

# Introduction of the Iowa Utilities Board (IUB) and the Value of an Independent and Impartial Regulator

NARUC Energy Regulatory Partnership Program

The Public Services Regulatory Commission of Armenia  
and The Iowa Utilities Board



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# Introduction of the IUB

- Key Statistics
- History of the IUB
- Legal Framework
- Regulatory Philosophy
- Independence
- Open Transparent Process
- Organizational Structure
- Infrastructure Profile
- Who We Regulate
- What We Regulate
- Iowa and Regional Transmission Organizations (RTOs)

# State of Iowa Key Statistics

- The estimated population of Iowa is 3,007,856 (2009 estimate). Among the 50 states, Iowa ranks 30<sup>th</sup> (2008 estimate) in population and 23<sup>rd</sup> in land area.
- The word "Iowa" comes from the American Indian tribe of the same name.
- Iowa became the 29<sup>th</sup> state on December 28, 1846.
- Iowa, with 2,000 square miles, is the only state bordered by two navigable rivers; the Missouri River to the west and the Mississippi River to the east.
- The capital of Iowa is Des Moines.
- Iowa's nickname is the Hawkeye state.
- Iowa has 3 state universities: Iowa State University, University of Iowa, and University of Northern Iowa.
- Iowa ranks first in beef, pork, corn, soybean and grain production.
- One Iowa family farm grows enough food and fiber to feed 279 people.
- The world's first electronic digital computer was built and operated by researchers at Iowa State University in the 1930's.
- The largest source of personal income for Iowans is manufacturing.

# History of the IUB

- 1878** **Iowa Board of Railroad Commissioners (one of the oldest agencies in Iowa)**
- 1911** Office of Commerce Counsel, (OCC) established in commission. Regulate the location of electric transmission lines.
- 1921** **Grain warehouse Regulation**
- 1923** Motor truck regulation
- 1930's** **Renamed Iowa State Commerce Commission. Regulate construction of natural gas pipeline.**
- 1963** Regulation of rates and services.
- 1976** **Motor and rail transport regulation transferred service territory, certificates of public convenience, use and necessity added.**
- 1980** Energy construction added to mission.
- 1983** **OCC became independent Office of Consumer Advocate (OCA). Office of General Counsel added to Commission.**
- 1986** Renamed Iowa Utilities Board
- 1989** **No longer shared technical staff with OCA.**
- 1990** Oversight of Energy Efficiency



# Legal Framework

- Iowa Code 476 and 474
  - The Board regulates various aspects of electric, natural gas, communications, and water utilities and generally supervises all pipelines and the transmission, sale, and distribution of electrical current.
- Iowa Code 476A, 478, 479, 479A, 479B
  - Also included in the Board's jurisdiction is certification of electric power generators (476A), granting of franchises for electric transmission lines (478), supervision of the transportation or transmission of a solid, liquid, or gas, except water, through intrastate pipelines (479), the authority to implement federal regulation of interstate pipelines (479A), and the authority to implement certain controls over hazardous liquid pipelines to protect landowners and tenants from environmental or economic damages (479B).
- Complaints/safety engineering/EE/emissions/affiliate transactions/reorganization.
- Iowa Code 476 – Telecom
- Iowa Code 476C – Dual Party Relay



# Regulatory Philosophy

## Mission

The Iowa Utilities Board regulates utilities to ensure that reasonably priced, reliable, environmentally responsible, and safe utility services are available to all Iowans.

## Vision

The Iowa Utilities Board is valued as the regulatory expert and solutions-oriented partner in electric, natural gas, and telecommunications issues.



# Decision-Making Independence

- **The Value of an Independent and Impartial Regulator**
  - The basis of due process is notice and opportunity to be heard
  - The person doing the hearing must be impartial: fair and unbiased
  - The person must abandon his/her own personal views and be bound by the law or the contract
- **The Independent Regulator Must:**
  - Not have prejudged the issues of fact or the parties
  - Not have a personal bias or prejudice toward parties which might impede his/her ability to judge the issues of fact fairly
  - Not have a personal interest whereby he/she stands to gain or lose from the outcome
- **Code of Administrative Judicial Conduct (481 IAC Chapter 10)**
  - Canon 1: A presiding officer shall uphold the integrity and independence of the administrative agency.
  - Canon 2: A presiding officer shall avoid impropriety and the appearance of impropriety.
  - Canon 3: A presiding officer shall perform the duties of the office impartially and diligently.
- **Issue: Adjudicative vs. Policy Function of the Board Members**
  - These canons shall be applied [. . .] as reasonably practicable when taking into account the fact that [Board Members] **unlike administrative law judges, have multiple duties imposed upon them by law.**” 481 IAC 10.29.

