

State of Florida



Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: March 18, 2019

TO: Adam J. Teitzman, Commission Clerk, Office of Commission Clerk

FROM: Douglas Wright, Engineering Spec I, Division of Engineering *DW PGE*

RE: Docket No. 20180186-GU – Petition for approval of demand side management goals and residential customer assisted and commercial walk-through energy audit programs, by Peoples Gas System.

Please file the attached excel spreadsheets, "(BS_35) Revised PGS Goals Tables updated February 2019," response to Staff's Second Data Request, in the above mentioned docket file.

DW/jp

Attachments

**Peoples Gas System
2019-2028
Proposed DSM Goals
At the Meter**

| Year | Residential Annual Energy (Therms) | Residential Cumulative Energy (Therms) | Commercial Annual Energy (Therms) | Commercial Cumulative Energy (Therms) | Combined Annual Energy (Therms) | Combined Cumulative Energy (Therms) |
|------|------------------------------------|--|-----------------------------------|---------------------------------------|---------------------------------|-------------------------------------|
| 2019 | 338,439 | 338,439 | 216,155 | 216,155 | 554,594 | 554,594 |
| 2020 | 347,108 | 685,548 | 222,062 | 438,217 | 569,170 | 1,123,764 |
| 2021 | 355,569 | 1,041,116 | 227,968 | 666,184 | 583,537 | 1,707,301 |
| 2022 | 363,728 | 1,404,845 | 233,833 | 900,017 | 597,561 | 2,304,862 |
| 2023 | 371,562 | 1,776,406 | 239,661 | 1,139,678 | 611,222 | 2,916,084 |
| 2024 | 379,045 | 2,155,451 | 245,457 | 1,385,135 | 624,502 | 3,540,586 |
| 2025 | 386,682 | 2,542,133 | 251,338 | 1,636,473 | 638,019 | 4,178,605 |
| 2026 | 394,475 | 2,936,608 | 257,304 | 1,893,777 | 651,779 | 4,830,385 |
| 2027 | 402,429 | 3,339,037 | 263,357 | 2,157,134 | 665,786 | 5,496,171 |
| 2028 | 410,546 | 3,749,583 | 269,500 | 2,426,634 | 680,046 | 6,176,217 |

| Peoples Gas System 2019-2028 Achievable Potential | |
|--|-----------------|
| | Energy (Therms) |
| Residential | 3,749,583 |
| Commercial/Industrial | 2,426,634 |
| Combined | 6,176,217 |

| Modified Peoples Gas System 2019-2028 Achievable Potential | |
|--|-----------------|
| | Energy (Therms) |
| Residential | 3,749,583 |
| Commercial | 2,426,634 |
| Combined | 6,176,217 |

| Original Peoples Gas System 2019-2028 Achievable Potential | |
|--|-----------------|
| | Energy (Therms) |
| Residential | 2,479,682 |
| Commercial/Industrial | 2,205,988 |
| Combined | 4,685,670 |

| Modified Peoples Gas System 2019-2028 Achievable Potential | |
|--|-----------------|
| | Energy (Therms) |
| Residential | 3,749,583 |

| Original Peoples Gas System 2019-2028 Achievable Potential | |
|--|-----------------|
| | Energy (Therms) |
| Residential | 2,479,682 |

| Modified Peoples Gas System 2019-2028 Achievable Potential | |
|--|-----------------|
| | Energy (Therms) |
| Commercial | 2,426,634 |

| Original Peoples Gas System 2019-2028 Achievable Potential | |
|--|-----------------|
| | Energy (Therms) |
| Commercial | 2,205,988 |

| Modified Peoples Gas System 2019-2028 Achievable Potential | |
|--|-----------------|
| | Energy (Therms) |
| Industrial | 0 |

| Original Peoples Gas System 2019-2028 Achievable Potential | |
|--|-----------------|
| | Energy (Therms) |
| Industrial | 0 |

| Modified Peoples Gas System 2019-2028 Achievable Potential | |
|--|-----------------|
| | Energy (Therms) |
| Combined | 6,176,217 |

| Original Peoples Gas System 2019-2028 Achievable Potential | |
|--|-----------------|
| | Energy (Therms) |
| Combined | 4,685,670 |

| Peoples Gas System (2019-2028) Achievable Potential in Therms | |
|---|-----------|
| Residential | 3,749,583 |
| Commercial | 2,426,634 |
| Total | 6,176,217 |

| Peoples Gas System (2019-2028) Proposed DSM Goals at the Meter | | | |
|--|--|---|---------------------------------------|
| Year | Residential Annual Energy (Therms) | Commercial Annual Energy (Therms) | Combined Annual Energy (Therms) |
| 2019 | 338,439 | 216,155 | 554,594 |
| 2020 | 347,108 | 222,062 | 569,170 |
| 2021 | 355,569 | 227,968 | 583,537 |
| 2022 | 363,728 | 233,833 | 597,561 |
| 2023 | 371,562 | 239,661 | 611,222 |
| 2024 | 379,045 | 245,457 | 624,502 |
| 2025 | 386,682 | 251,338 | 638,019 |
| 2026 | 394,475 | 257,304 | 651,779 |
| 2027 | 402,429 | 263,357 | 665,786 |
| 2028 | 410,546 | 269,500 | 680,046 |

