

STATE OF IOWA
DEPARTMENT OF COMMERCE
BEFORE THE IOWA UTILITIES BOARD

IN RE:)
) Docket No. NOI-2011-0003
UTILITY COAL PLANT PLANNING)

ADDITIONAL COMMENTS OF THE IOWA CHAPTER OF THE SIERRA CLUB

On November 8, 2011, the Board issued a supplemental Order in this docket requesting information from utilities about the effect of EPA's standards for diesel powered stationary reciprocating internal combustion engines (RICE). Various utilities and the Iowa Department of Natural Resources have responded to the inquiry. The following comments address those responses in the context of the questions posed by the Board.

1. Do you use RICE engines on your system? If so, what engines do you have and where are they? How many kW does each supply?

Beyond the questions asked, Sierra Club believes that it would also be important to know the types and horsepower of each RICE unit. The EPA regulation is designed around categories of RICE engines in terms of horsepower, whether they serve major sources or area sources, and whether they are for emergency or non-emergency uses.

It may be, as some of the utility comments suggest, that based on the size and use of the RICE units, the EPA regulation would have little or no impact.

The Board's Order in this docket requesting information on the effect of the RICE rule said "[t]he Board shares the Governor's concerns," referring to the Governor's executive order rescinding the Iowa RICE rule. Sierra Club made an open records request to the Governor's Office for the information the Governor used to justify his executive order. After reviewing those records and the filings by the utilities in this docket, Sierra Club notes that the information provided by the municipal utilities as to the hours of use of the RICE units and the purposes for which they are used has been inconsistent.

Regarding the use to which the RICE units are put, the IAMU filing in this docket listed the uses as weather-related emergencies, reserve capacity, grid reliability, voltage support, local reliability, and support for safe repair of upstream facilities. However, in a fact sheet to the Governor, IAMU listed only three uses - emergency power, exercising the machines, and testing the engines for capacity accreditation. Then, in a statement to the Governor, IAMU said that the RICE units were used for emergency operation for voltage support, support for safe repair of upstream facilities, and weather-related emergencies. A statement to the Governor from the City of Traer, given as an example of an IAMU member, said that

Traer uses its RICE units only for testing, exercising, and emergency power (local and MISO-related).

NIMECA has filed in this docket stating that its members use RICE units for emergency power, reserve capacity, grid support, as a hedge against high market prices, and as support for maintenance on the transmission system.

Further, IAMU, in its filing in this docket, said that the average run time for all RICE units was 28.69 hours/year. By comparison, in a statement to the Governor, NIMECA said the average run time was 11 hours/year. It seems unlikely that the IAMU members would run their RICE units over 2.5 times more per year than the NIMECA members.

The Board cannot make an informed decision in this inquiry without accurate, consistent information.

2. Would the projected use of those engines be significantly reduced by the EPA NESHAP regulations as recently amended? If so, describe, and quantify to the extent possible, the impact of those regulations on the use of your RICE engines in possible emergency situations that could occur in your service area.

The only justifiable reason for a utility to have a RICE unit, as implied in the Board's question, is to provide emergency power to the distribution lines if the normal source of power is out temporarily. Interstate Power and Light and the Board of Regents, in their comments,

indicate that as long as the RICE units are used for emergency backup power, the EPA rule will have little or no effect. Iowa DNR, in its comments, notes that EPA has granted reconsideration of the RICE rule as it would apply to emergency use of the RICE engines. The proposed amendment to the rule would provide more flexibility for emergency use of RICE engines. This proposal has not yet been finalized. This amendment to the rule would mitigate the impact of the rule for what we consider the only justifiable use of RICE engines.

It appears, however, from the comments of the municipal utilities that the RICE engines are also used extensively to provide reserve capacity or to provide grid support. These are functions that should be accomplished by attention to the electric utility system. Both of these issues could, and should, be addressed by an improved electric grid. This is what the Sierra Club proposed in our comments on the transmission policy inquiry in Docket No. NOI-2011-0002.

It should also be noted that the RICE rule has been in existence since 2008. So the utilities have had three years to plan for implementation of the rule and make the necessary changes to comply with the rule. At this point,

their complaints about the supposed impact of the rule ring hollow.

3. What alternatives are available to you in lieu of operating your RICE engines? What is the capital and operating cost of these alternatives?

