The Evolving Plan for the Clean Energy Transition

The Illinois Renewable Energy Access Plan

ILLINOIS MANUFACTURERS' ASSOCIATION

March 1, 2023

Chris Townsend
Managing Partner
CJT Energy Law, LLC

Karen Onaran
President & CEO
ELCON

Mark Pruitt
Principal
The Power Bureau, LLC

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"Partners for Evolving Energy Markets"

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AGENDA

INTRODUCTIONS	▪ Audience ▪ Presenters
OVERVIEW OF THE ILLINOIS COMMERCE COMMISSION	▪ History ▪ The ICC's Role in Energy Policy
THE CLIMATE & EQUITABLE JOBS ACT	▪ Changing Illinois Energy Landscape ▪ Introduced Long-Term Planning
THE RENEWABLE ENERGY ACCESS PLAN	▪ What is The REAP? ▪ What's in The REAP? ▪ What not (yet) in The REAP?
HOW TO GET INVOLVED	▪ Participating in the ICC Proceeding
QUESTIONS	

INTRODUCTIONS

INTRODUCTIONS

Mark Pruitt

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Current Work	**Power Bureau.** Advisor on energy policy, planning, and procurement. **Illinois Community Choice Aggregation Network.** Municipal aggregation and energy purchasing for municipalities
Past Work	**Illinois Power Agency.** Director of state utility regulator responsible for wholesale electricity planning and purchasing for investor-owned utilities, Renewable Portfolio Standard, Clean Coal Portfolio Standard. **University of Illinois.** Managed electricity and natural gas purchasing, hedging, billing for state executive agencies. **Nicor Solutions.** Cogeneration and energy efficiency project developer for federal facilities.
Other Activities	**Teaching.** Northwestern University, University of Illinois **Argonne National Laboratory.** Energy Transition Consultant for Net Zero World (Indonesia)

INTRODUCTIONS

Karen Onaran

President & CEO | ELCON
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(202) 210-7153

Current Work	**Electricity Consumers Resource Council (ELCON).** Representing large industrial users of electricity before the federal government including Congress, FERC, NERC, and the DOE to ensure reliable electricity at least cost.
Prior Work	**Edison Electric Institute (EEI).** Represented investor-owned utilities before FERC to ensure favorable transmission policies including robust rate of returns, transmission planning, and competitive development. **Multiple law firms in DC**. Served as a paralegal assisting with corporate transactions, project finance, and energy regulatory practices.
Other	**Energy Systems Integration Group**. Former Board member (ex officio) **Women in Government Relations**. Co-Chair of the Energy, Environment, and Agriculture task force.

INTRODUCTIONS

Chris Townsend

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Current Work	**CJT Energy Law, LLC.** Representing large energy users (individually and in coalitions), developers, competitive suppliers, investors, a transmission company and electric cooperative on energy policy, regulatory, and legislative issues. **Northern Illinois Energy Users.** Quarterly informational meetings with large energy users in the Chicagoland area.
Prior Work	**"Big Law" Law Firm Partner.** DLA Piper, Quarles & Brady, Clark Hill, Freeborn & Peters consistently advancing competitive markets, representing entities across the table from local utilities.
Other	Publishing weekly "*Energy News Highlights*" **Chicago Debate Commission**. Former Board member.

ILLINOIS COMMERCE COMMISSION

ILLINOIS COMMERCE COMMISSION

THE ILLINOIS UTILITY MODEL

- Raw Competition was Inefficient
- The Natural Monopoly
- The Regulatory Compact
- Utility Regulation
- Rate of Return Ratemaking
- The ICC's Role in Energy Policy

Competition among private sector electric utilities led to duplicative infrastructure