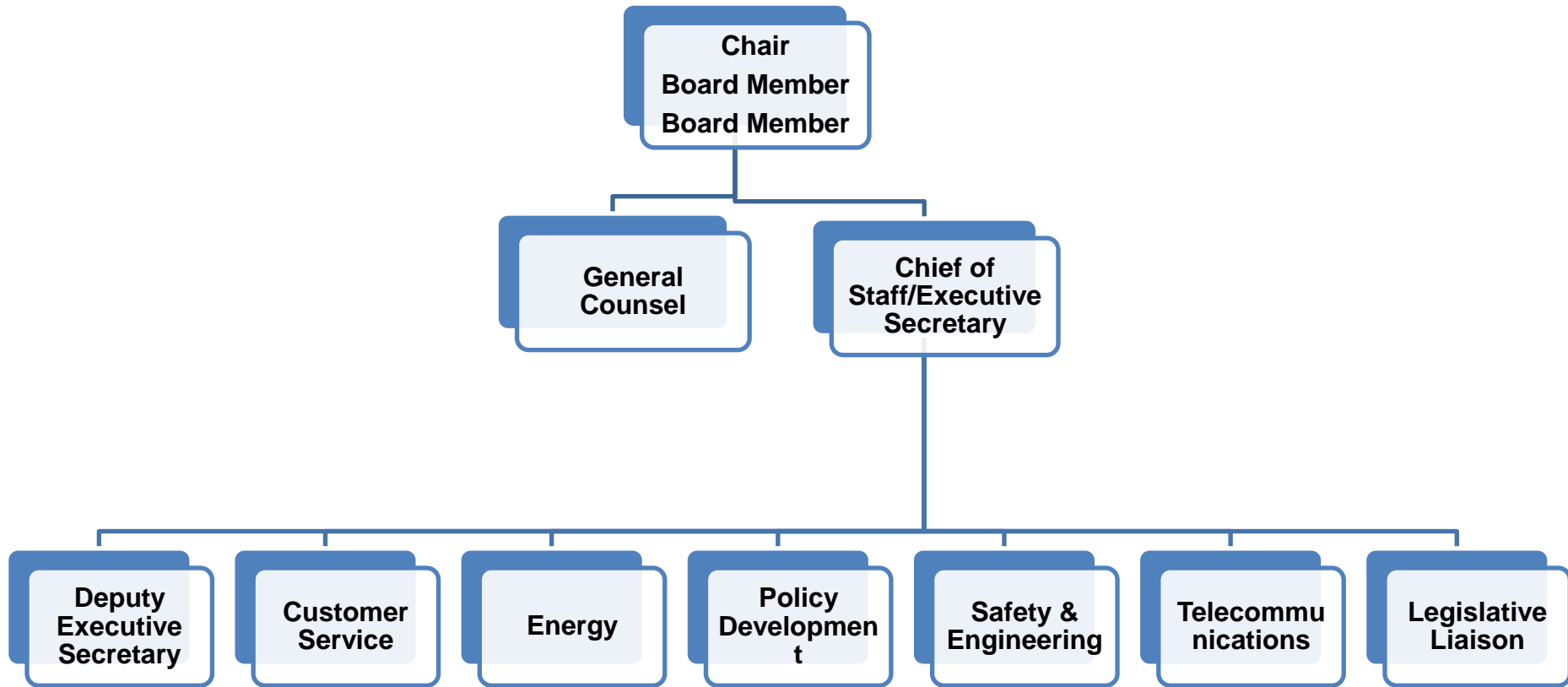


# Open Transparent Process

- Open Meetings Laws
  - I.C. Section 21.2 – Meeting – basic rule is that a quorum of a governmental body may gather informally, IF the conversation is social and discussion of business is saved for scheduled meetings BUT a governmental body "meets" when there is: **any gathering** in person or by telephone conference call or other electronic means, whether formally noticed or informally occurring, **of a majority of the members, at which there is any deliberation or action** upon any matter within the scope of the governmental body's policy-making duties.
- I.C. Section 21.4 - Advance Notice of Public Meetings – a basic tenet of Iowa's Open Meetings Law is that a governmental body must provide advance notice of the time, date and place of each meeting, plus a tentative agenda. Ex Parte Communications – 199 IAC 7.22
  - “ex parte communication is prohibited [. . .]. Parties and their representatives shall not directly or indirectly with the board [. . .] except upon notice and an opportunity for all parties to participate.”
- Inspection of Public Records – 199 IAC 1.9(1)
  - “any interested person may examine all public records of the board.”



