FUTURE ENERGY
LEGISLATION: FROM
A(Amortization) TO Z(Zero
Emission Credits)

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Introduction

- **FEJA**: Massive energy/climate law, began as separate Clean Jobs & Exelon bills. Clean Jobs bill aimed to “fix” the Renewable Portfolio Standard (RPS) and increase energy efficiency (EE) targets. Exelon bill sought $300 m for Byron, Quad Cities & Clinton nuclear power plants.

- Ultimately enacted: FEJB (SB 2814); combined “zero emission credits” (ZECs) for Quad Cities & Clinton plants with major pieces of the Clean Jobs bill.
Agenda

Today’s discussion will highlight FEJB’s 3 core areas:

- **Zero Emission Credits** (Mark)

- **Renewable Portfolio Standard** (Jason)

- **Energy Efficiency** (Katie)

**Note**: we will discuss cost recovery for each program. Please bear in mind that beyond program-specific rate caps, FEJA also imposes general caps on future-energy costs by customer class.
Zero Emission Credits
Mark Powell
ZEC Background

- Significance of ZECs to Board? Hard to discern any likely **direct** effects. But, as we will discuss, there are predictable **indirect** consequences:
  - ZEC program favors **nuclear generation** over generation from fossil fuel-fired plants and renewable sources.
  - Greatest impact of this is expected to be on **coal-fired power plants** – the subject of Board air, water & land pollution regulation.
In Illinois, the generation of electricity is *deregulated*; the “wires” (T & D) side is not. ICC still approves the “delivery service” portion of electric bills.

Currently, IPA procures energy to meet demand of certain customers of investor-owned utilities. The ZEC program significantly expands IPA’s role.

Delivery yr for such customers begins **June 1**.
ZEC Background: FERC, RTOs & ISOs

- FERC has exclusive jurisdiction over wholesale electric markets; auction-based markets used to set wholesale energy prices.

- FERC authorizes ISOs and RTOs to oversee interstate auctions. Most of Illinois is in MISO (incl. all/parts of 15 states & Manitoba); PJM covers the rest, incl. Chicago & N. Ill. (serves all/parts of 13 states & DC)

- ComEd => PJM; Ameren utilities => MISO.
ZEC Background: FERC, RTOs & ISOs

- PJM and MISO conduct 2 primary types of auctions:
  - **Energy auctions** ensure sufficient generation to meet actual load.
  - **Capacity auctions** trade options to require gen. to produce elec. at given time and location; ensures grid has *ability* to meet forecasted demand; MISO & PJM set *capacity* for LSEs to meet peak demand.
  - Both auctions begin with lowest bid and stop when demand satisfied; final accepted bid = “market clearing price” => *all successful* bidders.
ZEC Background: Quad Cities & Clinton

- **Quad Cities** (800 workers, 2 units), Cordova, mostly in PJM & licensed through 2032; **Clinton** (700 workers, 1 unit), in MISO, is licensed through most of 2026.
ZEC Background: Quad Cities & Clinton

- QC failed to “clear” PJM 2019-20 capacity auction; Clinton cleared MISO 2016 one-yr forward capacity auction but unable to avoid continued losses.

- In June 2016, Exelon announced intent to close QC and Clinton; plants said to have lost $800 million in 7 years.

- In Aug. 2016, NYPSC adopted Clean Energy Standard to provide $500 m/yr for 12 yrs for 3 Exelon nuclear plants. FEJA’s ZEC program developed against backdrop of challenges to NY standard by many of the same generators.
Key ZEC Provisions of FEJA

- Starting 6/1/17, IPA must purchase for utilities ZECs from nuclear plants; winning bidders agree to sell ZECs to utilities during contract terms (which utilities then recover from all delivery service customers).

