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Before the
Michigan House of Representatives'
Energy and Technology Committee
Lansing, Michigan; 19 March 2013

A Presentation on Electric Rates, Regulation, and Competition

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Overview of Presentation

- About NRRI
- The North American electricity grid
- RTOs, ISOs, and energy markets
- Restructuring and retail choice among states
- Various trends in electricity prices, 2000-2012
- Effects of restructuring
- What has worked and what has not worked
- Important considerations and conclusions

About NRRI and this presentation

- NRRI is an independent non-profit corporation based in the Washington, DC, metropolitan area.
- NRRI is the research arm of the National Association of Regulatory Utility Commissions (NARUC).
- State utility commissions such as the Michigan PSC are members of NARUC and, as such, also members of NRRI.
- MIPSC's Commissioner Greg White serves on the NRRI Board of Directors.
- MIPSC's Commissioner Orjiakor Isiogu serves on NRRI's Research Advisory Committee.
- *To be clear, the views I express today are mine only and do not reflect any views of the NRRI Board of Directors or NARUC and its members.*
- The purpose of this presentation is to provide an unbiased presentation on electric rates, regulation, and competition.
- This presentation is a generalized overview of the electric industry; it is a simple presentation of data and <u>not</u> an evaluation of any individual state's performance.

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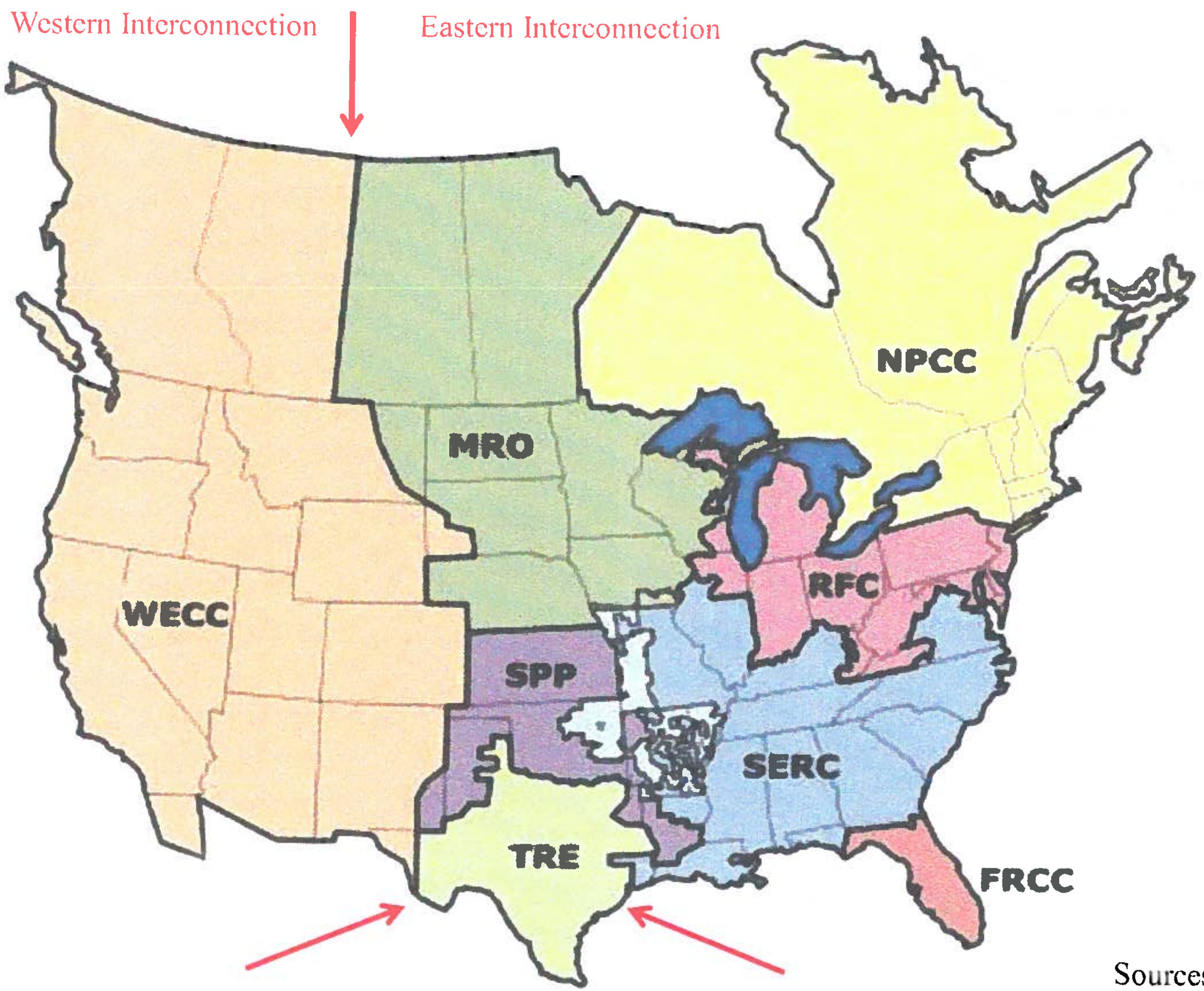
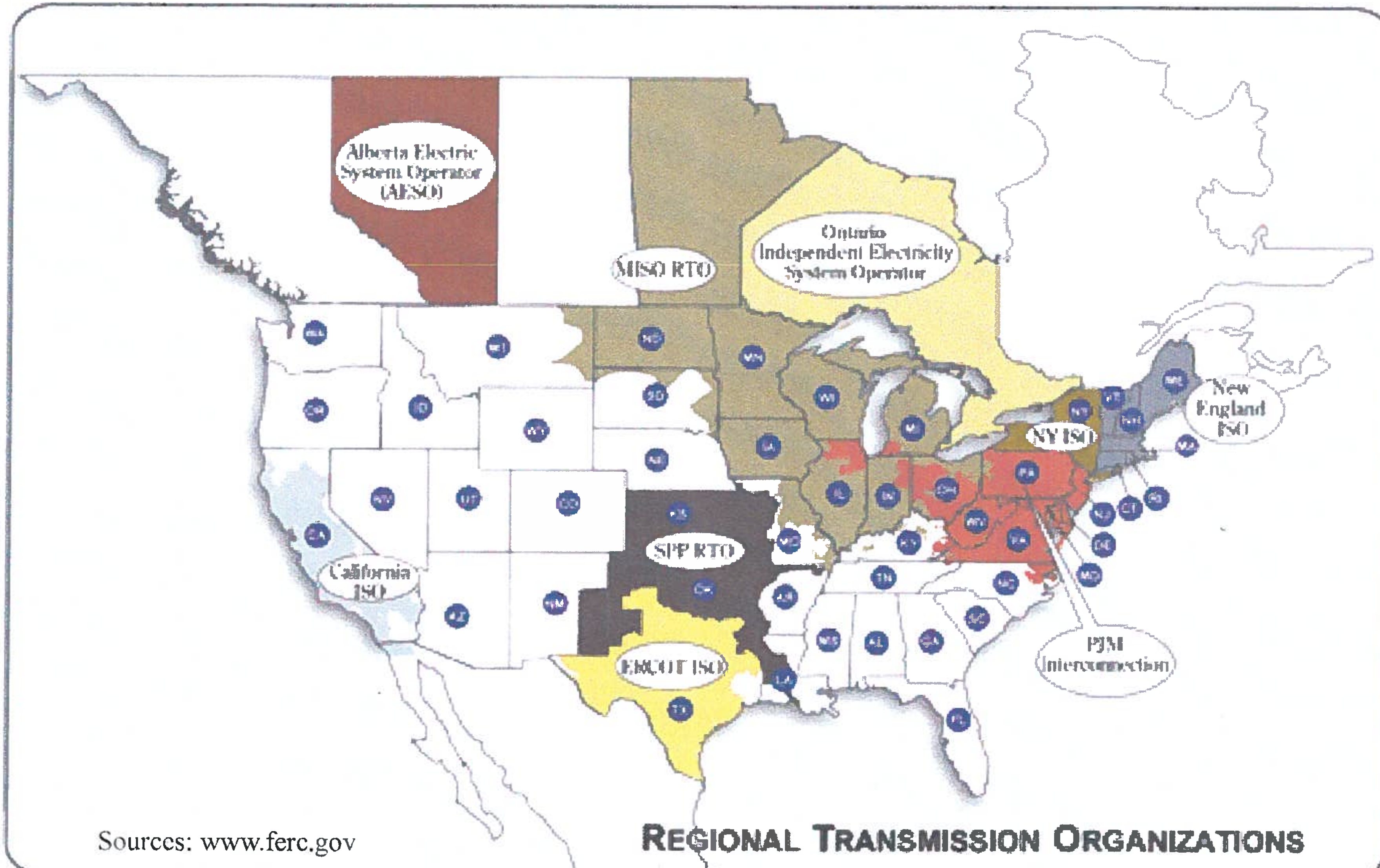
North American Electric Grid