| Peoples Gas System (2019-2028) Proposed DSM Goals at the Meter | | | | | | |
|--|---|---|--|--|--|--|
| Year | Residential Annual Energy (Therms) | Residential Cumulative Energy (Therms) | Commercial Annual Energy (Therms) | Commercial Cumulative Energy (Therms) | Combined Annual Energy (Therms) | Combined Cumulative Energy (Therms) |
| 2019 | 338,439 | 338,439 | 216,155 | 216,155 | 554,594 | 554,594 |
| 2020 | 347,108 | 685,548 | 222,062 | 438,217 | 569,170 | 1,123,764 |
| 2021 | 355,569 | 1,041,116 | 227,968 | 666,184 | 583,537 | 1,707,301 |
| 2022 | 363,728 | 1,404,845 | 233,833 | 900,017 | 597,561 | 2,304,862 |
| 2023 | 371,562 | 1,776,406 | 239,661 | 1,139,678 | 611,222 | 2,916,084 |
| 2024 | 379,045 | 2,155,451 | 245,457 | 1,385,135 | 624,502 | 3,540,586 |
| 2025 | 386,682 | 2,542,133 | 251,338 | 1,636,473 | 638,019 | 4,178,605 |
| 2026 | 394,475 | 2,936,608 | 257,304 | 1,893,777 | 651,779 | 4,830,385 |
| 2027 | 402,429 | 3,339,037 | 263,357 | 2,157,134 | 665,786 | 5,496,171 |
| 2028 | 410,546 | 3,749,583 | 269,500 | 2,426,634 | 680,046 | 6,176,217 |

| | | Residential Participation | | | | | | | | Commercial Participation | | | | | | | | | | |
|-----------|------|---------------------------|---------|--------|---------------|----------------|------|-----------------------|-----------------------------------|--------------------------|-------|-------|--------------------------------------|--------------------------------------|----------------------------|-----------------------------------|--------------------------------|-------|--------|---|
| | | Water Heater | Furnace | Dryer | Hydronic Heat | Range/ Cooktop | Oven | Tankless Water Heater | High Efficiency Tank Water Heater | Water Heater | Range | Dryer | Small Non-Food Tankless Water Heater | Large Non-Food Tankless Water Heater | Food Tankless Water Heater | Hospitality Tankless Water Heater | Cleaning Tankless Water Heater | Fryer | Boiler | |
| Base Year | 2019 | 8,544 | 4,460 | 8,497 | 265 | 9,707 | 0 | 7,802 | 457 | 2019 | 27 | 16 | 23 | 5 | 7 | 244 | 59 | 30 | 41 | 1 |
| | 2020 | 8,763 | 4,575 | 8,715 | 272 | 9,955 | 0 | 8,002 | 469 | 2020 | 28 | 16 | 24 | 5 | 8 | 250 | 60 | 31 | 42 | 1 |
| | 2021 | 8,977 | 4,686 | 8,927 | 279 | 10,198 | 0 | 8,197 | 480 | 2021 | 29 | 17 | 24 | 6 | 8 | 257 | 62 | 32 | 43 | 1 |
| | 2022 | 9,182 | 4,794 | 9,132 | 285 | 10,432 | 0 | 8,385 | 491 | 2022 | 30 | 17 | 25 | 6 | 8 | 264 | 64 | 33 | 44 | 1 |
| | 2023 | 9,380 | 4,897 | 9,328 | 291 | 10,656 | 0 | 8,565 | 502 | 2023 | 30 | 17 | 26 | 6 | 8 | 270 | 65 | 34 | 45 | 1 |
| | 2024 | 9,568 | 4,995 | 9,516 | 297 | 10,870 | 0 | 8,737 | 512 | 2024 | 31 | 18 | 26 | 6 | 8 | 277 | 67 | 35 | 47 | 1 |
| | 2025 | 9,760 | 5,095 | 9,707 | 303 | 11,089 | 0 | 8,913 | 522 | 2025 | 32 | 18 | 27 | 6 | 9 | 283 | 68 | 35 | 48 | 1 |
| | 2026 | 9,958 | 5,198 | 9,903 | 309 | 11,313 | 0 | 9,093 | 533 | 2026 | 33 | 19 | 28 | 6 | 9 | 290 | 70 | 36 | 49 | 1 |
| | 2027 | 10,159 | 5,303 | 10,103 | 315 | 11,541 | 0 | 9,276 | 544 | 2027 | 33 | 19 | 28 | 6 | 9 | 297 | 72 | 37 | 50 | 1 |
| | 2028 | 10,364 | 5,411 | 10,307 | 322 | 11,775 | 0 | 9,464 | 555 | 2028 | 34 | 20 | 29 | 7 | 9 | 304 | 73 | 38 | 51 | 1 |

