

Peoples Gas AMRP

ICC Workshop #5 Program & Customer Impact Assessment By the Illinois Attorney General

March 10, 2016
Revised April 11, 2016

Agenda

- AMRP Construction Scenarios Presented by PGL
- AG Assessment of Reasonableness of Scenarios
- Customer Bill Impact of AMRP Scenarios
- Customer Affordability Comparison

PGL AMRP Scenarios*

- **New Management Target Case**
 - 2030: \$6.83 Billion
 - 2040: \$7.81 Billion
- **Contingency Case – Higher Restoration Costs, etc.**
 - 2030: \$8.33 Billion
 - 2040: \$9.69 Billion
- **Pre-Acquisition Path Case**
 - 2030: \$9.41 Billion
 - 2040: \$10.96 Billion

* Prepared by Burns & McDonnell - Report of November 30, 2015.



AG
Program Assessment



AG Assessment

- Burns & McDonnell has limited experience with AMRP
- Need to Consider Jacobs Engineering 2015 Forecast*
 - Jacobs Eng. is most familiar with AMRP – worked on program from inception
 - 1% Probability: 2032 completion at \$8.9 Billion
 - 80% Probability: 2046 completion at \$10.5 Billion
- New Management Target Case
 - Projected efficiencies unproven
 - Projected cost savings aspirational
 - 2030 completion date unrealistic

* Ken Van Overberghe 2015 Analysis and Presentation to PGL Management.

AG Assessment

(Cont.)

- Contingency Case – Higher Restoration Costs, etc.
 - Projected efficiencies more reasonable
 - Projected cost savings more realistic
 - 40-year case more likely, cost & time closer to Jacobs Eng.
- Three-Year Construction Plan
 - \$250-280 Million annual capital expenditures too ambitious
 - 30-50% higher cap ex than spent on AMRP/QIP in 2014
 - Investment level seems driven more by corporate goals than need
 - PGL may be setting itself up for failure given new project management team and new contractors in 2016

AG Assessment

(Cont.)

- Three-Year Construction Plan (cont.)
 - 325 Miles of new main installed = 108 miles average per year
 - 250 miles of old main retired = 83 miles average per year
 - Work to be completed in 21 neighborhoods: 5 in 2016, 4 in 2017
 - Projected cap ex for 2016 & 2017 does not seem to match number of neighborhoods to be completed
 - Disconnect with Burns & McDonnell model forecast
 - 80% of work in 2016 seems driven by City public improvements
 - Congested, urban work environment is very complex and challenging, and should not be under-estimated
 - A more measured approach may avoid inefficiencies and cost over-runs



**AMRP Program
Impact on
Residential Customers**



Customer Bill Impact

Key Points

- Need to look at cumulative impact over time
- Average annual impact over a short time period is misleading
- The full cost impact and customer bill affordability must include all gas delivery, gas commodity charges and taxes
- Customers' ability to pay given stagnant wages, income and poverty level must be a strong consideration in determining the annual capital expenditures and completion period
- A realistic program cost case and completion timeframe must be taken into account

Customer Bill Impact

Average Res. Heat. Customer

- PGL February 23, 2016 Presentation
 - Three Year Plan
 - Stated: Average annual increase of \$28.70 or 2.8%*
 - Not Stated:
 - Cumulative increase 2015-2018 of \$99.44 or 10%
 - Does not include cumulative AMRP rate impact from 2011 to 2014 of \$53.00
 - Total AMRP costs estimated to be billed in 2018 would be \$152.44
 - Cap ex range used: \$250 – 300 Million not \$250 - 280 Million

* Calculated based on average annual increase in QIP Surcharge.

Customer Bill Impact

Average Res. Heat. Customer

- PGL February 23, 2016 Presentation (Cont.)
 - New Management Target Case - 2030 End Date
 - Stated: Average annual increase of \$33.40 or 2.7%**
 - Not Stated:
 - AMRP amount on Bill from \$4 in 2011 to \$580 by 2030
 - AMRP cumulative percent increase on total bill: 60% by 2030
 - Total paid by customer for Lifetime of Program: \$14,552 ++
 - Cap ex case: \$6.83 Billion New Management Target Case is not realistic
 - 2030 End Date is not realistic

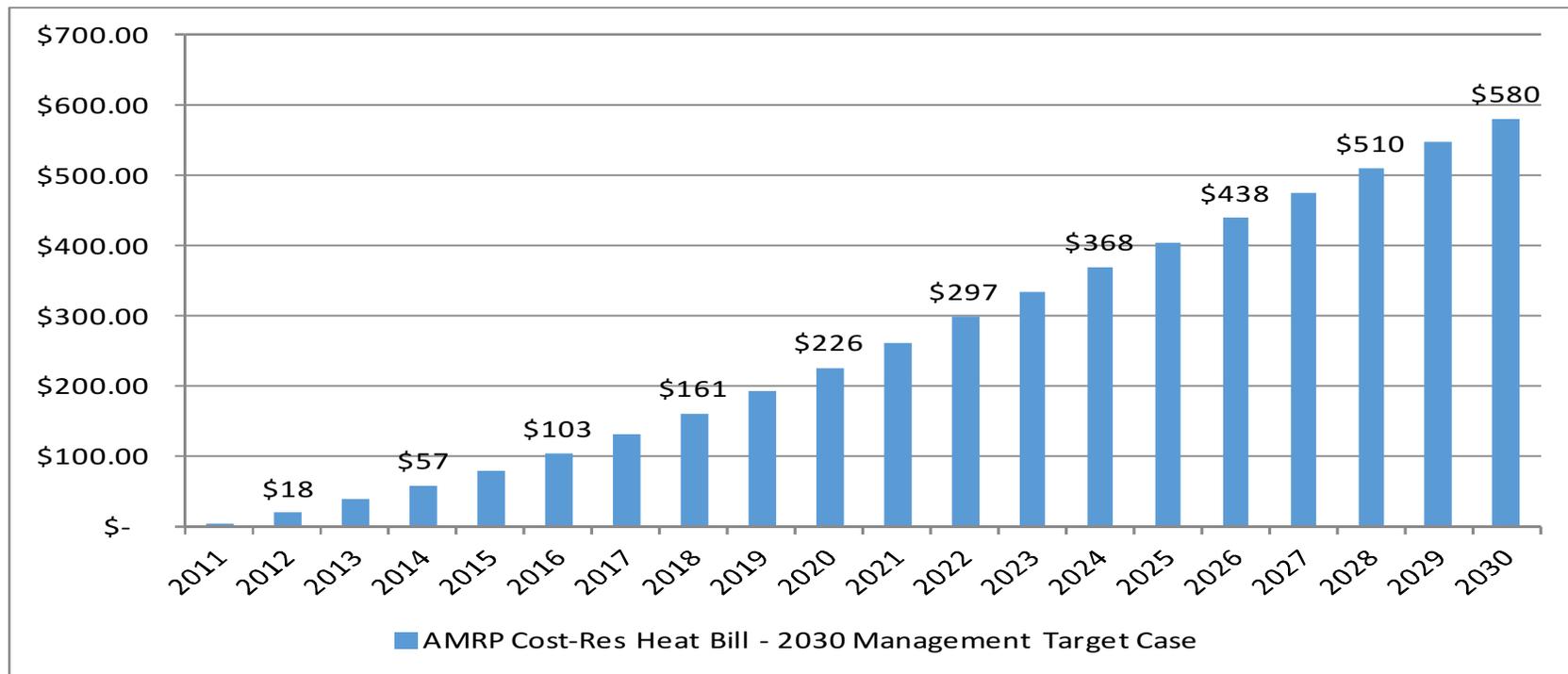
** Represent average of year over year increase from 2016 to 2030 .

