

# **Alberta's Competitive Electricity Market .....Getting to the next Level**

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Good afternoon, thanks for kind intro, Welcome to CERI

Martin Merritt – appointed July 1

What was I thinking? What was the guy who appointed me thinking?

Can't speak for Minister but I can tell you that I am a passionate believer in competition, having spent all of my career (till now) competing in commodity markets and since 1995 right here in Alberta's restructured electricity market. Our market is not perfect, nor will it ever be but we have an excellent foundation and what ails it can best be dealt with incrementally over time.

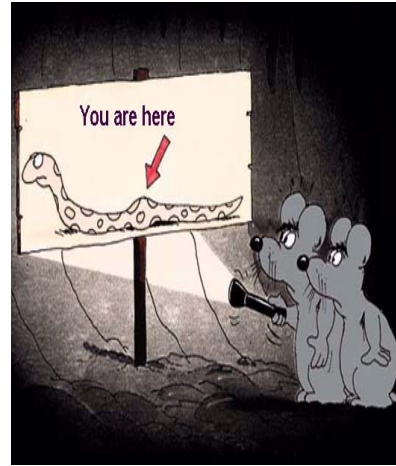
Winston Churchill said about democracy that it was the worst possible way to run a country...."except for all the other ways" Perhaps electricity markets are like democracy, they take work but they're better than the alternatives.

This spring Alberta proclaimed its 3<sup>rd</sup> version of the EUA, the first two dating from 1995 and 1998. The current version makes several important improvements to the responsibilities, jurisdiction and tools of the MSA. (this is the first job I ever had whose job description is codified in Statute) We are specifically charged with exercising our prerogatives in the pursuit of a fair, efficient and openly competitive market. I like that. Our scope includes retail, wholesale, real time, forwards, the tie lines, all market participants and market operators.

Today I would like to share with you an assessment of where we are and the issues we're going to have to tackle to take fair, efficient and openly competitive to the next level.... But I'd like to start with a little history....

## Ground Zero

- Generation 60/20/20%
- 3 Vertically integrated utilities
- 3 municipal discos
- EEMA
- Genesee debate



*Been there, done that, don't want to go back!*

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Slide 2

Its not that I'm a history nut (although I am) but I'm frequently surprised by the nostalgia for regulation (at least in Alberta) in view of the role that its workings played in the birth of **deregulation!**

In 1995 when the first EUA was passed the generation market shares were about 60/20/20 for Transalta, Epcor, Atco respectively, in addition to those 3 vertically integrated utilities the Cities of Calgary, Red Deer and Lethbridge had their own civic regulated distribution companies.

To get to the **real genesis** of deregulation however you have to go back to the mid 80's, the Electric Energy Marketing Act (EEMA) and the debate that surrounded the permitting and inclusion into rate base of the Genesee generating station.

As the debate of the day went (depending on whether you lived in Calgary or Edmonton) Genesee was imminently needed and the next logical project for the regulators (ERCB + PUB) to approve

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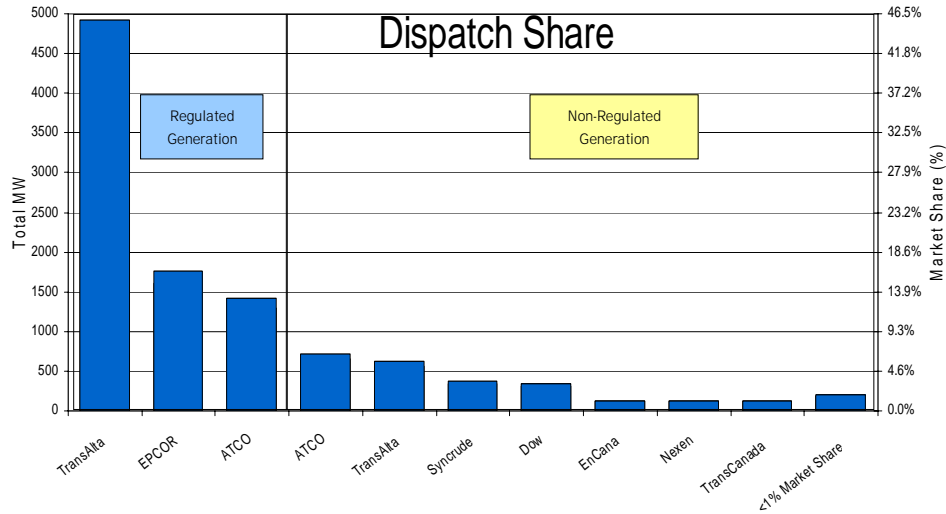
Was at best premature and at worst unnecessary, why should it be built by Epcor a company with less coal experience than either of the other 2 vertically integrated utilities?

