E.  
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I would like to introduce myself. I am Gene M. Meyer, a registered professional engineer and instructor with Engineering Extension and Kansas State University. During the last 20 years, I have had opportunity to work towards improving the energy performance of both commercial and residential buildings. I have performed scores of energy audits on commercial buildings; have lectured on building controls, maintenance and operation, and other opportunities to achieve higher levels of building energy performance; and continue to answer hundreds of energy questions annually for the Kansas' energy consumer.

During the last seven years, I have worked with the National Institute of Science and Technology (NIST); the states of Montana, Ohio, and Iowa; the National Renewable Energy Laboratory (NREL), and the American Association of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) in the general area of life-cycle cost analysis.

During five of those years, a team of dedicated Kansas professionals have worked tirelessly to educate engineers, architects, builders, and code officials on the benefits and requirements contained in residential and commercial building energy codes.

House Bill 2475 makes brief reference to both of these topics, but in a manner that is vague and confusing.

House Bill 2475 refers to a process by which the secretary of administration may develop and adopt rules establishing standards for planning, design, and construction of buildings and major repairs and improvements to buildings. These standards shall include energy conservation standards and require life-cycle assessments.

*HOUSE UTILITIES*

DATE: 2-15-01

ATTACHMENT 3

I believe the legislation should be modified to address three key issues.

1. It is not clear if the buildings must first meet the requirements of the energy conservation standards. The energy standards presently available are considered minimum standards and more cost-effective designs are possible and probable. The language should be modified requiring compliance with the energy conservation standard chosen by the secretary of administration. This would be consistent with KSA 66-1227.
2. There is no indication the most cost-effective alternative identified during a life-cycle cost assessment should be implemented. Requiring an analysis without providing support for the resulting decision is just more paper work for the engineer and does not advance building performance, one goal of this legislation.
3. Life-cycle cost analysis is a process of evaluating in a consistent and rational fashion of the higher first-cost associated with high-performance building systems and equipment against long-term savings and other benefits. Simply stipulating an assessment must be done leaves open to interpretation the level of rigor and manner of the analysis. I would recommend that the procedures used for a life-cycle cost analysis be conducted in accordance with the following American Standard of Testing and Materials (ASTM) standards.

*E 1185-93 (1998) Guide for Selecting Economic Methods for Evaluating Investments in Buildings and Building Systems*

*E 917 – 94 Practices for Measuring Life-Cycle Costs of Buildings and Building Systems.*

These methods have been adopted by NIST and are used extensively in the analysis of federal building projects. ASHRAE has adopted these procedures and methods in their training. Tools for evaluation have been developed and are readily available on-line for building design professionals.

Requiring all buildings meet minimum energy performance standards, putting teeth in LCCA requirements to implement cost-effective designs, and stipulating methods for the performance of LCCA will significantly improve this legislation.



# KANSAS LEGISLATIVE RESEARCH DEPARTMENT

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February 14, 2001

**To:** House Committee on Utilities  
House Committee on Taxation

**From:** Lynne Holt, Principal Analyst

**Re:** Information Request on Impact of Reclassifying Electric  
General Facilities for Property Tax Purposes

At the joint meeting on February 13 of the House Utilities and Taxation committees, Representative Holmes asked me to obtain information on the impact of assessing electric generation facilities at a rate of 25 percent instead of 33 percent. Currently, electric generation facilities are considered public utilities which are subject to the 33 percent assessment rate.

Representative Holmes' request was made in conjunction with the committees' review of HCR 5013. This concurrent resolution would propose an amendment to the *Kansas Constitution* to decrease the assessment rate of public utility property from 33 percent to 25 percent, which is the same assessment rate governing commercial and industrial property. The Committee was informed that the decreased assessment for all public utility property in Kansas could total more than \$65 million in tax year 2000. This reduction, minus the school finance and state building fund mill levy proceeds, would have to be shifted to other taxpayers. In order to mitigate against a shift of that magnitude, Representative Mays suggested consideration be given to reclassifying only electric generation facilities as commercial and industrial property.