| | | Residential Participation | | | | | | | | Commercial Participation | | | | | | | | | | |
|-----------|------|---------------------------|---------|--------|---------------|---------------|------|-----------------------|-----------------------------------|--------------------------|-------|-------|-----------------------------|----------------------------|-----------------------------------|--------------------------------|--------------------------------|-------|--------|---|
| | | Water Heater | Furnace | Dryer | Hydronic Heat | Range/Cooktop | Oven | Tankless Water Heater | High Efficiency Tank Water Heater | Water Heater | Range | Dryer | Small Tankless Water Heater | Food Tankless Water Heater | Hospitality Tankless Water Heater | Cleaning Tankless Water Heater | Non-Food Tankless Water Heater | Fryer | Boiler | |
| Base Year | 2017 | 8,185 | 4,273 | 8,140 | 254 | 9,299 | 0 | 7,474 | 438 | 2017 | 26 | 15 | 22 | 5 | 232 | 56 | 29 | 7 | 39 | 1 |
| | 2018 | 8,363 | 4,366 | 8,317 | 260 | 9,501 | 0 | 7,636 | 448 | 2018 | 27 | 15 | 23 | 5 | 238 | 57 | 30 | 7 | 40 | 1 |
| | 2019 | 8,544 | 4,460 | 8,497 | 265 | 9,707 | 0 | 7,802 | 457 | 2019 | 27 | 16 | 23 | 5 | 244 | 59 | 30 | 7 | 41 | 1 |
| | 2020 | 8,763 | 4,575 | 8,715 | 272 | 9,955 | 0 | 8,002 | 469 | 2020 | 28 | 16 | 24 | 5 | 250 | 60 | 31 | 8 | 42 | 1 |
| | 2021 | 8,977 | 4,686 | 8,927 | 279 | 10,198 | 0 | 8,197 | 480 | 2021 | 29 | 17 | 24 | 6 | 257 | 62 | 32 | 8 | 43 | 1 |
| | 2022 | 9,182 | 4,794 | 9,132 | 285 | 10,432 | 0 | 8,385 | 491 | 2022 | 30 | 17 | 25 | 6 | 264 | 64 | 33 | 8 | 44 | 1 |
| | 2023 | 9,380 | 4,897 | 9,328 | 291 | 10,656 | 0 | 8,565 | 502 | 2023 | 30 | 17 | 26 | 6 | 270 | 65 | 34 | 8 | 45 | 1 |
| | 2024 | 9,568 | 4,995 | 9,516 | 297 | 10,870 | 0 | 8,737 | 512 | 2024 | 31 | 18 | 26 | 6 | 277 | 67 | 35 | 8 | 47 | 1 |
| | 2025 | 9,760 | 5,095 | 9,707 | 303 | 11,089 | 0 | 8,913 | 522 | 2025 | 32 | 18 | 27 | 6 | 283 | 68 | 35 | 9 | 48 | 1 |
| | 2026 | 9,958 | 5,198 | 9,903 | 309 | 11,313 | 0 | 9,093 | 533 | 2026 | 33 | 19 | 28 | 6 | 290 | 70 | 36 | 9 | 49 | 1 |
| | 2027 | 10,159 | 5,303 | 10,103 | 315 | 11,541 | 0 | 9,276 | 544 | 2027 | 33 | 19 | 28 | 6 | 297 | 72 | 37 | 9 | 50 | 1 |
| | 2028 | 10,364 | 5,411 | 10,307 | 322 | 11,775 | 0 | 9,464 | 555 | 2028 | 34 | 20 | 29 | 7 | 304 | 73 | 38 | 9 | 51 | 1 |

| | Residential | | Commercial | | Combined | | Residential Escalation | Commercial Escalation |
|----------------|-------------|------------|------------|------------|-----------|------------|------------------------|-----------------------|
| 2017 | 324,216 | | 205,820 | | 530,035 | | | |
| 2018 | 331,251 | Cumulative | 210,924 | Cumulative | 542,175 | Cumulative | | |
| Base year 2019 | 338,439 | 338,439 | 216,155 | 216,155 | 554,594 | 554,594 | 2.17% | 2.48% |
| 2020 | 347,108 | 685,548 | 222,062 | 438,217 | 569,170 | 1,123,764 | 2.17% | 2.48% |
| 2021 | 355,569 | 1,041,116 | 227,968 | 666,184 | 583,537 | 1,707,301 | 2.56% | 2.73% |
| 2022 | 363,728 | 1,404,845 | 233,833 | 900,017 | 597,561 | 2,304,862 | 2.44% | 2.66% |
| 2023 | 371,562 | 1,776,406 | 239,661 | 1,139,678 | 611,222 | 2,916,084 | 2.29% | 2.57% |
| 2024 | 379,045 | 2,155,451 | 245,457 | 1,385,135 | 624,502 | 3,540,586 | 2.15% | 2.49% |
| 2025 | 386,682 | 2,542,133 | 251,338 | 1,636,473 | 638,019 | 4,178,605 | 2.01% | 2.42% |
| 2026 | 394,475 | 2,936,608 | 257,304 | 1,893,777 | 651,779 | 4,830,385 | 2.01% | 2.40% |
| 2027 | 402,429 | 3,339,037 | 263,357 | 2,157,134 | 665,786 | 5,496,171 | 2.02% | 2.37% |
| 2028 | 410,546 | 3,749,583 | 269,500 | 2,426,634 | 680,046 | 6,176,217 | 2.02% | 2.35% |
| Total | 3,749,583 | | 2,426,634 | | 6,176,217 | | | |
| % | 0.054% | | 0.035% | | 0.090% | | | |

Residential - 31

Water Heating
 Low flow shower head
 Low flow faucet aerator
 Water heater temperature check card
 Hot water pipe Insulation
 Condensing water heater
 Tankless water Heater
 Energy Star water heater
 Solar water heater
 Energy Star dishwasher
 Energy Star washer
 Front loading washer

Pool heating
 Gas pool heater
 Solar water heating
 Insulating pool cover

Cooking
 Range/cooktop
 Oven

HVAC
 Furnace
 Hydronic heating
 Gas heat pump
 Programmable thermostat
 Duct repair
 Attic insulation
 Ceiling insulation
 Wall insulation
 HVAC Tune up
 Weather stripping
 Energy Star windows
 fireplace ignition control
 fireplace pilotless ignition

Laundry
 Dryer
 Energy Star dryer

Commercial - 29

Water Heating
 Low flow shower head
 Low flow faucet aerator
 Water heater temperature check card
 Hot water pipe Insulation
 Condensing water heater
 Tankless water Heater
 Energy Star water heater
 Energy Star dishwasher
 Drain water recovery
 Energy Star front loading washer
 Combined heat and power (thermal)

Cooking
 Range/cooktop
 Convection oven
 Energy Star convection oven
 Fryer
 Energy Star fryer
 Griddle
 Energy Star griddle
 Steam cooker
 Energy Star steam cooker

HVAC
 Furnace
 Gas heat pump
 Programmable thermostat
 Duct repair
 Ceiling insulation
 Wall insulation
 BAS controller
 Demand control ventilation

