

The opening of European retail electricity markets to competition: lessons learned from the United States

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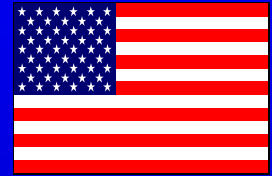
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Outline

- **Comparison between EU and US deregulation**
- **Indicators measuring liberalization impacts on consumers**
- **Review of the most US relevant experiences**
- **Texas: The best model?**
- **Challenges for EU opening to retail competition**



Retail Deregulation Timescales



Energy Policy Act

FERC Orders 888 & 889
•Third party access
•Unbundling

California and Massachusetts
•Full Retail choice

New-Jersey
•Full retail choice

Pennsylvania
•Retail choice

**Ohio
New-York**
•Full retail choice

Texas
•Full retail choice

1990

UK
•Retail choice for 1 MW customers

Norway
•Full liberalization

UK
•Retail choice for 100 kW customers

1995

Sweden
•Retail choice

Finland
•Retail choice for 500 kW customers

Finland
•Full retail choice

UK
•Full retail choice

Germany
•Full liberalization

2000

EU electricity 1st directive
•Third party access
•Unbundling
•Partial retail choice

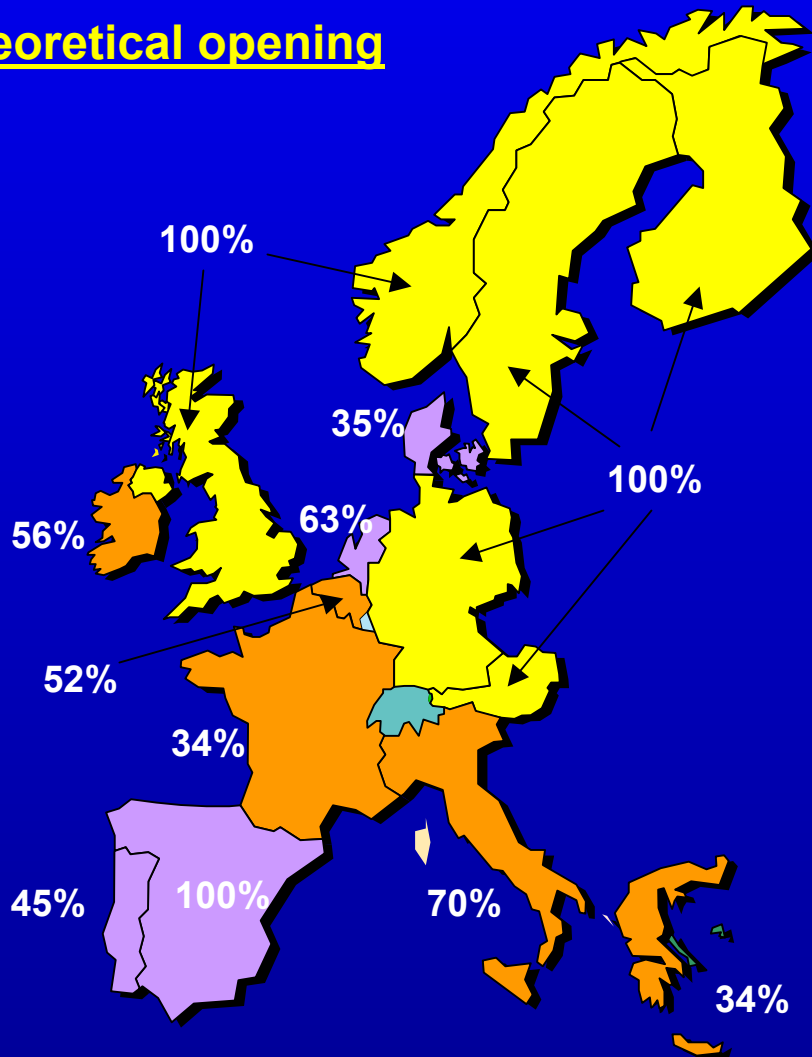
2003

EU electricity 2nd directive in force
•Full retail choice



Retail Liberalization Progress in EU

Theoretical opening



Full Opening Date

Finland	1997
Sweden	1998
UK	1998
Germany	1999
Austria	2001
Denmark	2003
Netherlands	2003
Portugal	2003
Spain	2003
Ireland	2005
Belgium	2007
France	2007
Greece	2007
Italy	2007

