Illinois Institute for Regulatory Policy Studies

Future Jobs, Future Costs, and Future Usage: Reconciling Higher Costs And Lower Usage

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April 27, 2017

Effects of FEJA Widespread

- Three major subjects addressed in the bill:
  1) Zero Emission Credits (ZECs)
  2) Energy Efficiency
  3) Renewable Energy/Solar Rebates

- Benefits, opportunities, costs and impacts vary considerably:
  - On industrial, commercial, and residential consumer
  - On utilities, generators, competitors, developers
  - On jobs

- Impacts are additive to Smart Grid investment

Zero Emission Credits

- **ZEC volume**
  - Consumer cost tracks consumer consumption: larger consumers of energy, larger cost
    - 20 ILCS 3855/1-75(d-5)(1)
- **ZEC price cap**
  - 1.65% of 2008-09 kilowatthour price
    - 20 ILCS 3855/1-75(d-5)(3)
- **ComEd draft tariff:** 0.195¢/kwh all customers
  - ComEd, ICC No.10, Orig. Sheet No.37, eff. June 1, 2017
- **Price per kwh may vary among utilities:**
  - Ameren 0.172¢/kwh
  - Mid American 0.124¢/kwh

Bill Impact – Residential Consumers

- Residential ZEC cost range:
  - Large electric space heat customers - $46.00/yr (75 percentile)
  - Small Multi-family non-space heat cust. - $4.50/yr (25 percentile)

- Comparison to Smart Grid Law Investments increases from 2016 to 2017*
  - Large electric space heat customers - $47.47/yr
  - Multi-family non-space heat customers - $4.61/yr

- Cumulative distribution bill increases for ComEd since 2012
  - Large space heat customers - $264.52 (32%)
  - Multi-family non-space heat customers - $50.81 (23%)

*Source: ComEd Smart Grid Advanced Metering Annual Implementation Progress Report, April 2017 & April 2013

ZECs and Jobs

- Total revenue, or financial benefit to owner of nuclear plants: $230 million per year, subject to adjustment based on future energy prices and capacity prices.
  - 20 ILCS 3855/1-75(d-5)(3).

- Nuclear Jobs: 700 and 750 plant jobs at Clinton and Quad Cities preserved, plus seasonal employees.

- Consumers effectively pay Exelon a little more than $150,000 per plant job per year.

Energy Efficiency

- Substantial increase in spending on EE expected by ComEd. In 2017, EE expense = $261 million (utilities, DCEO, IPA)

Year	ComEd Rate Base	Total
2018-2021	$353 million/year	$1.412 billion
2022-2025	$378 million/year	$1.512 billion*
2026-2030	$403 million/year	$1.612 billion*

*Per spending cap found in: 220 ILCS 5/8-103B(m)

- Voltage Optimization: $500 million
- Total spending through 2030: $5.036 billion
- Smart Grid authorized investment (220 ILCS 5/16-108.5(b))
  - ComEd - $2.6 billion/10 yrs
  - Ameren - $0.625 billion/10 yrs

- ComEd total rate base for 2016: $8.8 billion
  - Rate base additions: $1.487 million
  - 2018 EE spending increases rate base additions by 23%