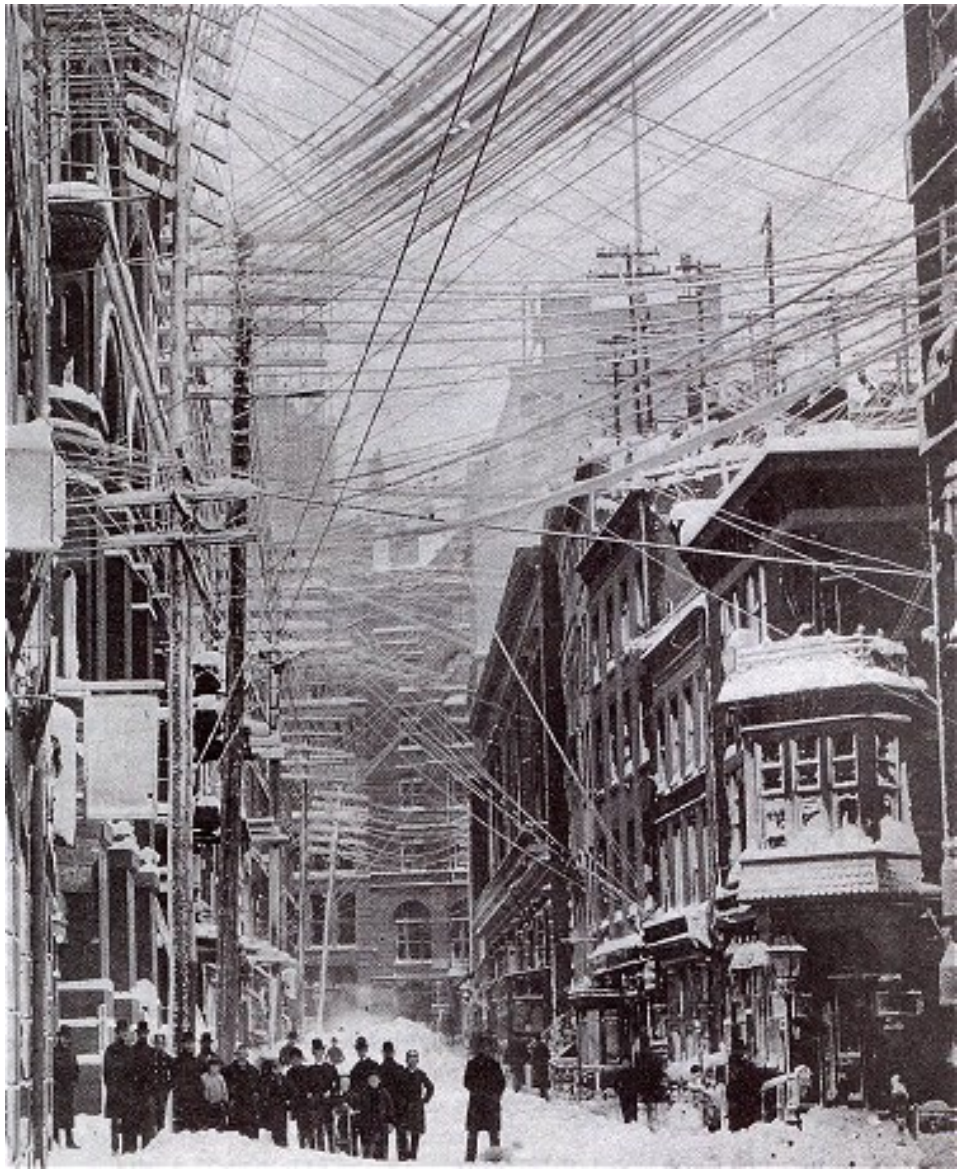

Image Credit: Wikipedia

ILLINOIS COMMERCE COMMISSION

THE ILLINOIS UTILITY MODEL

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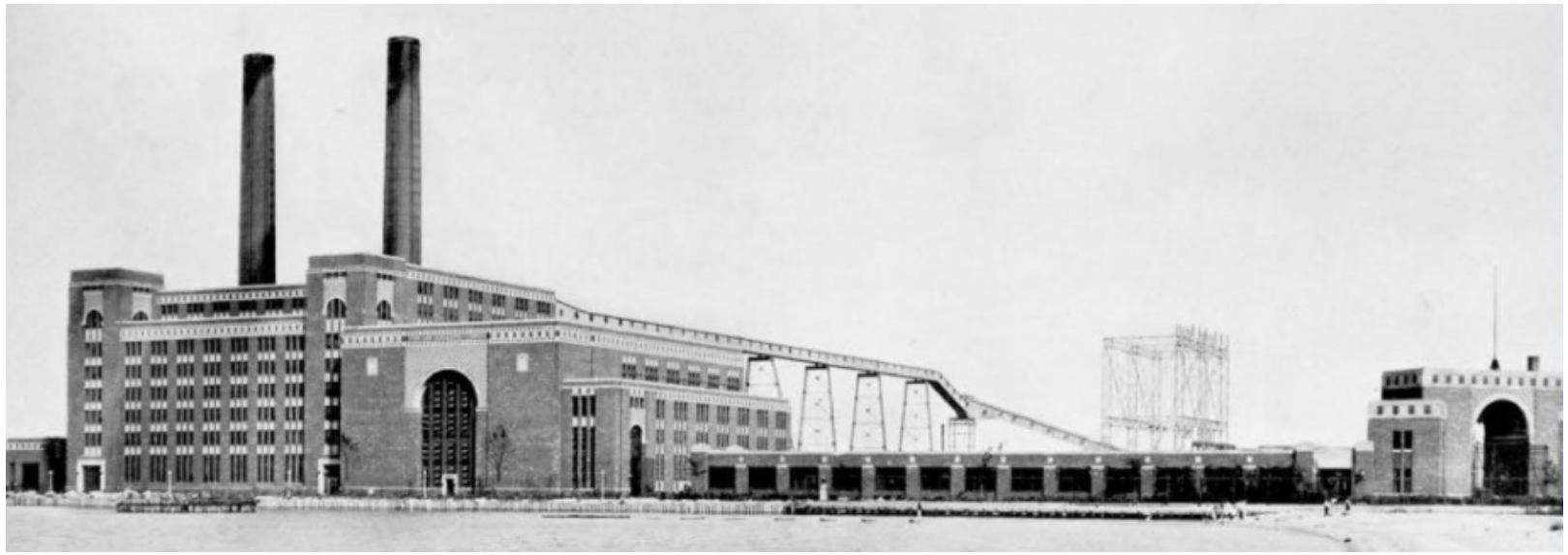
Sam Insull (original owner of Commonwealth Edison) promoted the concept of the "Natural Monopoly" within the power sector

- Believed that economies of scale benefitted companies and consumers
- Competing utilities was wasteful and imposed higher costs on consumers
- A "natural monopoly" could benefit consumers and energy companies

Insull proposed that rates could be determined better by regulators who acted "scientifically" and who had exceptional "social consciences."

- By 1913, 27 states had regulating commissions
- ….and Insull had his monopoly in Illinois



Stateline Power Plant (Hammond, IN) built by Commonwealth Edison for the south side

ILLINOIS COMMERCE COMMISSION

The Regulatory Compact: Investor-Owned utilities are granted a monopoly to provide consumers with electricity services, and the public receive stable and affordable service at rates approved by the Public Utility Commission.

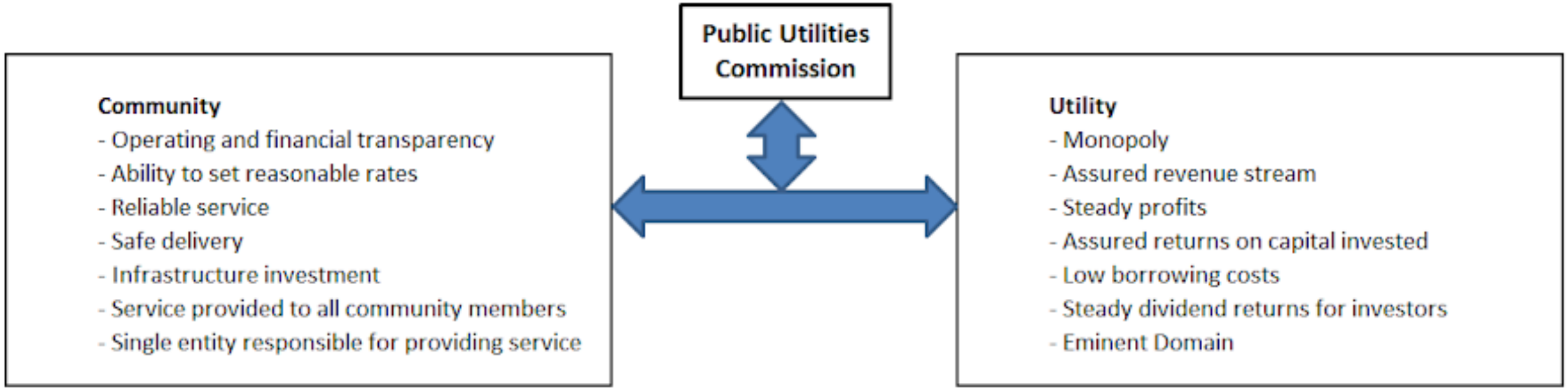


Image Credit: Energy Information Administration

ILLINOIS COMMERCE COMMISSION

THE ILLINOIS UTILITY MODEL

- Raw Competition
- The Natural Monopoly
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- Utility Regulation
- Rate of Return Ratemaking
- The ICC's Role in Energy Policy

Utility regulation occurs at the state level; the utility regulator in Illinois is the Illinois Commerce Commission (ICC)

