

Nov 15, 2013

Re: Docket A-130355 Rulemaking to Consider Possible Corrections and Changes in Rules in WAC 480-07, Relating to Procedural Rules.

Title: Response to Commission's Questions at Nov 14 IRP Rules Meeting.

From: James Adcock

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Below please find my understanding of the questions Commission was asking at the Nov 14 Open Meeting, and inviting response to:

Is the IRP a legal requirement of Washington State Law?

Yes.

Does the Commission have a responsibility to enforce legal requirements?

Yes.

Is this a requirement of the ratepayer community?

No – it is a requirement of the Commission to enforce the laws and regulations of Washington State.

Is there a legal requirement to include the cost of environmental damages, including CO2 pollution damage costs [Social Cost of Carbon], in the IRP design of utility electrical systems?

Yes.

Are utilities doing so?

No.

Does Commission have a legal responsibility to *reasonably* protect the environment to the best of their ability, including minimization of CO2 damages?

Yes.

Does Commission have a responsibility to the state CO2 goals of "1990 levels by 2020?"

Yes. Commission must actively consider what they can do towards meeting this goal, including directing utilities to make reasonable and cost effective decisions towards these goals. “Lowest *Reasonable* Cost.” Not “Lowest Cost with *Unreasonable* Environmental Damages.” And not “Lowest possible environmental damages at *Unreasonable* system costs.” Rather, reasonable and well-reasoned engineering design trade-offs, representing the best engineering and scientific knowledge of our day, including our best current understanding of the costs of CO2 damages to human society.

What should ratepayers do about this, given the language which states that utilities cannot be sued?

The ratepayers shouldn't have to do anything, because it is the responsibility of Commission to regulate, it is not the responsibility of ratepayers. Given that the explicit lack of the opportunity for ratepayer organizations to sue utilities over IRPs keeps ratepayers from taking the lead in this area, more than in any other area this forces the responsibility on Commission to take the lead, and to act affirmatively to protect the rights of ratepayers, which includes the right to be free from unnecessary and excessive environmental damages. Commission already has traditional and effective powers to regulate utilities, including substituting their own judgment for that of utilities, when the utility's judgments are found to be lacking, and including punitive reduction in recovery when utilities are not acting in the best interests of ratepayers, and human society. The Commission has effective means to enforce, and has a responsibility to do so. In other areas Commission can afford to play “man in the middle” adjudicating between (say) the environmental organizations representing the environmental interests of ratepayers, and the utilities on the other side. But this is a case where Commission cannot pay “man in the middle” but must act affirmatively of its own volition to protect the interests of ratepayers, current and future, to have well-designed, thoughtful, long-lived, and cost effective utility system designs – both in terms of immediate utility rates, but also in terms of the long-term costs of environmental damages on future ratepayers – our children and our grandchildren. These damages include risks to their lives, and to their livelihoods, and to their PNW lifestyles. And further to allow ratepayers to have an active voice in the design of utilities in order that those designs actually meet the needs and desires of their communities, cities, and counties, working together with these communities to meet common goals, rather than working against these communities to actively tear down the environmental goals that these communities are working to achieve. It does not work to have communities working – and paying – to preserve the environment at the same time utilities are asserting unilaterally monopoly powers to turn around and destroy these environmental investments in future generations. Utilities must actually serve their ratepayer communities, cities and counties, today and in the future. In all regards, not just “lowest rates.” It is the legal responsibility of Commission to make sure that they do so.

What should Commission do if presented with a “Bad IRP?” A flawed IRP, one which does not effectively include public participation, for example, or one which misrepresents engineering or scientific data. Or one which ignores environmental damages?

Commission should order immediate corrective action of the utility. Commission should require a “redo.” Commission cannot simply keep letting utilities “slide-by” two years at a time – because delaying repairs to problematic design elements is a primary goal of the utilities in the first place! Problematic designs need to get fixed now. Utilities cannot be allowed to continue to “slide down the garden path.”

We found out the hard way in WPPSS that letting bad decisions slide is a disaster! That is the whole point of the IRP – to keep bad design decisions from continuing to “slide down the garden path.”