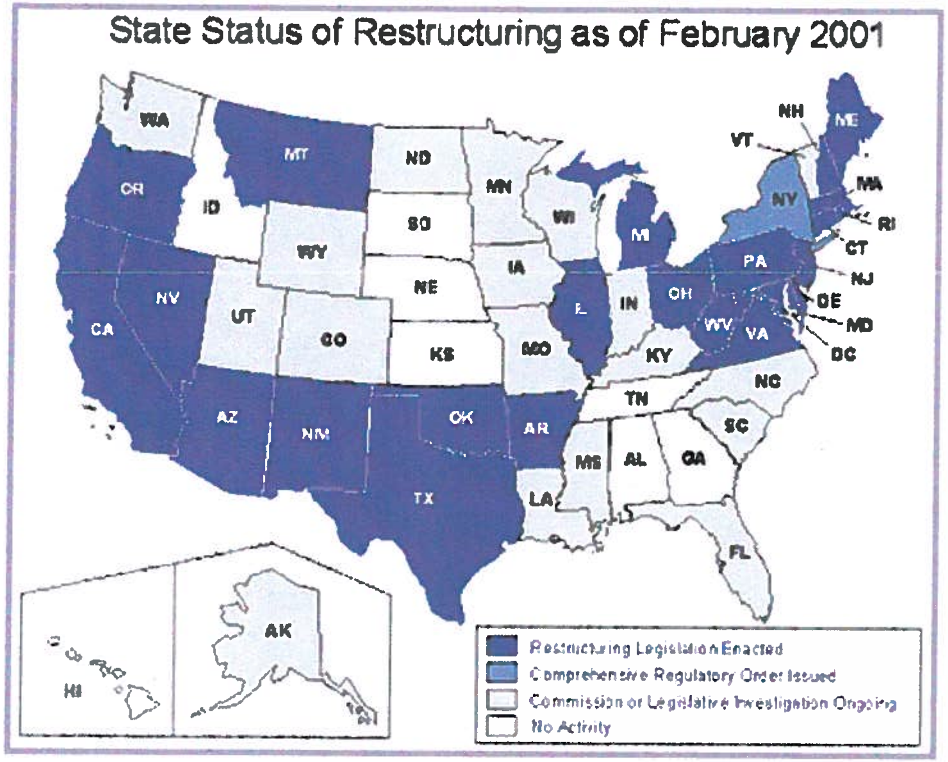
Sources: www.nerc.com

RTOs and ISOs

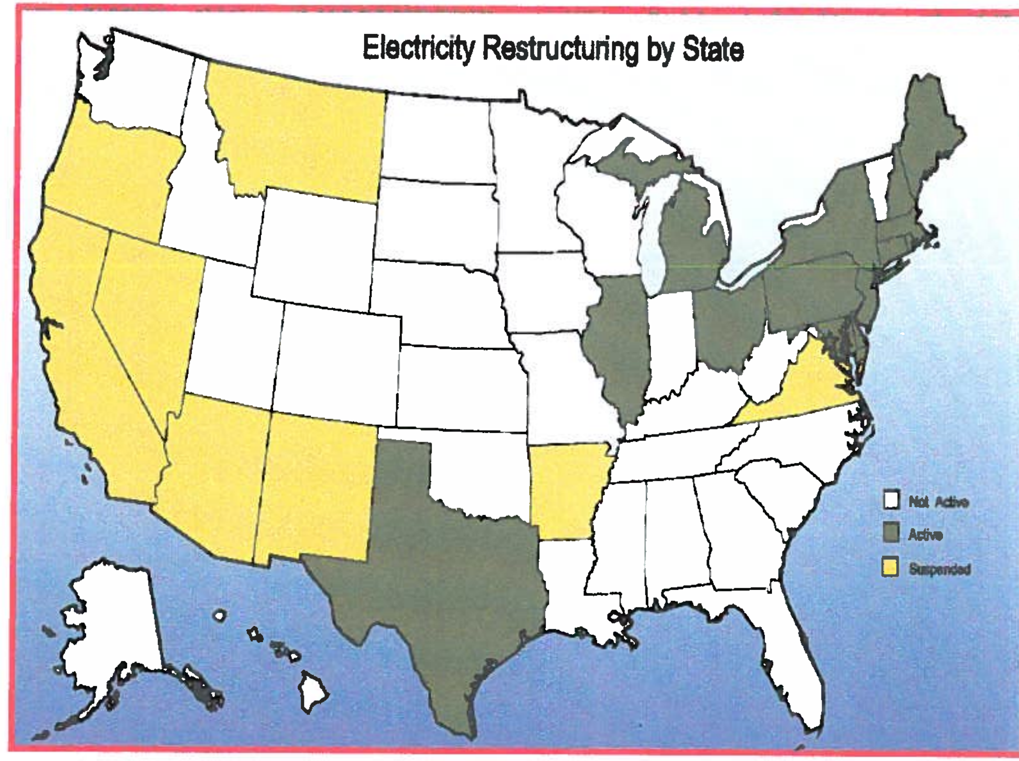


Sources: www.ferc.gov

Status of Electricity Restructuring in the U.S



State Status of Restructuring as of February 2007



As of February 2007, the following 14 states/jurisdictions allow retail choice of electricity suppliers (programs may differ by jurisdiction): Connecticut; Delaware; District of Columbia; Illinois; Massachusetts; Maryland; Maine; New Hampshire; New Jersey; New York; Ohio; Pennsylvania; Rhode Island; and Texas.
Since Michigan's retail choice program has a cap of 10% of its load, for the purpose of the analyses in this presentation, Michigan is not included in the retail choice group. [Source for maps: www.eia.gov.]

Components of a Typical Electric Bill in a Retail Choice State

JOHN DOE
Account number: 1234 5678 9000

Your electric bill for the period
March 28, 2011 to April 29, 2011

Details of your Electric Charges

Residential Service - service number 1234 5678 9000
Electricity you used this period

Meter Number Energy Type	Current Reading	Previous Reading	Difference	Multiplier	Total Usage
NXA107305043	Apr 29	Mar 28			
Usage (kWh)	001843 (actual)	000842 (actual)	1001	1	1001

Your next meter reading is scheduled for May 26, 2011

Delivery Charges: These charges reflect the cost of bringing electricity to you.
Current charges for 32 days, winter rates in effect

Type of charge	How we calculate this charge	Amount($)
Customer Charge		8.20
Distribution Charge: First	500 kWh X $0.026073 Each kWh	13.04
Last	501 kWh X $0.026073 Each kWh	13.07
Total Electric Delivery Charges		**34.31**

Supply Charges: These charges reflect the cost of producing electricity for you. You can compare this part of your bill to offers from competitive suppliers. The class average annual price to compare is 11.47 cents per kWh.

Type of charge	How we calculate this charge	Amount($)
Transmission Capacity Charge	6.41 kW X $1.612900	10.34
Standard Offer Service Charge: First	500 kWh X $0.107180	53.58
Last	501 kWh X $0.107180	53.68
Total Electric Supply Charges		**117.60**
Total Electric Charges - Residential Service		**151.91**

Electric Summary

Balance from your last bill	**$173.77**
Payment Apr 1	$100.00-
Payment Apr 15	$ 73.77-
Total Payments	**$173.77-**
Electric Charges (Residential Heating)	$151.91
New electric charges	**$151.91**
Total amount due by May 22, 2011	**$151.91**

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Components of a Typical Electric Bill in a Retail Choice State

Item	Amount	% of Total Bill	"Decided by"
Transmission	$10.34	7%	Federal - FERC
Distribution	$26.11	17%	State - PSC
Customer Charge	$8.20	5%	State - PSC
Supply	$107.26	71%	Customer
Total Bill	**$151.91**	**100%**	