++ PGL provided its extended rate impact analysis from 2014 to 2063 on March 9, 2016. Includes \$54 cumulative impact from 2011-2013 calculated by the Office of Attorney General.

Customer Bill Impact

Average Res. Heat. Customer

- PGL February 23, 2016 Presentation (Cont.)
 - New Management Target Case - 2030 End Date



Customer Bill Impact

Average Res. Heat. Customer

- PGL February 23, 2016 Presentation (Cont.)
 - New Management Target Case - 2040 End Date
 - Stated: Average annual increase of \$20.00 or 1.6%**
 - Not Stated:
 - AMRP amount on Bill from \$4 in 2011 to \$578 by 2040
 - AMRP cumulative percent increase on total bill: 60% by 2040
 - Total paid by customer for Lifetime of Program: \$16,747 ++
 - Cap ex case: \$7.81 Billion New Management Target Case is not realistic
 - Observation: PGL Has Understated AMRP Gas Bill Impact

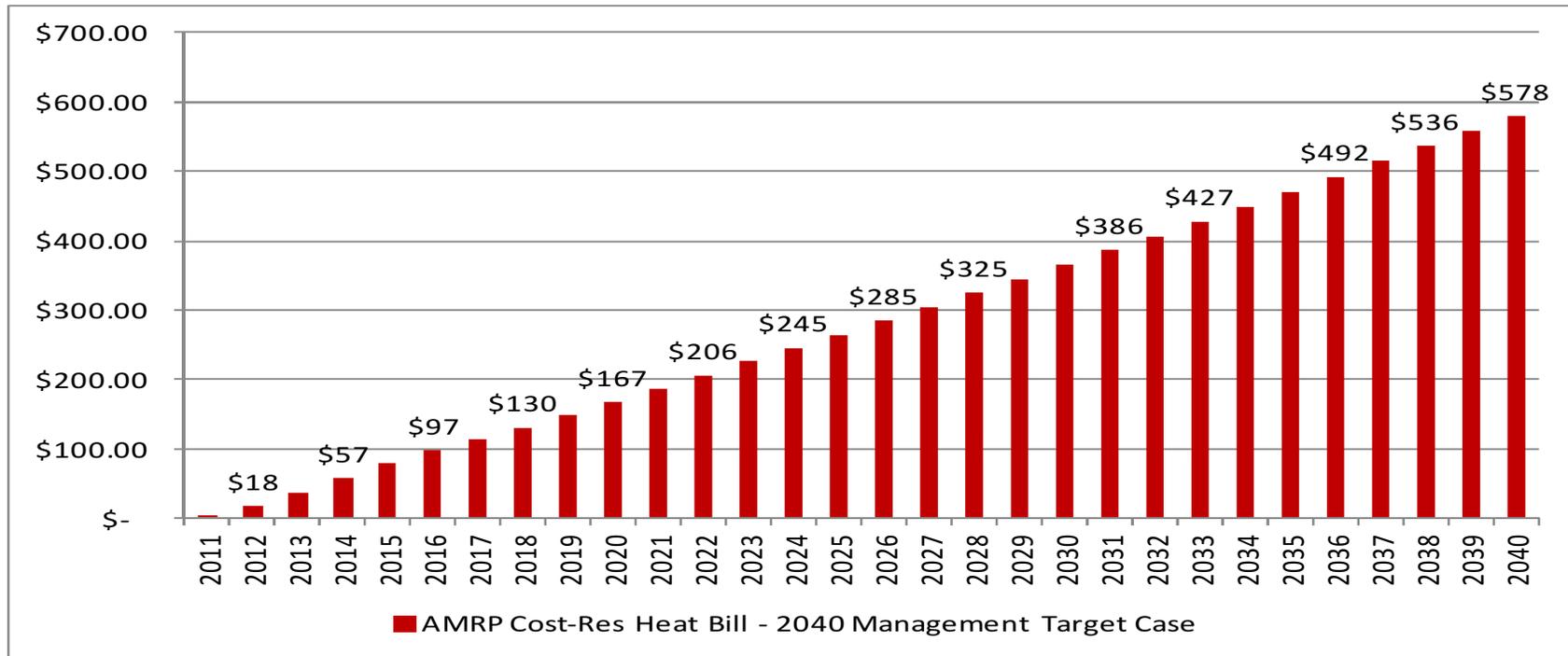
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Customer Bill Impact

Average Res. Heat. Customer

- PGL February 23, 2016 Presentation (Cont.)
 - New Management Target Case - 2040 End Date