Further, when a utility submits a “Bad IRP” Commission should affirmatively “reject” that IRP – explicitly put the utility on notice that the utility is putting into jeopardy future RFP, Rate Cases, and project decisions. Commission should put utilities explicitly on notice that when they submit a “Bad IRP” they are inviting Commission to substitute Commission judgment for that of the utility, and that Commission is likely to do so. And Commission should require immediate “IRP Redo.” The IRP is part and parcel of the engineering design of utility. A flawed engineering design must be fixed. It cannot be allowed to continue to “slide down the garden path.” To do so is to invite economic and environmental disaster – both of which represent unnecessarily high costs to ratepayers and future ratepayers. When utilities refuse to exercise good judgment in support of their ratepayer communities, then Commission must substitute its own judgment. That is part and parcel of the job of the Commission.

What happens if Commission ignores “Bad IRPs?”

Effectively you are just moving a “train wreck” into other even more painful parts of the regulatory process, where environmental and ratepayer communities have to take legal action at each RFP, Rate Case, facilities siting, etc. etc. It is much less painful and much less intrusive to “vet” these issues through the IRP process ahead of time, so that utilities can consider whether or not they are reasonably meeting the needs of their ratepayer communities, or not. If not, then the utility – and the Commission – can fairly expect a “train wreck” moving forward in other areas of the regulatory process!

What is an IRP anyway?

An IRP has several meanings. This discussion includes *all* those meanings including: a) an IRP is the honest planning process which a utility conducts internally in preparation for b) holding ***bi-directional*** honest communications among stakeholders in the ratepayer communities which that utility serves in order to vet how successful – or not – the ratepayer communities consider that plan to meet their needs and desires – desires which includes low rates *and* low environmental damages and c) the honest paper document submitted to Commission for their review and consideration. The IRP then provides a context for the Commission to consider RFP proposals, purchases, builds, rebuilds, and also retirements. The IRP provides the context which allows Commission to consider whether or not a proposed addition, or retirement, from a utility’s entire portfolio of generating assets makes sense – or not. Everything built by man must be some day retired. Building a system where you do not know when or how to retire and successfully recycle all elements of that system is unconscionable engineering design! Leaving behind unrepairable environmental damages is unconscionable engineering design. We simply do not design and build engineering systems this way today!

Consider a simple hypothetical situation: Utility proposes to acquire a new peaker plant. Ratepayer community responds “This makes no sense! The utility should be buying a combined cycle plant – which has lower emissions – and further the utility is actually going to be using this as a baseload plant.” Well,

which side does Commission take? You cannot decide, because you do not have the information necessary to make this decisions. A peaker plant could be a good choice. So could a combined cycle. It all depends on how the rest of the system is designed – not just today, but also 20 years from now. You have to have the long-term context in order to make an intelligent and informed decision. You have to have an IRP to look at. That IRP *is* the long-term context. Does this plant fit logically and smoothly into the long-term design of the utility? Or does it not? When you make this decision you had better have an open and honest IRP to compare to – one which has been publicly vetted, so all its warts are exposed [and there will be warts!] and so that utilities cannot simply and unilaterally “fake” the IRP and the data supporting the IRP in order to thereby accomplish the utility’s monopoly goals – which can include excessive current rates, or future rates, excessive and unnecessary current and future environmental damages, or include unfairly gained expansion of sales and/or territory at the expense of other utilities – who are playing fairly and who are honestly, reasonably, and fairly doing their jobs.

The purpose of an IRP is to give an overview of current and future system design of a utility in order to demonstrate to Commission and customers that the utility is designing and operating their system *in all ways* a just and reasonable prudent manner, include internal costs to ratepayers, external costs of environmental damages to society at large, and a design which is highly safe to human life and property. The safety of the electrical system design to all human beings is a paramount duty of the utility. It is not simply (as some utilities would claim) “add whatever power plant costs us the least today, damn the human and environmental costs.” Nor it simply (as some environmentalists would claim) “put a solar panel on everybody’s house and magically make the utilities go away.” Rather it is a case of making *reasonable, honest, and intelligent engineering design tradeoffs* – designing systems which are almost as low cost as possible while at the same time minimizing almost as much environmental damages as possible.

Is it possible to do this? Design a system which is almost lowest cost and at the same time almost as little environmental damages as possible?

Yes it is possible – utilities are simply not currently doing it – not even close.

Further, the history of the IRP plans over time demonstrate a pattern. Does each IRP represent a slow and gradual adaptation of the utility’s system, and system planning, over time? Does the history of IRPs show a well-considered design pattern? Or does each IRP propose a new and unexpected direction – demonstrating that a utility is unable to plan effectively for the future – the utility is stuck “thashing”, making spur-of-the-moment design decisions, always trying to play catch-up? “Failure to plan is planning to fail.”