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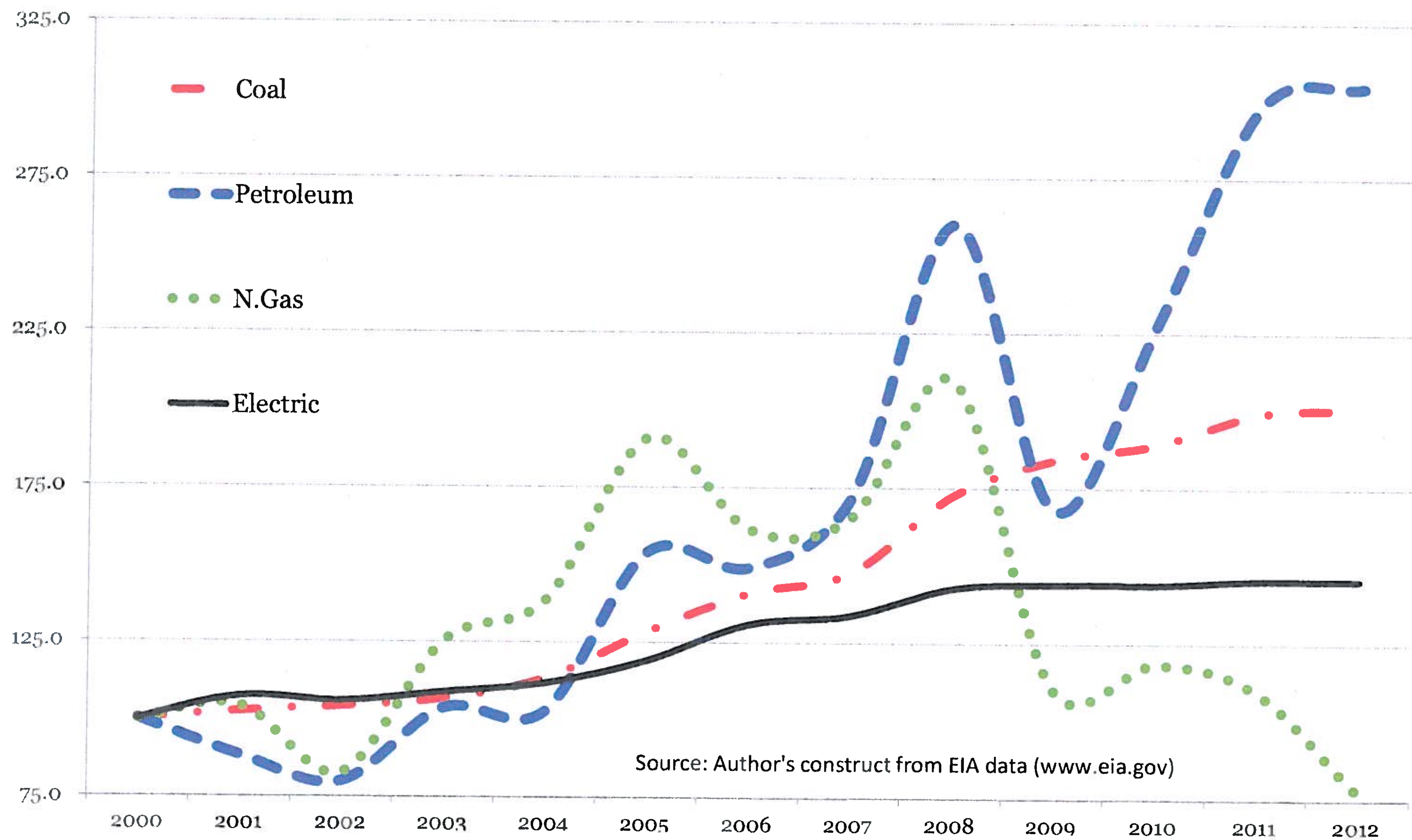
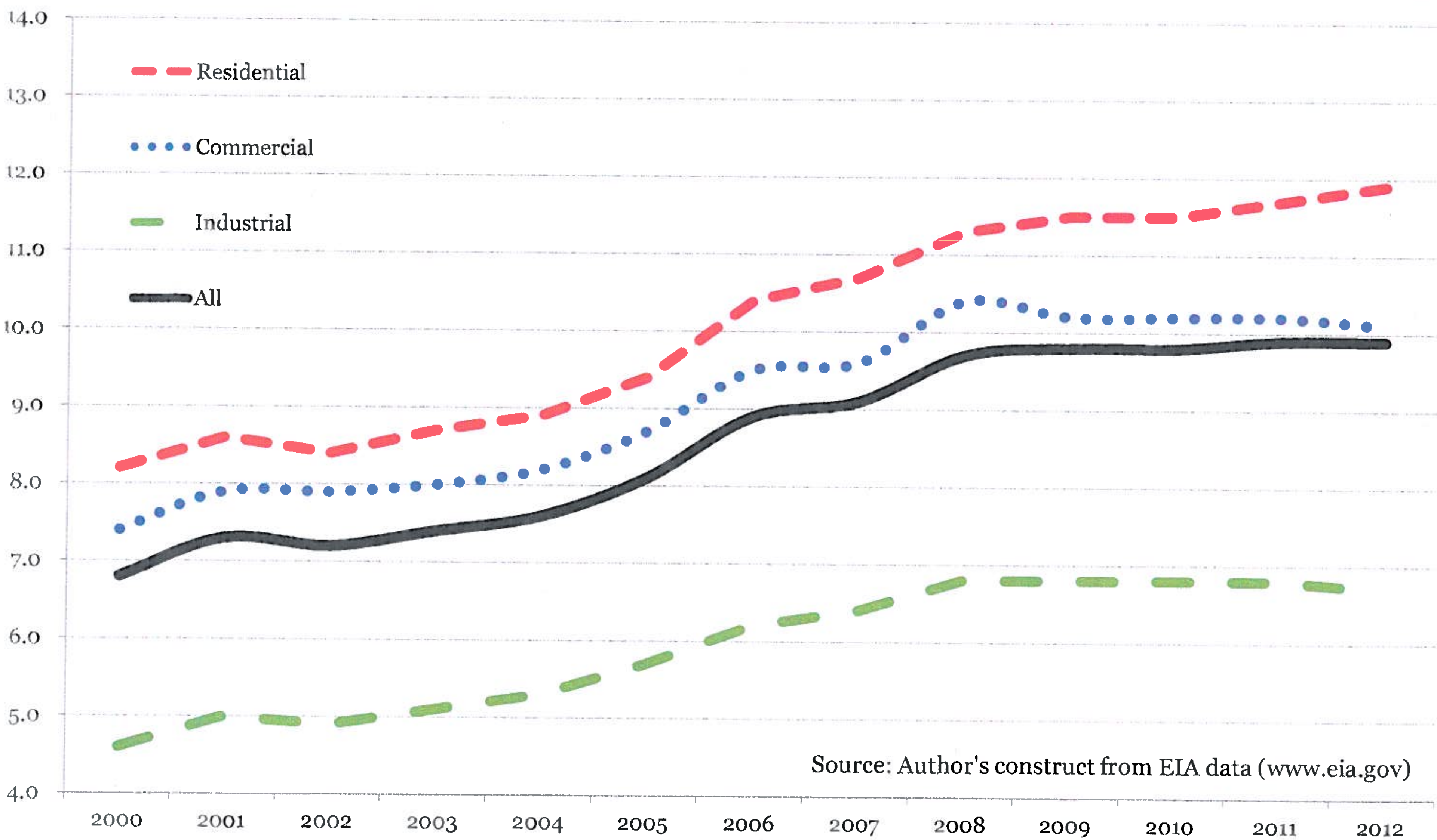
Fuel Costs for Electric Generating Plants and Average Electric Prices in the U.S. (indexed values, Year 2000 = 100)



Average Electricity Prices in the U.S. by Sector
(cents/kWh)