Customer Bill Impact

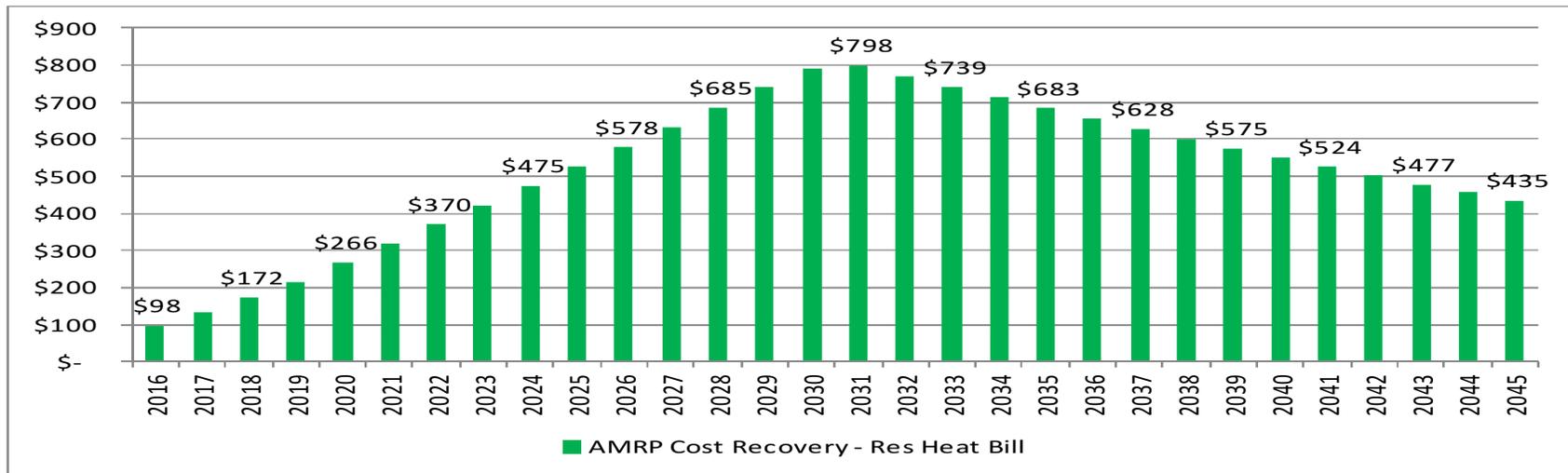
AG Analysis

- Pre-Acquisition Path Case

- 2030 Case: \$9.41 Billion in Nominal Dollars Present Value: \$5.04 Bil.
- 2040 Case: \$10.96 Billion in Nominal Dollars Present Value: \$4.09 Bil.

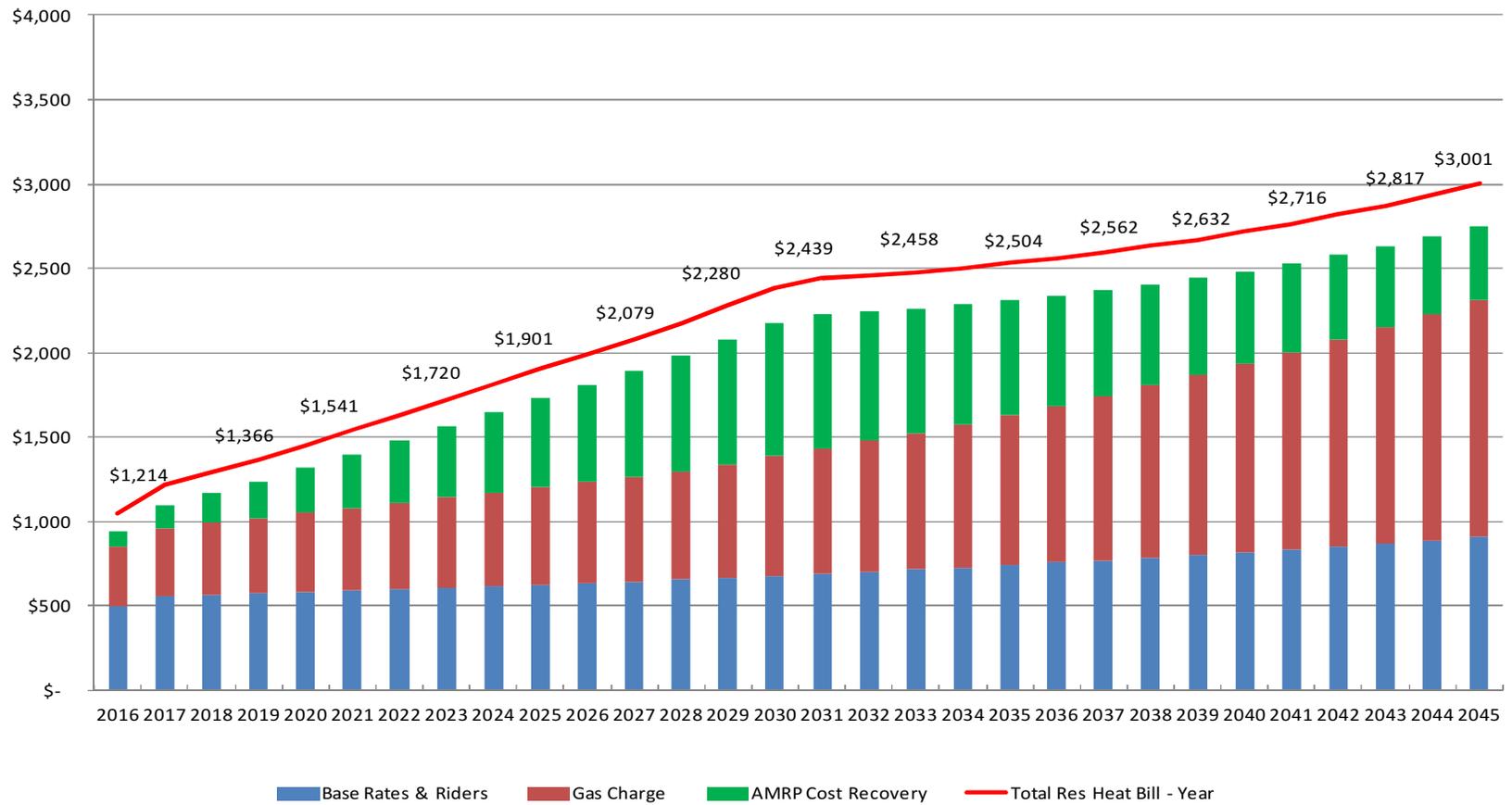
- Res Heat Customers Bill Impact – AMRP Lifetime

