Hoosier Environmental Council 3951 N Meridian St., #100 Indianapolis, IN 46208	Environmental Law and Policy Center 35 East Wacker Drive, Suite 1600 Chicago, IL 60601

August 15, 2011

Beth Krogel Roads
Legal Counsel, RTO/FERC Issues
Indiana Utility Regulatory Commission
101 W. Washington St., Suite 1500 East
Indianapolis, IN 46204

Dear Mrs. Roads:

We are enclosing brief comments on RM#11-05 from the Hoosier Environmental Council (HEC) and Environmental Law and Policy Center (ELPC), who -- as we had done on the now concluded net metering rule-making -- are submitting joint comments again.

HEC is the state's largest environmental policy organization, and ELPC is the Midwest's leading environmental advocacy organization. We see accelerated investment in clean energy resources, especially renewable energy and energy efficiency, as critical for states to develop robust new job sectors, mitigate rate increases due to over-reliance on expensive and rising baseload plants, and play productive roles in dealing with such continuing challenges as climate change and air & water pollution.

We particularly focus our comments on the rationale for awarding differential shareholder incentives for different clean energy resources. There are other topics that we did not raise that we hope to raise in a future comment period.

I. Clean Energy Resources Undefined

Reference: Section 4(a)(15) A source, technology, or program approved by the commission and designated as a clean energy resource by a rule adopted by the commission under IC 4-22-2.

Comment: IURC should provide explicit environmental and carbon life cycle criteria for determining eligible new clean energy resources, as the legislative intent explicitly notes the importance of these attributes to clean energy resources: “SB 251’s goal is to encourage the use of clean energy sources that are lower-carbon and less polluting than traditional coal-fired power plants.” SEA Bill Author Senator Gard in the *Fort Wayne News Gazette (Bill pushes energy options besides wind, Fort Wayne News Gazette, May 10, 2011) http://www.journalgazette.net/article/20110510/EDIT05/305109976/-1/EDIT01*

Also, there is precedent for providing environmental criteria in Indiana utility statutory law, as seen in IC 8-1-8.7-1, "Clean coal technology" Sec. 1. As used in this chapter, "clean coal technology" means a technology (including precombustion treatment of coal): (1) that is used in a new or existing electric generating facility and directly or indirectly reduces airborne emissions of sulfur or nitrogen based pollutants associated with the combustion or use of coal; and

II. Rate Impact Test

Reference: Section 11 (a)(3) approving the application will not result in an increase to the retail rates and charges of the electricity supplier above what could reasonably be expected if the application were

not approved; the commission shall approve the application. If, however, the commission determines that the application does not meet the requirements set forth in this subsection, the commission shall reject the application. The electricity supplier that submitted the application under subsection (a) bears the burden of proving to the commission that the application meets the requirements set forth in this subsection.

Comment: "Reasonably...expected" should be defined as incorporating all foreseeable regulatory risks (carbon, future environmental controls), and commodity risk (e.g. rising coal and uranium prices).

III. Bundled Contracts

Reference: Section 12(e) A participating electricity supplier may own or purchase one (1) or more CECs to meet any of the CPS goals set forth in subsection (a) as long as the clean energy represented by the CEC meets the condition set forth in subsection (c)(2).

Comment: CECs must be bundled with energy contracts in order to count towards the goal, as the legislative intent is to "encourage major investments to improve the environmental quality of generating facilities in Indiana — as opposed to taking those investments and jobs to other states."

(Citation: http://www.in.gov/portal/news_events/67156.htm). Note that previous Indiana utility law allows put an emphasis on actual generation assets, see IC 8-1-2.4-1: "Development of alternate energy production facilities; policy Sec. 1. It is the policy of this state to encourage the development of alternate energy production facilities, cogeneration facilities, and small hydro facilities in order to conserve our finite and expensive energy resources and to provide for their most efficient utilization."

IV. Shareholder Incentives: General Rationale for Differentiation

Reference: Sec. 13. (a) The commission may establish a shareholder incentive consisting of the authorization of an increased overall rate of return on equity, not to exceed fifty (50) basis points over a participating electricity supplier's authorized rate of return, whenever the participating electricity supplier attains a CPS goal set forth in section 12(a) of this chapter.

Existing Indiana utility law and the legislative intent of SEA 251 put an emphasis on promoting new generation, and these are the foundational bases for providing differential incentives for differential types of technologies.

