

TESTIMONY OF DR. MARTIN KUSHLER, ACEEE
Regarding Senate substitute bill SB 437
September 24, 2015

Mr. Chairman, members of the Committee....Thank-you very much for the opportunity to speak with you on this very important subject.

My name is Dr. Martin Kushler, and I am a Senior Fellow with the American Council for an Energy-Efficient Economy (ACEEE)....

You may recall that I testified before you earlier, on August 26th, on issues relating to SB 438. Today I would like to briefly testify on some additional concerns regarding the substitute for SB 437.

In my prior testimony, I provided some background information on myself and the organization I work for. The only thing I want to add today is the fact that during my tenure on the Staff of the Michigan Public Service Commission, I directed the Evaluation Section, within the Planning Division of the MPSC.... There for many years we conducted and reviewed Integrated Resource Plans (or IRP's) for our Michigan utilities - - until that function was eliminated by the Governor in 1995. In the years since, I've reviewed numerous examples of IRPs and IRP rules in many states around the nation....so my recommendations today are based on all that prior experience.

To begin, let me make clear that I oppose, and advise against, *replacing* our Energy Optimization standard with an IRP approach. I've previously testified here that "IRP only" states achieve energy efficiency savings that are less than one-third of what states with an energy efficiency standard save, and only one-fourth of what Michigan is already achieving under our Energy Optimization standard. I've attached in your packet the national data demonstrating that fact - - comparing "IRP only" to "Energy Efficiency Standard" states.

Moreover, the data in the second slide shows the fact that adding utility incentives to IRP (as was suggested by Director Brader in previous testimony), does not change the overall weak performance of IRP-only states.

Nevertheless, I do not oppose the concept of *adding* an IRP capability to an existing Energy Optimization standard.... In other words, having a base EO standard, then doing IRP to see if additional energy efficiency would be cost-effective. However, if one is going to do IRP, it should be done properly.

3) **Crucial elements are missing from the requirements for an IRP.**

Sec. 6s (13) (pp. 38-39) lays out the requirements for an IRP. **This sub-section is seriously deficient in several respects. Among other things, there is no requirement to analyze the potential for energy waste reduction as a resource. In fact, there is no basic requirement to comprehensively analyze all possible electric resource options...which is the most basic purpose of an IRP!**

The language should be modified as shown below.

(13) ~~(11)~~ The commission shall establish standards for an integrated resource plan ~~that shall be~~ filed by an electric utility ~~requesting a certificate of necessity~~ under this section. An integrated resource plan shall include all of the following:

(a) A long-term forecast of the electric utility's load growth under various reasonable scenarios.

(b) A COMPREHENSIVE AND TRANSPARENT ANALYSIS OF ALL ELECTRICITY RESOURCE OPTIONS THAT COULD BE USED TO MEET THE INCREMENTAL RESOURCE NEEDS FOR THE UTILITY OVER THE IRP PLANNING TIME FRAME. THIS SHOULD INCLUDE ALL APPLICABLE ELECTRICITY GENERATION OPTIONS, INCLUDING FROM RENEWABLE ENERGY SOURCES, AS WELL AS RESOURCES FROM CUSTOMER ENERGY WASTE REDUCTION PROGRAMS, LOAD MANAGEMENT AND DEMAND RESPONSE.

Similarly, the list of factors for the Commission to consider in their review of an IRP [Sec. 6s(5)E (pp. 33-34)] needs some important improvements. The text below in underlined, italic CAPS should be added.

“TO DETERMINE WHETHER THE INTEGRATED RESOURCE PLAN IS THE MOST REASONABLE AND PRUDENT MEANS OF MEETING ELECTRICITY RESOURCE CAPACITY NEEDS, THE COMMISSION SHALL CONSIDER WHETHER THE PLAN APPROPRIATELY BALANCES ALL OF THE FOLLOWING FACTORS:

(i) RESOURCE ADEQUACY AND CAPACITY TO SERVE ANTICIPATED PEAK ELECTRIC LOADS AND RESERVE MARGIN REQUIREMENTS.