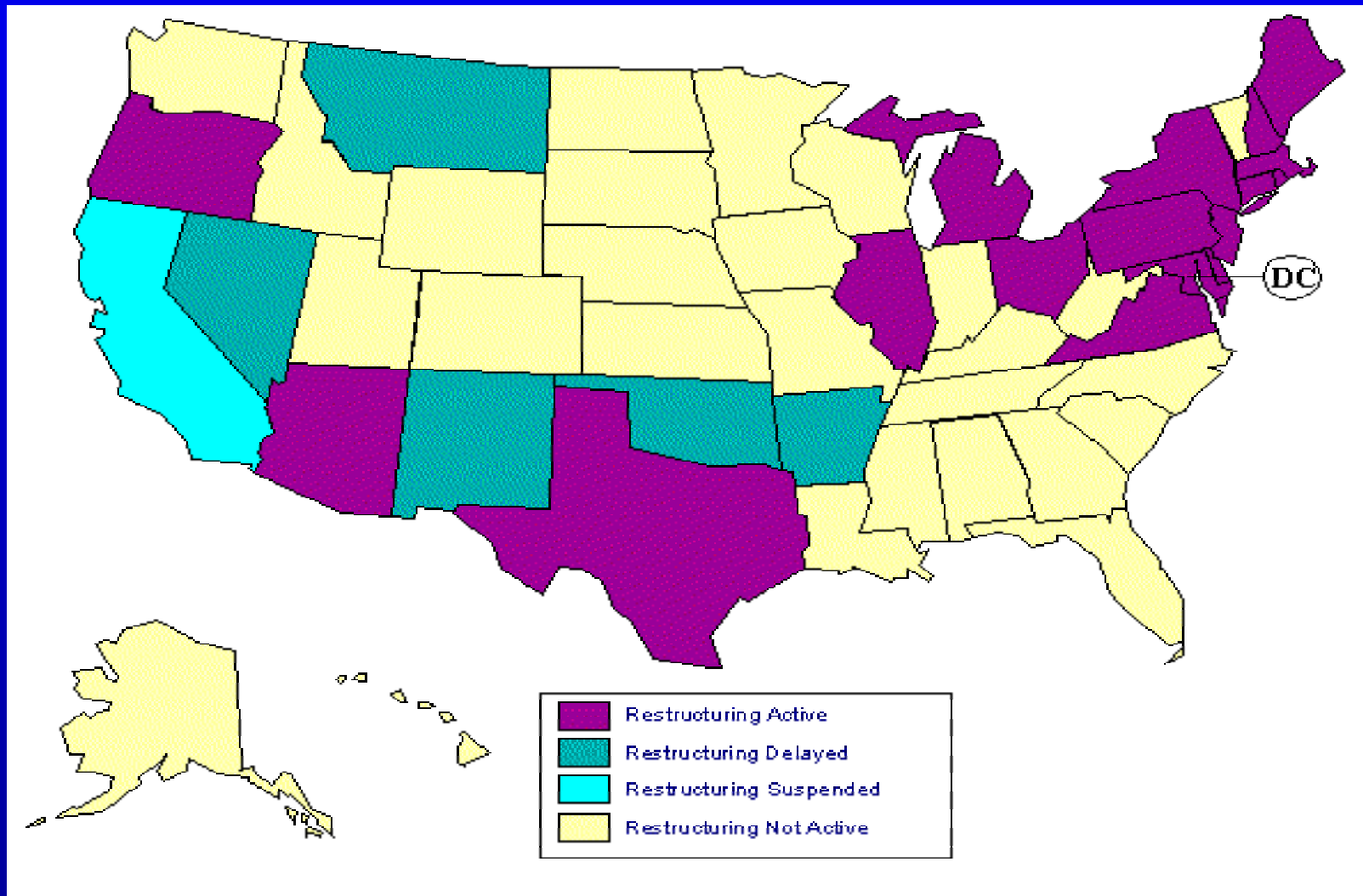
Customer Switching in EU Electric market

