The videorecording of the floor discussion on this proposal was, on the whole, respectful. It was good to see the homebuilders support our proposal to permit electrical power designers to apply their judgement in building power system design as the Canadian Electrical Code has allowed them to do for decades.

The NFPA Life Safety Code has a variant -- NFPA 101A: Guide on Alternative Approaches to Life Safety -- which accommodates imaginative but safe solutions. The National Electrical Code has no such variant. The complicated prescriptive rules covering building interior wiring could be less complicated with the performance variant we propose here. Electrical codes, standards and guidelines need to evolve quickly to meet the demand posed by the artificial intelligence build out.

The user-interest is routinely outmatched by manufacturers that can afford the professional time and travel. However, now that we have our first proposal tracking in the ICC catalog we may find a like-minded expert to attend the hearings later this year to advocate this proposal; if not me.

For now, consider this: The education industry is the largest building construction market in the United States: $135 billion annually (US Census Bureau). The University of Michigan has the largest expanse of building square footage of any university in the world -- nearly 40 million square feet. In other words, we have one of the largest building safety study units on earth.

Since 1993 we have challenged the prescriptive wiring design rules in the NEC and have funded studies to prove our claim. Here are three:

> Rightsizing electrical power systems in large commercial facilities
>
> Rightsizing Commercial Electrical Power Systems: Review of a New Exception in NEC Section 220.12
>
> Evaluation of Electrical Feeder and Branch Circuit Loading: Phase 1
>
> Electric Circuit Data Collection: An Analysis of Health Care Facilities (Mazetti)

Additional information to support our comment appears in this link:

> https://standardsmichigan.com/performance-based-electrical-power-chain-design/

Our experience has been that it takes two or three code revision cycles to make a meaningful code change in any standards catalog. This is a start. We welcome collaboration with others in expanding performance based electrical safety best practice into the ICC catalog.

An expansion of this proposal will be posted on the IEEE Education & Healthcare Facilities Committee website

I will remind that while the electrical equipment industry runs about $20 billion, the US education facility industry builds nearly $150 billion.
by it was good to know others who want performance based code wherever it can be accepted.
:

To rebut the on-site commenter for the electrical manufacturer industry: There is nothing flawed or ridiculous about this proposal. The oversizing of building premise wiring has been studied for decades, much of it driven by the University of Michigan which, at nearly 50 million square feet, has the largest building square footage under management of any educational campus in the world. We have had some modest success challenging electrical manufacturers in the NFPA catalog. The reports linked below support our claim that when we say building premises wiring in most occupancies is significantly oversized and

Branch Circuit
Hospital Plug Load
220-14

The 2026 codes cycle is my 13th code cycle as a technical committee member.

We are simply opening another front in other standards suites that track in building codes
The cost impack on our recent hospital is detailed.

Standards Michigan collaborates with the IEEE Education & Healthcare Facilities Committee on technical issues that effect the safety and sustainability of the built environment from the **User** point of view (as defined in ANSI Essential Requirements). Since 1993 we are the only enduring voice for the education facilities industry which presents a $100+ billion building construction market every year. In other words, we have an informed point of view that challenges the manufacturer (NEMA), inspection

Demonstrated load appears in the Canadian Electrical Code

Between the load side of the service to the line side of the branch circuit distribution panels. In some occupanciies the feeder may well exceed the wiring system. I was the Lead Electrical Engineer for the ~$ billion built out of the largest athletic campus in the world (University of Michigan) and in the level spot of the demand we found our transformers only 20 percent loaded. The rest is heat and material waste that should be reduced in some electrical standards catalog.

Why would the manufacturing industry want to reduce a service and distribution transformers

Merchant utilities take a load letter and cut the load in half because they can.

Links to relevant research.

Sometime in the American national standards system reduction in electrical waste needs to be reduced . The Canadians have had to problem with their language.

Spend our energy building right-sized data centers for the artificial intelligence transformation And the

This proposal asks for performance based language. The response ignores our argument. An examination of these passages reflects decades of special interest groups getting exemptions.

Even the additional load.

The section is tormented.
From a manufacturers point of view, any proposal to reduce oversizing would be "flawed"
Were it not UM leading the push back on lighting branch circuits -- nothing would have happened 10+ years ago. We got that change made but not with manufacturer support for obvious reasons.

This is intended to give free rein to designers who are closer to the action. This issue tracks well in the links below:

Phase !
Article 517
Lighting.

Empirical, lived experience of energy managers and designers. I was the designer of the UM stadium upgrade and we see loading on the order of 20 percent even on game days.

The NEC is too restrictive and informed by fire safety. Counter arguments by electrical inspectcrs claim spare capacity is needed.d

The spare capacity is never needed. More breakers are needed. End use equipment has gotten more efficient with innovation in materials and controls.

We need more transformers

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