

# An Introduction to Restructuring of Electricity Markets Published October 2013

#### The Essentials

- The electric utility industry has in the past typically been a monopoly with a few utilities in a particular geographical area that generate, transmit and distribute electricity.
- Recently, the Arizona Corporation Commission (ACC) had <u>opened up discussions</u>
  to decide if Arizona should restructure the electricity market and allow
  competition (also referred to as retail competition or deregulation) or maintain its
  current regulated structure.
- Restructuring the Arizona electricity market would have allowed consumers to choose among a variety of energy suppliers in a competitive market based on prices and services.
- The stages of generation of power, transmission and distribution would be independently operated by competing power companies.
- On September 11, 2013, the ACC voted 4-1 to end the discussion on retail electric competition in Arizona, reasoning that there were several constitutional hurdles.
- However, the ACC kept open the potential for discussion about other changes to Arizona electricity markets.

#### **Utilities and electricity markets basics**

A utility maintains infrastructure and an associated service for the public, such as electricity or water. Due to high infrastructure costs, it has typically been less expensive for utilities to provide service to a large market<sup>1</sup> in a defined geographical area, called the service area or franchise territory, and to conduct business as a natural monopoly. The electricity service in Arizona is provided by vertically integrated utilities, federal power generators, and several smaller generation and distribution operators. A vertically integrated utility owns each level of the system from generation to distribution and retail delivery.

In order to protect the public interest and keep prices fair and reasonable for consumers in areas serviced by a natural monopoly utility, utilities are regulated at both the state and federal levels. Federal regulators oversee wholesale transactions between states (transmission of electricity from the source to the distribution center) while state regulators are responsible for transactions and issues at the consumer level such as retail rates and service quality.

### What is market restructuring?

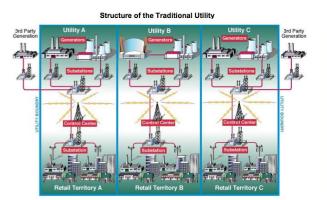
Market restructuring means that energy is no longer a monopoly commodity; customers can choose among a variety of energy suppliers in a competitive market based on prices and

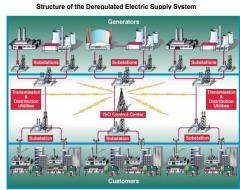
<sup>&</sup>lt;sup>1</sup> http://www1.eere.energy.gov/femp/pdfs/primer.pdf



services. It unbundles utilities to have multiple companies operating at the stages of generation, transmission and distribution. Deregulation can be implemented to different extents. Deregulating the wholesale market implies that large quantities of high voltage power can be bought and purchased. If the retail market is deregulated, the end consumer can choose the utility that generates the electricity. There are tradeoffs in deregulated markets, however. In particular, regulators are not authorized to set specific electricity rates and therefore cannot ensure fair and reasonable pricing.

Fig. 1. A comparison of traditional and deregulated electric supply systems<sup>2</sup>





A Comparison of the structures of traditional and deregulated electric supply systems. In the traditional system, although the utility may purchase power from neighboring utilities, it is primarily responsible for its own generation, transmission, and distribution of power to all of the retail customers in its service territory. If it is large enough it will have its own control center. In the deregulated supply system, generation and distribution are unbundled and customers are no longer captive but are free to purchase from any suppliers on the grid. Purchasing of power is done via market mechanisms like the power exchange and transmission scheduling is conducted by the Independent System Operator (ISO).

## Current status of electricity markets in Arizona

Arizona Public Service (APS) and Tucson Electric Power (TEP) are investor-owned utilities (IOU) with shares publicly traded on the stock market. They are regulated by the Arizona Corporation Commission (ACC). The ACC sets APS's and TEP's rates, and is constitutionally

<sup>&</sup>lt;sup>2</sup>U.S Dept. of Energy, "A Primer on Electric Utilities, Deregulation, and Restructuring of U.S. Electricity Markets," May 2002. Retrieved from: http://www.osti.gov/scitech/biblio/15001013

 $<sup>{}^3</sup>http://www.azcentral.com/business/arizonaeconomy/articles/20130322 deregulation-on-the-upswing.html$ 

<sup>4</sup>http://www.energychoicematters.com/stories/20130510a.html

<sup>5</sup>http://www.electricchoice.com/electric/electricity-choice-moving-forward-in-az/

<sup>&</sup>lt;sup>6</sup> http://wpcarev.asu.edu/seidman/ccpr/PDFs/electric.pdf

<sup>&</sup>lt;sup>7</sup> http://www.hks.harvard.edu/hepg/Papers/2009/Opening%20the%20Grid-edit.pdf

 $<sup>{}^8\, \</sup>underline{\text{http://www.azcentral.com/arizonarepublic/business/articles/20110320arizona-electric-industry-deregulation.html\#ixzz2Xdd3j79p}$ 

<sup>9</sup>http://americanhistory.si.edu/powering/dereg/dereg1a.htm

<sup>&</sup>lt;sup>10</sup>http://www.competecoalition.com/press kit/fag

<sup>11</sup>http://www.eastvalleytribune.com/money/article e157a4d8-1bfd-11e3-81b9-0019bb2963f4.html



mandated to ensure that those rates are fair and reasonable for consumers while also allowing the utilities a return on investment on their generation and transmission assets.