**Attachment I** is a pair of tables provided by the Kansas Department of Revenue that illustrate the assessed value difference and tax difference for all public utilities (minus railroads), electric companies, and electric generation facilities in Kansas for tax year 2000, if the assessed valuation had been reduced from 33 percent to 25 percent. The tax difference for electric generation facilities would have been \$14,628,028. Most of this amount would have to be paid by other property owners if the mill levy had been increased to compensate for the reduction. **Attachment II** is the school finance model run by Chris Courtwright to reflect the impact on school districts of a reduced assessed value for electric generation facilities. Assuming a reduction from the 33 percent rate to the 25 percent rate was approved by voters to take effect in tax year 2003, the impact on the school finance formula would be a reduction in local effort of \$2,483,661 for FY 2004, and \$4,125,403 in ensuing fiscal years. These reductions would need to be compensated by increased State General Fund appropriations of the same amount to keep the school finance formula "whole," and would need to be considered in conjunction with the other property tax shift addressed above.

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HOUSE UTILITIES

DATE: 2-15-01

ATTACHMENT 4

February 13, 2001

**Assessment and Tax Difference for  
Public Utility Property Calculated  
As if HCR 5013 was in effect  
For Tax Year 2000**

<b>Category</b>	<b>Assessed Value @ 33% Rate</b>	<b>Assessed Value @ 25% Rate</b>	<b>Assessed Value Difference</b>
Public Utility Less RR	\$2,756,218,327	\$2,088,044,187	\$668,174,140
Electric Companies	\$1,430,735,359	\$1,083,890,423	\$346,844,936
Generation Facilities	\$ 868,229,031	\$ 657,749,266	\$210,479,765

<b>Category</b>	<b>Tax Using @ 33% Rate</b>	<b>Tax Using @ 25% Rate</b>	<b>Tax Difference</b>
Public Utility Less RR	\$270,937,185	\$205,255,443	\$65,681,742
Electric Companies	\$122,602,140	\$ 92,880,409	\$29,721,731
Generation Facilities	\$ 60,340,614	\$ 45,712,586	\$14,628,028

The calculations presume no change in appraisal methodology *ie* centrally appraised using generally accepted appraisal procedures to determine the fair market value of public utility property, both real and personal, tangible and intangible.

## School Finance Property Tax Model

20 mills assumed permanent

20k residential exemption assumed permanent

Revised Tax Base Assumptions Agreed to 11/13/2000

**All Electric Gen Facility Valuation Lowered to 25% Starting Tax Year 2003**

Calendar Year	Current Assessed Value	Proposed Exemptions	Proposed Assessed Value	Current Mills	Proposed Mills
1994	\$15,502,087,375	--	\$15,502,087,375	35.0	35.0
1995	16,194,057,543	--	16,194,057,543	35.0	35.0
1996	16,703,505,399	--	16,703,505,399	35.0	35.0
1997	16,267,106,394	--	16,267,106,394	27.0	27.0
1998	16,965,505,048	--	16,965,505,048	20.0	20.0
1999	17,689,996,969	--	17,689,996,969	20.0	20.0
2000	18,865,158,625	--	18,865,158,625	20.0	20.0
2001	19,972,458,625	--	19,972,458,625	20.0	20.0
2002	21,010,816,325	--	21,010,816,325	20.0	20.0
2003	21,998,128,093	210,479,765	21,787,648,328	20.0	20.0
2004	22,922,646,871	210,479,765	22,712,167,106	20.0	20.0
2005	23,835,591,425	210,479,765	23,625,111,660	20.0	20.0
2006	24,784,747,871	210,479,765	24,574,268,106	20.0	20.0
2007	25,771,492,262	210,479,765	25,561,012,497	20.0	20.0

Fiscal Year	Current Law Property Tax	Proposal Property Tax	Total Fiscal Note
1996	\$526,919,633	\$526,919,633	--
1997	565,976,272	565,976,272	--
1998	487,137,854	487,137,854	--
1999	371,485,590	371,485,590	--
2000	341,072,904	341,072,904	--
2001	360,590,848	360,590,848	--
2002	382,823,249	382,823,249	--
2003	403,712,810	403,712,810	--
2004	423,462,279	420,978,618	(2,483,661)
2005	442,072,632	437,947,229	(4,125,403)
2006	460,056,624	455,931,221	(4,125,403)
2007	478,377,638	474,252,235	(4,125,403)
2008	497,424,642	493,299,239	(4,125,403)

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