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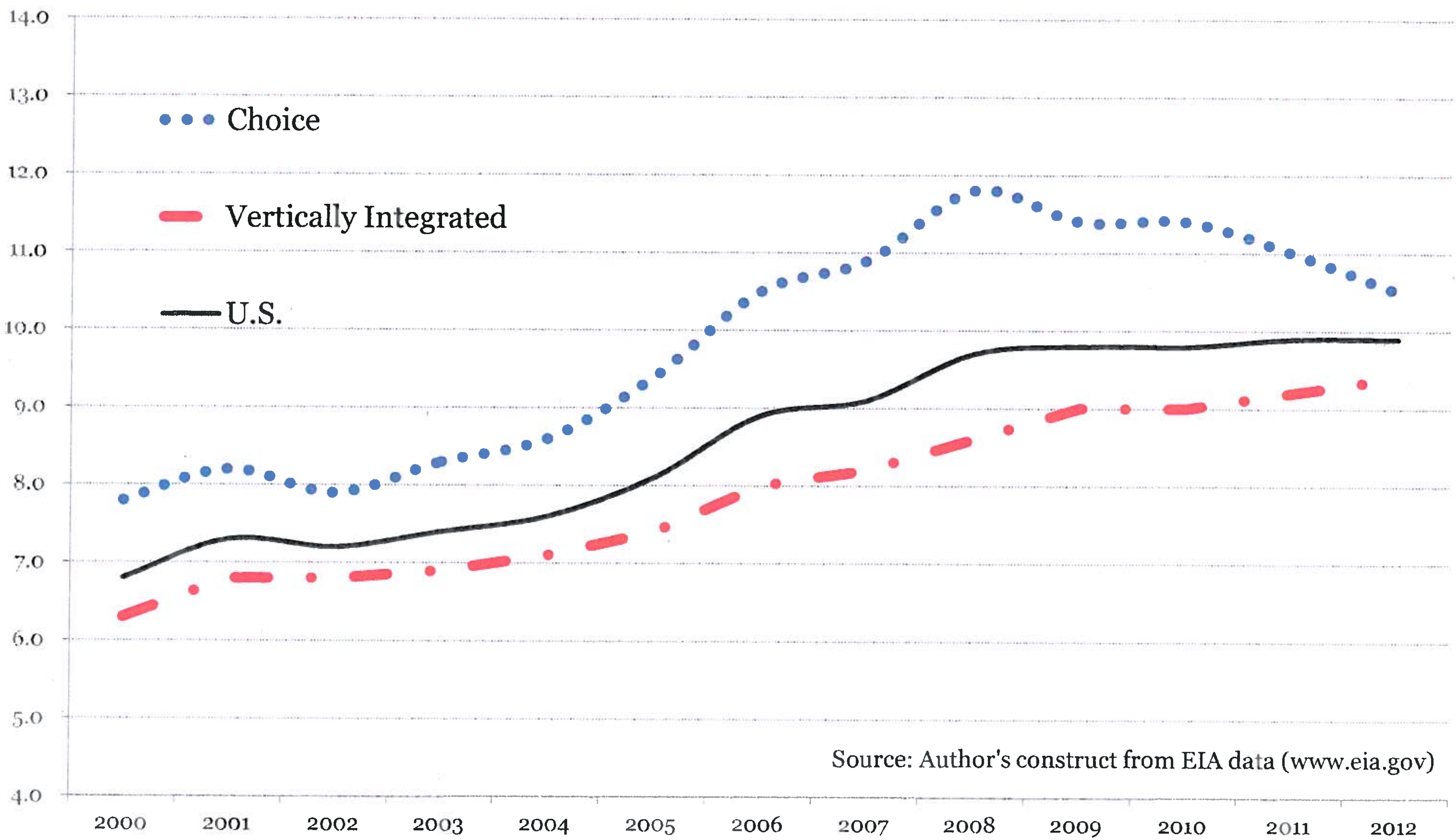
Average Electricity Prices for 14 Retail Choice Jurisdictions and 35 Vertically Integrated States (cents/kWh)



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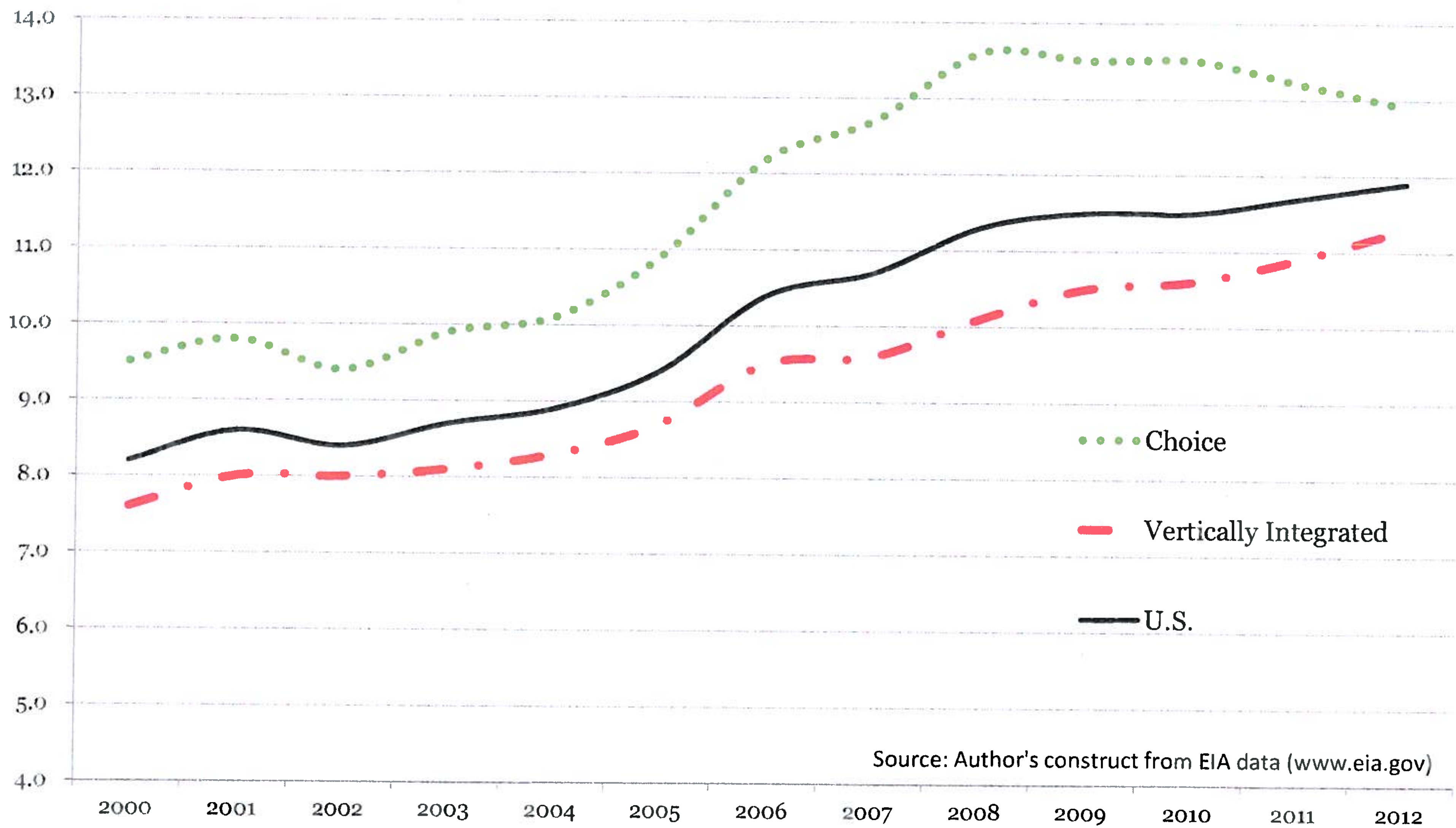
Average Electricity Prices in the U.S. – Residential Sector (cents/kWh)