Customer switching (% demand)	Large Users		Small Users	
	Switch	Switch or renegotiate	Switch	Switch or renegotiate
Austria	20-30%	unknown	5-10%	unknown
Belgium	2-5%	30-50%	not eligible	
Denmark	unknown	>80%	not eligible	
Finland	unknown	>50%	5-10%	10-20%
France	10-20%	unknown	not eligible	
Germany	20-30%	>50%	5-10%	10-20%
Greece	nil.	nil.	not eligible	
Ireland	10-20%	unknown	not eligible	
Italy	>50%	100%	not eligible	
Luxembourg	10-20%	>50%	not eligible	
Netherlands	20-30%	100%	not eligible	
Portugal	5-10%	unknown	not eligible	
Spain	10-20%	>50%	not eligible	
Sweden	unknown	100%	10-20%	>50%
UK	>50%	100%	30-50%	unknown

Source:
European
Commission



Status of US State Electric Industry Restructuring Activity -- as of March 2003 --



Source: EIA



Different schemes of opening to competition by US State

- **Opened between 1998 & 2002**
- **11 States had pilot programs**
- **Partial retail opening in 8 states**
- **Full retail opening in 9 states**
- **No common rules**

	Calendar - Retail Opening to competition in US States			
States	Legislation Date	Pilot program	Only for Industrials	All customers
Arizona	May-98		Dec-98	Jan-01
Arkansas	Feb-01		Oct-03	Jan-05
Californie	Sep-96			Apr-98
Connecticut	Apr-98		Jan-00	Jul-00
Delaware	Mar-99		Oct-99	Apr-01
District of Columbia	Sep-00			Jan-01
Illinois	Dec-97	Yes	Oct-99	Delayed
Maine	May-97			Mar-00
Maryland	Apr-99			Jul-00
Massachusetts	Nov-97			Mar-98
Michigan	Jun-00			Jan-02
Montana	Apr-97	Yes		Jan-04
Nevada	Jul-97		Delayed	
New Hampshire	May-96	Yes		May-01
New-Jersey	Feb-99			Nov-99
New-Mexico	Apr-99		Delayed	Delayed
New-York	May-96	Yes		Jan-01
Ohio	Jul-99			Jan-01
Oklahoma	Apr-97		Delayed	Delayed
Oregon	Jul-99	Yes	Jan-02	?
Pennsylvannie	Dec-96	Yes	Jan-99	Jan-00
Rhode Island	Aug-96		Jul-97	Jan-98
Texas	27/5/99	Yes		Jan-02



How to measure the impact of liberalization on customers?

- ***Customer switching*** — this indicator focus on the visible impact of competition in terms of customer switching, and loss of market share for incumbent suppliers
- ***Price and quality impacts*** — these relate to the overall impact of liberalization on consumers in terms of price and quality of service.



