Indiana's Changing Generation Mix: Where We Were, Where We Are, and Where We Are Going

Indiana State Bar Association

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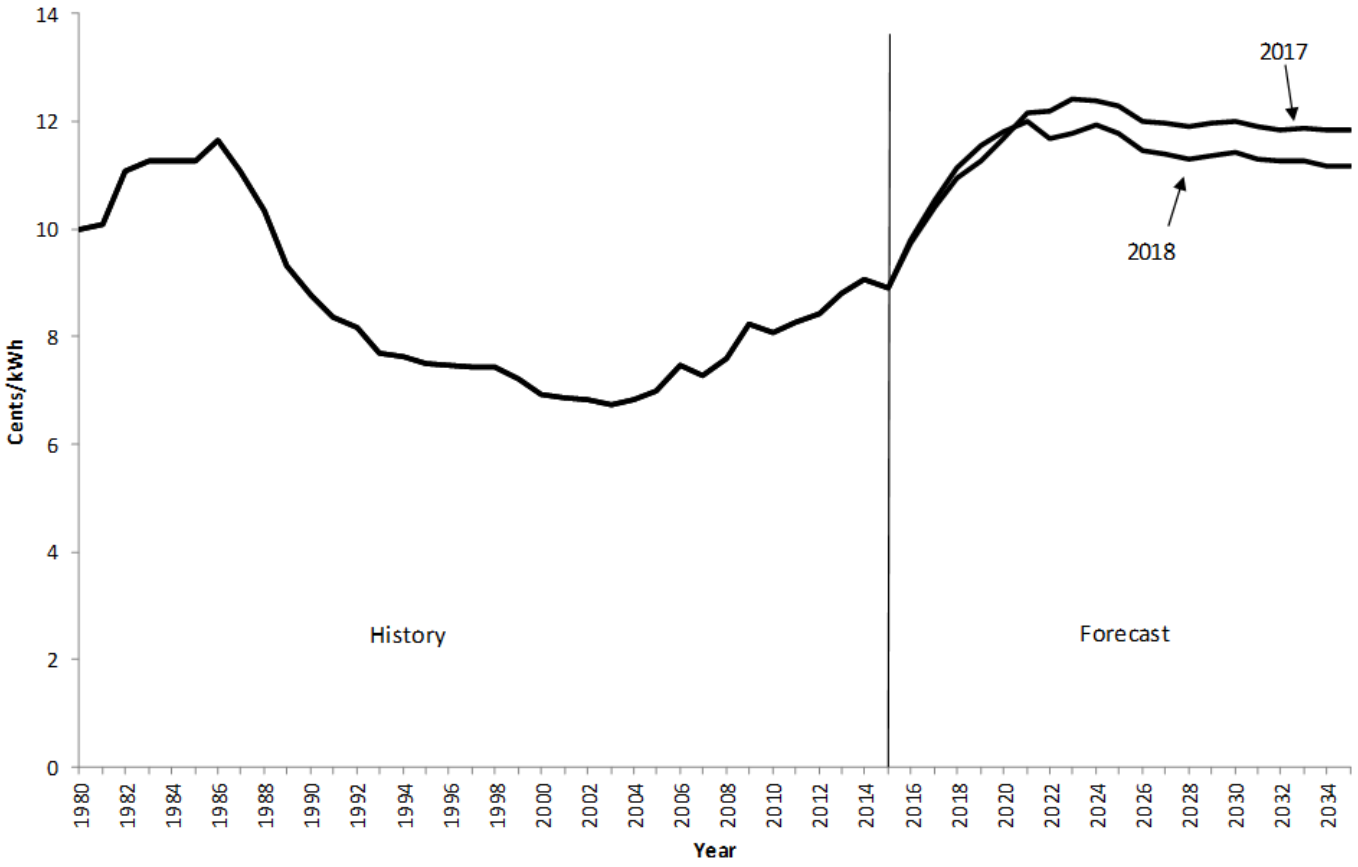
Indiana Real Prices



What Happened?

- Much of what drove the price trajectory dates back to the 1960s and 1970s
- We saw rapid growth in electricity demand in the 60s
  - utilities built several power plants to keep up
- Demand dropped off in the 70s
  - utilities continued to build power plants in expectation of load growth returning

1980s

- In the early 80s, we found ourselves with an overabundance of generating capacity, pretty much all of it coal-fired
  - 50% statewide reserve margin
  - Marble Hill and Bailey nuclear plants abandon construction

1990s and Early 2000s

- Steady load growth, cheap coal, and little need for capital additions led to flat nominal (declining real) electricity prices
- Overbuilding of merchant natural gas plants in response to late 90s wholesale price spikes kept wholesale prices low and provided opportunities to acquire distressed units at a discount

Mid-2000s to Present

- A combination of factors lead to increasing prices
  - tightening of environmental regulations
  - aging coal fleet needs more maintenance to maintain
  - retirement of older coal plants
  - flat/low load growth
  - increased T&D capital investment

2008 – The Transition Point?

- The beginning of the Great Recession and flat load growth
- The start of hydraulic fracturing and low, stable natural gas prices
- The first new, large-scale renewable generation in in Indiana in decades
- Solar panel prices start to fall more quickly

Coal-fired Generating Capacity by Decade Installed

In 2008

	# of units	MW
1940s	1	45
1950s	20	1,847
1960s	12	2,275
1970s	17	6,938
1980s	9	5,736
1990s	2	289
Total	**61**	**17,130**

In 2018

	# of units	MW
1940s	0	0
1950s	1	140
1960s	4	897
1970s	13	5,804
1980s	9	5,736
1990s	0	0
2010s	1	618
Total	**28**	**13,195**

Coal-fired Generating Capacity in the Future*

In 2028

	# of units	MW
1940s	0	0
1950s	0	0
1960s	2	667
1970s	7	3,234
1980s	5	3,429
1990s	0	0
2010s	1	618
Total	**15**	**7,948**

In 2038

	# of units	MW
1940s	0	0
1950s	0	0
1960s	2	667
1970s	5	2,135
1980s	3	1,500
1990s	0	0
2010s	1	618
Total	**11**	**4,920**

*Based on currently filed utility IRPs

The Future

- Coal units continue to retire, which means we will need additional new generation
- Electricity prices continue to rise for the next few years
  - 3 IOUs are in various stages of rate cases, other 2 recently completed them
- Continued growth in wind and solar power

The Present

- We are still seeing the effects of decisions that were made 40+ years ago
- We are in the middle of a significant transition in our electricity supply
- The decisions that we make today will have ramifications for the next few decades

Further Information

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