-*Existing utility law*: IC 8-1-8.8-1(a)(2) states that "The development of a robust and diverse portfolio of energy production or generating capacity, including coal gasification and the use of renewable energy resources, is needed if Indiana is to continue to be successful in attracting new businesses and jobs.

-Legislative intent, as seen in this editorial written by Sen. Beverly Gard, author of SEA 251. "Our legislation encourages major investments to improve the environmental quality of generating facilities in Indiana — as opposed to taking those investments and jobs to other states." http://www.in.gov/portal/news_events/67156.htm

IV. Shareholder Incentives: Rationale based on long-term reasonable cost

Reference: Sec. 13. (a), as above.

Comment: IURC's mission is to "assure that utilities and others use adequate planning and resources

for the provision of safe and reliable utility services at *reasonable cost*" (*italics* added). (http://www.in.gov/iurc/2451.htm). Given this mission principle of "reasonable cost," the Commission should provide higher shareholder incentives to those clean energy resources that lower long-term costs. More specifically, the Commission should provide higher incentives to those resources that:

- Mitigate regulatory risk
- Have minimal fuel cost risk
- Contribute to peak power production or peak power shaving

We elaborate on each of these points below:

Mitigating regulatory risk

When evaluating shareholder incentives for compliance with various clean energy resources, the Commission should award higher incentive to those resources that reduce the utility's exposure to foreseeable and potential environmental regulations, or that reduce societal and health impacts. We know such as resources as certain types of [4(a)(5) organic waste biomass, 4(a)(9) Energy from waste to energy facilities, including energy derived from advanced solid waste conversion technologies, and 4(a)(17) a clean energy project described in IC 8-1-8.8-2(1)] have additional societal and health costs that are not factored in to the cost of the generation.[1] In addition, some technologies allowable under the law will experience further environmental regulation in the coming years. The U.S. Environmental Protection Agency is in the process of writing and/or finalizing rules for the regulation of criteria pollutants across state borders, hazardous pollutants, greenhouse gas emissions, thermal emissions into waterways, among other regulations. Most renewable energy technologies are not subject to these regulations because they have no fuels and therefore no emissions. Those technologies that do have fuels (biomass, anaerobic digestion) have limited exposure. Therefore, higher shareholder incentives should be given to those technologies that have no environmental regulation and those that limit health cost exposure.

Minimizing Fuel Cost Risk

Similar to incentivizing clean energy resources that are not subject to extensive EPA regulation, the commission should also extra weight on resources that limit the utility's exposure to fluctuating fuel costs. In the last ten years demand for natural gas and coal from domestic and foreign sources has caused prices to fluctuate wildly[2][3][4], and while prices may be more stable in the future, nothing guarantees stability. Likewise uranium prices have quadrupled in the last ten years. (7) Renewable energy projects have a known fuel cost (zero) and therefore a known generation cost for the lifetime of

---

[1] Environmental Law & Policy Center. Dominion Resources' "Unpaid Health Bills": The Hidden Public Costs of Soot and Smog From the State Line Coal Plant on the Chicago-Northwest Indiana Border and on the Shore of Lake Michigan

[2] http://www.eia.gov/totalenergy/data/annual/txt/ptb0708.html

[3] http://www.eia.gov/dnav/ng/hist/n9190us3a.htm

[4] http://www.eia.gov/cneaf/nuclear/umar/summarytable1.html

the project. This kind of stability should be prioritized when comparing technologies.

Contribute to peak power production or peak power shaving

Higher incentive should be awarded to technologies that reduce the utility's exposure to fluctuating fuel costs, are not subject to foreseeable environmental regulations, or contribute to peak power production or peak power shaving, or have added grid value. Earlier we discussed fluctuating fuel costs and environmental regulations, so this comment will focus on peak power production and grid value. Distributed generation projects have additional benefits that are not captured when comparing these projects to other generation projects on a cost basis. In particular, distributed generation should be evaluated by taking into consideration the following quantifiable monetary benefits: distributed generation does not need to be transmitted therefore reduces pressure on transmission lines, it does not experience line loss as other transmitted central distribution projects do, it reduces strain on the distribution grid, it can be used in times of grid instability to retain some level of power delivery, and most importantly for distributed solar generation it produces power at peak times thus reducing the need for peak power purchasing[5]. All of these reasons, combined with lack of fuel insecurity and need for environmental regulation, make distributed generation projects more valuable than their centralized power counterparts. As a result, additional incentive should be awarded to utilities that prioritize distributed generation projects.