Laundry
 Dryer

Industrial - 22

Water Heating
 Condensing boiler/water heater
 Tankless water heater
 Energy Star water heater
 Boiler advanced controls
 Boiler blowdown recovery
 Boiler combustion air preheat
 Boiler feedwater economizer
 Boiler high efficiency burner
 Boiler tune-up
 Condensate return

HVAC
 Furnace
 Gas heat pump
 Programmable thermostats
 Duct seal
 Ceiling insulation
 Wall insulation
 BAS controller

Process
 Infrared heating process
 Industrial dryers
 Direct heating process
 Combined heat and power (thermal)
 Exhaust gas heat recovery

2019 Billing Determinates

| Class | Rate | Customer | | | Customer | | Total Base Revenues |
|---------------|---------|------------|-----------------|---------------|-------------|-------------|---------------------|
| | | #Customers | #Customers x 12 | Therms x 1000 | \$/Customer | \$/Therm | |
| Residential | 362,478 | 4,349,740 | 46,691 | 67,771,288 | 22,767,980 | 90,539,268 | |
| Commercial | 18,213 | 438,699 | 118,751 | 18,213,900 | 10,526,253 | 118,648,153 | |
| Industrial | 39 | 468 | 147,438 | 167,700 | 6,708,019 | 6,875,719 | |
| Industrial SC | 23 | - | 863,784 | - | 15,722,583 | 15,722,583 | |
| OSS | - | - | - | - | 600,000 | 600,000 | |
| | 400,765 | 4,808,906 | 1,626,664 | 86,072,887 | 147,322,857 | 235,395,744 | |

2019 2020 2021 2022 2023 2024 2025 2026 2027 2028

| Class | Rate | Customer | | | Customer | | Total Base Revenues | | |
|-------------|----------|------------|-----------------|---------------|-------------|----------|---------------------|-----------|------------|
| | | #Customers | #Customers x 12 | Therms x 1000 | \$/Customer | \$/Therm | | | |
| Residential | RS1 | 91,171 | 1,064,053 | 6,367 | \$ 12.00 | \$ 0.27 | 13,128,635 | 1,713,235 | 16,841,870 |
| Residential | RS2 | 183,414 | 2,200,565 | 31,750 | \$ 15.00 | \$ 0.27 | 33,014,480 | 8,505,609 | 41,520,089 |
| Residential | RS3 | 84,902 | 1,018,827 | 33,811 | \$ 20.00 | \$ 0.27 | 20,376,539 | 9,055,324 | 29,431,864 |
| Residential | RES GS1 | 1,405 | 19,865 | 4,017 | \$ 15.00 | \$ 0.27 | 590,283 | 1,076,511 | 1,666,794 |
| Residential | RES GS2 | 86 | 828 | 985 | \$ 50.00 | \$ 0.28 | 41,379 | 224,957 | 266,336 |
| Residential | RES GS3 | 21 | 255 | 34 | \$ 150.00 | \$ 0.20 | 38,217 | 6,730 | 44,947 |
| Residential | RES GS15 | 395 | 4,742 | 1,873 | \$ 35.00 | \$ 0.27 | 165,974 | 501,868 | 667,842 |
| Residential | RES GS22 | 243 | 2,910 | 4,784 | \$ 50.00 | \$ 0.23 | 145,512 | 1,088,131 | 1,233,643 |
| Residential | RES GS3 | 41 | 495 | 3,028 | \$ 150.00 | \$ 0.20 | 74,281 | 595,613 | 669,895 |
| Residential | RES SG | 817 | 9,790 | - | \$ 20.00 | \$ 0.27 | 195,988 | - | 195,988 |

| 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 6,396,963.51 | 6,560,823 | 6,710,732 | 6,874,961 | 7,023,029 | 7,164,463 | 7,308,879 | 7,456,119 | 7,606,455 | 7,759,878 |
| 11,758,677.58 | 32,572,184 | 33,366,076 | 34,131,768 | 34,866,823 | 35,569,042 | 36,285,472 | 37,017,014 | 37,763,376 | 38,525,072 |
| 13,811,233.23 | 34,677,317 | 35,522,517 | 36,337,996 | 37,120,257 | 37,887,881 | 38,630,806 | 39,409,415 | 40,204,014 | 41,014,938 |
| 4,115,723 | 4,220,134 | 4,318,978 | 4,409,948 | 4,498,765 | 4,588,704 | 4,679,308 | 4,768,304 | 4,872,643 | 4,976,308 |
| 41,379 | 41,379 | 41,379 | 41,379 | 41,379 | 41,379 | 41,379 | 41,379 | 41,379 | 41,379 |
| 38,217 | 38,217 | 38,217 | 38,217 | 38,217 | 38,217 | 38,217 | 38,217 | 38,217 | 38,217 |
| 165,974 | 165,974 | 165,974 | 165,974 | 165,974 | 165,974 | 165,974 | 165,974 | 165,974 | 165,974 |
| 145,512 | 145,512 | 145,512 | 145,512 | 145,512 | 145,512 | 145,512 | 145,512 | 145,512 | 145,512 |
| 74,281 | 74,281 | 74,281 | 74,281 | 74,281 | 74,281 | 74,281 | 74,281 | 74,281 | 74,281 |
| 195,988 | 195,988 | 195,988 | 195,988 | 195,988 | 195,988 | 195,988 | 195,988 | 195,988 | 195,988 |