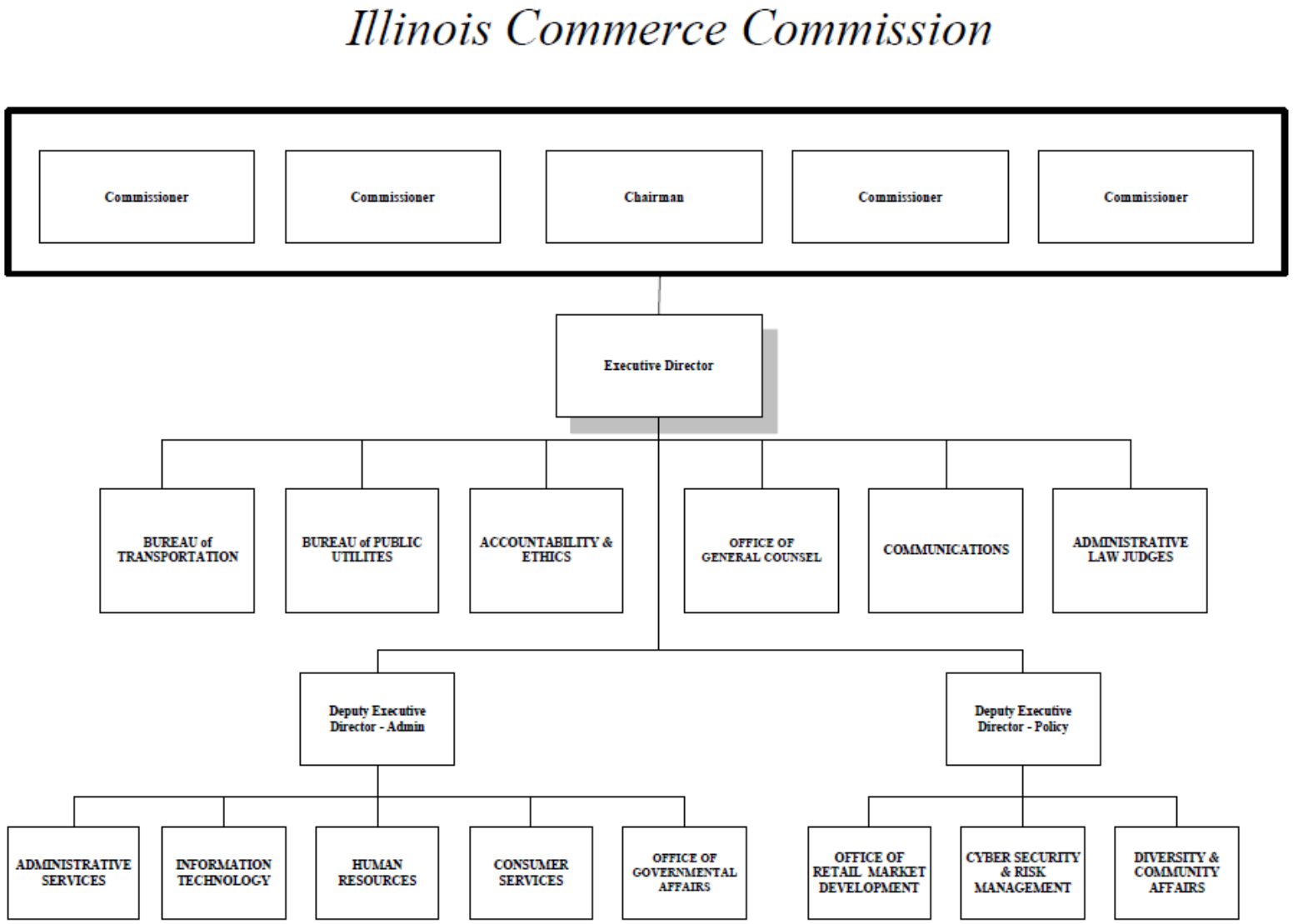


Image Credit: Illinois Commerce Commission

ILLINOIS COMMERCE COMMISSION

THE ILLINOIS UTILITY MODEL

- Raw Competition
- The Natural Monopoly
- The Regulatory Compact
- **Utility Regulation**
- Rate of Return Ratemaking
- The ICC's Role in Energy Policy

The ICC is comprised of 5 Commissioners, serving staggered 5-year terms, appointed by the Governor and confirmed by the Senate. One of the Commissioners is named as Chair by the Governor.

Chair
Carrie Zalewski

Commissioner
Ethan Kimbrel

Commissioner
Michael Carrigan

Commissioner
Ann McCabe

Vacant

Image Credit: Illinois Commerce Commission

THE ILLINOIS COMMERCE COMMISSION

Utility Regulation: Utility regulators approve utility rates through rate cases – which proceed like a court case. ComEd AND Ameren Illinois each has a "multi-year" rate case now underway that will set delivery rates for the next four years.

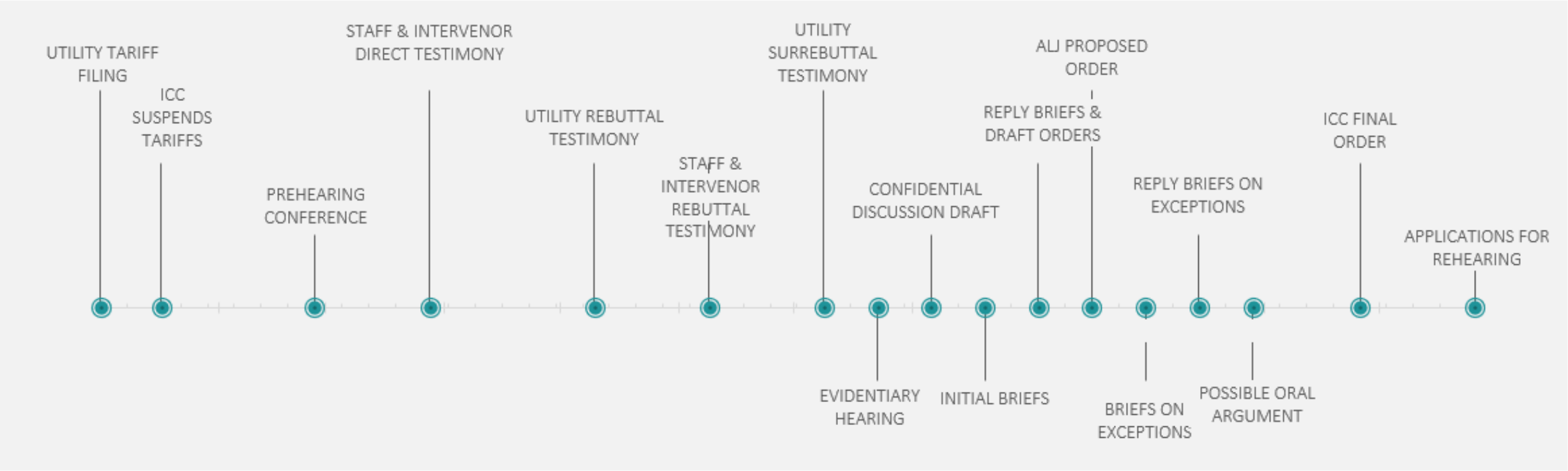


Image Credit: Energy Information Administration

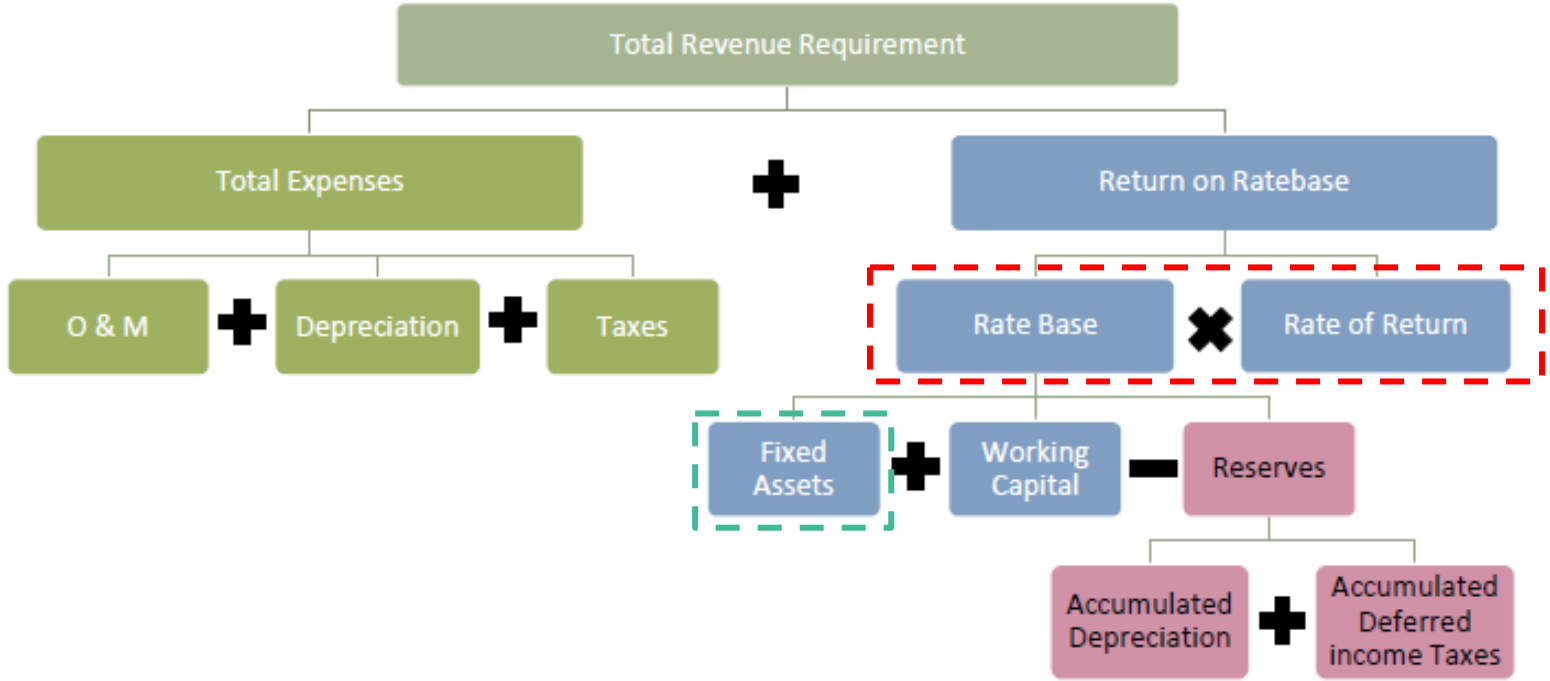
ILLINOIS COMMERCE COMMISSION

THE ILLINOIS UTILITY MODEL

- Raw Competition
- The Natural Monopoly
- The Regulatory Compact
- Utility Regulation
- **Rate of Return Ratemaking**
- The ICC's Role in Energy Policy