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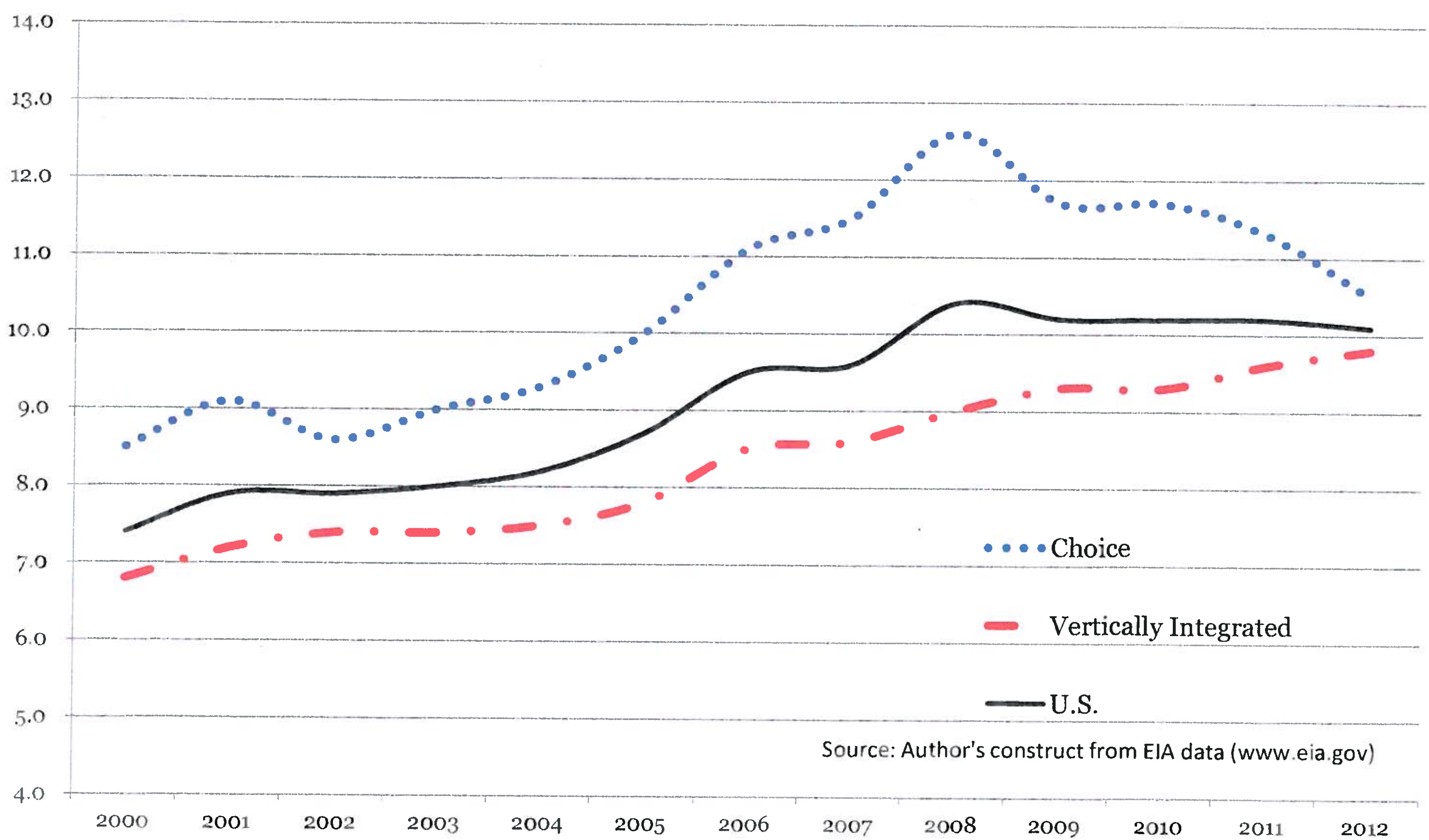
Average Electricity Prices in the U.S. – Commercial Sector
(cents/kWh)



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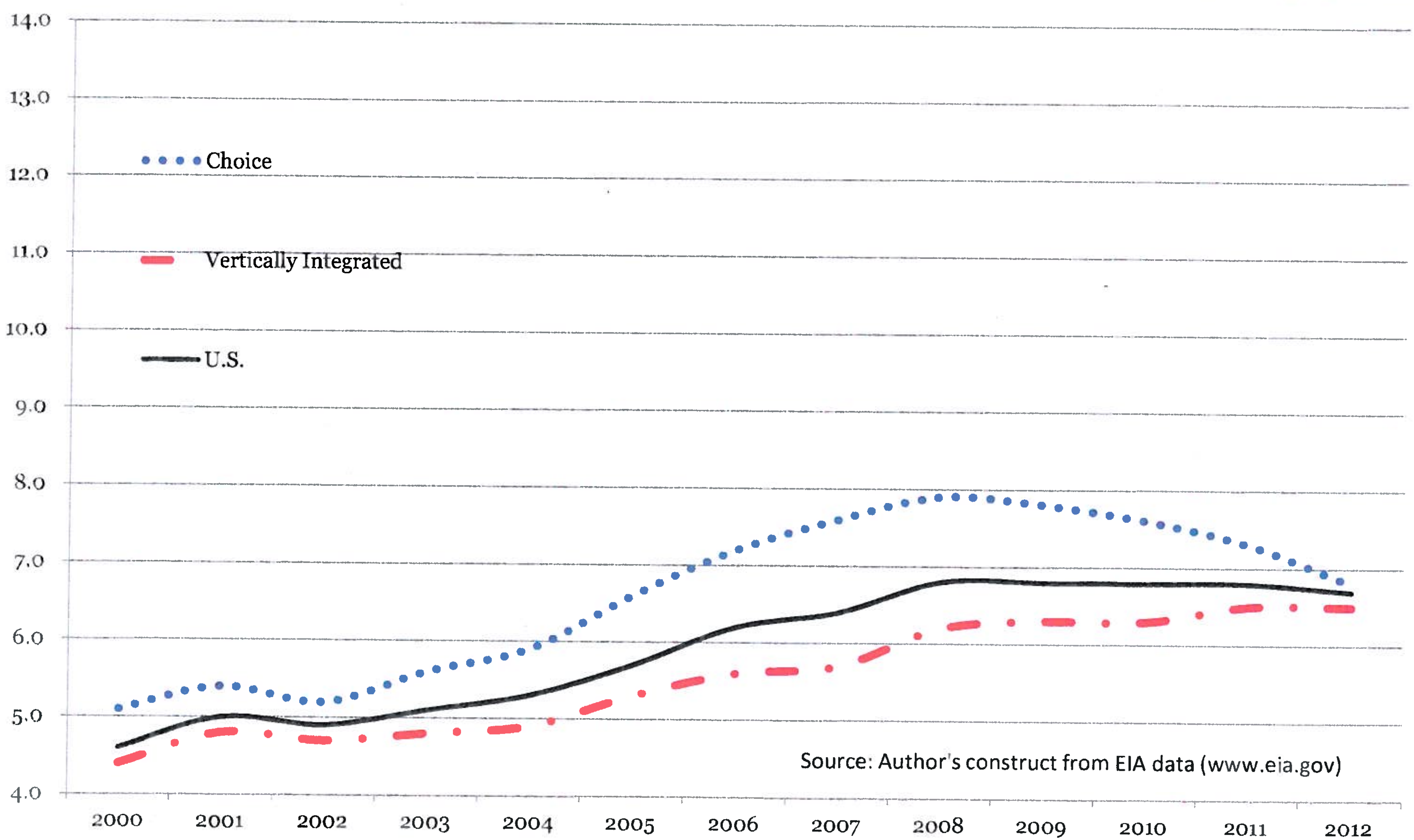
Average Electricity Prices in the U.S. – Industrial Sector (cents/kWh)