- For first 6 planning years, subsidy = $16.50/mwh, increasing $1 each subsequent yr; but reduced if year’s “market price index” (proj. energy + proj. capacity prices) exceeds baseline of $31.40/mwh.
Key ZEC Provisions of FEJA

- ZECs effectively **limited** to Clinton & QC (alleged): nuclear plants in PJM & MISO = ZEFs, i.e., nuclear plants interconnected with PJM or MISO;
  - “preservation of [ZEFs] is key “public interest” factor in IPA’s ZEC procurement; and
  - specified output very close to QC & Clinton’s combined output.
- but...FEJA does not on its face bar procurement of ZECs from other Exelon nuclear plants in PJM (whether in Ill. or elsewhere) in danger of closing.
Key ZEC Provisions of FEJA

- **10-yr program** – *i.e.*, 2017-18 through 2026-27 planning yrs (unless suspended or terminated early) by generators

- Annual procurement of ZECs is **capped** by formula; max. auth. spending under cap estimated to be *at least* $235 m/yr
Federal Suits Challenging ZECs


- Allege subsidies distort wholesale electricity markets, artificially depressing prices and ultimately driving up consumer costs.
Federal Suits Challenging ZECs

- Claim federal *preemption* and discr. against, & burdening of, interstate commerce.
  - In March, PJM Market Monitor moved to intervene on plaintiffs’ side in *EPSA*. And in late March, pls. moved for a *preliminary injunction*.

- Both suits rely on *Hughes v. Talen Energy (2016)*: Sp. Ct. struck down MD new-generator subsidies because they were tied to generator’s wholesale market (PJM) participation.

- Oct. 2016 suit pending in NY fed. ct. raises similar claims.
Potential Implications? Precedent?

- Drop in wholesale energy prices, reducing revenues for non-nuclear generators and drive closure of fossil fuel-fired plants (esp. coal).

- Critics (see, e.g., lawsuits) contend subsidies will distort wholesale markets and ratchet up consumer prices.

- Exelon – the largest operator of U.S. nuclear plants – may seek subsidies for its nuclear fleets in PA, NJ, OH, and CT.
Renewable Energy Standard

Jason James

- Illinois’ Renewable Portfolio Standard, enacted in 2007, requires 25% of Illinois’ energy to come from clean sources by 2025
- Subsequent legislation and rulemakings—particularly municipal aggregation—subverted the RPS goals
- Future Energy Jobs Bill hopes to “fix” the RPS and create more clean energy in Illinois
- What was the problem and what’s the attempted fix?
2007/08: RPS Legislation

- Illinois Power Agency created to procure wholesale power for Ameren and ComEd customers
- 25% of Illinois’ power required to come from clean sources by 2025
- Both power providers contracting with IPA and alternative retail electric supplies (ARES) covered by RPS
Aside: What’s a REC?

- Compliance with an RPS is often reached through purchase of Renewable Energy Certificates, commonly referred to as RECs.
- Renewable producer gets 1 REC for every MWh generated and fed into the grid and sells it to those who need to comply with an RPS.
- RECs can come in different flavors, e.g., solar RECs.
- When it comes time to prove compliance with RPS, it is generally shown through purchase of RECs.
2007/08: RPS Legislation

- Three paths to compliance:
  - IPA-contracted power producers send compliance money to IPA-administered fund
  - ARES can buy RECs with up to half of their compliance money
  - ARES send other half of compliance money to a separate IPA-administered fund via “alternate compliance payments”

- Early success: in 2009, $1.3 billion invested in wind power and 632 MW wind installed in-state
2010: Municipal Aggregation

- 2010 Energy Legislation
  - IPA power became expensive, so most large commercial and industrial customers procured power from alternative retail electric suppliers (ARES)
  - In 2010, municipalities began to aggregate customers and also procured from ARES instead of utilities (via IPA)
2010: Municipal Aggregation

- Complications for the RPS
  - As customers moved toward ARES and away from utilities, less funds were put into IPA-administered fund
  - Other IPA-administered fund frequently swept by other parts of state government
  - Only remaining funds went to RECs, usually to out-of-state and already-existing projects
  - Uncertainty caused by mobile customer base and fund sweeping undermined efforts to create long-term power purchase agreements with renewable developers
The RPS “Fix” in the Future Energy Jobs Bill