Normal - with Existing DSM activities

| Class | Rate | Customer | | | Customer | | Total Base Revenues | | |
|------------|------|------------|-----------------|---------------|-------------|----------|---------------------|------------|------------|
| | | #Customers | #Customers x 12 | Therms x 1000 | \$/Customer | \$/Therm | | | |
| Commercial | SG5 | 8,211 | 98,536 | 5,466 | \$ 25.00 | \$ 0.34 | 2,463,391 | 1,852,686 | 4,316,077 |
| Commercial | STG5 | 3,776 | 45,308 | 3,853 | \$ 25.00 | \$ 0.34 | 1,132,694 | 1,306,066 | 2,438,760 |
| Commercial | GS1 | 4,348 | 52,178 | 21,562 | \$ 35.00 | \$ 0.27 | 1,816,213 | 5,779,508 | 7,606,761 |
| Commercial | GS2 | 904 | 10,852 | 13,787 | \$ 50.00 | \$ 0.23 | 542,609 | 3,186,043 | 3,728,652 |
| Commercial | GS3 | 54 | 643 | 3,780 | \$ 150.00 | \$ 0.20 | 96,444 | 739,578 | 836,022 |
| Commercial | GS4 | 11 | 132 | 3,885 | \$ 250.00 | \$ 0.15 | 33,000 | 591,101 | 624,101 |
| Commercial | GS5 | 4 | 48 | 1,038 | \$ 300.00 | \$ 0.11 | 14,400 | 117,501 | 131,901 |
| Commercial | GT51 | 12,028 | 142,333 | 63,861 | \$ 85.00 | \$ 0.27 | 5,051,658 | 18,902,249 | 23,953,907 |
| Commercial | GT52 | 6,817 | 81,802 | 124,804 | \$ 50.00 | \$ 0.23 | 4,090,096 | 28,387,910 | 32,478,006 |
| Commercial | GT53 | 802 | 9,627 | 83,882 | \$ 150.00 | \$ 0.20 | 1,444,035 | 16,999,561 | 17,943,596 |
| Commercial | GT54 | 179 | 2,148 | 75,364 | \$ 250.00 | \$ 0.15 | 537,000 | 11,471,184 | 12,008,184 |
| Commercial | GT55 | 133 | 1,596 | 123,146 | \$ 300.00 | \$ 0.11 | 478,800 | 14,009,322 | 14,488,122 |
| Commercial | CS2 | 817 | 9,804 | 91 | \$ 35.00 | \$ 0.34 | 343,340 | 30,924 | 374,064 |
| Commercial | CT50 | 122 | 1,464 | 94 | \$ 35.00 | \$ 0.34 | 51,240 | 31,697 | 82,937 |
| Commercial | CSL | - | - | 49 | N/A | \$ 0.19 | 9,222 | 9,222 | 9,222 |
| Commercial | CT56 | - | - | 564 | \$ 0.19 | \$ 0.19 | 106,421 | 106,421 | 106,421 |
| Commercial | NDG5 | - | - | - | \$ 45.00 | \$ 0.18 | - | - | - |
| Commercial | NTG5 | 4 | 48 | 43 | \$ 45.00 | \$ 0.18 | 2,160 | 7,836 | 9,996 |
| Commercial | WHSE | 12 | 144 | 1,134 | \$ 150.00 | \$ 0.15 | 21,600 | 169,320 | 190,920 |
| Commercial | WHST | 3 | 36 | 2,539 | \$ 150.00 | \$ 0.15 | 5,400 | 379,127 | 384,527 |

| 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 5,466,117.95 | 5,615,494 | 5,764,849 | 5,913,157 | 6,060,541 | 6,207,117 | 6,355,821 | 6,506,694 | 6,659,779 | 6,815,119 |
| 3,851,383.36 | 3,958,687 | 4,066,976 | 4,168,527 | 4,272,427 | 4,375,757 | 4,480,587 | 4,586,946 | 4,694,864 | 4,804,372 |
| 21,561,597.08 | 22,150,824 | 22,739,968 | 23,324,884 | 23,906,354 | 24,484,517 | 25,071,111 | 25,666,243 | 26,270,100 | 26,882,854 |
| 11,787,226.41 | 14,163,999 | 14,540,717 | 14,914,797 | 15,286,545 | 15,656,255 | 16,031,310 | 16,411,878 | 16,798,005 | 17,189,821 |
| 3,759,920.26 | 3,862,680 | 3,965,416 | 4,067,431 | 4,168,811 | 4,269,635 | 4,371,922 | 4,475,702 | 4,581,003 | 4,687,856 |
| 3,884,987.00 | 3,991,154 | 4,097,307 | 4,202,716 | 4,307,467 | 4,411,645 | 4,517,334 | 4,624,566 | 4,733,369 | 4,843,776 |
| 1,037,900.40 | 1,096,264 | 1,096,423 | 1,122,784 | 1,150,789 | 1,178,601 | 1,206,816 | 1,235,484 | 1,264,551 | 1,294,047 |
| 61,060,630.08 | 64,783,927 | 64,506,981 | 68,217,862 | 69,918,279 | 71,609,274 | 73,284,813 | 75,065,379 | 76,812,664 | 78,613,569 |
| 124,803,965.69 | 128,214,562 | 131,624,476 | 135,010,897 | 138,376,011 | 141,722,678 | 145,117,920 | 148,564,662 | 152,057,969 | 155,604,745 |
| 81,881,853.90 | 86,174,146 | 88,466,114 | 90,742,023 | 93,001,746 | 95,253,071 | 97,535,041 | 99,850,305 | 102,195,512 | 104,583,331 |
| 75,393,911.10 | 77,454,248 | 79,514,293 | 81,599,766 | 83,709,766 | 85,814,483 | 87,665,544 | 89,746,526 | 91,858,019 | 94,000,621 |
| 123,746,327.60 | 127,128,021 | 130,509,216 | 133,886,761 | 137,201,358 | 140,521,664 | 143,888,134 | 147,301,713 | 150,799,710 | 154,296,089 |
| 91,238.32 | 93,732 | 96,225 | 98,700 | 101,160 | 103,607 | 106,089 | 108,607 | 111,162 | 113,755 |
| 93,517.50 | 96,073 | 98,628 | 101,166 | 103,687 | 106,195 | 108,739 | 111,320 | 113,939 | 116,597 |
| 48,900.00 | 50,236 | 51,572 | 52,899 | 54,218 | 55,529 | 56,859 | 58,209 | 59,579 | 60,968 |
| 564,300.00 | 579,721 | 595,140 | 610,451 | 625,666 | 640,798 | 656,149 | 671,725 | 687,529 | 703,565 |