There were cost elements to the debate but the real vitriol was reserved for the **risk issue** – why should provincial rate payers underwrite the risk of a prebuild by Epcor? The flames were of course well fanned by the other 2 integrated utilities who realized that their hopes to get the next billion into rate base would be lost if Genesee were to proceed..... And proceed it did!

The ERCB approved the plant which Epcor constructed but once complete it was a couple of years (if my memory serves me) before the PUB would allow the second unit into rate base! The ERCB and PUB are of course now merged into the EUB and I am sure that situation would not repeat but I believe its accurate to say that the debate over Genesee almost 20 years ago was the beginning of the end of EEMA and the beginning of the EUA.

I want to show a couple of slides now which will give you a feel for how the competitive landscape has morphed since 1996 when the first EUA took effect. One slide deals with the period before the PPA's (a forced virtual divestiture for our out-of-province guests) the second one shows their impact.

## Pre- PPA (1996 – 2000)



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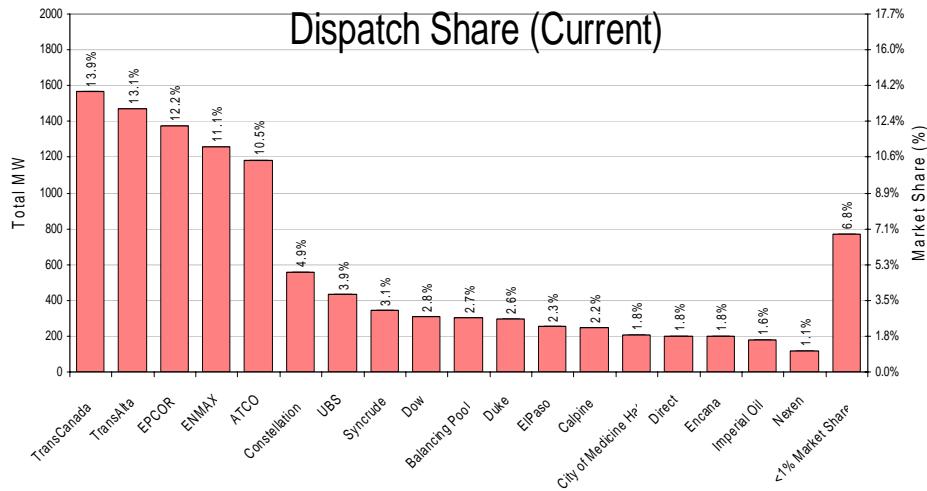
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Slide 3

This first graph shows the asset share of all major generation owners in the province during the Pre-PPA era. On the left you see the 3 regulated, vertically integrated utilities, on the right the unregulated generation – which at the time was all “inside the fence” and unable to sell or transport power to anyone but themselves.