- 2030 Case: \$19,236 in Nominal Dollars PV: \$4,674 @ 9.61%



Projected Res Heat Total Bill

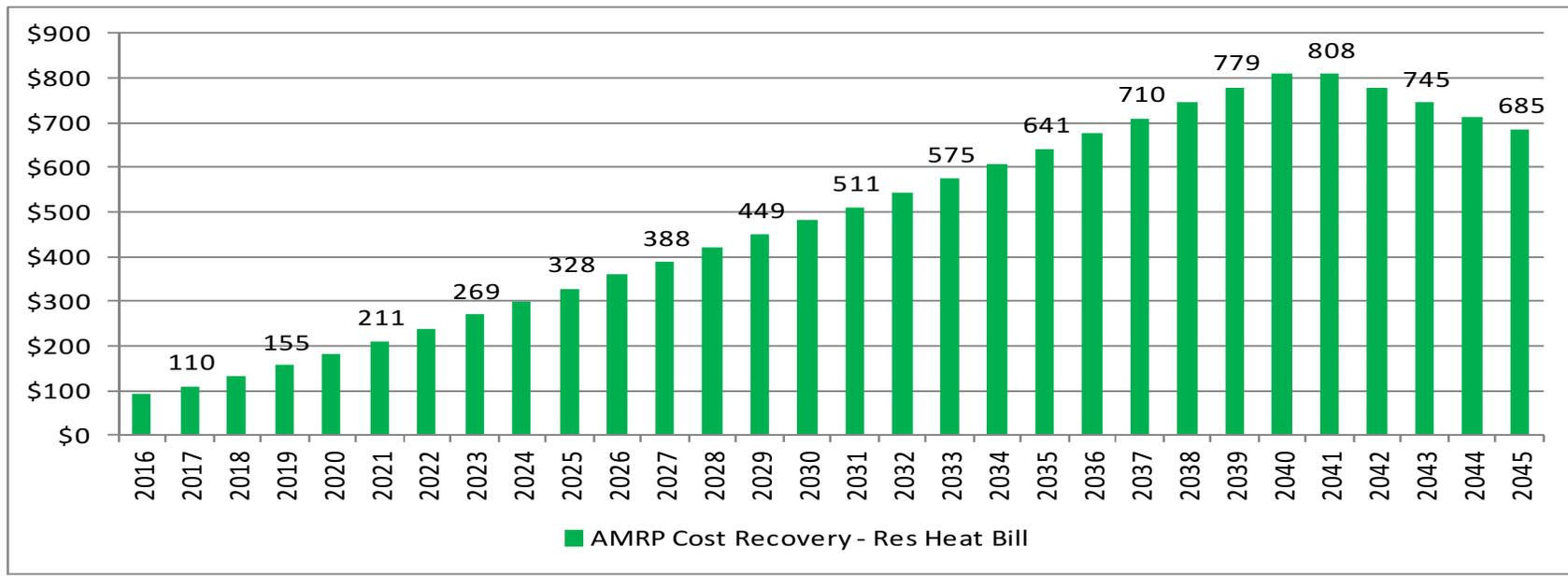
Pre-Acquisition Path – 2030 @ \$9.41 Bil.



Customer Bill Impact

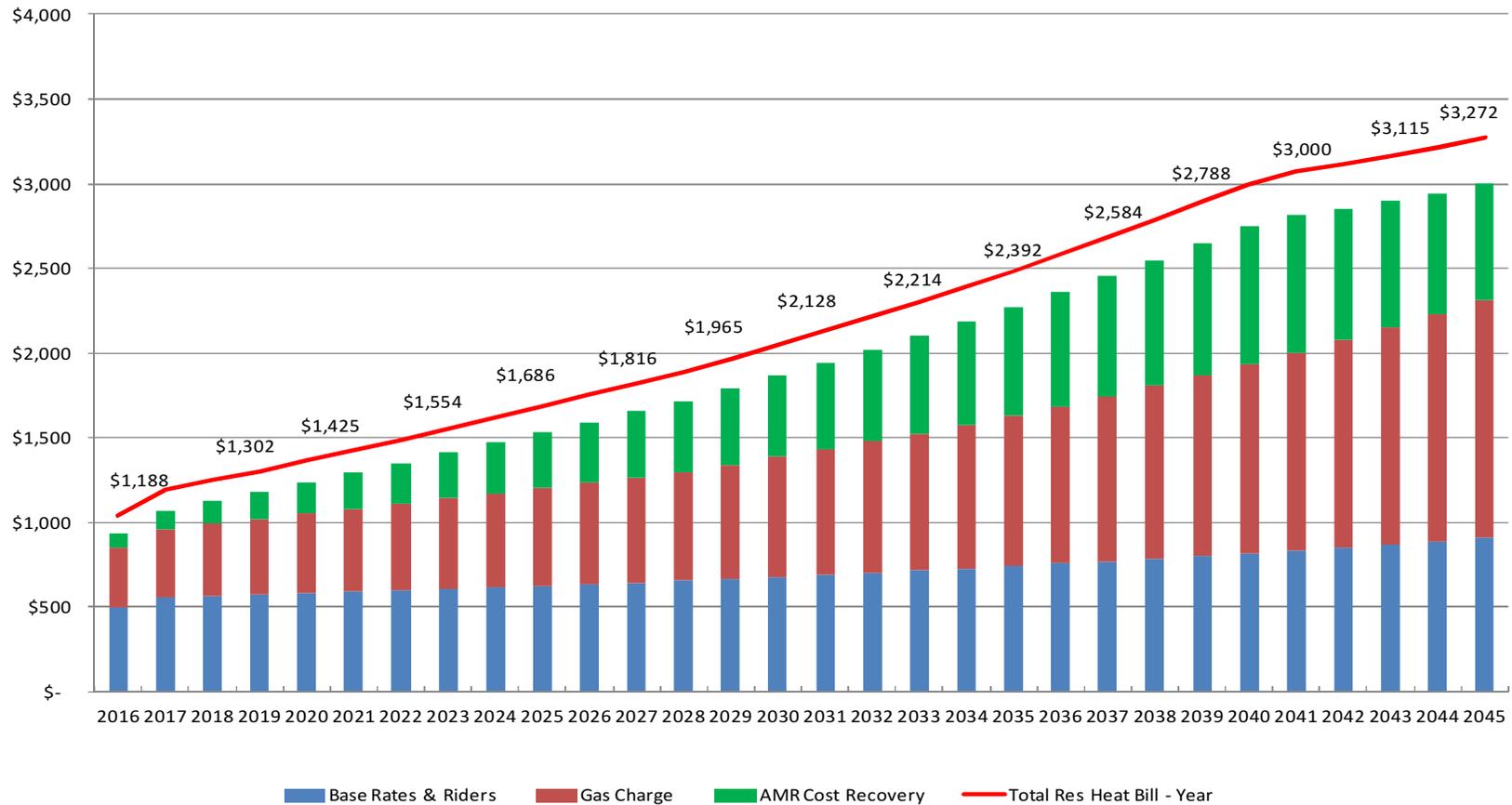
AG Analysis

- Pre-Acquisition Path Case 2040 Case: \$10.96 Billion
- Res Heat Customers Bill Impact – AMRP Lifetime
 - 2040 Case: \$22,227 in Nominal Dollars PV: \$3,823 @ 9.61%