Beyond the use of the RICE engines for emergency backup, which should have no appreciable impact from the EPA rule, the other uses for which RICE engines are used by the municipal utilities should be accomplished by a better transmission grid, by supporting energy efficiency, and by transitioning to renewable energy, including distributed generation. The Sierra Club has explained these alternatives in our comments in the transmission policy inquiry in Docket No. NOI-2011-0002 and in our initial comments in this docket.

RECOMMENDATIONS

Based on the comments of the utilities and in support of this inquiry, the Sierra Club has the following recommendations:

1. Given that the EPA is reconsidering portions of the RICE rule, this inquiry as it pertains to the RICE rule may be premature. The Board should wait until the EPA finalizes the rule and conduct a further inquiry at that time.
2. The costs of running the RICE units without pollution controls should be balanced with the costs of the health

effects to the people of Iowa. EPA has, in fact, conducted a benefit-cost analysis on a nationwide basis. That analysis found that when the rule is fully implemented in 2013, the estimated emissions from RICE engines will drop nationally by approximately:

- 1,000 tons per year (tpy) of air toxics,
- 2,800 tpy of fine particulate matter,
- 14,000 tpy of carbon monoxide, and
- 27,000 tpy of volatile organic compounds

The benefits of the pollution controls would be avoiding:

- 110 to 270 premature deaths,
- 75 cases of chronic bronchitis,
- 170 nonfatal heart attacks,
- 160 hospital and emergency room visits,
- 180 cases of acute bronchitis
- 15,000 days when people miss work,
- 1,900 cases of aggravated asthma, and
- 87,000 acute respiratory symptoms

Based on this analysis, EPA concluded that the benefits outweigh the costs by at least \$570 million, calculated on the value of a dollar in 2008.

There is no reason to believe that the benefits would not proportionally outweigh the costs on the basis of the impact of the rule in Iowa. It is always cheaper to avoid

pollution controls when the societal costs are externalized. This is privatizing the profits and socializing the costs. It is long past time that we can further delay pollution controls with no consideration to the impacts on public health and the environment.

When the Board reviews the comments on the RICE rule, the Board should consider the health costs as well as the costs of pollution control.

3. As noted above, the only valid use for RICE engines is for emergency backup power. If there is a need for reserve capacity, grid support and voltage regulation, those needs should be satisfied by improvements to the generation, transmission and distribution systems. The Board should consider policies that support such improvements.

Furthermore, the RICE units should not be used to produce power to sell on the open market. Producing power for the open market should be accomplished through the electric generation system, not emergency backup engines. Nor should the RICE engines, as stated in the NIMECA comments, be used as dispatchable power generators when the cost of electricity the utilities are purchasing is greater than the cost of the power that is generated by the RICE units, "to provide a hedge against high market prices for energy." If those RICE units are being used to generate

power in the first instance, and not as emergency backup power, pollution control equipment is necessary and justified.

4. The comments from the municipal utilities highlight the fragility and vulnerability of the electric grid with respect to the present generation capacity and transmission facilities, and the ability of the utilities to provide high-quality service. Since these vulnerabilities were not considered as part of the transmission inquiry or this inquiry, the Sierra Club recommends that the Board open a separate inquiry to review the vulnerability of the grid as it is now configured. Such an inquiry would review where equipment needs to be upgraded and where transmission is vulnerable to issues that would significantly reduce service to customers.

5. The municipal utilities complain that some of the RICE units are so old that they cannot be retrofitted with modern pollution control equipment. If that is so, perhaps those units are too old to continue to be used. Any business has to periodically upgrade its equipment. This complaint appears to be based on a false premise.

The municipal utilities have also used the excuse that they have no physical space to install pollution control equipment on the RICE units, and therefore should not be

required to do so. This complaint is just another example of the utilities refusing to upgrade their equipment and being content to continue polluting the air at the expense of the people of Iowa.

6. As noted above, the Board should strongly encourage utilities to implement aggressive energy efficiency programs that would reduce peak demand use, and thus encourage less reliance on using RICE units for peak demand. Likewise, the Board should strongly encourage utilities to implement renewable energy sources to reduce peak demand.

7. Given the discrepancies in the information on use of the RICE units provided by the municipal utilities noted above in relation to Question 1, the Sierra Club recommends that the Board pursue a thorough and independent review of the nature and extent of the use of RICE engines by the municipal utilities and the impact of the EPA rule on the utilities and the people of Iowa.

In summary, the Sierra Club supports regulations requiring pollution control equipment on all RICE units that are used for non-emergency purposes.

Respectfully Submitted,

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