IV. Shareholder Incentives: Comments on Specific Resources

Several eligible clean energy resources are not strictly "clean" from the vantage point of peer-reviewed science:

Section 4(a)(5)(B) "Agricultural wastes and residues" may lead to lower soil health. A 2010 study found that when 50% or more of crop residue was removed from the soil there were not only negative consequences for soil structure, but also soil organic carbon sequestration reduction, an increase of water erosion, and reduced nutrient cycling and crop production.[6] In terms of air pollution, crop residue burning releases a large amount of C02. Burning crop residue for electricity releases twice as much CO2 than a sequestration process would.7

Section 4(a)(5)(B)(ii) "Forest thinnings" may harm forest health. Forest thinning can reduce soil fertility at the source--leaving thinnings onsite to decompose helps to replenish soil nutrients.[8][9]

---

[5] Richard Perez, Ken Zweibel, and Thomas Hoff. Solar Power Generation in the US: Too expensive, or a bargain? Attached as solval.pdf

[6] Blanco-Canqui, Humberto. "Energy Crops and Their Implications on Soil and Environment." *Agronomy Journal* 102.2 (2010): 403-19. *Flux Farm*. 4 Jan. 2010. Web. <http://www.physics.uci.edu/faculty/2002-To-Bury-Benford_Hoff.pdf>.

[7] Benford, Gregory. "To Metzger, Robert A. Hoffert, Martin I.." 09042002. Netherlands: Kluwer Academic Publishers. 2002. 1-6. http://www.physics.uci.edu/faculty/2002-To-Bury-Benford-Hoff.pdf.

[8] "Report: Environmental Effects of Forest Biomass Removal" *Office of State Forester, Oregon Department of Forestry.* 26 Nov. 2008. 22 March 2011. http://www.oregon.gov/ODF/PUBS/docs/ODF_Biomass_Removal_Effects_Report.pdf?ga=t

[9] Our thanks to DePauw University's DEPP for providing commentary and citations, used here, related to biomass as a

Hoosier Environmental Council 3951 N Meridian St., #100 Indianapolis, IN 46208	Environmental Law and Policy Center 35 East Wacker Drive, Suite 1600 Chicago, IL 60601

Section 4(a)(12) "Coal bed methane" may lead to groundwater contamination. Section 4(a)(5)"Waste heat recovery..." may promote increased use of conventional coal-fired boilers. We will provide documentation on these technologies in a future comment period.

And at least three resources do not justify having any financial incentive under the VCEPS.

Section 4(a)(16) Demand side management or energy efficiency initiatives. These resources are already incented under the existing DSM order.

Section (4)(a)(17). Clean coal projects are already provided incentive in IC 8-1-8.8-11(a), and so giving additional incentives would not be appropriate. "Incentives for clean energy projects; application to commission; commission's time for determining elegibility

Sec. 11. (a) The commission shall encourage clean energy projects by creating the following financial incentives for clean energy projects, if the projects are found to be reasonable and necessary:

(1) The timely recovery of costs and expenses incurred during construction and operation of projects described in section 2(1) or 2(2) of this chapter.

(2) The authorization of up to three (3) percentage points on the return on shareholder equity that would otherwise be allowed to be earned on projects described in subdivision (1).

(3) Financial incentives for the purchase of fuels or energy produced by a coal gasification facility or by a nuclear energy production or generating facility, including cost recovery and the incentive available under subdivision (2).

(4) Financial incentives for projects to develop alternative energy sources, including renewable energy projects or coal gasification facilities.

(5) Other financial incentives the commission considers appropriate."

Section (4)(a)(21) Electricity that is generated from natural gas at a facility constructed in Indiana after July 1, 2011, which displaces electricity generation from an existing coal fired generation facility.

If a utility is, by court order, mandated to repower a coal plant to natural gas generation, it would not be appropriate to award them by either participation in the goal program or by additional basis points. This would be analogous to giving a credit to someone's account at the Indiana Bureau of Motor of Vehicles for the amount of his or her speeding ticket.

We appreciate your attentiveness to our brief comments, and would welcome elaborating our points and providing further documentation.

Sincerely,

Jesse Kharbanda
Hoosier Environmental Council
jkharbanda@hecweb.org

---

part of a collaborative project with HEC.

Hoosier Environmental Council 3951 N Meridian St., #100 Indianapolis, IN 46208	Environmental Law and Policy Center 35 East Wacker Drive, Suite 1600 Chicago, IL 60601

Sarah Wochos
Environmental Law and Policy Center
swochos@elpc.org