# Organizational Structure



# Iowa's Energy Infrastructure and Profile

Iowa Electrical Profile (as of December 31, 2008)

Electric Generation in Iowa by Primary Energy Source	Nameplate Capacity (MW) <sup>1</sup>	Percent	2008 Generation (MWh) <sup>2</sup>	Percent
Coal	7,502.6	50.22%	40,410,107	76.12%
Natural Gas	2,785.3	18.65%	2,163,191	4.07%
Wind	3,670	17.81%	4,083,787	7.69%
Fuel Oil / Petroleum	1,163.8	7.79%	161,127	0.30%
Nuclear	679.5	4.55%	5,282,202	9.95%
Hydro	131.3	0.88%	819,047	1.54%
Other Renewables	14.6	0.10%	167,325	0.32%
<b>Total</b>	<b>14,938.0</b>	<b>100.00%</b>	<b>53,086,786</b>	<b>100.00%</b>

Notes: (1) Capacity physically located in Iowa and includes non-utility generators such as merchant plants, hospitals, colleges/universities, and industrials.

(2) Generation from all Iowa assets as noted in Note 1.

Sources: (1) Capacity: U.S. Department of Energy, Energy Information Administration EIA-860.

(2) Generation: EIA-906/920.



# Who We Regulate

- 2 Investor-Owned Electric Utilities
- 1 Investor-Owned Water Utility
- 4 Investor-Owned Natural Gas Utilities
- 136 Municipal Electric Utilities
- 45 Rural Electric Cooperatives (consolidation in 2009)
- 51 Municipal Gas Utilities
- 3 Large Local Exchange Carriers
- 280 Independent and Competitive Local Exchange Service Providers

***IUB has authority to resolve certain disputes between utilities***



# Who We Regulate

Utility Type	# of Utilities	# of Customers	% Customers	2008 MWh Sales <sup>1</sup>	% Sales
IOU	2	1,115,053	72.17%	33,851,883	74.91%
Muni	136	209,531	13.56%	5,320,689	11.77%
REC	46	220,427	14.27%	6,019,457	13.32%
<b>Total</b>	<b>184</b>	<b>1,545,011</b>	<b>100.00%</b>	<b>45,192,029</b>	<b>100.00%</b>

**Note:** (1) IOU, Muni, and REC totals exclude sales for resale. REC totals exclude sales to Generation & Transmission (G&T).

Source: 2008 Annual Utility Reports (IE-1s, EC-1s, and ME-1s).