- The first effect of the EUA was to put the generation ratebase on a diet! (regulated generation building halted)
- Rights and obligations to the legacy assets were metered out through Entitlements and Obligations
- Rapid load growth began to eat away at supply overhang
- Deregulated, @ risk building begins in earnest
- PPA's devised and sold in the summer of 2000, 5 new generation players were added

## Post PPA (2001 – 2003)



*Regulated generation could never have produced this picture*

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Slide 4

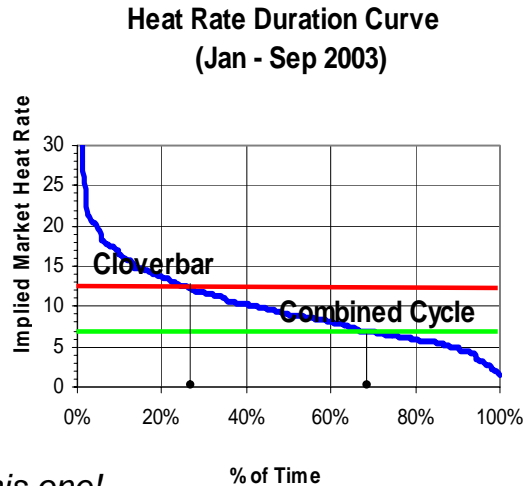
- The PPA's took effect on Jan 1, 2001 (some have been re-traded since initial auction)
- New builds begin to come online
- Many new players
- Incumbents stayed and grew

The chart you see shows the impact of the PPA auction and the merchant construction on the Market share distribution. This has made for a viable and competitive spot market (remember previous slide)

2000 new net MW of new, clean efficient capacity come on in 4 years at no risk to ratepayers or taxpayers – over 2x the capacity of Genesee in half the time with essentially no discord. I don't believe this could have accomplished in a regulated environment.

## Current State - Efficiency

- Last gas fired generation built under regulation has been eclipsed
- Spot prices below new build cost
- Genesee III pending



....or this one!

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Slide 5

We've talked about market shares and speed.... This slide is intended to show results:

HR duration curve....

See old vs new

Even new tech out of money over 30% of time

CB could not even pay for gas cost more than 70% of time.... 7 years before the end of its regulated life!

And the great news for consumers is that with Genesee III right around the bend this curve will have more downward pressure before it goes up

## Current State – Pool Price Setters

- Top 5 account for only 69% of hours vs. 86% in Q2
- Dozens of other participants also set prices

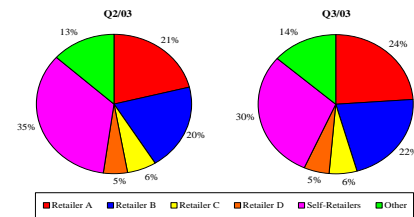
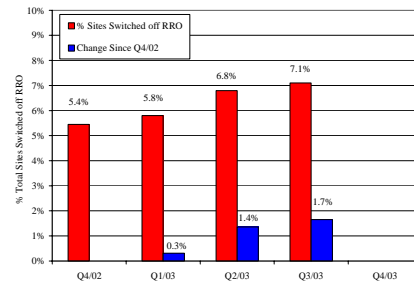


*Wholesale market is well contested*

Key thing to note is distribution of price setters and trend

## Current State - Retail

- About 7% of all retail customers have “gone competitive”
- 3.5% of Residential and 26% of small commercial have switched
- Switching progressing, some are choosing not to choose
- Market shares for retailers show good distribution



Discuss key points from slide

## Getting to the Next Level - Retail

- MSA Role
  - Monitor
  - Keep the field level
  - Adjudicate the code of conduct

So that's the snapshot of where we've come from and the current state of competition....

I would like to now focus on the future talk about what the MSA is doing within its mandate to grease the wheels of progress...

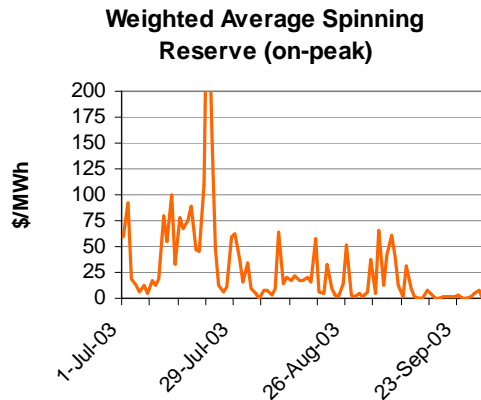
We hope and expect that even though its not very sexy, a segment of consumers will want competitive electricity products. Our job at the MSA is to:

- Ensure the playing field for retailers level
- Monitor and enforce adherence to the Retail code of conduct
- Ensure that the wholesale market from which retailers will buy is as fair, efficient and openly competitive as possible.
- Recently we commissioned an independent firm to conduct a survey of the 4 wire service providers by posing as potential new customers. Calls were made to each of the 4 call centres following one of two basic scripts over a period of 3 weeks.
- More details of the study are available in our current quarterly report which is on our website but the bottom line is that the studies message regarding at least one aspect of retail competition was heartening.
- We found calls addressed in a professional manner with few signs of bias towards the affiliated retailer with most call centres directing the caller to the Alberta Governments Customer Choice Website.



## Getting to the Next Level Ancillary Services

- No misbehaviour
- Prices for a \$20-\$25 product trending to zero?
- Market dominated by Hydro PPA



### Sustainability?

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Slide 9

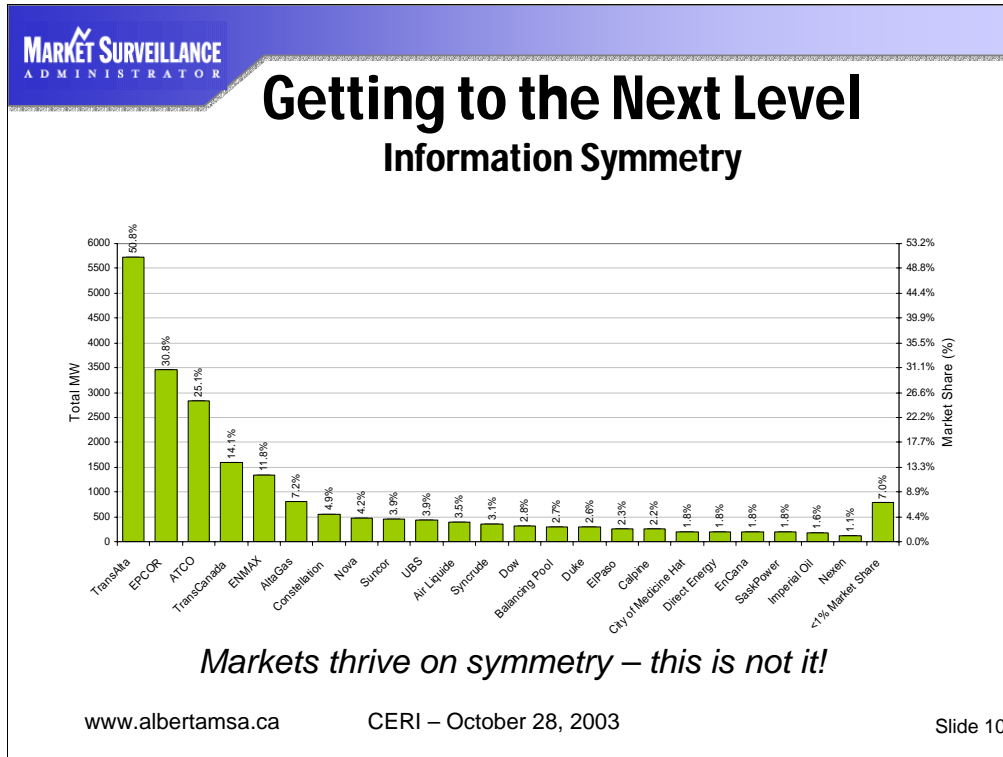
Another area in which we have concern is the AS market. We have no indication that anyone or any firm is doing anything wrong. Ancillary services is a market with several different products bought and sold over several different time horizons, all of which follow similar patterns. I have charted just the on-peak spinning reserve product to reduce the clutter.

Spinning reserve is a pure "capacity" product. You build a generator and then promise not to run it, or a portion of it (unless of course called upon). Most of the time the capacity that you have constructed and sold the rights to sits idle waiting for the phone to ring.

Depending on your technology, cost of capital and size, capacity cost somewhere between \$20-\$25 MWh to provide. In competitive markets of all kinds it is not uncommon to see prices that are higher or lower than cost so there may be absolutely nothing wrong here but it does catch your eye when the price for a \$20-\$25 product goes to zero and parks.