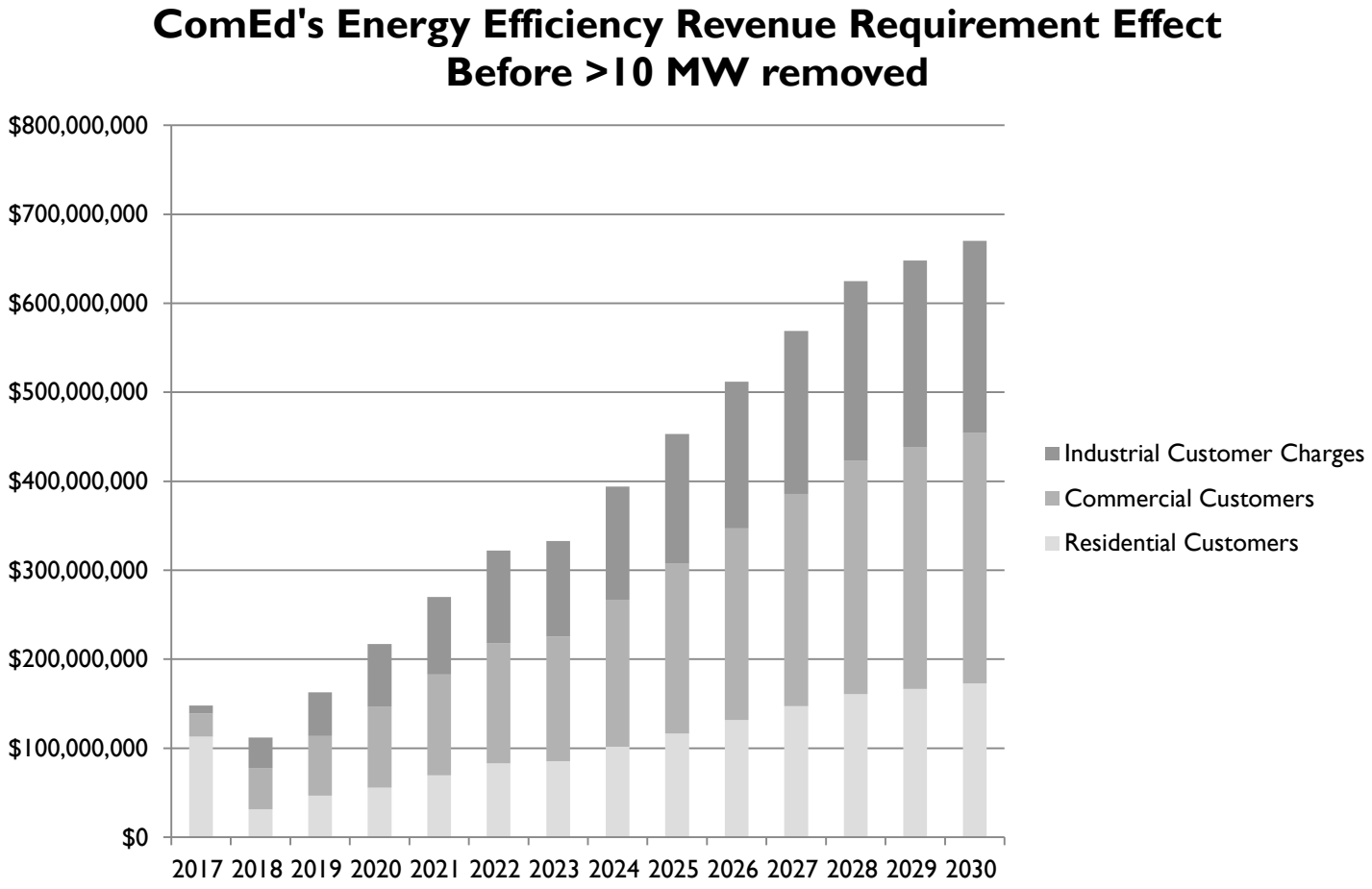
Effect of Amortization on Energy Efficiency Incentives and Practices

- Shift from pass-through to amortized cost recovery, lower initial bills, higher bills in the long run.
  - EE becomes a profit center as shareholders receive a return on EE spending. 220 ILCS 5/8-103B.

- EE spending represents an increase of ~20%-30% in annual Smart Grid rate base investment driving up consumer rates over time
  - EE incentive structure can increase ROE 200 basis points (for example, from 8.34% to 10.34%) 220 ILCS 5/8-103B(g)(7)/
  - Low-income EE costs more for less savings and effect may be to discourage spending on low-income customers.
  - In 2018-2021, less than 10% of total EE spending for low-income customers proposed (25% of residential spending), but 47% of residential customers qualify as low-income. 220 ILCS 5/8-103(f)(4).

- Substantial shift in spending and recovery from residential to commercial and industrial classes expected.
  - Residential programs: 35% (cost to resid. 45% with Misc)
  - Commercial and industrial programs: 42% (cost to C&I 55% with Misc)
  - Miscellaneous (VO, R&D, market transformation, administration): 23%

EE spending will steadily increase rates



Renewable Energy - Rate Effect

- RPS cost cap not changed. 20 ILCS 3855/1-75(c)(2)
- Solar rebates added to rate base will create a new rate base item. 220 ILCS 5/16-107.6.
- Increased renewable energy may put downward pressure on supply prices.
- Increased distributed generation will reduce usage levels.
  - Illinois DG at low levels: <1,000 rooftop solar
  - Usage levels held steady or declined despite little DG
  - Increased DG can be expected to be another cause of decreased usage

Delivery Charges and Usage

CHARGES: ZECs, EE and solar rebates together will increase ComEd revenue requirement by more than 25% from current $2.7 billion over the next 10 years.

USAGE: EE and DG provisions of FEJA expected to drive down usage

Key questions: will ***increased charges*** due to greater EE spending and amortization, ZECs, and other infrastructure be offset by ***decreased costs*** due to reduced usage?

Growing Utility Revenue Requirement; Declining Usage

- Delivery utilities still monopolies providing an essential service.
- If supply charges stay low or decline further, larger portion of energy bills will be for expensive monopoly services. Supply savings may not offset increased delivery charges.
- As use of the grid declines, fewer customers pay for increasingly expensive monopoly services, increasing per unit cost.
- **Key challenge is to rein in spending to correspond with anticipated declining usage.**

Conclusion

- FEJA will drive up rate base and customer costs.
- FEJA will drive down usage.
- Ultimate effect of FEJA will vary by individual customers:
  - Customers who reduce usage will have lower total supply charges, but savings may be diminished by low supply prices.
  - All customers will see higher per unit delivery charges, which cannot be avoided.
- Declining usage should be addressed by identifying practices that reduce delivery services costs to track reduced usage.
- The "next grid" must recognize declining usage and reject extraordinary regulatory attempts:
  - To protect or expand utility revenues,
  - To expand utility investments beyond the essential delivery function,
  - To expand non-by-passable or fixed charges, or adopt unfair and unpredictable rate design.