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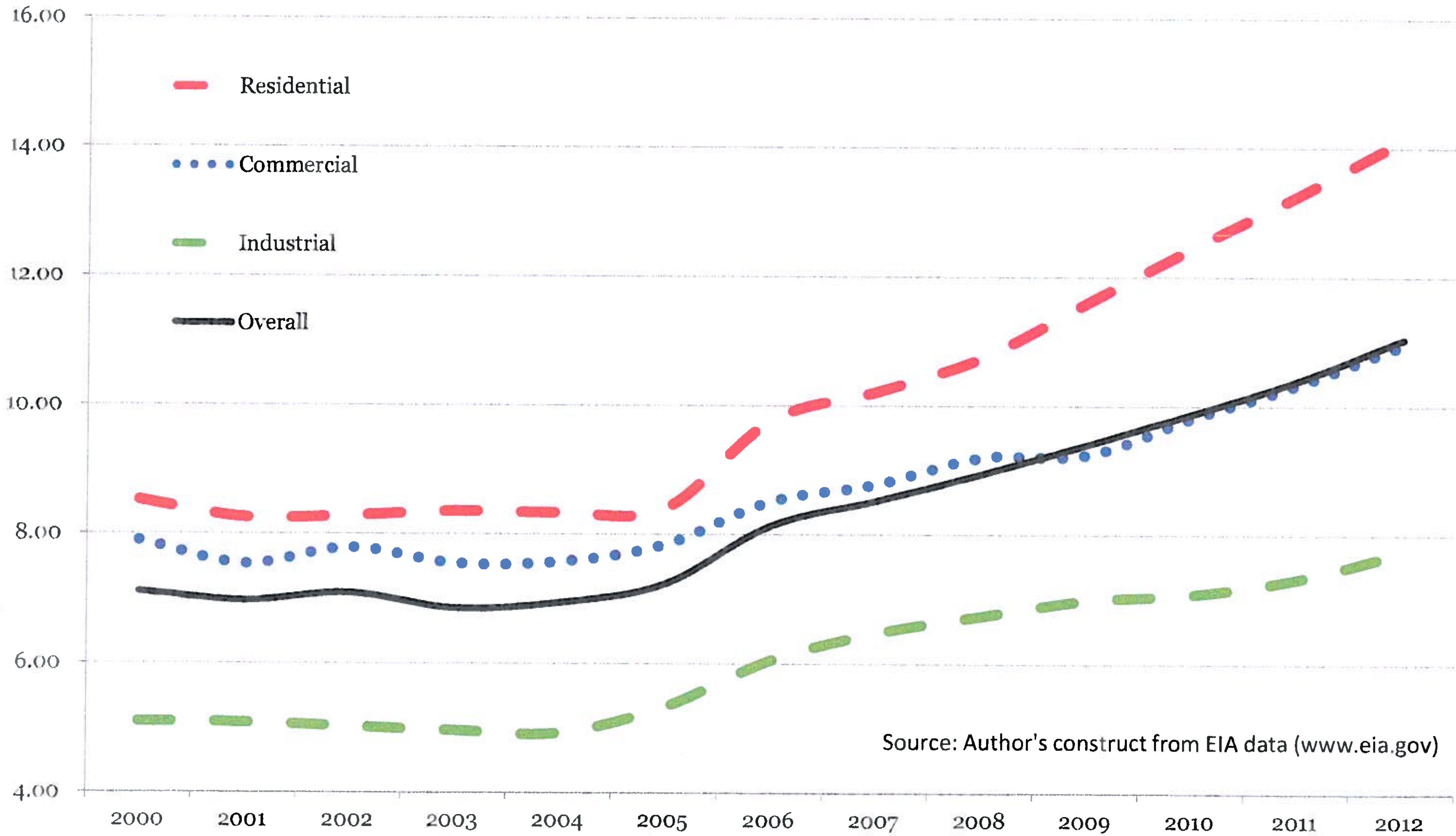
Average Electricity Prices in Michigan by Sector
(cents/kWh)



Source: Author's construct from EIA data (www.eia.gov)