Review of some US retail competition programs

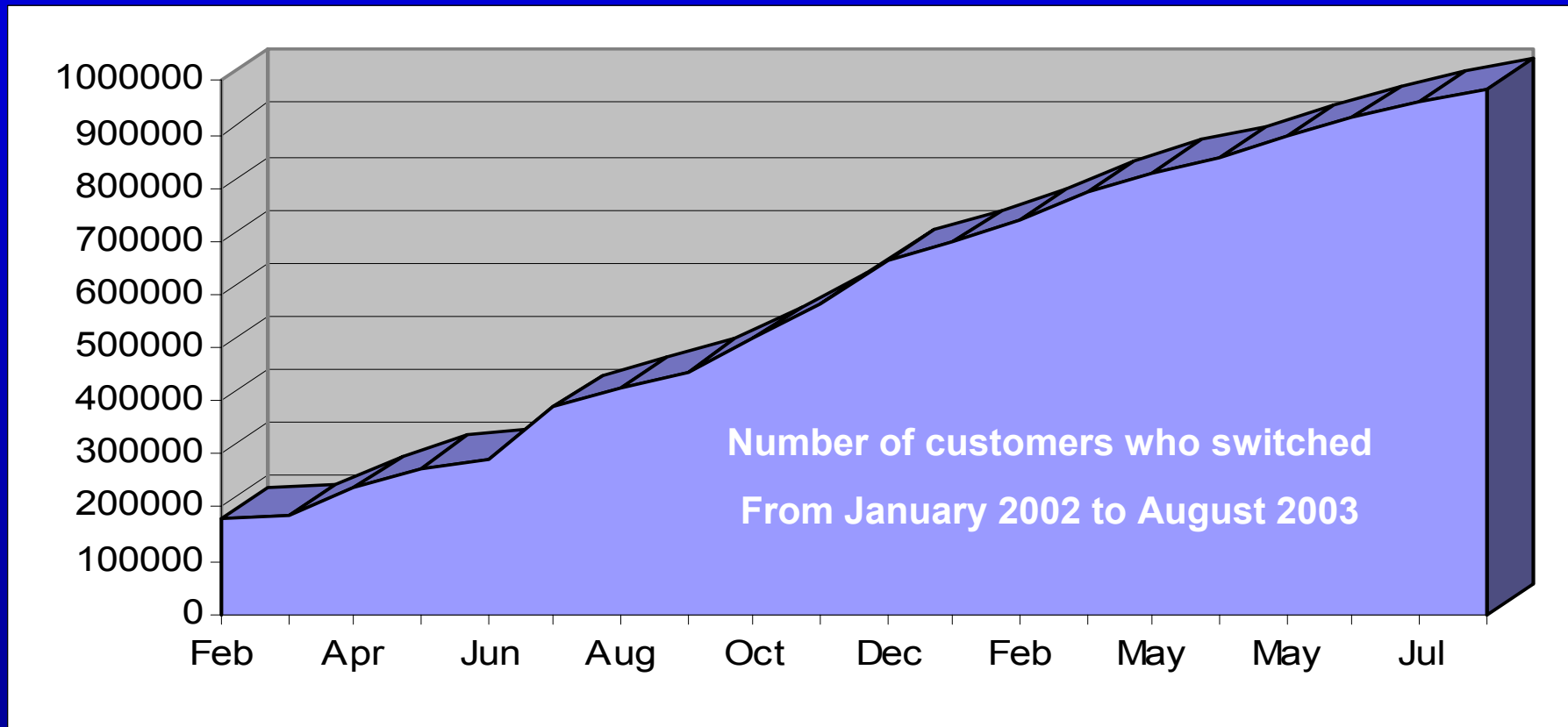
- **California : “the perfect storm”**
- **Massachusetts, New-Jersey, New-York, Pennsylvania and Ohio**
 - **Few switches**
 - *Switches from 1998 to 2003: 3% of residential, 9% of small industrial customers and 30% of largest industrials in Massachusetts*
 - *Switches from 2001 to 2003: 5% of residential and 7% of non residential in New-York*
 - **Few savings: only from regulated lower prices initially offered by the incumbent operators**
 - **Because new retailers cannot compete**

US retail competition programs didn't reach expected results from the perspective of residential customers compare to the good results for large customers except for...



Texas Retail Customer Choice: *THE MODEL?*

- 1 million switches processed between Jan. 2002 and Sept. 2003





Non-affiliated REPs Switching in Texas ***- June 2003-***

Customer Class	Market Share (No. of Customers)
Residential	10.2%
Small Commercial	30.8%
Large Commercial and Industrial	58.8%



More Options for Texas residential customers

Area	Retail Electric Providers	Products	Renewable Options
Oncor (DFW)	11	14	4
CenterPoint (Houston)	11	13	3
TNMP	6	9	4
CPL (Corpus Christi)	10	13	4
WTU (Abilene)	6	6	0

Source: PUCT



Regulation of Texas Retail Prices

- **Incumbent suppliers offer Price to Beat**
 - 6% rate reduction initially for residential and small commercial
 - Floor for 3 years or until company loses 40% of customers
 - Price to Beat rate can be adjusted up to twice a year based on changes in the price of natural gas through fuel factor adjustments.