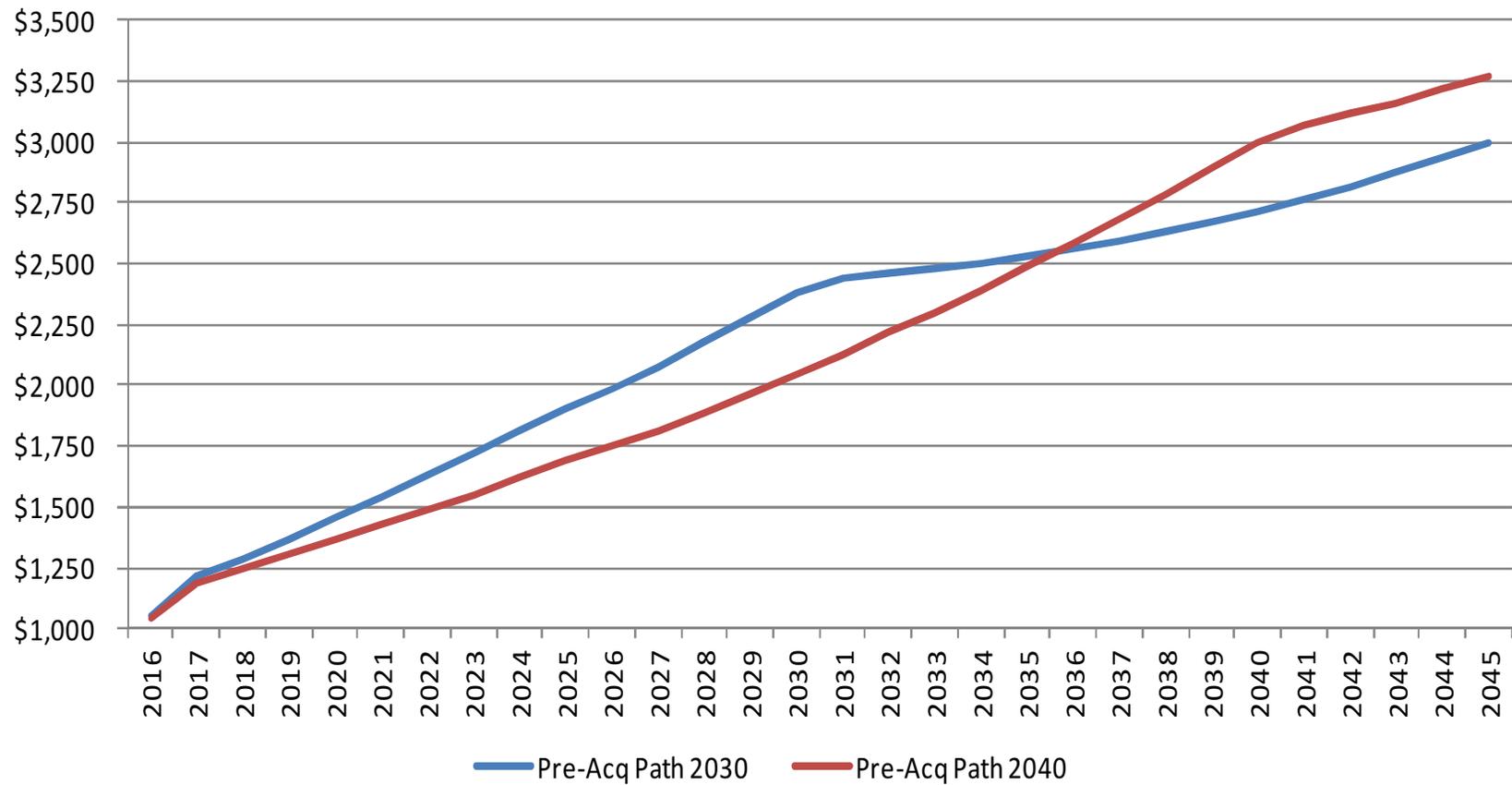
Projected Res Heat Bill

Pre-Acquisition Path – 2040 @ \$10.96 Bil.