(ii) THE NET PRESENT VALUE OF REVENUE REQUIREMENTS UNDER THE PLAN, COMPARED TO ALTERNATIVE RESOURCE PLANS.

(ii) COMPLIANCE WITH APPLICABLE STATE AND FEDERAL ENVIRONMENTAL REGULATIONS.

- (iii) **COMPETITIVE PRICING AND TOTAL UTILITY COSTS TO RATEPAYERS.**
- (iii) **THE INCLUSION OF ENERGY WASTE REDUCTION PROGRAMS.**
- (iv) **RELIABILITY.**
- (iv) **ENVIRONMENTAL COSTS AND BENEFITS.**
- (v) **COMMODITY PRICE RISKS.**
- (vi) **DIVERSITY OF GENERATION SUPPLY.**

4) Need for sufficient staff resources to protect the public interest.

Sec. 6s(5) (p. 35) addresses the issue of IRP contested case review. This section contains a laudable requirement for the utility IRP plan to be reviewed in a contested case...but it begs the question of how is the MPSC/MAE Staff going to have adequate personnel and financial resources to adequately review these IRPs? There is certainly no current MPSC staff experience or person-power to handle the complex and extensive technical work necessary to adequately review and respond to utility IRP plans. This is particularly important with the high stakes involved in the proposed IRP approach and the expedited 270 day time frame. **At a minimum, any legislation establishing the proposed IRP process should include provisions for additional MPSC staff, adequate training, and resources to hire technical consultants. Ideally, there should also be provisions for providing resources to qualified public interest interveners.**

In any kind of an IRP process, the incumbent utility is at a tremendous advantage, as they establish and control the analysis model, provide and control all of the data, and have theoretically unlimited staff and consultant resources (paid for by ratepayers). Any IRP legislation should include the provision of resources to enable Staff and public interest interveners to have some reasonable capability to adequately analyze and respond to the proposed plans.

That concludes my specific comments on SB 437, S-1. If these recommendations were adopted, including making the IRP a policy that is adopted **in addition to** maintaining a strong Energy Optimization standard (rather than replacing EO), then I could be supportive. In the absence of those improvements, I would have to oppose this bill.

Thank-you very much for the opportunity to testify on this issue. I would be happy to answer any questions.

**"INTEGRATED RESOURCE PLANNING" (IRP)
IS NOT A SUITABLE *REPLACEMENT* FOR AN
ENERGY EFFICIENCY STANDARD***

	EE spending as a % of Revenues	EE savings as a % of Sales
States with EERS (n=26)	2.63	1.11
States w/o EERS (n=24)	0.76	0.30
	(p<.001)	(p<.001)
States with IRP but no EERS (n=18)	0.76	0.34

...save less than a third of states with an EERS

**ADDING A UTILITY INCENTIVE POLICY TO AN
IRP POLICY DOES NOT SOLVE THE PROBLEM**

	EE spending as % of revenues	EE savings as % of sales
States w/ IRP but no EERS (n=18)	0.76	0.34
States w/ IRP & incentives but no EERS (n=8)	0.71	0.34

States with EERS (n=26)	2.63	1.11
Michigan	2.00	1.30

ACEEE COMMENTS ON SB 437, SUBSTITUTE 1
[by Martin Kushler, Ph.D., September 14, 2015]

To begin, let me emphasize that ACEEE is calling for the continuation of an Energy Optimization annual energy savings standard, and is not at all supportive of the notion that creating an IRP process somehow *replaces* the need for the existing Energy Optimization policy and energy savings standard. Nothing in the proposed bill SB 437, even with the modifications ACEEE is suggesting (see below), gives any confidence that energy efficiency savings will even match, much less exceed, the existing Energy Optimization standard. Therefore, ACEEE strongly urges that an Energy Optimization annual energy savings standard remain in place. If an IRP process can be created as a *supplemental* policy, and could bring *additional* energy efficiency resources to bear, that will be great. But an assured minimum amount of energy efficiency achievement through an EO standard should stay in place.