# What We Regulate - Overview

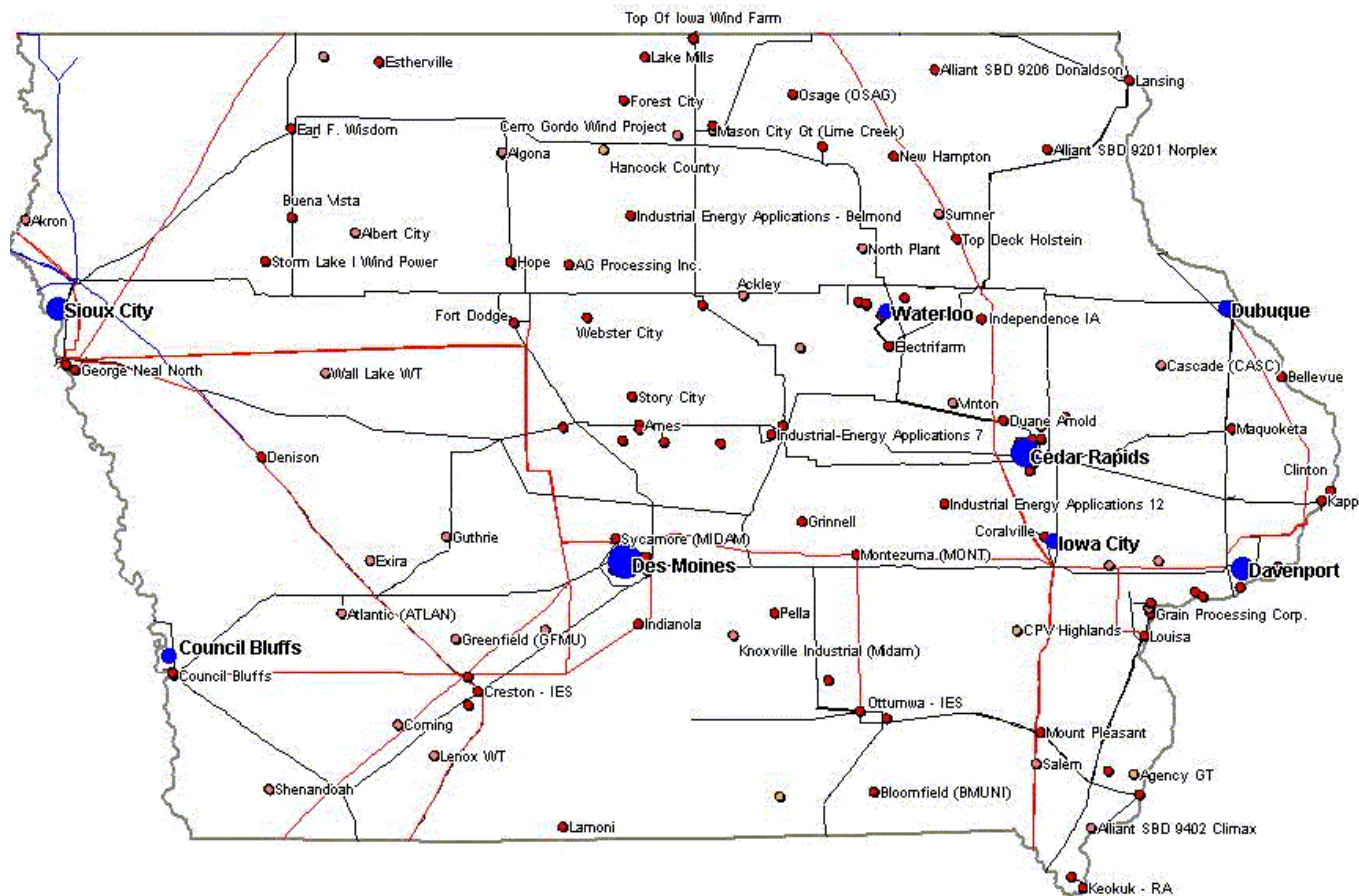
- Electricity - siting (all) and rates (except consumer owned, merchant)
  - Includes Generation, Transmission (siting), Distribution, Service Issues, Safety
- Gas – permitting and rates
- Safety and Engineering - regulate gas and electric service providers, pipeline and electric transmission and distribution companies as it relates to safety, construction, and operation and maintenance of facilities
  - Reviews and processes petitions for electric transmission line franchises and pipeline permits
  - Conducts inspections of natural gas and electric utilities for compliance with safety standards
  - Act as an interstate agent for the federal Department of Transportation in pipeline safety matters
  - An Electric Line Franchise is required for any electric line



# What We Regulate - Electricity

## Iowa's Major Generating Units/Transmission Lines and Cities (> 50,000 in Population)

—— 345 kV line —— 161 kV line



# What We Regulate - Electricity

## Generation Addition in Iowa

- **Recent Additions**

- 200 MW wind – Whispering Willow I (Interstate Power & Light), on-line 2009
- 226 MW wind – Next Era, on-line 2009
- 170 MW wind – Horizon, on-line 2009
- 625 MW wind – (MEC), on-line 2008
- 100 MW wind – (Wisconsin Public Service), Wisconsin, on-line 2008
- 615 MW wind – Next Era, on-line 2008
- 230 MW wind – Horizon, on-line 2008
- 790 MW coal – Council Bluffs #4 (MEC) on-line 2007
- 600 MW natural gas – Emery (IPL) on-line 2004
- 575 MW natural gas – GDMEC (MEC) on-line 2003