Rate of Return Ratemaking compensates utilities for Operating Expenses (pass-through basis) and Capital Expenses (return of and return on ratebase)

This means that the utilities are incentivized to spend more on Fixed Assets to increase their ratebase



ILLINOIS COMMERCE COMMISSION

THE ILLINOIS UTILITY MODEL

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ICC processes are frequently used to build a "consensus" view to support new regulations and legislation

POST 2006 INITIATIVE (2006)	▪ Workshops to discuss rules for retail choice for the mass market ▪ Led to regulations that still ***govern all aspects of retail choice***
SMART GRID WORKSHOPS (2010)	▪ Workshops to examine the benefits of more utility infrastructure spending including Smart Meters ▪ These (with the ComEd bribery scandal) led the Electric Infrastructure and Modernization Act which ***raised delivery rates***
NEXT GRID (2018)	▪ Major initiative to examine the benefits of more utility infrastructure spending, but was terminated due to ***exclusion of stakeholders from the "public" process*** ▪ Led to major aspects of the Future Energy Jobs Act (FEJA) and the Climate and Equitable Jobs Act (CEJA)
RENEWABLE ENERGY ACCESS PLAN (2023)	▪ Major initiative to "comprehensively and actionably" outline the path to an "equitable, reliable, and affordable path to meeting Illinois' policy requirements for a clean electricity system." ▪ ***Likely will lead to future legislation which could obligate more consumer "investment"***

CLIMATE AND EQUITABLE JOBS ACT

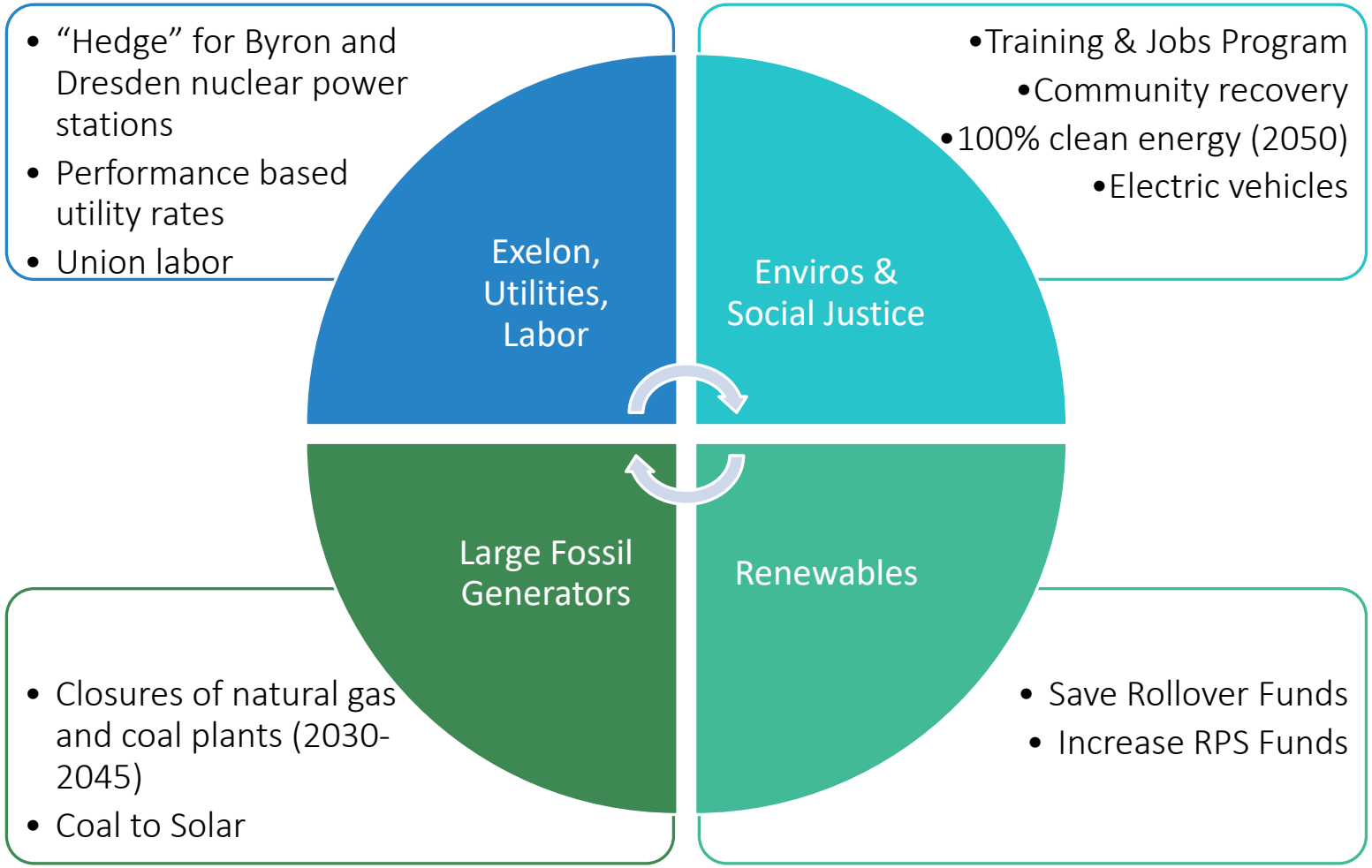
Public Act 102-0662

CLIMATE & EQUITABLE JOBS ACT (CEJA)

CHANGING THE ENERGY LANDSCAPE

- Diverse Stakeholders – Ambitious Goals
- Layered Costs on Ratepayers
- Long Term Planning

CEJA brought together diverse stakeholders to advance ambitious policy goals



CEJA LAYERED ON SIGNIFICANT COSTS TO CONSUMERS (COMED)