| Special Contracts | | | | | | | |
|-------------------|-------|-----|---|---------|---|---|------------|
| Industrial | SS | - | - | - | - | - | - |
| Industrial | ST5 | 4 | - | 22,814 | - | - | 1,950,392 |
| Industrial | IS | - | - | - | - | - | 1,950,392 |
| Industrial | ITS | 3 | - | 107,615 | - | - | 4,652,201 |
| Industrial | ISLV | - | - | - | - | - | 4,652,201 |
| Industrial | ITSLV | 1 | - | 40,969 | - | - | 412,000 |
| Commercial | GS4 | 133 | - | 1,596 | - | - | 478,800 |
| Commercial | GS5 | - | - | - | - | - | 14,009,322 |
| Industrial | CIS1 | 14 | - | 689,185 | - | - | 7,851,880 |
| Commercial | GS2 | 1 | - | 3,500 | - | - | 796,110 |
| Other | OSS | - | - | - | - | - | 600,000 |

| 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 22,814,371.60 | 23,437,834 | 24,061,209 | 24,680,215 | 25,295,354 | 25,907,140 | 26,527,796 | 27,157,506 | 27,796,449 | 28,444,805 |
| 107,615,322.60 | 110,556,194 | 113,496,649 | 116,436,503 | 119,318,156 | 122,203,903 | 125,131,535 | 128,101,875 | 131,115,765 | 134,174,060 |
| 40,668,984.20 | 41,780,371 | 42,891,601 | 43,995,085 | 45,091,610 | 46,182,165 | 47,288,549 | 48,411,072 | 49,550,053 | 50,705,816 |
| 689,185,271.17 | 708,019,069 | 726,850,202 | 745,549,398 | 764,132,038 | 782,612,812 | 801,161,821 | 820,384,342 | 839,685,759 | 859,271,560 |
| 1,500,000.00 | 3,599,647 | 3,691,280 | 3,786,443 | 3,880,614 | 3,974,468 | 4,069,684 | 4,166,289 | 4,264,111 | 4,363,776 |

Base year energy total

| | | | | | | | | | | |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| 1,626,664,292.63 | 1,670,968,718.85 | 1,715,213,649.14 | 1,759,086,790.08 | 1,802,615,861.59 | 1,845,827,481.33 | 1,889,678,203.88 | 1,934,180,045.87 | 1,979,346,074.57 | 2,025,189,412.91 | 18,248,770,730.85 |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|

| | | | |
|-------|------------|----|----|
| OST | 689,185.27 | 12 | 2 |
| IS | 3500 | 1 | 0 |
| ITSLV | 40,669 | 1 | 0 |
| ITS | 105,128.05 | 11 | 5 |
| IS | 419 | 1 | 0 |
| ITSLV | 42,645 | 13 | 16 |
| | 881,346.29 | 39 | 23 |

amount per site

amount per site

22,599,135.56

3832073.34

2,824.89

4,790.03

282.49

479.00

MMBtu/yr

MMBtu/yr

Amount excluded f
41,228,601.59
Percentage of Excl.
0.65%

960,457,941.06 Residential total

5,935,955,500.07 Commercial total

11,352,357,289.50 Industrial Total

| Residential | | | | Commercial | | | | Industrial | | | | | | |
|-------------|-----------|-----------------|-------------------|------------|-----------------|-------------------|-----------|-----------------|-------------------|-----------|-----------------|-------------------|----------------|---------------------|
| | Customers | Therms/Customer | Escalation Factor | Customers | Therms/Customer | Escalation Factor | Customers | Therms/Customer | Escalation Factor | Customers | Therms/Customer | Escalation Factor | | |
| 2019 | 362,478 | 239 | | 38,226 | 13,924 | | 62 | 16,310,032 | | 62 | 16,755,746 | | 1,011,221,984 | 1,630,164,281 |
| 2020 | 371,763 | 240 | 2.56% | 39,271 | 13,890 | 2.73% | 62 | 16,755,746 | 2.73% | 62 | 16,755,746 | 2.73% | 1,038,856,280 | 1,673,550,081 2.66% |
| 2021 | 380,824 | 240 | 2.44% | 40,315 | 13,859 | 2.66% | 62 | 17,201,398 | 2.66% | 62 | 17,201,398 | 2.66% | 1,066,486,668 | 1,716,680,005 2.58% |
| 2022 | 389,564 | 241 | 2.29% | 41,352 | 13,832 | 2.57% | 62 | 17,643,927 | 2.57% | 62 | 17,643,927 | 2.57% | 1,093,923,467 | 1,759,671,081 2.50% |
| 2023 | 397,953 | 241 | 2.15% | 42,383 | 13,804 | 2.49% | 62 | 18,083,698 | 2.49% | 62 | 18,083,698 | 2.49% | 1,121,189,248 | 1,802,186,776 2.42% |
| 2024 | 405,968 | 242 | 2.01% | 43,408 | 13,778 | 2.42% | 62 | 18,521,057 | 2.42% | 62 | 18,521,057 | 2.42% | 1,148,305,563 | 1,844,409,727 2.34% |
| 2025 | 414,147 | 242 | 2.01% | 44,448 | 13,747 | 2.40% | 62 | 18,964,765 | 2.40% | 62 | 18,964,765 | 2.40% | 1,175,815,450 | 1,886,891,552 2.30% |
| 2026 | 422,494 | 242 | 2.02% | 45,503 | 13,711 | 2.37% | 62 | 19,414,946 | 2.37% | 62 | 19,414,946 | 2.37% | 1,203,726,656 | 1,929,683,975 2.27% |
| 2027 | 431,013 | 241 | 2.02% | 46,573 | 13,671 | 2.35% | 62 | 19,871,727 | 2.35% | 62 | 19,871,727 | 2.35% | 1,232,047,077 | 1,972,809,367 2.23% |
| 2028 | 439,707 | 241 | 2.02% | 47,660 | 13,628 | 2.33% | 62 | 20,335,238 | 2.33% | 62 | 20,335,238 | 2.33% | 1,260,784,767 | 2,016,293,939 2.20% |
| Escalation | 2.17% | 0.09% | | 2.48% | -0.24% | | | | | | | | 11,352,357,162 | 18,232,340,785 |