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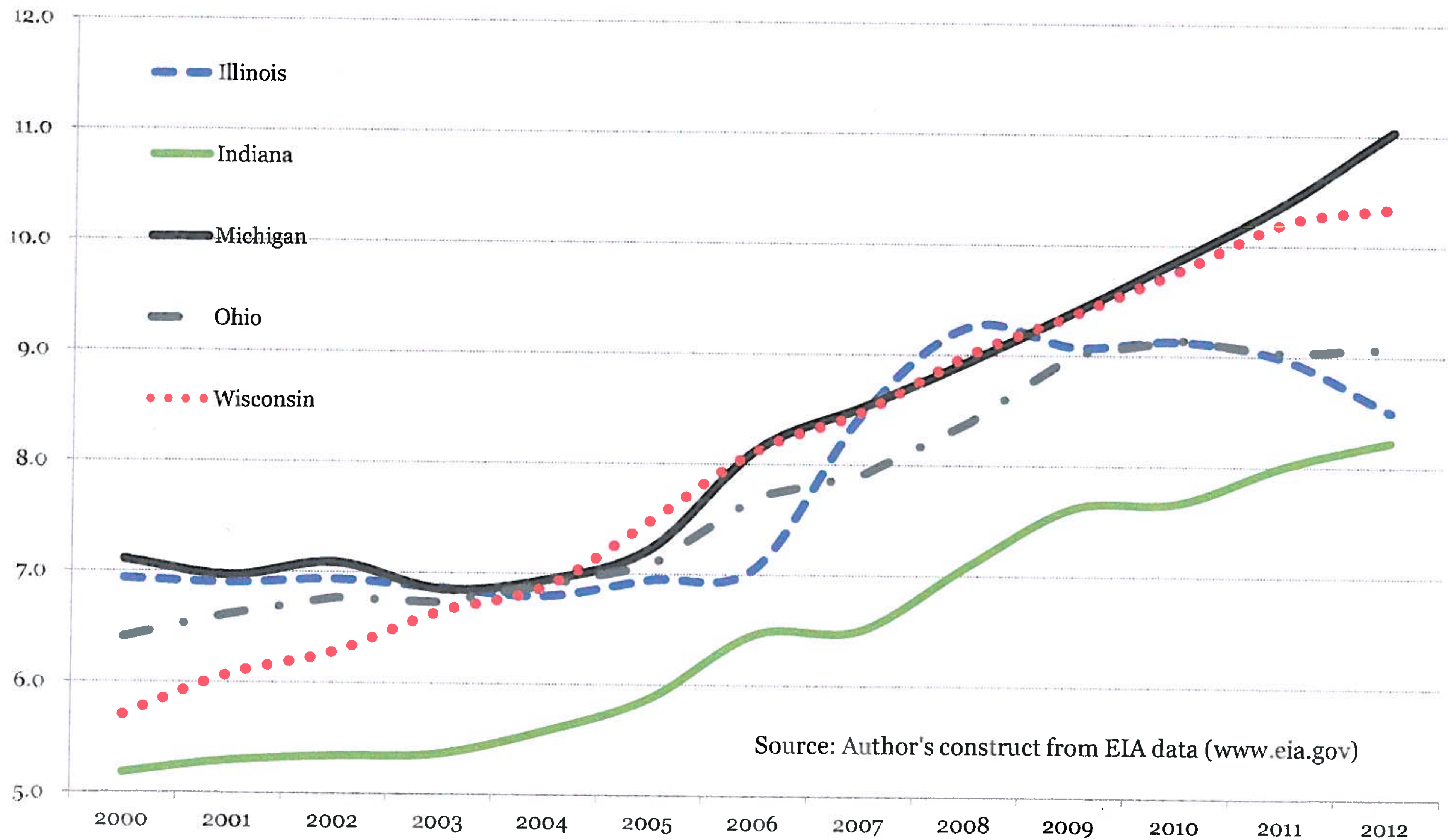
Average Electricity Prices in Five Selected States
(cents/kWh)



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Summary of Graphs

- Improper to attribute one variable or issue to indicate effect of restructuring.
- What was shown is the result of what customers pay, not what affects such prices.
- To discuss how each factor or a combination of factors affects prices, a sophisticated statistical study of variables such as, but not limited to, costs of fuel, existing infrastructure, demographics, etc. would have to be considered.

Entities in a Vertically-Integrated Electric Industry

- Investor-Owned Utilities (IOUs, private companies)
  - Generation, transmission, and distribution
- Customer-Owned Utilities (cooperatives, mostly rural)
- Municipal Utilities (cities and towns)
- Federal Power Agencies (e.g., large hydro projects)
- Public Power Agencies
- Power Pools
- Energy Service Companies (ESCOs)
- Independent Power Producers

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Entities in a Restructured / Retail Choice Electric Industry

- Customer-Owned Utilities (cooperatives, mostly rural)
- Municipal Utilities (cities and towns)
- Federal Power Agencies (e.g., large hydro projects)
- Public Power Agencies
- Energy Service Companies (ESCOs)
- *IOUs – T&D; with or without generating affiliates*
- *Merchant generators (or Independent Power Producers)*
- *RTOs and ISOs*
- *Financial Service Companies*
- *Transmission-only Companies*
- *Load Serving Entities (LSEs)*
- *Electric Distribution Companies*

Effects of Restructuring

- Restructuring does not equate to less work
- PSC still relevant with change of functions
- Increased workload, e.g., licensing of suppliers
- Concerns about consumer protection measures
- Creation of workgroups to formulate standards, rules, regulations
- Technical industry standards "clash" with state laws
    - "Wet" signature
    - Contract cancellation period
    - Rules for, and time needed to, switch suppliers

Effects of Restructuring

- Designation of Default Supplier, Provider of Last Resort (POLR), or Supplier of Last Resort (SOLR) - an added cost
- Method of supply acquisition
- Auctions or bids
- PSC oversight of the process
- Affiliate concerns
- Type of portfolio; resource allocation
- Volatility in markets = bill shocks: a new challenge
- Consumer education

Challenges of Restructuring

- New challenges for the state regulatory community
- Regional energy market vis-à-vis state borders
- Involvement in regional matters (RTOs/ISOs)
- Monitoring of non-jurisdictional entities
- Ensuring safe and reliable electric service with no jurisdiction over generation

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Information to Customers by Suppliers

- Information shall be in a clear and understandable format
- Customers must receive written confirmation of
  - Terms of their agreements
  - Notification of the expiration date of a customer agreement
- Changes to agreement must be notified in writing
- Regulator needs staff capacity to handle complaints related to:
  - Meter reading
  - Billing
  - Collections

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Important Considerations

- No unnecessary rules and regulations
- Regulatory role not necessarily constant enforcement
- Enforcement of market rules to prevent abuse
- Regulators to provide reasonable information to legislators and other government officials as well as the public
- Periodic revisions of rules and regulations may need to reflect changing technologies

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Conclusions

- Consumer education and protection by PSC
- Business rules for third party suppliers to provide service through incumbent utilities' distribution lines
- Provider or Supplier of Last Resort and costs associated with it
- Changes in PSC oversight -- only regulate the wires side of the utility operation
- Business rules to adhere to state's general consumer and sales laws
- Recommend that the State Legislature direct and give ample lead time for a rigorous stakeholder process among the PSC, other state agencies, utilities, customer representatives, and other interested parties prior to the start date for full retail choice in your state.
- Ultimately, need to ensure *safe and reliable service at just and reasonable rates or prices*

THANK YOU!

Questions?

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