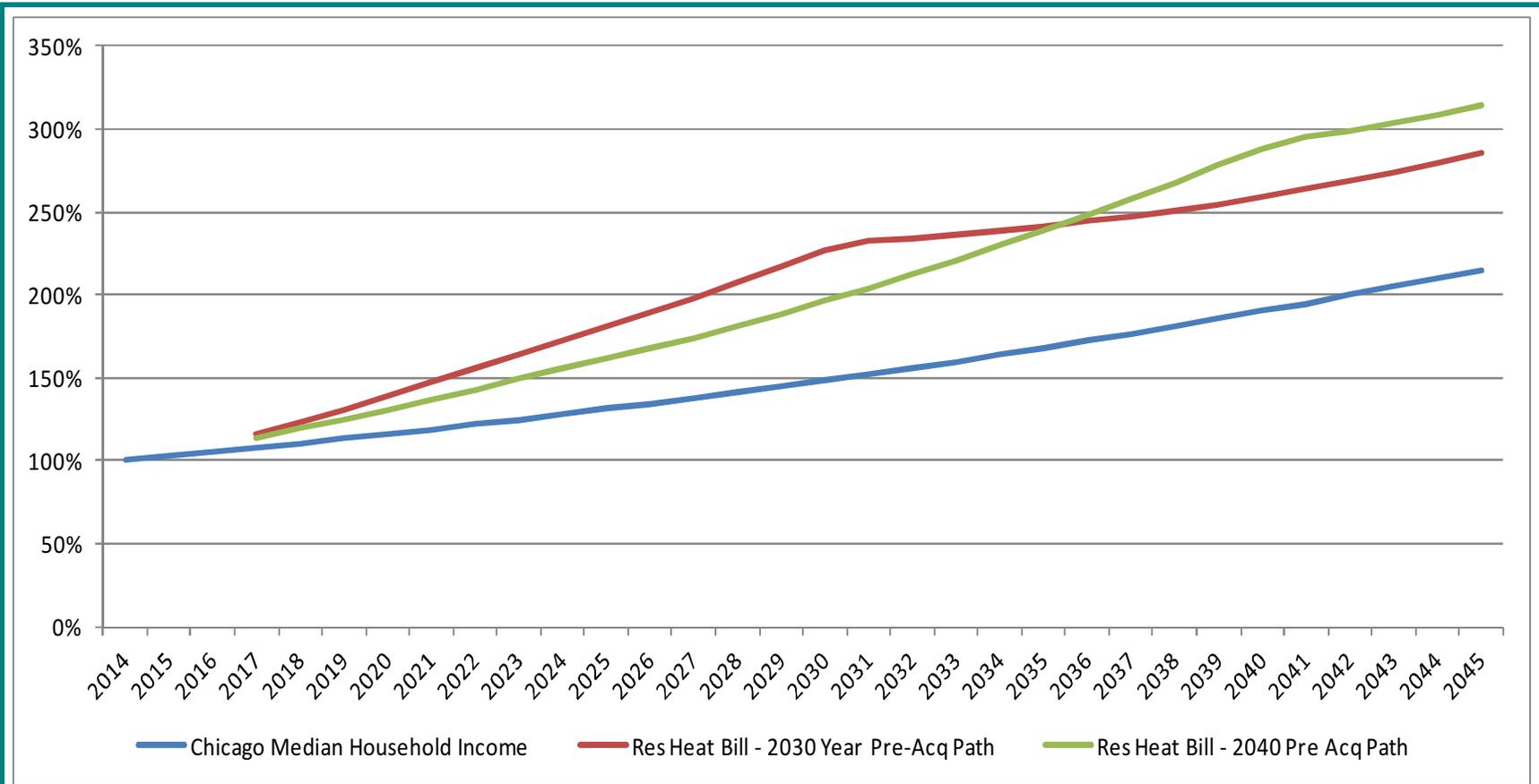
Projected Res Heat Bill

Pre-Acquisition Path – Comparison 2030 to 2040



Customer Affordability

Household Income vs. Potential Total Bill

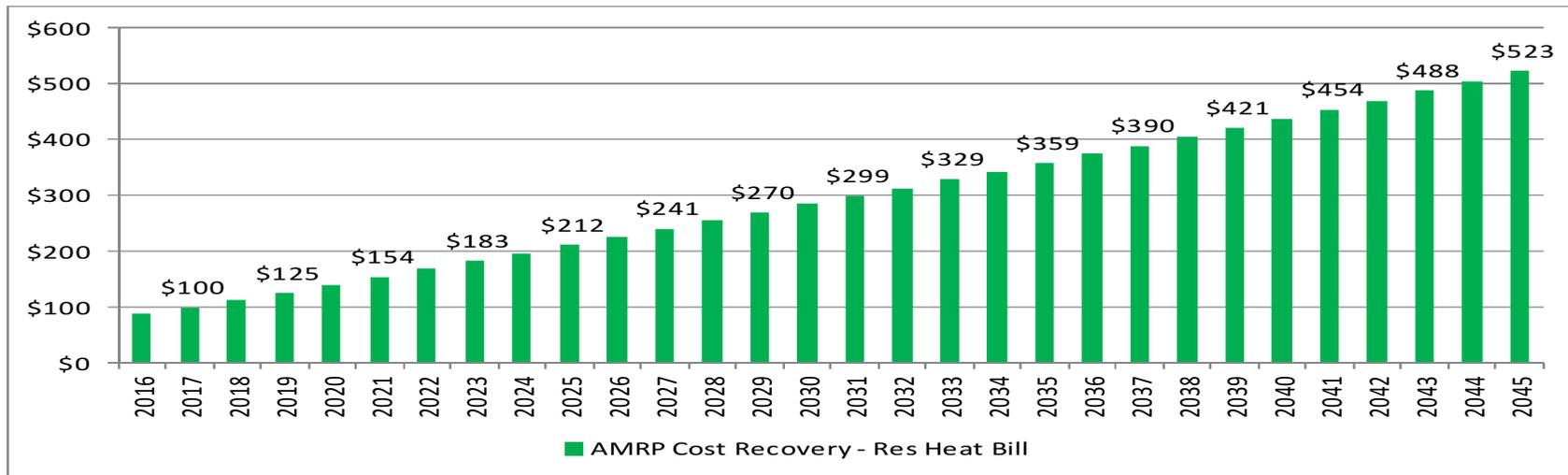


Note: Chicago Median Household Income: \$47,831 for 2014, escalated at 2.5% annually.

Customer Bill Impact

AG Analysis

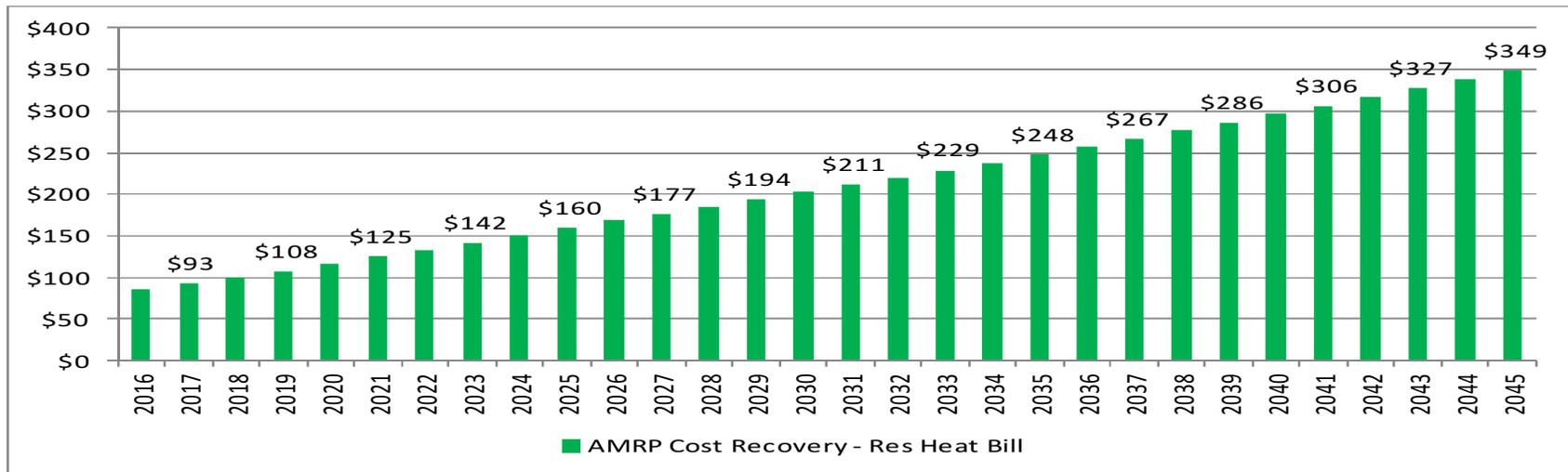
- Alternative Scenario 1:
 - PGL Contingency Case: \$9.69 Billion cost to complete
 - Change completion date to 2050. Max Cap Ex \$145 MM in 2016, 3% escalation
- Res Heat Customers Bill Impact – AMRP Lifetime
 - 2050 Case: \$19,161 in Nominal Dollars PV: \$2,694 @ 9.61%