That said, ACEEE does believe that any IRP process created should be as well-designed and effective as possible. In that spirit, ACEEE offers the following comments on SB 437. [New text requested is shown in *CAPS* with italics and underlined.]

Sec. 6a (10) (p. 10-11): Decoupling. The language regarding decoupling needs the two words shown underlined and in italics below inserted. This is important to the definition of decoupling, and is exactly consistent with the existing and new language in SB 438.

"THE COMMISSION MAY APPROVE A *SYMMETRICAL* REVENUE DECOUPLING *TRUE-UP* MECHANISM FOR A NATURAL GAS OR ELECTRIC UTILITY THAT ADJUSTS FOR INCREASES OR DECREASES IN ACTUAL SALES VOLUMES... IN DETERMINING THE *SYMMETRICAL* REVENUE DECOUPLING *TRUE-UP* MECHANISM FOR A UTILITY, ..."

Sec. 6j (4) (p. 13-14): The list of elements that must be included in a utility's power supply cost recovery 5-year forecast should include the elements added below.

"(4) In order to implement the A power supply cost recovery clause established pursuant to ~~UNDER~~ subsection (2), a **AN ELECTRIC** utility shall file, contemporaneously with the power supply cost recovery plan required by subsection (3), a 5-year forecast of the power supply requirements of its customers, its anticipated sources of supply, and projections of power supply costs, in light of its existing sources of electrical generation and sources of electrical generation under construction. The forecast shall include a **ALL OF THE FOLLOWING:**

(A) A description of all relevant major contracts and power supply arrangements entered into or contemplated by the utility. , and such

(B) A DEMONSTRATION THAT THE UTILITY HAS ADEQUATELY INCORPORATED DEMAND-SIDE RESOURCES INTO ITS 5-YEAR PLAN, INCLUDING PROGRMS FOR ENERGY WASTE REDUCTION AND LOAD MANAGEMENT.

Sec. 6s(5)(D)(p. 32): **Competitive bid result should not be deemed “reasonable”**. The mere fact of a competitive bid process does not assure a reasonable outcome. The California electric market fiasco of 2000 and 2001 all took place under a supposedly “competitive” framework. The wording in this paragraph should be modified as shown below.

“(D) ~~(e)~~ The estimated cost of power from the existing or proposed electric generation facility or the price of power specified in the proposed power purchase agreement is reasonable. The commission shall GIVE EXTRA WEIGHT TOWARD A FINDING find that the cost is reasonable if, in the construction or investment in a new or existing facility, to the extent it is commercially practicable, the estimated costs are the result of competitively bid engineering, procurement, and construction contracts, or in a power purchase agreement, the cost is the result of a competitive solicitation.”

Sec. 6s(5)(E)(p.33): **“Capacity” does not sufficiently represent the costs of “Electricity Resources”**. This issue surfaces here again as well. The cost to customers from utility resource decisions is not just the cost of capacity, it is the entire cost of providing electric supply. This paragraph should be modified as shown below (new language in italics and CAPS).

“(E) ~~(d)~~ The existing or proposed electric generation facility or proposed power purchase agreement **PROPOSED INTEGRATED RESOURCE PLAN** represents the most reasonable and prudent means of meeting the ELECTRICITY RESOURCE power need ~~CAPACITY NEEDS~~ relative to other resource options for meeting THOSE RESOURCE power demand, including energy efficiency programs and electric transmission efficiencies. **CAPACITY NEEDS, INCLUDING ENERGY EFFICIENCY PROGRAMS, DEMAND SIDE MANAGEMENT, AND TRANSMISSION EFFICIENCIES...**”

Sec. 6s(5)(E)(p.33-34): **Inadequate list of factors for the commission to consider**. That paragraph goes on to list factors to consider in the review of an IRP. The items added below (in italics and underlined) should be added to that list.