COMED SERVICE REGION COST IMPACTS											
2021 Energy Bill Cost Centers	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**TOTAL**
Coal to Solar	$28,035,000	$32,760,000	$32,760,000	$32,760,000	$32,760,000	$32,760,000	$32,760,000	$32,760,000	$32,760,000	$32,760,000	$322,875,000
Credit Card Socialization	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$90,000,000
Distributed Generation Incentive	$33,969,986	$46,062,137	$60,361,466	$74,138,875	$87,394,365	$100,127,935	$112,339,586	$124,029,318	$135,197,130	$145,843,023	$919,463,821
DG Storage Incentive	$30,572,987	$41,455,923	$51,947,420	$62,047,477	$71,756,095	$81,073,273	$89,999,012	$98,533,311	$106,676,170	$114,427,590	$748,489,259
Energy Assistance	-$16,750,800	$6,913,052	$30,576,904	$54,240,756	$54,240,756	$54,240,756	$54,240,756	$54,240,756	$54,240,756	$54,240,756	$400,424,452
Energy Efficiency Programs	$18,099,234	$35,623,929	$52,512,657	$68,590,973	$81,749,584	$95,760,797	$110,875,031	$127,211,867	$144,303,460	$162,129,116	$896,856,647
Electric Integrated Grid Planning	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$30,000,000
Electric Vehicle Incentives	**Incentives paid from Existing Alternative Fuels Fund Collections**										
Beneficial Electrification	$7,301,382	$14,544,914	$21,729,150	$28,852,608	$35,913,767	$42,911,071	$49,842,923	$56,707,688	$63,503,686	$70,229,201	$391,536,390
Equitable Energy Upgrade Program	$786,667	$786,667	$786,667	$786,667	$786,667	$786,667	$786,667	$786,667	$786,667	$786,667	$7,866,667
Equity Programs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Exelon Incentive	$138,800,000	$138,800,000	$138,800,000	$138,800,000	$138,800,000	$0	$0	$0	$0	$0	$694,000,000
ICC Division of Int Dist Planning	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$52,000,000
Intervenor Compensation	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$4,500,000
Performance Based Rates	$0	$0	$97,240,000	$144,716,000	$194,565,800	$246,908,090	$301,867,495	$359,574,869	$420,167,613	$483,789,993	$2,248,829,860
Renewable Portfolio Standard	$265,170,737	$265,416,758	$265,432,884	$264,772,074	$263,615,497	$263,696,304	$264,770,458	$266,345,938	$266,345,938	$266,352,625	$2,651,919,215
Utility-Scale Pilot Projects (Storage)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL COST CENTERS	**$523,635,193**	**$600,013,381**	**$769,797,148**	**$887,355,430**	**$979,232,532**	**$935,914,894**	**$1,035,131,928**	**$1,137,840,414**	**$1,241,631,421**	**$1,348,208,971**	**$9,458,761,311**
Annual Consumption (MWh)	84,670,393	84,748,949	84,754,098	84,543,098	84,173,797	84,199,599	84,542,582	85,045,641	85,045,641	85,047,776	846,771,574
Average Rate Impact ($/MWh)	$6.18	$7.08	$9.08	$10.50	$11.63	$11.12	$12.24	$13.38	$14.60	$15.85	$11.17

CEJA LAYERED ON SIGNIFICANT COSTS TO CONSUMERS (AMEREN ILLINOIS)

AMEREN ILLINOIS SERVICE REGION COST IMPACTS											
2021 Energy Bill Cost Centers	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**TOTAL**
Coal to Solar	$12,015,000	$14,040,000	$14,040,000	$14,040,000	$14,040,000	$14,040,000	$14,040,000	$14,040,000	$14,040,000	$14,040,000	$138,375,000
Credit Card Socialization	$4,500,000	$4,500,000	$4,500,000	$4,500,000	$4,500,000	$4,500,000	$4,500,000	$4,500,000	$4,500,000	$4,500,000	$45,000,000
Distributed Generation Incentive	$14,558,565	$19,740,916	$25,869,200	$31,773,803	$37,454,728	$42,911,972	$48,145,537	$53,155,422	$57,941,627	$62,504,153	$394,055,923
DG Storage Incentive	$13,102,709	$17,766,824	$22,263,180	$26,591,776	$30,752,612	$34,745,688	$38,571,005	$42,228,562	$45,718,359	$49,040,396	$320,781,111
Energy Assistance	$159,782	$319,565	$479,347	$479,347	$479,347	$479,347	$479,347	$479,347	$479,347	$0	$3,834,778
Energy Efficiency Programs	$8,435,992	$16,895,404	$25,118,749	$32,974,029	$39,861,479	$46,744,807	$53,663,205	$60,658,665	$67,690,063	$74,787,134	$426,829,529
Electric Integrated Grid Planning	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$15,000,000
Electric Vehicle Incentives	**Incentives paid from Existing Alternative Fuels Fund Collections**										
Beneficial Electrification	$1,946,338	$3,877,255	$5,792,365	$7,691,274	$9,573,575	$11,438,855	$13,286,687	$15,116,635	$16,928,253	$18,721,081	$104,372,318
Equitable Energy Upgrade Program	$393,333	$393,333	$393,333	$393,333	$393,333	$393,333	$393,333	$393,333	$393,333	$393,333	$3,933,333
Equity Programs	$52,734,461	$53,226,379	$53,342,591	$53,343,219	$53,229,819	$52,928,467	$52,559,607	$52,198,065	$52,006,476	$51,869,156	$527,438,240
Exelon Incentive	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ICC Division of Int Dist Planning	$2,600,000	$2,600,000	$2,600,000	$2,600,000	$2,600,000	$2,600,000	$2,600,000	$2,600,000	$2,600,000	$2,600,000	$26,000,000
Intervenor Compensation	$225,000	$225,000	$225,000	$225,000	$225,000	$225,000	$225,000	$225,000	$225,000	$225,000	$2,250,000
Performance Based Rates	$0	$0	$11,091,397	$29,724,945	$49,849,176	$71,583,346	$95,056,249	$120,406,985	$147,785,779	$177,354,877	$702,852,755
Renewable Portfolio Standard	$97,248,966	$98,628,419	$98,940,462	$98,695,797	$97,968,064	$97,212,206	$96,647,413	$96,280,592	$95,783,613	$95,430,715	$972,836,247
Utility-Scale Pilot Projects (Storage)	$2,473,368	$4,865,305	$4,702,443	$4,539,581	$4,376,719	$4,213,856	$4,050,994	$3,888,132	$3,725,270	$3,562,408	$40,398,076
TOTAL COST CENTERS	**$211,893,515**	**$238,578,400**	**$270,858,068**	**$309,072,104**	**$346,803,853**	**$385,516,879**	**$425,718,378**	**$467,670,738**	**$511,317,122**	**$556,528,254**	**$3,723,957,310**
Annual Consumption (MWh)	35,084,498	35,582,163	35,694,739	35,606,471	35,343,927	35,071,236	34,867,476	34,735,138	34,555,843	34,428,528	350,970,019
Average Rate Impact ($/MWh)	$6.04	$6.70	$7.59	$8.68	$9.81	$10.99	$12.21	$13.46	$14.80	$16.16	$10.61

CEJA LAYERED ON SIGNIFICANT COSTS TO CONSUMERS (COMED)

COMED SERVICE REGION COST IMPACTS											
2021 Energy Bill Cost Centers	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**TOTAL**
Coal to Solar	$28,035,000	$32,760,000	$32,760,000	$32,760,000	$32,760,000	$32,760,000	$32,760,000	$32,760,000	$32,760,000	$32,760,000	$322,875,000
Credit Card Socialization	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$9,000,000	$90,000,000
Distributed Generation Incentive	$33,969,986	$46,062,137	$60,361,466	$74,138,875	$87,394,365	$100,127,935	$112,339,586	$124,029,318	$135,197,130	$145,843,023	$919,463,821
DG Storage Incentive	$30,572,987	$41,455,923	$51,947,420	$62,047,477	$71,756,095	$81,073,273	$89,999,012	$98,533,311	$106,676,170	$114,427,590	$748,489,259
Energy Assistance	-$16,750,800	$6,913,052	$30,576,904	$54,240,756	$54,240,756	$54,240,756	$54,240,756	$54,240,756	$54,240,756	$54,240,756	$400,424,452
Energy Efficiency Programs	$18,099,234	$35,623,929	$52,512,657	$68,590,973	$81,749,584	$95,760,797	$110,875,031	$127,211,867	$144,303,460	$162,129,116	$896,856,647
Electric Integrated Grid Planning	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$30,000,000
Electric Vehicle Incentives	**Incentives paid from Existing Alternative Fuels Fund Collections**										
Beneficial Electrification	$7,301,382	$14,544,914	$21,729,150	$28,852,608	$35,913,767	$42,911,071	$49,842,923	$56,707,688	$63,503,686	$70,229,201	$391,536,390
Equitable Energy Upgrade Program	$786,667	$786,667	$786,667	$786,667	$786,667	$786,667	$786,667	$786,667	$786,667	$786,667	$7,866,667
Equity Programs	$127,265,539	$126,773,621	$126,657,409	$126,656,781	$126,770,181	$127,071,533	$127,440,393	$127,801,935	$127,993,524	$128,130,844	$1,272,561,760
Exelon Incentive	$138,800,000	$138,800,000	$138,800,000	$138,800,000	$138,800,000	$0	$0	$0	$0	$0	$694,000,000
ICC Division of Int Dist Planning	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$5,200,000	$52,000,000
Intervenor Compensation	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$450,000	$4,500,000
Performance Based Rates	$0	$0	$97,240,000	$144,716,000	$194,565,800	$246,908,090	$301,867,495	$359,574,869	$420,167,613	$483,789,993	$2,248,829,860
Renewable Portfolio Standard	$265,170,737	$265,416,758	$265,432,884	$264,772,074	$263,615,497	$263,696,304	$264,770,458	$266,345,938	$266,345,938	$266,352,625	$2,651,919,215
Utility-Scale Pilot Projects (Storage)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL COST CENTERS	**$650,900,732**	**$726,787,002**	**$896,454,557**	**$1,014,012,211**	**$1,106,002,712**	**$1,062,986,427**	**$1,162,572,321**	**$1,265,642,350**	**$1,369,624,945**	**$1,476,339,815**	**$10,731,323,071**
Annual Consumption (MWh)	84,670,393	84,748,949	84,754,098	84,543,098	84,173,797	84,199,599	84,542,582	85,045,641	85,045,641	85,047,776	846,771,574
Average Rate Impact ($/MWh)	$7.69	$8.58	$10.58	$11.99	$13.14	$12.62	$13.75	$14.88	$16.10	$17.36	$12.67