Customer Bill Impact

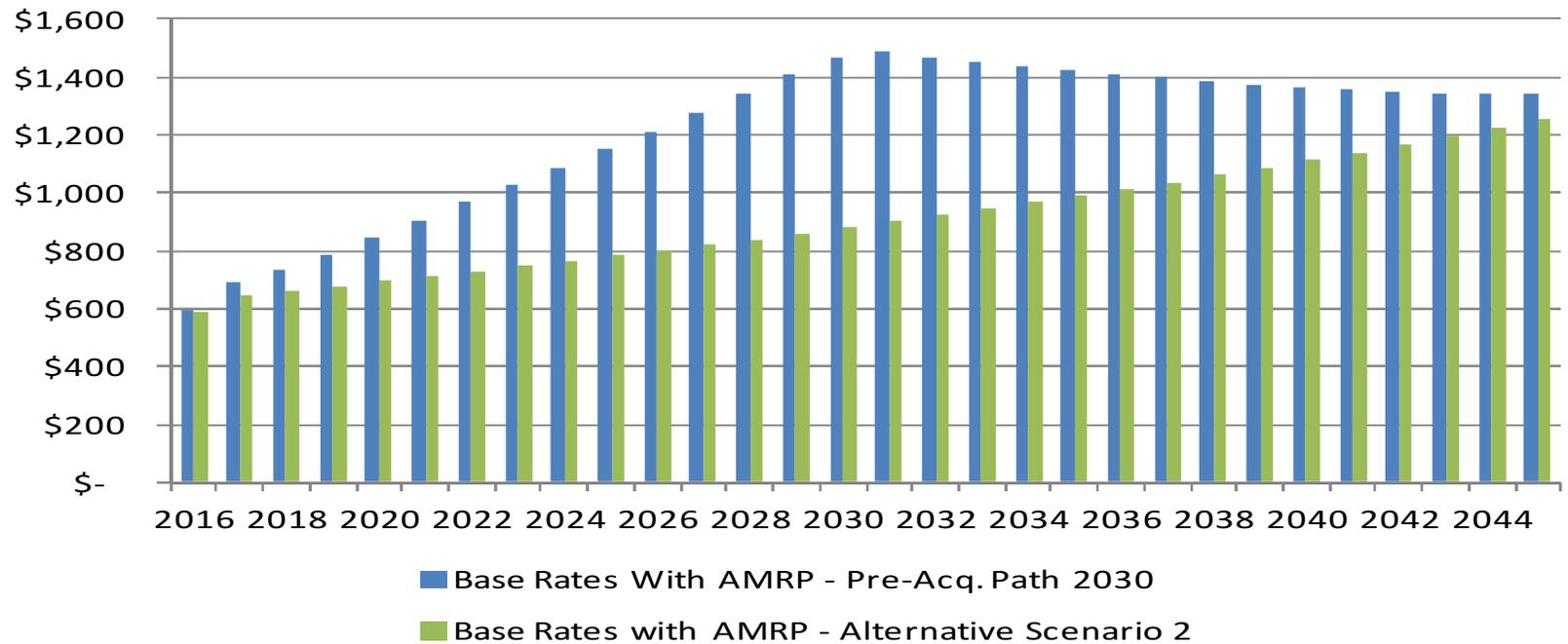
AG Analysis

- Alternative Scenario 2
 - PGL Contingency Case: \$9.69 Billion cost to complete
 - Change completion date to 2060. Max Cap Ex \$94 MM in 2016, 3% escalation
- Res Heat Customers Bill Impact – AMRP Lifetime
 - 2060 Case: \$18,538 in Nominal Dollars PV: \$2,129 @ 9.61%



Base Rates with AMRP

Comparative Annual Increase



| Base Rates with AMRP | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| Cumulative Increase | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pre-Acq. Path 2030 | | 15% | 23% | 31% | 41% | 51% | 61% | 71% | 82% | 92% | 102% | 113% | 124% | 135% | 145% | 148% | 145% | 143% | 140% | 138% | 135% | 133% | 131% | 129% | 128% | 126% | 125% | 124% | 124% | 124% | |
| Scenario 2 | | 10% | 13% | 15% | 18% | 21% | 24% | 27% | 30% | 33% | 36% | 40% | 43% | 46% | 50% | 53% | 57% | 61% | 64% | 68% | 72% | 76% | 81% | 85% | 89% | 94% | 98% | 103% | 108% | 113% | |

Projected Res Heat Total Bill

AMRP Impact - Case Comparison

| | 2016 to | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 |
|-----------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Pre-Acq. 2030 | \$38,290 | 1,049 | 1,214 | 1,290 | 1,366 | 1,455 | 1,541 | 1,629 | 1,720 | 1,811 | 1,901 | 1,989 | 2,079 | 2,175 | 2,280 | 2,381 | 2,439 | 2,458 | 2,479 | 2,504 | 2,531 |
| Alt. Scenario 1 | \$32,096 | 1,039 | 1,178 | 1,225 | 1,269 | 1,318 | 1,363 | 1,410 | 1,461 | 1,511 | 1,560 | 1,608 | 1,657 | 1,710 | 1,771 | 1,833 | 1,898 | 1,965 | 2,034 | 2,106 | 2,180 |
| Difference | \$ (6,193) | (10) | (36) | (65) | (98) | (137) | (177) | (218) | (259) | (300) | (341) | (381) | (422) | (465) | (509) | (548) | (541) | (493) | (445) | (398) | (351) |

| | 2016 to | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 |
|-----------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Pre-Acq. 2030 | \$38,290 | 1,049 | 1,214 | 1,290 | 1,366 | 1,455 | 1,541 | 1,629 | 1,720 | 1,811 | 1,901 | 1,989 | 2,079 | 2,175 | 2,280 | 2,381 | 2,439 | 2,458 | 2,479 | 2,504 | 2,531 |
| Alt. Scenario 2 | \$30,891 | 1,037 | 1,170 | 1,212 | 1,250 | 1,292 | 1,332 | 1,372 | 1,417 | 1,461 | 1,504 | 1,545 | 1,587 | 1,634 | 1,689 | 1,745 | 1,803 | 1,864 | 1,926 | 1,992 | 2,060 |
| Difference | \$ (7,399) | (12) | (44) | (78) | (116) | (162) | (209) | (256) | (303) | (351) | (397) | (444) | (492) | (541) | (591) | (637) | (636) | (594) | (553) | (512) | (471) |