- **IUB Approved**

- 1001 MW (MEC) wind

- **Proposed Units**

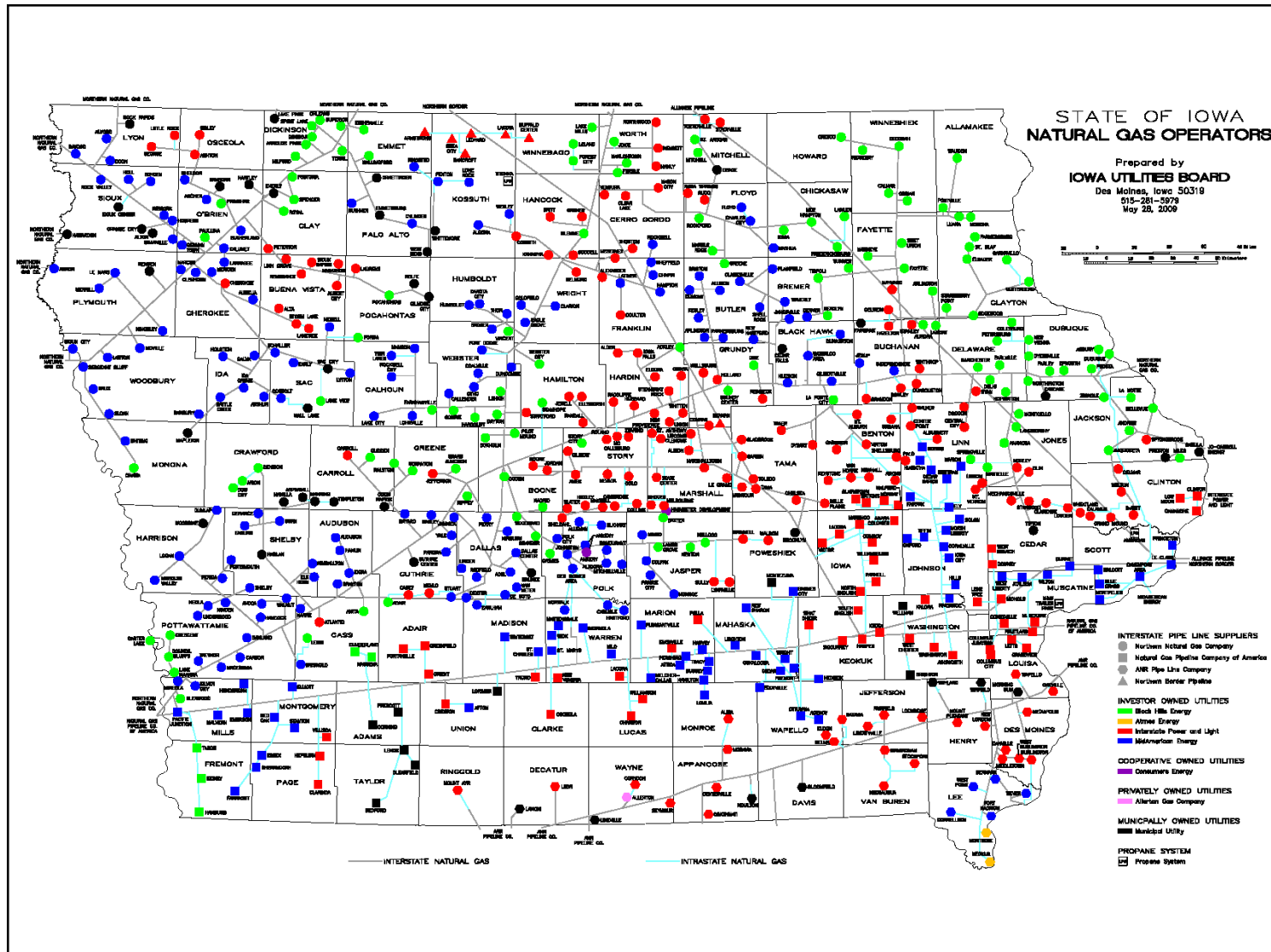
- 750 MW coal (LS Power, LLC), Waterloo

Note: MEC wind location or project names include Adair, Carroll, Century Expansion, Charles City, Pomeroy II, Pomeroy III and Walnut Wind.