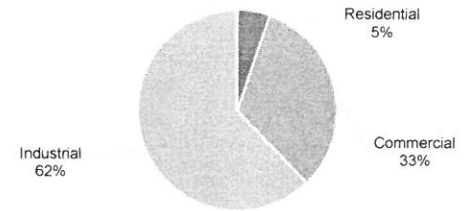
Total Natural Gas projected to be sold over the 2019 - 2028 period

| | Therms |
|--|------------------------------|
| Residential | 967,305,916 |
| Commercial | 5,912,677,707 |
| Amount Excluded from Achievable | 41,228,602 |
| Industrial | 11,352,357,162 |
| | All excluded from Achievable |
| Total Natural Gas Sales forecasted During Period | 18,232,340,785 |
| Excluded amount | 11,393,585,763 |

| Projected Site Energy Consumption (2019 - 2028) in Therms | |
|---|----------------|
| Residential | 967,305,916 |
| Commercial | 5,912,677,707 |
| Industrial | 11,352,357,162 |
| Total | 18,232,340,785 |

rounding

Projected Site Energy Consumption (2019-2028) as a percentage of Total Therms



| Peoples Gas System 2019 Base Year Technical Potential in Therms | |
|---|-------------|
| Residential | 60,134,211 |
| Commercial | 150,064,380 |
| Industrial | 246,275,380 |
| Total | 456,473,972 |

| Modified Peoples Gas System 2019 Base Year Technical Potential in Therms | |
|--|-------------|
| Residential | 60,134,211 |
| Commercial | 149,021,432 |
| Total | 209,155,644 |

| Original Peoples Gas System 2019 Base Year Technical Potential in Therms | |
|--|-------------|
| Residential | 58,560,018 |
| Commercial | 142,744,289 |
| Total | 201,304,306 |

| Modified Peoples Gas System Technical Potential (Residential) | |
|--|------------|
| Cooking | 1,207,594 |
| HVAC | 16,868,459 |
| Laundry | 606,440 |
| Pool Heating | 7,456,278 |
| Water Heating | 33,995,441 |
| Total | 60,134,211 |

| Original Peoples Gas System Technical Potential (Residential) | |
|--|------------|
| Cooking | 1,207,594 |
| HVAC | 16,868,459 |
| Laundry | 606,440 |
| Pool Heating | 7,456,278 |
| Water Heating | 32,42,247 |
| Total | 58,560,018 |

| Modified Peoples Gas System Technical Potential (Commercial) | |
|---|-------------|
| Cooking | 11,941,119 |
| HVAC | 8,858,540 |
| Laundry | 482,178 |
| Water Heating | 127,739,595 |
| Total | 149,021,432 |

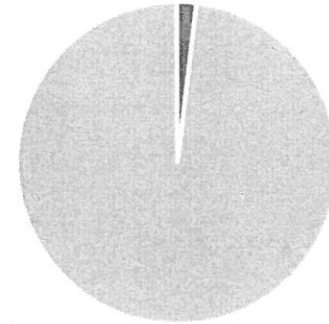
| Original Peoples Gas System Technical Potential (Commercial) | |
|---|-------------|
| Cooking | 11,941,119 |
| HVAC | 8,858,540 |
| Laundry | 482,178 |
| Water Heating | 121,462,452 |
| Total | 142,744,289 |

| Peoples Gas System 2019 Base Year Technical Potential in Therms | |
|---|-------------|
| Residential | 60,134,211 |
| Commercial | 149,021,432 |
| Industrial | 246,275,380 |
| Total | 455,431,024 |

| | |
|----------------------|-------------|
| Total Excluded | |
| Commercial | 1,035,699 |
| Industrial | 246,275,380 |
| Total | 247,311,079 |
| Average per Customer | 3,988,888 |

| Industrial Technical Potential | |
|--------------------------------|-------------|
| Water Heating | 4,756,167 |
| HVAC | 1,641 |
| Process | 241,517,573 |
| Total TP | 246,275,380 |
| Annual Comparison | 24.354% |