Further, the IRP acts as an “escape valve” allowing a utility to vet their plans against independent sets of eyes representing the communities which the utility serves, in order to gage community acceptance [or not!] of their plans. An IRP which operates in a monopolistic manner diametrically opposed to the desires of the communities which the utility serves would be a “Bad IRP” plan. Utilities exist to serve human communities. Not the other way around.

A "Bad IRP" would be one that ignores internal costs to ratepayers, or ignores external costs of environmental damages to society at large, or which is needlessly unsafe to any human life or property, today or in the future.

The IRP should demonstrate that facilities are being operated in a legal manner in the state of operation. Commission should order immediate corrective action of a utility which is operating facilities in an illegal manner – no matter what state those operations are in.

An IRP should truthfully represent the actual future plans of a utility as best currently known. An IRP if submitted – and then the utility engages immediately in a course of action diametrically opposed to the IRP plan submitted to the ratepayer community – would not represent a honest IRP, but rather a deliberate falsification to the ratepayers, and to the Commission. When a utility lies to ratepayers and Commission this demands immediate and stringent corrective action by the Commission.

Safe and Sane -- meaning not unnecessarily risky or damaging to human life or property, no matter where that human is living, or that property is residing, nor whether or not that human is a customer of the utility, or even a resident of Washington State. It is not a question of being completely safe at any cost, nor is it a question of being as-completely-cheap-as-possible while ignoring safety. It is a question of making reasonable, and informed, engineering trade-offs, using real, factual, engineering, financial, and environmental data. Not considering the issue of safety, or not considering the issue of costs -- either mistake would represent a "Bad IRP" design. Falsification or introduced biases in engineering or scientific data represents "Bad IRP" design.

Least-damaging to environment: The utility should show reasonable, well-reasoned and concrete commitment to minimizing environmental damage at low cost to customers. It is not a question of avoiding environmental damage at any cost to customers, nor is it case of completely minimizing rates to customers while completely ignoring or denying how much environmental damages you are causing. Again, it is about making reasonable, and informed, engineering trade-offs, using real, factual, engineering, financial, and environmental data – using best unbiased current engineering and scientific data and understanding.

How should utilities – and Commission – evaluate whether a facility makes a reasonable engineering design tradeoff between rates and environmental damages?

Very simply you add the environmental damage costs to all the other operating costs of a facility to arrive at an estimate of the total – internal and external – operating costs of the facility. If the combined costs are not reasonably total minimal cost, then operation of that facility does not represent an appropriate engineering design decision. The environmental damage costs are often taken to be simply the CO2 costs "Social Costs of Carbon". Best current scientific estimates should be used. For example current EPA central estimate CO2 damage costs are currently about \$45 / ton CO2 (and rising). So for say a natural gas plant emitting ½ ton CO2 per megawatt, this is an additional \$22.50 per megawatt of costs which should be added to the plant operational costs, which should be used in deciding whether or not that plant represents the best societal engineering design choice, or rather whether that plant represents an inferior design choice when compared to other design choices (which in turn need also to

include their own environmental damage costs). Please note that these environmental damage costs exist whether or not an additional state or federal law or regulation imposes a tax, fee, or regulator shadow cost. Environmental damage costs represent real costs to human society. Taxes and fees do not represent real costs to human society – rather they represent economic transfers.

Should ratepayers and organizations be granted reasonable access to the internal engineering design information of a utility?

Well, how are ratepayers and organizations supposed to respond when a utility states that their design costs (for a particular generating facility) are literally 5X larger than other public engineering design studies? I think the response is obvious and immediate: “We don’t believe your costs are actually 5X larger than these other public engineering design studies – please show us your internal data to back up your claims, or else retract your claims!” But what is happening now is that the utility says “Too bad, you simply have to accept our [unreasonable] IRP claims and we are simply not going to show you our data! [if there even were any such data in the first place!]

Are utilities currently making reasonable IRP designs and engineering tradeoffs to minimize needless and excessive environmental damages when they can so at a reasonable rate cost to ratepayers?

No they are not consistently doing so. Some are to some extent. Other utilities are openly hostile to *ANY* consideration of environmental damages in their engineering and IRP designs. When a utility sets their central estimation of CO2 damage costs to \$0 / ton – that estimation upon which they base their actual system design – then that utility is stating that they are openly hostile to *ANY* consideration of environmental damages in their engineering and IRP designs.

Sincerely,

James Adcock, Electrical Engineer, Ratepayer, IRP participant.