# What We Regulate – Natural Gas

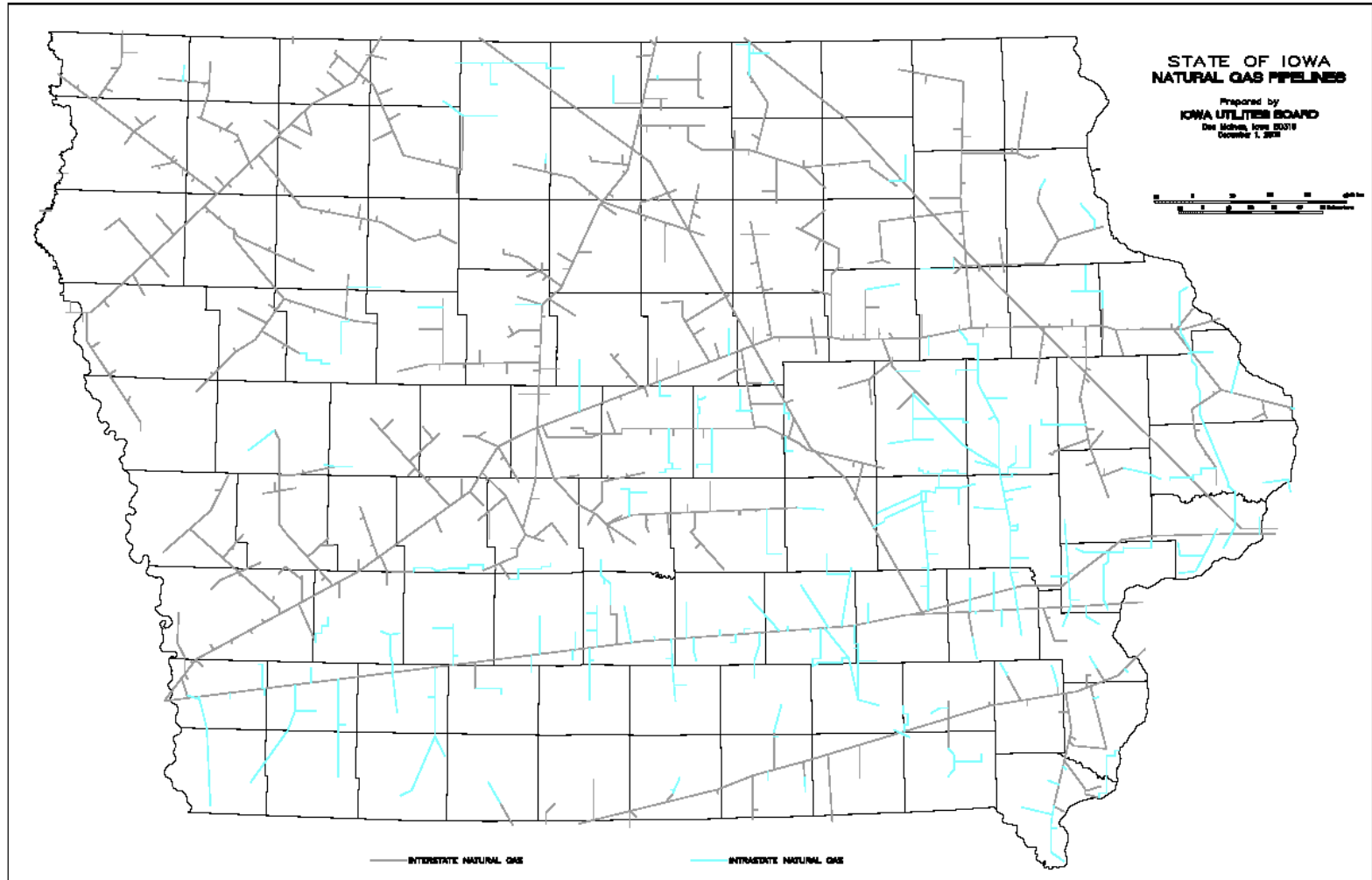
## Gas Operators





# What We Regulate – Natural Gas

## Gas Pipelines



# What We Regulate – Renewable Energy

- 105 MW legislated nameplate exceeded
- Percentage of the generation portfolio is increasing
  - MidAmerican: 11% of sales
  - Alliant: 4.5% of their sales
  - Green credit value may be sold if greater than their Iowa renewable purchase requirement
- Increases due to several factors including state and federal tax incentives
- Renewables like Ethanol, Biodiesel (outside of IUB scope)
  - Very LARGE electricity and gas consumers
  - Large Transmission investment required
  - Potential for stranded investments (e.g. T&D)?



