

Deluge, Inc.



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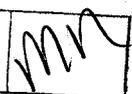
February 11, 2008

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Arizona Corporation Commission
DOCKETED

FEB 12 2008

RE: Deluge, Inc. Comments for the Resource Planning Rules
Docket No. E-00000E-05-0431

DOCKETED BY 

Dear Madam or Sir:

Deluge, Inc. is providing comments on the Resource Planning Rules proposed.

If you have questions, please call Brian Hageman at 602-431-0566

Sincerely,



Brian Hageman, CEO
Deluge, Inc.

Introduction:

The PURPA standards and The Energy Policy Act of 2005 are federal measures that will lead to deregulation of the current monopoly held by electric utilities. Customer choice is the goal and all ACC rulemaking should be directed towards this end. Full deregulation of the electric utilities has many difficult challenges, and may take another ten years to implement, but progress has been made, and through continuation of adjustments in ACC rules we will reach the desired benefits of an open free market in the electric business.

The ACC must act with confidence that the future of electric generation can provide for Arizona's population and also provide electricity that does not pollute the planet with unhealthy atmospheric damaging discharges. Many advocates for renewable energy have helped to cause change in rulemaking, but economic sense must be considered when dealing with such a large industry. The electric utility industry supplies a vital economic resource that must be maintained in the highest standards available for reliability and safe operation.

Our industrial age grandfathers who started building the electric infrastructure that exists today did not fully understand that sustainability would become a concern, and that industrial age technologies would only play a temporary role in the evolution of our energy economy. Technology is always advancing incrementally or occasionally disruptively through advances in mechanical and chemical engineering and the ACC should anticipate technology advances in all rulemaking being considered. The corporations and municipalities that rely on old technologies must understand the technology upgrades are a part of life in the energy industry as well as the more visible advances we have seen in electronic engineering. Being held back by industries that rely on the past must be challenged at every opportunity in order to promote change.

The obvious target of everyone's concerns is "fossil fuels", appropriately named for its ancient presence on earth, and is the root cause of the discussions we have today in a society overwhelmed by pollution by the burning of these carbon based fuels. Economies worldwide have become strained with exploration and production of carbon based fuels and we are now completely captive to the 'addiction' created by last century's technologies. We don't have a choice, which is contrary to the human desire of a free market economy. We are tethered by monopoly fuels that supply our daily lives and we demand a change in our energy future.

Many utilities now embrace change, but the immense nature of our energy industry is daunting, and planning outside our status quo seems impossible, but we know that change will come. Opportunity has been knocking at our doors for many years and we finally need to take the appropriate steps to insure a clean and safe world for future generations, even if it means a total modernization of the way we produce, monitor, and regulate the energy in our lives.

Our current energy infrastructure is old, even in Arizona we see pipes and wires strained to capacity, occasionally brought down by weather or man made errors that affect large sections of our population.

Fuel Sources/Fuel Diversity:

The existing companies in the electric business will present "diversity" as described in PURPA and EPACT 2005 as necessary, but what we need to be talking about is replacement, not just diversity. Diversity allows utilities the ability to get used to alternatives, but the goal should be total replacement of fossil fuels as a resource. In the next twenty five years, replacement of all fossil fuel generated electricity is completely possible, and our resource planning should be directed at this goal.

The first step in resource planning is to distinguish between "base load" power plants and "peaking" plants. In a perfect world, we should not have "peaking" plants in the mix of power available to the grid. Base load power plants should provide full capacity twenty four hours a day and allow dispatch operators a full normal operating load supplied with reliable safe electricity. Peaking plants came into existence only because our base load power plants could not supply the needs of afternoon hot summers when customers with air conditioning use more electricity than the utility could generate. The intention of a central electric power system is that the base load plants are designed to provide 100% of the electric needs you the captive customers. Base load systems should be available for peak requirements, and to provide a reserve of back up power for emergencies. This means overbuilding the base load power plants capabilities in a prudent fashion.

Short term peaking requirements of the utilities that don't own generation for 100% of their customers needs will continue for the next 10 years or so, but long term goals should insure base load plants supply 100% of their customers needs.

Free Markets:

The "new fuels" will be selected through free market decision processes. The desired convergence from fossil fuels will determine the pace. The goal should be a continuous decrease of use of fossil fuels towards zero.

Nuclear power may be the only short term technology to achieve the massive quantities of fossil fuels being consumed by power plants. Converting fossil fuel power plants to nuclear plants at the same site should be allowed by regulators. The increased security can easily be maintained at existing fossil fuel plants. The heat produced in nuclear technology could be used in further technologies with combined heat recovery technologies to increase efficiency of the plant.

Another short term baseload resource is efficiency increases in existing fossil fuel plants. This investment might be considered short term if the plant is scheduled for shutdown, but co-generation power can substantially increase power output, and decrease the carbon output per megawatt from the co-gen system. There are many co-

generation systems that could be built in industry besides at electric generation plants. Some industries that use natural gas emit more potential power from the smoke stacks than the industry consumes. Heating of raw materials is essential but there is a massive amount of BTU's that go unused.

The Renewable Energy Standard & Tariff needs to recognize "efficiency" as a fuel and allow credits to utilities that have customers that install these demand side management types of equipment. The "white credit" term has been used around the country for efficiency upgrades and can provide more incentive to customers that might get a rebate from the utility that is allowed to spend money for portfolio standards requirements. White Credits or White Tags have the potential of being traded on an exchange by customers or the utilities, depending on ownership of the equipment.

Geothermal energy in Arizona is available and could become the true baseload replacement for all of our energy needs. Geothermal energy is proving itself in private markets and needs to become a serious contender in the future fuel mix. The advantages are beneficial and the costs will compete with traditional baseload facilities.

The electric grid in Arizona is the only part of the electric generation system that needs to remain a monopoly. The transmission lines should be an open and free market but a central government regulated enterprise. The substations and distribution lines need to be open to all businesses that want the opportunity to work in the electric marketing to customers. Residential customer choice is required in a free market society and multiple companies must have the right to enter markets as they choose in any electric market.

Co-ops and other non-profit companies in the electric business:

"Co-ops" need to be privatized and sold into the energy economy. These monopoly segments of the grid are a complete detriment to free markets. The coops have constantly defied ACC determination and don't belong in business. Non-profit organizations should not be allowed in the electric industry and should not be part of any future planning process. The phase-out of all non-profit entities in the state is beyond the reach of the ACC, but a method can be devised by the ACC to deal with the unneeded co-ops under the ACC's jurisdiction.

Summary:

The ACC needs to work in concert with other branches of Arizona government. The Governors office has carbon reduction desires that can easily be blended into the RES&T. This would require a shift in some ACC direction to utilities based not only on increases in renewable energy but also reductions in carbon emissions. The State legislation is considering carbon reduction legislation that would affect all electric utilities in the state, so the ACC needs to implement any state law that might take effect in the future.

The ACC is also affected by federal agencies in the country such as FERC and the DOE. There is a good alliance in the western states and the regional approach is good, but federal rules will affect all state lawmakers including the ACC commissioners.

Resource planning in Arizona has always been dependent on import of fossil fuels. Our reliance on nuclear fuel is not as visible because refueling is merely a mechanical function, not a pipeline constantly flowing with fuel. Increasing the nuclear power in the state would be very beneficial as long as the majority of the electric power developed from new nuclear stays in the state.

Allowing the free markets to operate is essential. The deregulation process must continue in Arizona to relieve captive customers from monopoly companies in the electric industry.