CLIMATE & EQUITABLE JOBS ACT (CEJA)

CHANGING THE ENERGY LANDSCAPE

- Diverse Stakeholders – Ambitious Goals
- Layered Costs on Ratepayers
- Introduced Long Term Planning

	Distribution System	
Pre - CEJA	• No comprehensive long-term planning by ICC • Rates set using Formula Rate process • Reset each year – in an expedited proceeding • Very little ICC authority	
Under CEJA		

CLIMATE & EQUITABLE JOBS ACT (CEJA)

CHANGING THE ENERGY LANDSCAPE

- Diverse Stakeholders – Ambitious Goals
- Layered Costs on Ratepayers
- Introduced Long Term Planning

	Distribution System	
Pre - CEJA	• No comprehensive long-term planning by ICC • Rates set using Formula Rate process • Reset each year – in an expedited proceeding • Very little ICC authority	
Under CEJA	• ICC again empowered • Utilities to develop and file "Multi-Year Grid Plans" • Multi-Year Rate levels to be set every 4 years using Performance- Based Ratemaking • Rate design issues to be addressed separately	

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	Distribution System	Generation & Transmission Systems
Pre - CEJA	• No comprehensive long-term planning by ICC • Rates set using Formula Rate process • Reset each year – in an expedited proceeding • Very little ICC authority	• Generally, no state involvement in generation • ICC participates case-by-case in RTOs and FERC proceedings individually and with coalitions of state regulators
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THE RENEWABLE ENERGY ACCESS PLAN

THE RENEWABLE ENERGY ACCESS PLAN

THE REAP

- What is The REAP?
- The Process for Developing The REAP
- Review of 2nd Draft of The REAP
- Topics NOT Addressed
- How to Get Involved

What is THE REAP?

- From CEJA's Legislative Findings:

  "The State of Illinois does not currently have a comprehensive power and environmental policy planning process to identify transmission infrastructure needs …."

  "Alternatives to overhead electric transmission lines can achieve cost-effective resolution of system impacts and warrant investigation of the circumstances under which those alternatives should be considered and approved. "

  "Creating a forward-looking plan for this State's electric transmission infrastructure, as opposed to relying on case-by-case development and repeated marginal upgrades, will achieve a lower-cost system for Illinois' electricity customers. A forward-looking plan can also help integrate and achieve a comprehensive set of objectives and multiple state, regional, and national policy goals."

- The REAP describes itself as:

  "An actionable plan for meeting CEJA's policy mandates equitably, reliably and affordably"

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The Process for Developing THE REAP

- ICC hired The Brattle Group to assist with process
- Workshops held throughout Summer of 2022
  - Initial Draft REAP Circulated
  - Presentations by ICC, PJM, MISO as well as Farm Bureau and environmental NGOs
- ICC Proceeding (ICC Docket No. 22-0749)
  - Initiated December 15, 2022
  - Released 2nd Draft of The REAP
  - Notice & Comment Format
  - Stakeholder Initial Comments due **March 31, 2023**
  - Stakeholder Reply Comments due **April 28, 2023**
- Process is to be repeated every two years

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What's in the Current Draft of THE REAP?

- The REAP:
  - Clarifies and quantifies Illinois' policy goals
  - Translates the goals into the volume of renewable resources needed over time
  - Highlights "Renewable Energy Zones" throughout the state and recommends pathways to uses the zones to guide planning
  - Identifies and recommends reforms to transmission planning, interconnection and markets
- Organized into 5 Topic Areas
  - Each Chapter summarizes current status and includes "Findings and Recommendations"
  - Each Chapter includes policies the ICC can advance immediately as well as policies and legislation that can / should be enacted to better meet CEJA's goals

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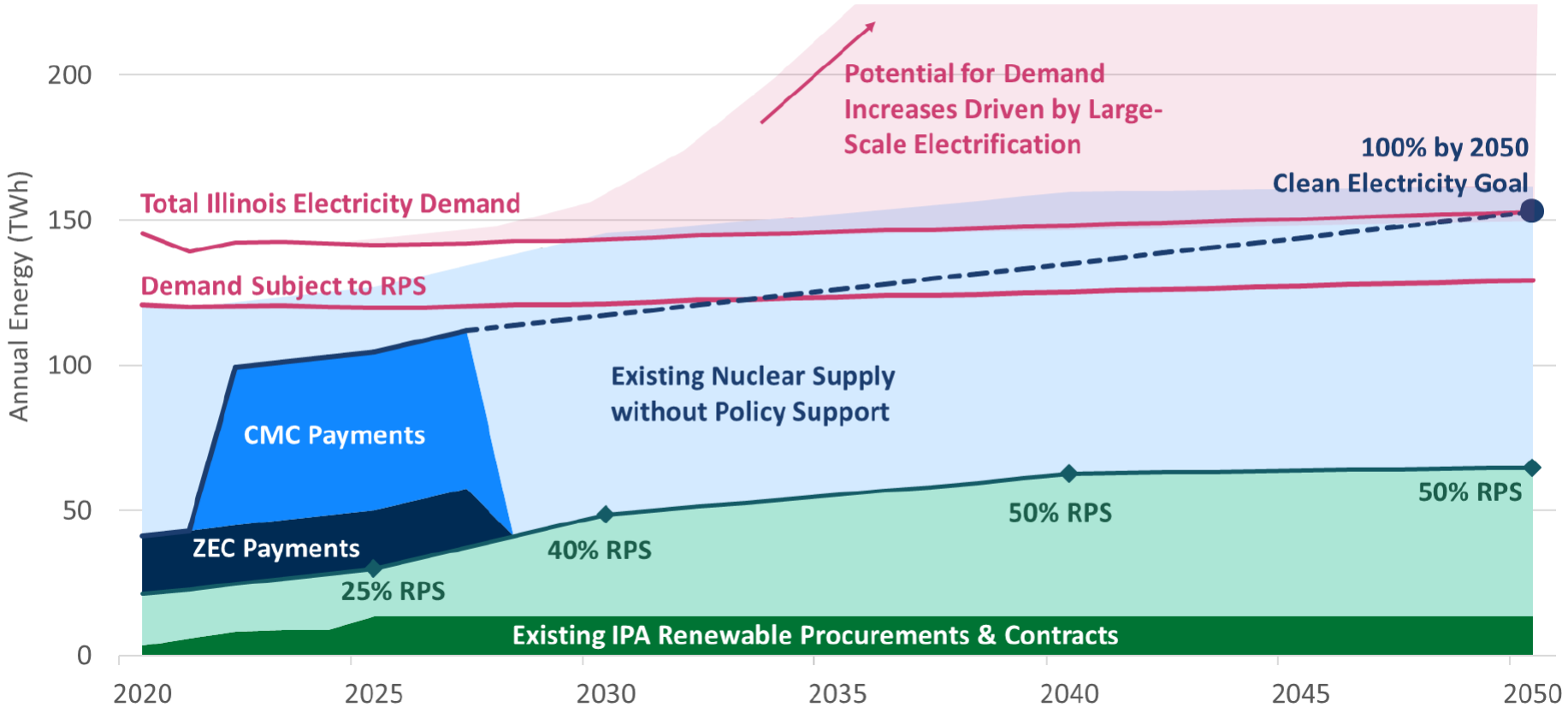
REAP HIGHLIGHTS – AND WARNINGS