# What We Regulate – Renewable Energy

## Wind-Powered Electricity Generation in Iowa

Estimated Annual Iowa Wind Generation				
	January 1, 2007	January 1, 2008	January 1, 2009	January 1, 2010
Range	5.90%	6.80%	13.90%	17.80%
	5.90%	6.90%	15.00%	19.90%
Average	5.90%	6.90%	14.50%	18.60%
Wind Capacity (MW)	931	1,192	2,791	3,670
<b>Notes:</b> Estimated output from wind turbines, as a percentage of all electric generation in Iowa. Iowa estimated average wind capacity factor of 33.3% per industry consultant Tom Wind. Generation date source is EIA. Wind capacity source is American Wind Energy Association (AWEA).				

As of January 2010, IUB estimates that 17-20% of all electricity generated in Iowa now comes from wind.

IUB also estimate that Iowa is currently #1 in the country in wind generation output as a percentage of all electricity generation in the state.

# What We Regulate – Safety and Engineering

## Safety Inspections



The bright light is an electric arc to the branch of a tree during a strong wind – the smoke is from pieces of burning wood on the ground.  
Tree trimming was needed



# What We Regulate – Safety and Engineering

## Safety Inspections



Field inspection hazards (Not in Iowa!)

# What We Regulate – Safety and Engineering

## Investigations



On February 22, 2004, this pipeline broke at a river crossing. 3,000 customers were without gas for two days.

### Investigation found:

- Standards require periodic inspections at river crossings
- This crossing had not been inspected often enough
- The last inspection was during high water when the pipe could not be seen, and line was not rechecked later when the water was lower

# Iowa and Regional Transmission Organizations

## FERC Order 890

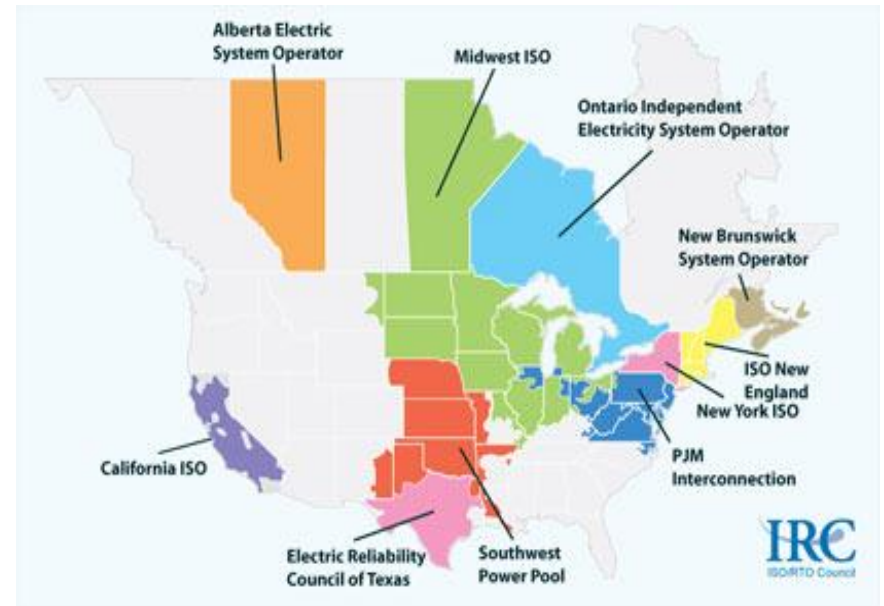
Establishes requirements for transmission planning

## RTOs/ISOs

(e.g. MISO, PJM, NY ISO)  
Open stakeholder processes

## Outside of RTOs

e.g. MAPPCOR, TVA, etc.  
NERC approved planning authority with open stakeholder processes



**10 year (or longer) planning horizons**

# Iowa and Regional Transmission Organizations

- Generally State PUC jurisdiction:
  - Transmission Siting
  - Generation: Siting and resource adequacy
  - Retail: Rates, DR, EE
  - Other
- Public Policy assumptions critical
  - State RPS (e.g., MN, WI, IL, OH, MI)
  - Federal RPS
  - State PUC jurisdictional items
- State efforts at policy input (not planning or siting)
- Federal Energy Regulatory Commission (FERC)
- Interstate Activities (crossing state lines)
- Wholesale rates (sales and purchases between utilities)



# Questions?



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