## Why was Arizona recently considering market restructuring, and what did they decide?

In May 2012, the ACC approved a four year<sup>2</sup> market <u>restructuring pilot test</u> for APS' large customer class (e.g. large hotels, manufacturers).<sup>3</sup> One of the retail electricity companies participating in the pilot, Direct Energy Services, LLC, applied for a Certificate of Convenience and Necessity (CC&N)<sup>4</sup> with the ACC in May 2013 to expand beyond the pilot program.<sup>5</sup> Also, the ACC had issued a call for public comments on restructuring (Docket number <u>E-00000W-13-0135</u>). There was considerable interest from out of state companies interested in participating in Arizona's electricity market but also opposition that fears that the benefits may not apply to all types of consumers.

On September 11, 2013, the ACC voted 4-1 in favor of ending the deregulation discussion due to concerns about the constitutionality of implementing that type of regime in Arizona (See "History of market restructuring in Arizona" timeline below for more information about the constitutionality issue).<sup>3</sup>

## History of market restructuring in Arizona

- In 1996, ACC adopted the Retail Electric Competition Rules (A.A.C. R14-2-1601 through 1616. This formed the basis for restructuring.
- In 1998, 32 utilities existed in Arizona: two federal utilities, five investor-owned utilities (such as APS and TEP), 10 cooperatives, and 15 publicly owned utilities (such as SRP). Each of these companies individually provided consumers with electricity generation, transmission, distribution, and metering and billing. In exchange for monopoly status over their respective service territories; they were heavily regulated by the ACC.
- All areas of the state opened to retail competition beginning January 1, 2001. Customers could remain with their distribution utility; choose a competitive supplier or aggregate together to receive service.
- Between 2002 and 2004, Arizona's restructuring process faced problems and the process was suspended in 2004. At the same time, California experienced rolling blackouts and escalated electric bills, caused in part by its recent market deregulation, added to Arizona's concerns. In 2002, the ACC stated, "The wholesale market is not currently workably competitive; therefore, reliance on that market will not result in just and reasonable rates."
- In 2004 the Arizona Supreme Court decided <a href="Phelps Dodge Corp. v. Ariz. Elec. Power Coop.">Phelps Dodge Corp. v. Ariz. Elec. Power Coop.</a>, 207 Ariz. 95, 83 P.3d 573, App. 2004. The Court found that it was the ACC's constitutional duty to set fair rates and that it was a violation of the state constitution for entities other than the ACC to determine electricity rates. The property of the state constitution for entities other than the ACC to determine electricity rates.
- Article 15, Section 3 of the Arizona state constitution allocates the authority to prescribe just and reasonable rates solely to the ACC. Deregulation would lead to rates

<sup>&</sup>lt;sup>3</sup> ACC Staff Meeting archive http://azcc.granicus.com/MediaPlayer.php?view\_id=3&clip\_id=1169&meta\_id=9477



being set by participants in competitive market. The 2004 *Phelps Dodge* decision held that rates set by a competitive market would imply that the Commission is neglecting its constitutional responsibility. Commissioner Stump stated that said that one way to resume consideration of the issue is to ask voters to amend the Arizona Constitution.<sup>11</sup>

- In May 2012, the ACC approved a four-year<sup>2</sup> market <u>restructuring pilot test</u> for APS' large customer class. The ACC also opened up docket to discuss restructuring the electricity markets.
- On September 11, 2013, the ACC legal department advised that the Arizona Constitution, the Phelps Dodge case and various statutes prohibit electricity market deregulation in Arizona.<sup>4</sup> The ACC voted 4-1 in favor of ending the deregulation discussion and closing the docket.<sup>5</sup>

#### **Learn More**

- Arizona: Overview of Retail Competition Plan and Market Response http://www.ftc.gov/reports/elec/appa.pdf
- Audio recording of the ACC Round-Table Discussion on Electric Competition and Related Matters, Special Open Meeting - 09/06/2013 http://www.azcc.gov/divisions/it/streaming/events.asp
- Electric Utilities, Deregulation and Restructuring of U.S. Electricity Markets <a href="http://www.purdue.edu/discoverypark/energy/assets/pdfs/History.pdf">http://www.purdue.edu/discoverypark/energy/assets/pdfs/History.pdf</a>
- U.S. Electric Power Industry context and structure <a href="http://www.aee.net/index.cfm?objectid=D5F40280-64A7-11E1-80C6000C29CA3AF3">http://www.aee.net/index.cfm?objectid=D5F40280-64A7-11E1-80C6000C29CA3AF3</a>
- APS summarizes its responses to ACC deregulation questions
   http://azenergyfuture.com/aps-summarizes-its-responses-to-acc-deregulation-questions/
- Arizonians for Electric Choice and Competition http://www.azelectricity.com/
- Arizona Power Consumers Coalition <u>http://azpowerconsumers.com/</u>

Look out for subsequent brief sheets on deregulation/market restructuring at <a href="http://energypolicy.asu.edu/">http://energypolicy.asu.edu/</a>

<sup>&</sup>lt;sup>4</sup> ACC Staff Meeting archive http://azcc.granicus.com/MediaPlayer.php?view\_id=3&clip\_id=1169&meta\_id=9477