Customer Bill Impact

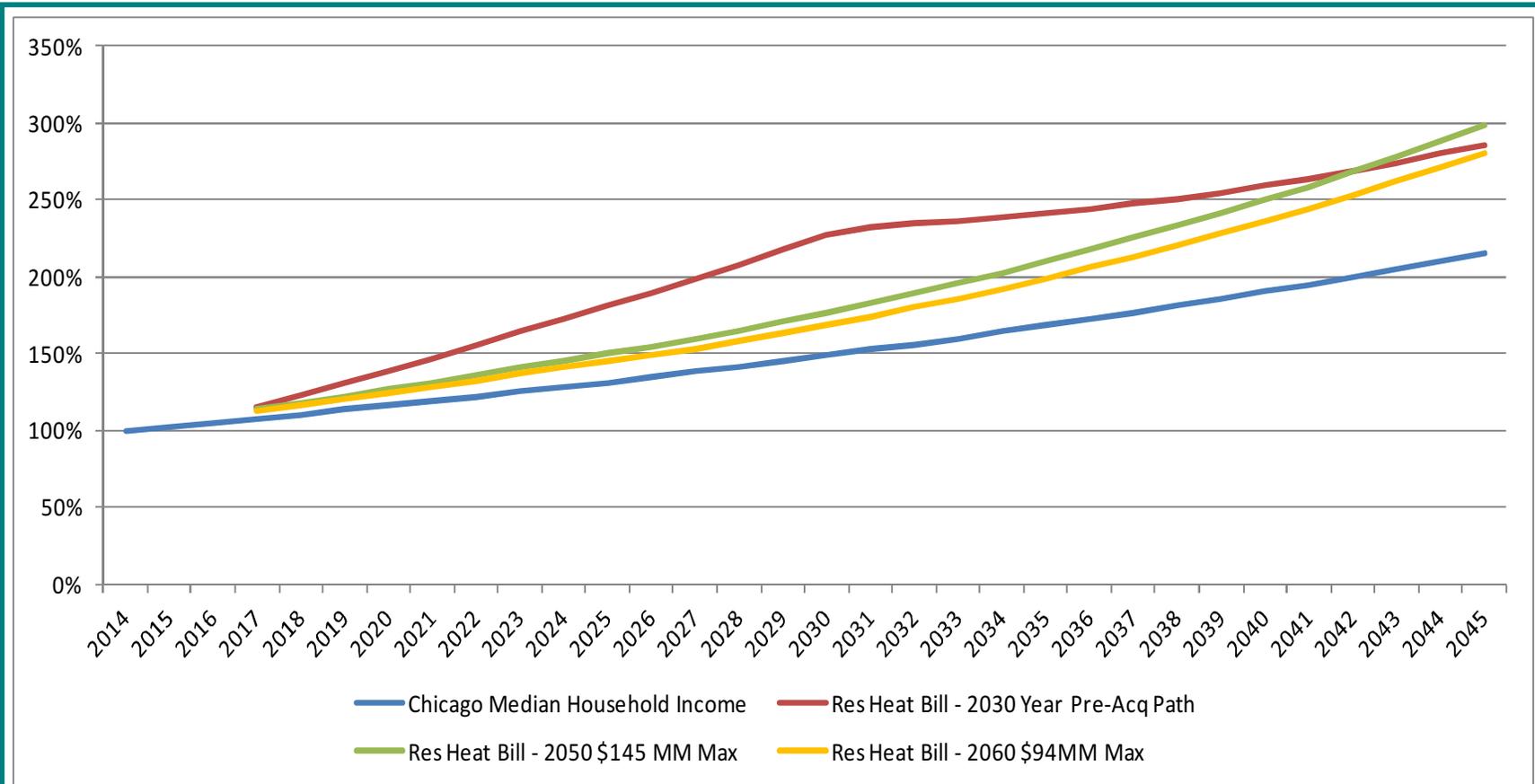
Case Comparison

| <u>Cumulative Total Bill Increase Over Period</u> | <u>2016 – 2030</u> | <u>2016 - 2045</u> |
|---|--------------------|--------------------|
| • Pre-Acquisition Path Case 2030: | 127% | 186% |
| • Pre-Acquisition Path Case 2040: | 96% | 214% |
| • Alternative Scenario 1 2050: | 76% | 198% |
| • Alternative Scenario 2 2060: | 68% | 180% |

| <u>AMRP Impact Present Value Comparison</u> | <u>Program Lifetime-PV</u> |
|---|----------------------------|
| • Pre-Acquisition Path Case 2030: | \$4,674 |
| • Pre-Acquisition Path Case 2040: | \$3,823 |
| • Alternative Scenario 1 2050: | \$2,694 |
| • Alternative Scenario 2 2060: | \$2,129 |

Customer Affordability

Household Income vs. Potential Total Bill



Note: Chicago Median Household Income: \$47,831 for 2014, escalated at 2.5% annually.

Summary

- Even under PGL's most optimistic and aggressive plan (2030 completion, new mgmt. target case), AMRP will cost ratepayers as much as \$580 per year at peak; total of \$14,500 over 50 years
- Costs for AMRP as paid by Chicago ratepayers will likely outpace the rise in median household incomes
- Chicago residents include a disproportionately low-income population who are especially vulnerable to AMRP rate impacts
- The Company and the Commission should strive to produce a plan that reduces the annual impact on ratepayers
- PGL's "target case" presentation involves speculative cost savings and overly ambitious construction scheduling



Appendix



Key Assumptions

- Calculation of Cost of AMRP for Residential Heating Customers:
 - Book Depreciation Rate: 3%
 - Tax Depreciation: 20-year MACRS with enacted Bonus Depreciation from 2011 to 2019
 - PGL Pre-Tax Rate of Return and PV Discount Rate: 9.61%
 - 649,558 Residential Heating Customers allocated 60.7% of Revenue Requirement
- Calculation of Base Rates and Gas Charge:
 - Average annual increase of 3.5% in base rates for non-AMRP cost increases after 2017
 - Annual increase of 2% in Storage Charge after 2017
 - Assumed increase of 5.4% in gas costs from 2016 to 2028 based on NYMEX future prices and 4.7% from 2029 to 2045 based on EIA forecast
 - QIP Rider factored out
 - Other riders as in current tariff. VBA at zero after 2016
- City and State Taxes at current rates



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On Behalf of the
Illinois Attorney General

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