Chapter 2: Transitioning to 100% Clean Energy Mix

FIGURE 5: OUTLOOK FOR ILLINOIS CLEAN ELECTRICITY SUPPLY AND INCREASES IN CLEAN ELECTRICITY SUPPLY NEEDS



… 152 TWh of clean energy will be needed by 2050.

Electrification-driven demand has the potential to further increase the total clean electricity demand by 50–200%, *i.e.*, an additional 75–300 TWh

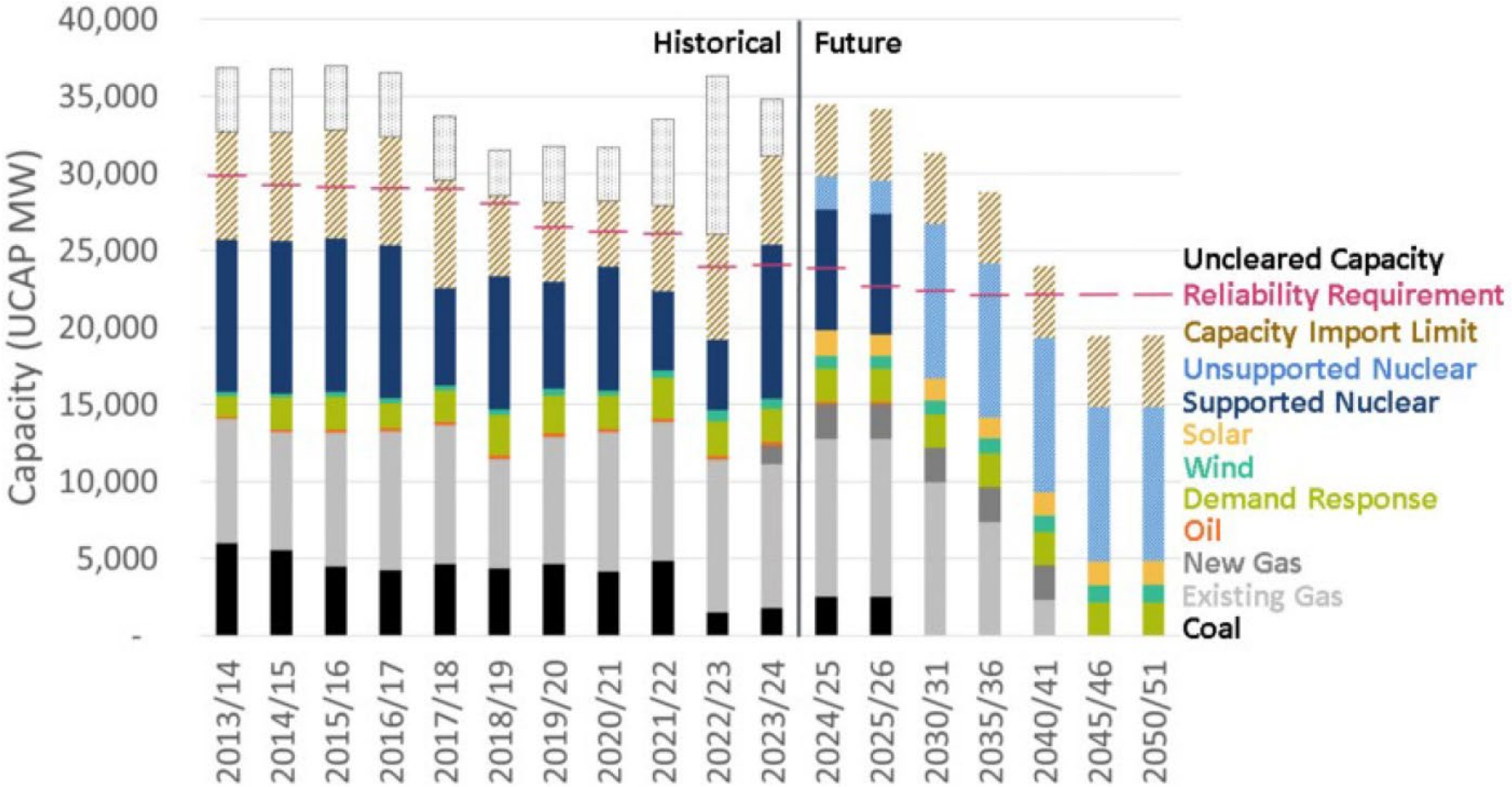
---

PJM: "The amount of generation retirements appears to be more certain than the timely arrival of replacement generation resources"