“TO DETERMINE WHETHER THE INTEGRATED RESOURCE PLAN IS THE MOST REASONABLE AND PRUDENT MEANS OF MEETING ELECTRICITY RESOURCE CAPACITY NEEDS, THE COMMISSION SHALL CONSIDER WHETHER THE PLAN APPROPRIATELY BALANCES ALL OF THE FOLLOWING FACTORS:

- (i) RESOURCE ADEQUACY AND CAPACITY TO SERVE ANTICIPATED PEAK ELECTRIC LOADS AND RESERVE MARGIN REQUIREMENTS.
- (ii) THE NET PRESENT VALUE OF REVENUE REQUIREMENTS UNDER THE PLAN, COMPARED TO ALTERNATIVE RESOURCE PLANS.
- (ii) COMPLIANCE WITH APPLICABLE STATE AND FEDERAL ENVIRONMENTAL REGULATIONS.
- (iii) COMPETITIVE PRICING AND TOTAL UTILITY COSTS TO RATEPAYERS.
- (iii) THE INCLUSION OF ENERGY WASTE REDUCTION PROGRAMS.
- (iv) RELIABILITY.
- (iv) ENVIRONMENTAL COSTS AND BENEFITS.

- (v) COMMODITY PRICE RISKS.
- (vi) DIVERSITY OF GENERATION SUPPLY.

"(F) ~~(e)~~ To the extent practicable, the construction or investment in a new or existing facility ELECTRICITY CAPACITY RESOURCE in this state is completed using a workforce composed of residents of this state as determined by the commission. This subdivision does not apply to a ~~facility~~ AN ELECTRICITY CAPACITY RESOURCE that is located in a county that lies on the border with another state.

Sec. 6s(7)(p. 34-35): Providing rate of return on purchased power is inappropriate. This paragraph proposes that a utility could collect a rate of return on money spent on a purchased power agreement. This is inappropriate for several reasons:

1. It essentially doubles the profit on the electric resource. The supplier already has profit margin built into the resource cost. The utility would be simply adding its profit margin on top.
2. The utility is not actually investing any of its capital in the project (as in the case of building a power plant) and is not incurring any investment risk. Purchased power is a 'pass-through' cost to ratepayers. Allowing a 'rate of return' does not make sense in this case.
3. This arrangement would create a perverse incentive whereby both the independent supplier and the purchasing utility would be encouraged to inflate the cost of a project...because a higher cost would benefit both parties. This is practically an invitation to collusion.

It is certainly understandable to seek to overcome the inherent utility preference for constructing their own supply facilities rather than procuring purchased power, even when purchased power may be cheaper. However, **there is a much better way to do this than by the crude approach of allowing a rate of return on the purchased power costs. Specifically, the legislation should authorize the use by the commission of a reasonable financial incentive for the utility for the use of a purchased power resource, tied to the demonstration of cost savings from the use of that purchased power resource.**

Finally, energy efficiency resources ("energy waste reduction") should be an allowable purchased power option.

Paragraph (7) of Sec. 6s should be re-worded as follows:

"(7) ~~(6)~~ In a ~~certificate of necessity~~ **APPROVING AN INTEGRATED RESOURCE PLAN** under this section, the commission shall specify the costs approved for the construction of or significant investment in ~~the~~ **AN** electric generation facility, the price approved for the purchase of ~~the~~ **AN** existing electric generation facility, ~~or~~ the price approved for **A** purchase of power pursuant to **UNDER** the terms of the power purchase agreement, **OR THE COSTS ASSOCIATED WITH OTHER INVESTMENTS OR RESOURCES USED TO MEET ENERGY RESOURCE CAPACITY NEEDS THAT ARE INCLUDED IN THE APPROVED INTEGRATED RESOURCE PLAN. FOR POWER PURCHASE AGREEMENTS THAT A UTILITY ENTERS**