- New bill kept the same target: 25% clean energy by 2025
- Funding mechanisms altered to ensure that money intended for clean energy is spent on clean energy
- Specific mandates for in-state facilities, new facilities, and solar facilities
The RPS “Fix” in the Future Energy Jobs Bill

- **Problem:**
  - Funding avenues dried up due to municipal aggregation and fund sweeps

- **Fix:**
  - Multiple types of funding replaced by a single fund
  - Charge added to distribution of energy and directed into a single fund administered by IPA for purchase of RECs
  - Funds held by utilities until spent by IPA, thus less likely to be swept
  - Begins at $180 million per year and grows to $220 million per year to build in Illinois
The RPS “Fix” in the Future Energy Jobs Bill

- **Problem:**
  - RPS funds were spent on out-of-state RECs, usually toward already existing facilities

- **Fix:**
  - IPA directed to procure 8 million RECs from new facilities, equating to 1,300 MW of wind and 3 GW of solar
  - 50% of solar RECs must come from distributed and community solar
  - 40% for utility-scale solar, 2% brownfield solar, and 8% discretionary
Other RE features of Future Energy Jobs Bill

- Requires IPA to make a long-term plan for renewable energy development in Illinois
- “Solar for All” directs funds to increase access to solar for low-income customers and nonprofits while funding job training programs
- Net metering—compensating distributed solar generators for energy produced “behind the meter”—continues in Illinois
- Demand charge—assessing fees based on peak energy use—not included
Open questions

- Will funds created by the fixed RPS be sufficient to meet stated goals?
- Renewable energy prices ultimately determined by market, not legislature
New Energy Efficiency Standard

- FEJB amended §8-103 (220 ILCS 5/8-103) will now apply to small investor own utilities (IOUs) only

- Large IOUs (ComEd & Ameren) will now be governed by new §8-103B
New EE Plans’ Timeline

- EE Plans will now run Jan 1-December 31
  - 2014-2017 plan will remain in force through December 31, 2017

- FEJB prescribes provisions for up to 2030, new plans will be:
  - 2018-2021
  - 2022-2025
  - 2026-2030
New EE Goals 2018-2030

- Separate goals for ComEd/Ameren:
  - 7.8% in 2018 to 21.5% in 2030 - ComEd
  - 7.4% in 2018 to 16% in 2030 – Ameren

- Set as “cumulative persisting annual savings” (vs “incremental annual savings”)

- EE goal is a % of a set number (deemed baseline)
  - Deemed baseline = average sales of electric power during 2014-2016 minus average annual sales from exempt customers
    - 88,000,000 MWhs for ComEd
    - 36,900,000 MWhs for Ameren
### New EE Goals, ComEd Example

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<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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<td>9.1%</td>
<td>10.4%</td>
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<td><strong>Total Savings that Count Towards Target</strong></td>
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<td>11.8%</td>
</tr>
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Source: EFG
10 MW+ Customers Exempt from EE Programs

- Large commercial & industrial electric consumers with demand greater than 10MW

- These customers no longer pay into EE programs and are not eligible to participate starting in 2018
  - Estimated about 10% for ComEd and 25% for Ameren
Additional Provisions

- Utilities will take over DCEO programs
- Public sector: min. 10% ComEd and 7% Ameren of annual portfolio budgets
  - Including Public Housing Authorities, local gov. unit, municipalities, school district, community college
- Low-income: min. $25m ComEd and $8.5m Ameren / year
- Gas/other fuel: not more than 10% of the annual goals
  - Converted on eBtu basis with low-income residential priority
Cost Recovery

- EE Cost cap % of $/KWh paid by eligible customers in 2015 and varies by plan:
  - 3.50% for each year of 2018-2021 plan
  - 3.75% for each year of 2022-2025 plan
  - 4.00% for each year starting in 2026
Amortization

- IOUs may defer EE spending as a regulatory asset and amortize over project lifetime
- Voltage Optimization has 15yrs agreed lifetime and agreed increasing savings (0.17% in 2018 to 1% in 2025)
Thank you!