REAP HIGHLIGHTS – AND WARNINGS

Chapter 2: Transitioning to 100% Clean Energy Mix

FIGURE 9: PJM CAPACITY GAP WITH FOSSIL PHASEOUT



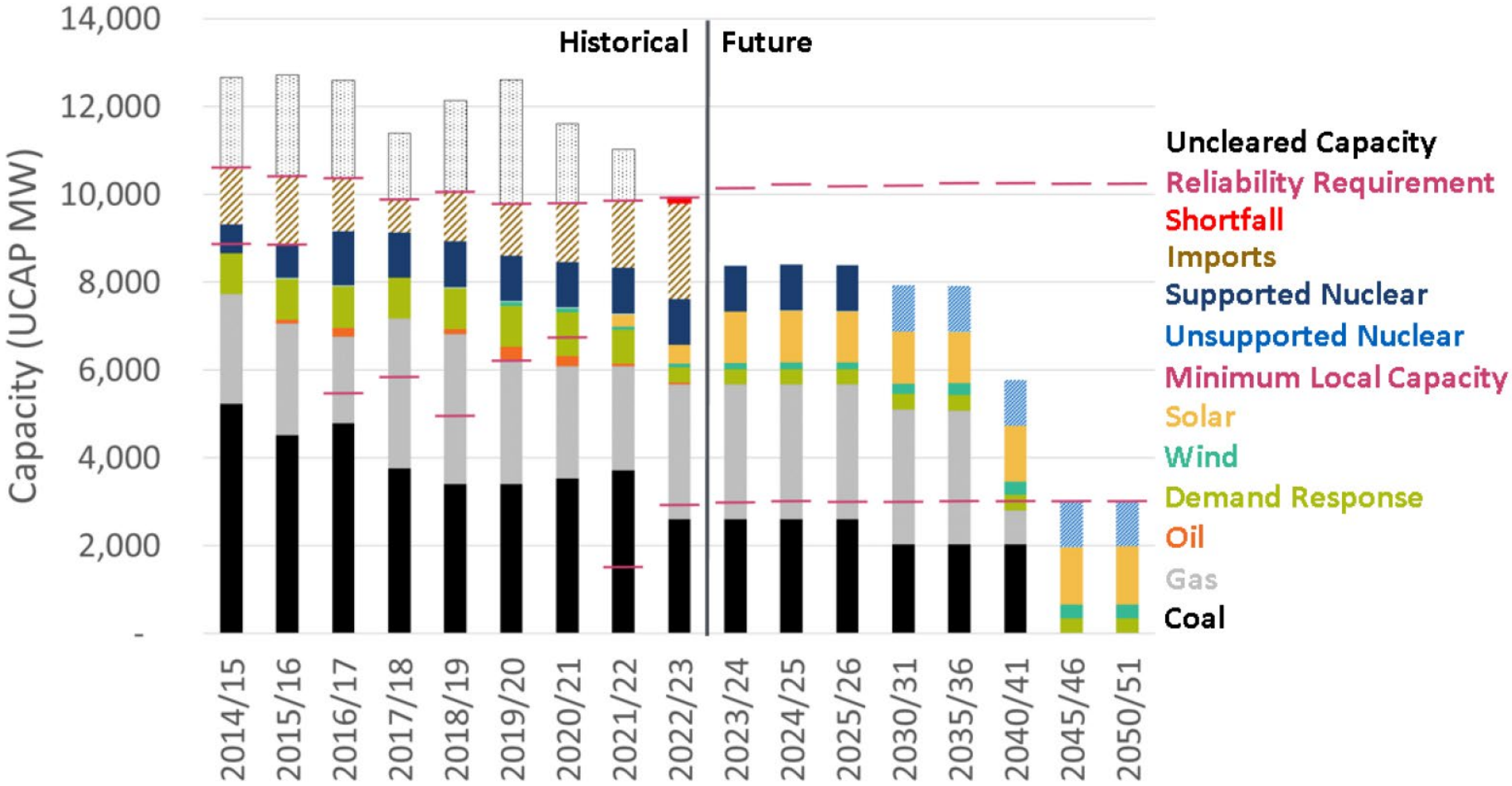
… the ComEd zone could meet its resource adequacy requirements as far out as 2040 …

There are also substantial risks of earlier resource adequacy challenges however, given the potential for nuclear retirements, expedited fossil retirements prior to the 100% phase-out dates, the possibility of PJM capacity supply exporting to MISO, and the possibility of reduced capacity value ratings for both renewables and emissions-capped fossil supply.

REAP HIGHLIGHTS – AND WARNINGS

Chapter 2: Transitioning to 100% Clean Energy Mix

FIGURE 10: MISO CAPACITY GAP WITH FOSSIL PHASEOUT



… the MISO-served portion of Illinois (Zone 4) experienced a capacity shortfall in the 2022/23 PRA.

These resource adequacy challenges could persist and expand throughout the CEJA-mandated phase out of fossil emissions in Illinois.

In the long term, the most cost-effective and balanced 100% clean electricity resource mix will likely need to account for the ability to import clean electricity from other decarbonizing states and export clean energy when Illinois is in surplus.

Transmission Expansion
- Important to clean energy transition
- PJM and MISO Planning Process

Transmission Expansion is an Important Part of the Transition to Clean Energy

- Study by Harvard reports that transmission will need to triple its current size/capacity at a cost of nearly **$2 trillion** to reach zero carbon by 2050
- Incremental buildout or **upgrades** is inefficient and costly
- Must take into consideration **state goals** when planning transmission
- Must incorporate long-term **scenario** planning
- Recognition of mismatched timelines re: generator v. transmission

HOW TRANSMISSION CURRENTLY IS PLANNED

MISO MTEP & PJM RTEP

- System **assessment**
- Scenarios, assumptions, sensitivities, and **criteria**
  - Load forecast (including electrification, DER, DR)
  - Retirement analysis
  - State and federal policy goals
  - Resilience/extreme weather
  - Interregional transfer capacity
- Identification of violations and need (reliability, market efficiency, public policy, and **interconnection** queue)
- Potential solutions including **upgrades**, **non-wires alternatives,** and **grid enhancing technologies**
- Board approval
- **Competitive solicitations**
  - PJM – project sponsorship (ideas)
  - MISO – competitive bidding (construction)
- Siting and permitting (major bottleneck)

REAP HIGHLIGHTS – AND WARNINGS

Other Key Provisions of THE REAP

- Potential for “excess emissions” if RTOs must frequently use reliability backstop procedures
- Risk of “leakage” when fossil fuel plants outside Illinois offset decreases in Illinois fossil fuel production
- “Renewable Energy Zones” should be identified and refined for targeted development
- Current RTO interconnection processes and related delays are barriers to achieving CEJA’s mandates
- Additional nuclear subsidies may be needed after the current subsidies expire
- Numerous studies with RTOs should model scenarios to identify reliability issues and potential for “leakage,” develop new region-wide clean energy products, improve data collection, and consider a carbon border pricing mechanism

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Topics NOT (yet) Addressed in THE REAP

- The Cost of Achieving CEJA's Goals
- Who Would Pay Those Costs
- The Potential Impact on the Illinois Economy
  - The impact of meeting CEJA's goals
  - The impact of blackouts
- Ways to Maximize Customer Engagement
  - Adopting a workable "Self-Direct" RPS
  - Using demand charges (per kW) to fund social programs
  - Making "time-of-use" the default option
  - Additional Demand Response incentives
  - Subsidize customer-owned renewable generation and battery storage
- Potential for Additional Oversight

POTENTIAL FOR ADDITIONAL OVERSIGHT

Independent Transmission Monitor (ITM)

- Concept originally proposed in response to Federal Energy Regulatory Commission Advanced Notice of Proposed Rulemaking
- Revisited at the October 2022 Technical Conference
- ITM Coalition has been formed
- Comments due to FERC March 23, 2023

- Oversight role
  - Confirm assumptions and criteria
  - Assist consumers with understanding data and transmission plans
  - Review supplemental/local projects for regional solutions
  - Ensure non-wires alternatives and grid enhancing technologies considered
  - Input on competitive solutions analysis
  - Maximize interregional coordination
  - Audit project costs and commitments
  - Coordinate interconnection queue with transmission planning

CONCLUSIONS

Transmission is needed to meet Illinois' goals	• Enables interconnection of clean energy resources • Facilitates flexibility
There is a mismatch in timelines	• Generation facilities are constructed in 5 years or less • Transmission facilities take 7 – 10 years to be built
Siting and permitting are largest hurdles	• Will my state benefit? • Are my customers saddled with costs with little to show for it?
Need increased oversight and enforcement	• ITM should be established for oversight • Projects should be audited • No comprehensive review of cost recovery

CONCLUSIONS

REAP IS PATTERNED ON PAST "INITIAITVES"	▪ Will establish conclusions that will be deemed authoritative ▪ Will be used to justify new legislation related to transmission and other energy policy items
REAP PROVIDES AN OPPORTUNITY FOR MEANINGFUL INPUT FROM STAKEHOLDERS	▪ So far, only Ameren Illinois and one (1) environmental organization have intervened ▪ Without additional stakeholder participation expect little focus on key consumer issues: reliability and cost
CORRECTING REAP WILL REQUIRE INTERVENTION	▪ The outcomes of the REAP proceeding will be difficult to correct or reverse once accepted ▪ The only way to prevent REAP from being leveraged to increase costs and reduce reliability is to intervene in the current proceeding

HOW TO GET INVOLVED

Get Educated	• Workshop Material is Available on the ICC Website • Review 2nd Draft of The REAP
Intervene in the REAP Proceeding	• Parties can intervene individually or as part of a coalition • Attorney must file a “Petition to Intervene” • “Notice & Comment” format makes participation easier
Stay Engaged	• Track the ICC Proceeding (ICC Docket No. 22-0749) • Watch for additional legislation

QUESTIONS?
THANK YOU IMA!

ILLINOIS MANUFACTURERS' ASSOCIATION

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