One of the challenges of the AS market is that the legacy Hydro assets, operated under a PPA have a very large market share. The market creates a peculiar interaction between merchant capacity that has to recover its fixed cost from this market and the Hydro PPA whose fixed costs are covered through other mechanisms.

To summarize our concern here is sustainability and we shall be working with the AESO and market participants to make sure we understand that the Ancillary Services market is both fair and sustainable.



I showed earlier a slide of how control of the generation asset base has morphed since 1996 to what we have today. The real time hourly market depends on well disbursed control of assets to function competitively. We recognized this fact some years ago and developed a strategy for getting a competitive distribution through a combination of:

- PPA and MAP sales,
- holding restrictions,
- re-sales
- and new merchant construction.

By and large that process has worked well and we produce a competitive Pool price.

Well if the real time market runs on assets the forward market runs on information. Forward markets trade on expectations about the future status of the generation asset base. In the forward markets it is **information** not dispatch control that rules and the **information asymmetry in Alberta's forward markets is unacceptably high**. We see this problem manifest itself in very wide bid/ask spreads in the prompt days, week and month.... And consequently very low volumes transact.

The chart you are looking at may not be correct to the MW because it is difficult to know what people know but it is illustrative and probably conservative. We have inferred that people know about the future status of assets that they own or have a financial interest in. This would include merchant capacity, JV's and both sides of a PPA. For this graph we have denominated peoples knowledge in terms of MW. Because 2 people can know the same thing the MW add up to more than the installed capacity of the province. We have not included agency relationships or tie line capacity, both of which would confer a little more information yet.

As you can see the information tilt toward the largest few players is substantial.... Not unlike the **dispatch control** tilt that we had several years ago and took steps to remedy.

This aspect of the playing field needs leveling before we will get to the next level. Forward markets are key to retailers, generation investors, anyone who needs to manage risk. Forward markets abhor information asymmetries. This is not rocket science! Nor is it an indictment of anything we've done so far or of anyone's conduct... this is problem born of progress but it is one that has to be remedied in order to get competition to the next level.

# Getting to the Next Level

## MSA Internal

- New Approaches
  - Mystery Shopper
  - Horizontal, vertical and issue based auditing
  - More automated/sophisticated screens
  - Auditing of self compliance
- Maximum Disclosure

Like your business' we have to continually step up our game.

The MSA staff is 10 people including myself and our administrative assistant. I don't know if that's the right number but I believe it to be close. I don't think I'd add too many before I would begin to question the materiality of the work being but the last hire.... Nor do I think we could shed any and still meet the expectations of our stakeholders or the statute.

Transparency is something that we passionately advocate, transparency serves the "openly" competitive part of our mandate and effectively co-opts all market participants into the role of market surveillance.

Transparency is not just for everyone else. In the coming months we will be examining everything we say and publish to be sure that we are being as transparent as possible while ensuring that we honor our privacy and confidentiality obligations where we have to.

## Summary

- We've come a long way!
- It's not perfect yet...
- MSA focus:
  - Market Information environment (*rich & symmetrical*)
  - Retail Code of Conduct (*level field, protect consumers*)
  - Ancillary market (*sustainability*)
  - Internal effectiveness (*techniques, efficiency, disclosure*)

*We can get to the next level from here*

We've come a long way, while the market is not perfect yet nor will it ever be it has certainly eclipsed the best that we could have hoped for from the regulated alternative. The new EUA gives the Policy Makers, the AESO, the MSA and most importantly market participants the prerogatives and tools needed to get Alberta's competitive electricity market to the next level. Speaking for the MSA our focus will be:

- Ensuring that we have a rich and symmetrical information environment to support a fair and liquid forward market
- Adjudicating the Retail Code of Conduct in ways that keep the playing field level so that consumers enjoy the fruits of competition
- Managing the effectiveness and efficiency of our own agency to the standard that stakeholders expect

We can get to the next level and as MSA I am very much looking forward to being part of it.