- **No regulated rates for industrial and large commercial 1 MW or above**



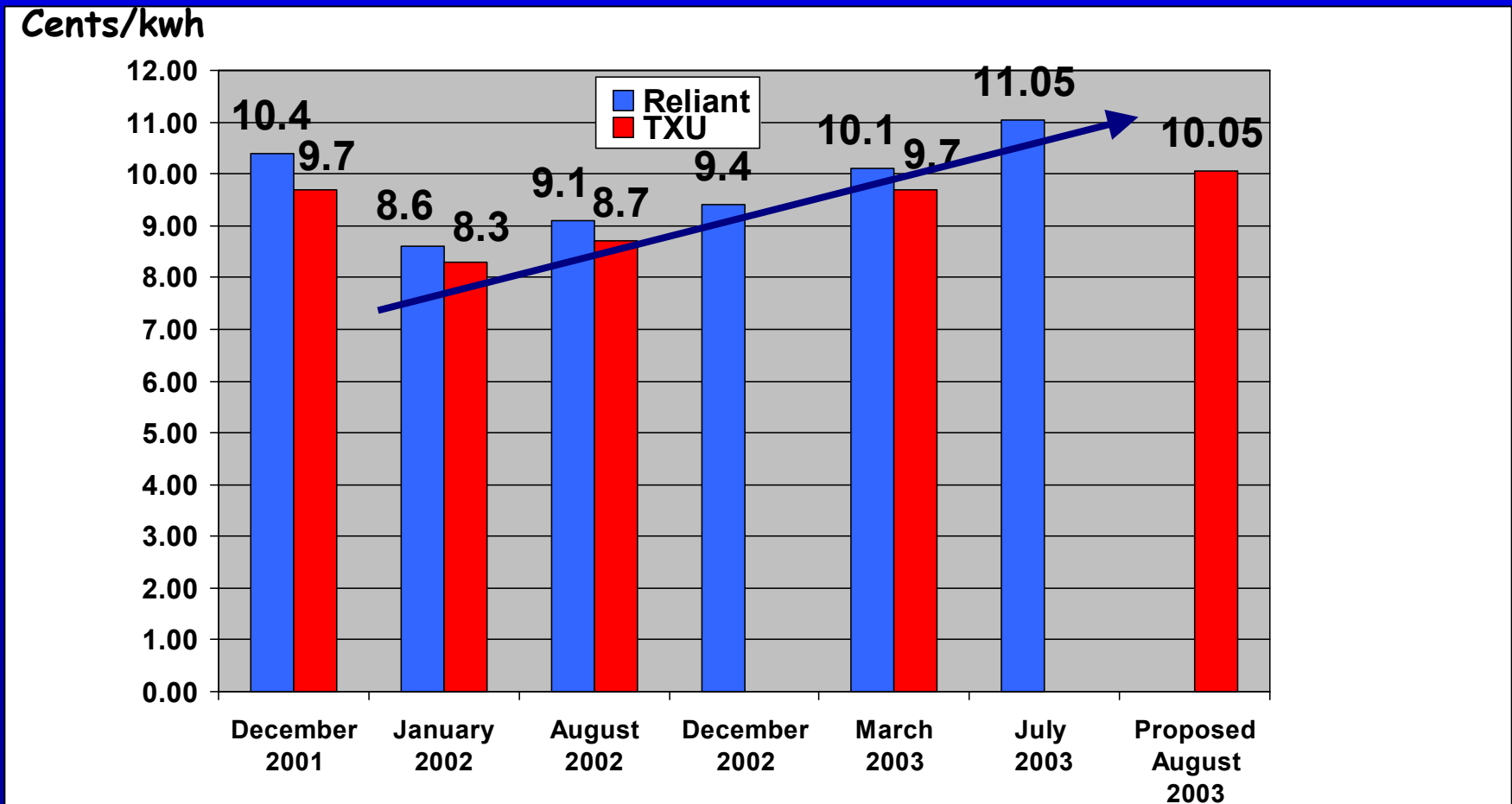
Fuel Factor Adjustments Critical to REP success

- **Fuel factor adjustments track wholesale market and maintain headroom opportunities**
- **Fuel factor adjustments help to maintain consistent market opportunities for REPs, rather than boom/bust cycle seen in other markets**
- **Customers can switch to avoid potential fuel factor adjustments**

Residential Price to Beat Rate Evolution - Reliant & TXU areas -



On average, fuel factor adjustments have increased rates 2 cents per kWh since beginning of competition meaning higher bills





Problems in Texas Retail market

- **Problems with establishing switching and billing**
- **Financial condition of independent energy companies, including REPs**
- **Small markets/rural areas not attractive to new REPs. Customers in those areas have fewer choices.**

Texas conclusions

- Texas is a good “**RE-DE**” model :
 - **RE**gulated for residential customers ;
 - **DE**regulated for industrial customers.
- Lower prices? Not necessarily but maybe the “right price”
- Quality of services?
- PTB : a nice competitive transition tool for Utilities to loose smoothly customers on their area and to win customers on neighboring areas
- What will happen when price to beat disappears?



Which challenges face EU?

- **Need to have a well-functioning information system**
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- **Need for a generation adequacy mechanism**
- **Need to find good incentives for transmission investments**
- **Maintain quality of service**
- **Work at EU level**
 - on a better oversight division to mitigate market power
 - maintain reliable interconnections

Final words

As my final conclusion, we need to learn lessons from areas that deregulated before you and to cooperate with them.

If European countries look at the Texan model, they will be “REDE” in time.