INTO WITH AN ENTITY THAT IS NOT AFFILIATED WITH THAT UTILITY AFTER THE EFFECTIVE DATE OF THE AMENDATORY ACT THAT ADDED SECTION 6T, THE COMMISSION MAY AUTHORIZE A FINANCIAL INCENTIVE FOR THE UTILITY IF THAT PURCHASED POWER AGREEMENT IS DEMONSTRATED TO REDUCE COSTS TO RATEPAYERS AS COMPARED TO ADDING UTILITY-OWNED ELECTRICITY RESOURCES. THE COST OF ANY SUCH FINANCIAL INCENTIVE SHOULD BE ADDED TO THE COST OF THE PURCHASED POWER IN ASSESSING THE COST OF THE PURCHASED POWER TO RATEPAYERS AND DECIDING WHETHER IT IS A PREFERRED RESOURCE OPTION. ENERGY WASTE REDUCTION RESOURCES OBTAINED THROUGH CONTRACT AT CUSTOMER FACILITIES MAY QUALIFY FOR A POWER PURCHASE AGREEMENT, AND FOR THIS TYPE OF INCENTIVE, IF APPROVED BY THE COMMISSION. RATE OF RETURN THAT DOES NOT EXCEED THE UTILITY'S WEIGHTED AVERAGE COST OF CAPITAL. THE COSTS FOR SPECIFICALLY IDENTIFIED INVESTMENTS INCLUDED IN AN APPROVED INTEGRATED RESOURCE PLAN THAT ARE COMMENCED WITHIN 3 YEARS AFTER THE COMMISSION'S ORDER APPROVING THE INITIAL PLAN, AMENDED PLAN, OR PLAN REVIEW ARE CONSIDERED REASONABLE AND PRUDENT FOR COST RECOVERY PURPOSES.

Sec. 6s(12)(p. 38): **“Capacity” does not sufficiently represent the costs of “Electricity Resources”**. This paragraph contains the same inadequate language regarding “capacity”, and should be changed as follows:

“...agreement, which OR OTHER INVESTMENT IN A RESOURCE THAT MEETS A DEMONSTRATED NEED FOR ELECTRICITY RESOURCES CAPACITY THAT exceeds 110% of the cost...”

Sec. 6s(13)(p. 38-39): **Requirements for an IRP. This paragraph is seriously deficient in several respects. Among other things, there is no requirement to analyze the potential for energy waste reduction as a resource. In fact, there is no basic requirement to comprehensively analyze all possible electric resource options. The language should be modified as shown below.**

(13) ~~(11)~~ The commission shall establish standards for an integrated resource plan ~~that shall be filed by an electric utility requesting a certificate of necessity under this section.~~ An integrated resource plan shall include all of the following:

(a) A long-term forecast of the electric utility's load growth under various reasonable scenarios.

(b) A COMPREHENSIVE AND TRANSPARENT ANALYSIS OF ALL ELECTRICITY RESOURCE OPTIONS THAT COULD BE USED TO MEET THE INCREMENTAL RESOURCE NEEDS FOR THE UTILITY OVER THE IRP PLANNING TIME FRAME. THIS SHOULD INCLUDE ALL APPLICABLE ELECTRICITY GENERATION OPTIONS, INCLUDING FROM RENEWABLE ENERGY SOURCES, AS WELL AS RESOURCES FROM CUSTOMER ENERGY WASTE REDUCTION PROGRAMS, LOAD MANAGEMENT AND DEMAND RESPONSE.

ALL GENERATION OPTIONS AVAILABLE TO MEET PROJECTED ELECTRICITY RESOURCE CAPACITY NEEDS.

(K) PROJECTED ECONOMIC AND ENVIRONMENTAL THREATS THAT COULD IMPACT RATES AND THE DELIVERY OF SERVICE.

(L) PROJECTED RATE AND CUSTOMER BILL IMPACTS FOR THE PERIODS COVERED BY THE PLAN.

(M) COMPARISON OF THE IMPACT ON TOTAL UTILITY REVENUE REQUIREMENTS OF THE PROPOSED RESOURCE PLAN TO OTHER POTENTIALLY VIABLE RESOURCE PLANS

(M) HOW THE UTILITY WILL COMPLY WITH ALL APPLICABLE STATE AND FEDERAL ENVIRONMENTAL STANDARDS, LAWS, AND RULES.

(N) A FORECAST OF THE UTILITY'S PEAK DEMAND AND DETAILS REGARDING HOW THE UTILITY PROPOSES TO REDUCE PEAK DEMAND.