Industrial Technical Potential



■ Water Heating ■ HVAC ■ Process

| Peoples Gas System Technical Potential (Industrial) | |
|--|-------------|
| HVAC | 1,641 |
| Process | 241,517,573 |
| Water Heating | 4,756,167 |
| Total | 246,275,380 |

| | Customers | Therms/Customer | Escalation Factor | Annual Total |
|----------------|-----------|-----------------|-------------------|----------------|
| 2019 | 62 | 16,310,032 | | 1,011,221,984 |
| 2020 | 62 | 16,755,746 | 0.00% | 1,038,856,280 |
| 2021 | 62 | 17,201,398 | 0.00% | 1,066,486,668 |
| 2022 | 62 | 17,643,927 | 0.00% | 1,093,923,467 |
| 2023 | 62 | 18,083,698 | 0.00% | 1,121,189,248 |
| 2024 | 62 | 18,521,057 | 0.00% | 1,148,305,563 |
| 2025 | 62 | 18,964,765 | 0.00% | 1,175,815,450 |
| 2026 | 62 | 19,414,946 | 0.00% | 1,203,726,656 |
| 2027 | 62 | 19,871,727 | 0.00% | 1,232,047,077 |
| 2028 | 62 | 20,335,238 | 0.00% | 1,260,784,767 |
| Escalation | 0.00% | 2.48% | | 11,352,357,162 |
| Avg Population | 62 | | | |

| Industrial Water Heating Potential |
|------------------------------------|
| 4,756,167 |
| Percent of Year 1 |
| 0.470% |

| Condensing Boiler/Water Heater | Base Efficiency | New Efficiency | Base Gallons Per Day | Delta T | Days in Year | Savings in Therms/Yr (per Site) | | | |
|--------------------------------|-----------------------|--------------------------|-------------------------------------|----------|--------------|---------------------------------|---------------------------------|---------------------------------|-------------------------|
| from Tank | 0.8 | 0.95 | 74000 | 140 | 365 | 62,169 | | | |
| From Tankless | 0.9 | 0.95 | 74000 | 140 | 365 | 18,421 | | | |
| | | | From Tank Applicable Population | 28 | | | TP | | |
| | | | From Tankless Applicable Population | 1 | | | 1,739,471 | | |
| Tankless Water Heater | Base Efficiency | New Efficiency | Base Gallons Per Day | Delta T | Days in Year | Savings in Therms/Yr (per Site) | Technical Potential Omi | | |
| from Tank | 0.8 | 0.9 | 74000 | 68 | 365 | 21,249 | | | |
| | | | Applicable Population | 28 | | | TP | | |
| | | | | | | | 585,420 | | |
| Energy Star Water Heater | Base Efficiency | New Efficiency | Base Gallons Per Day | Delta T | Days in Year | Savings in Therms/Yr (per Site) | Technical Potential Omi | | |
| | 0.8 | 0.95 | 74000 | 68 | 365 | 30,196 | | | |
| | | | Applicable Population | 28 | | | TP | | |
| | | | | | | | 831,913 | | |
| Boiler Advanced Controls | Base Comb. Efficiency | New Comb. Efficiency | Base Gallons Per Day | Base STR | Delta T | Days in Year | Savings in Therms/Yr (per Site) | | |
| | 0.772 | 0.81 | 74000 | 500 | 140 | 365 | 19,142 | | |
| | | | Applicable Population | 28 | | | TP | 527,352 | |
| Boiler Blowdown Recovery | Heat Recovery Eff | Flash Steam Recovery Eff | Base Gallons Per Day | Delta T | Days in Year | Savings in Therms/Yr (per Site) | | | |
| | 0.115 | 0.06 | 74000 | 88 | 365 | 22,769 | | | |
| | | | 74000 | 88 | 365 | 11,880 | | | |
| | | | Applicable Population | 28 | | | TP | 627,295 | |
| Boiler Combustion Air-preheat | Base Comb. Efficiency | New Comb. Efficiency | Base Gallons Per Day | Base STR | New STR | Delta T | Days in Year | Savings in Therms/Yr (per Site) | Technical Potential Omi |
| | 0.772 | 0.84 | 74000 | 500 | 250 | 68 | 365 | 16,043 | |
| | | | Applicable Population | 28 | | | | TP | 441,990 |
| Boiler Feedwater Economizer | Heat Recovery Eff | | Base Gallons Per Day | Delta T | Days in Year | Savings in Therms/Yr (per Site) | | | |
| | 0.115 | | 74000 | 88 | 365 | 22,769 | | | |
| | | | Applicable Population | 28 | | | TP | 627,295 | |
| Boiler High Efficiency Burner | Heat Recovery Eff | | Base Gallons Per Day | Delta T | Days in Year | Savings in Therms/Yr (per Site) | | | |
| | 0.03 | | 74000 | 140 | 365 | 9,450 | | | |
| | | | Applicable Population | 28 | | | TP | 260,340 | |
| Boiler Tune-up | Heat Recovery Eff | | Base Gallons Per Day | Delta T | Days in Year | Savings in Therms/Yr (per Site) | | | |
| | 0.04 | | 74000 | 140 | 365 | 12,600 | | | |
| | | | Applicable Population | 28 | | | TP | 347,120 | |
| Condensate Return | Heat Recovery Eff | | Base Gallons Per Day | Delta T | Days in Year | Savings in Therms/Yr (per Site) | | | |
| | 0.115 | | 74000 | 88 | 365 | 22,769 | | | |
| | | | Applicable Population | 28 | | | TP | 627,295 | |

| | Customers | Industrial Therms/Customer | Escalation Factor | Annual Total |
|----------------|-----------|-------------------------------|-------------------|----------------|
| 2019 | 62 | 16,310,032 | | 1,011,221,984 |
| 2020 | 62 | 16,755,746 | 0.00% | 1,038,856,280 |
| 2021 | 62 | 17,201,398 | 0.00% | 1,066,486,668 |
| 2022 | 62 | 17,643,927 | 0.00% | 1,093,923,467 |
| 2023 | 62 | 18,083,698 | 0.00% | 1,121,189,248 |
| 2024 | 62 | 18,521,057 | 0.00% | 1,148,305,563 |
| 2025 | 62 | 18,964,765 | 0.00% | 1,175,815,450 |
| 2026 | 62 | 19,414,946 | 0.00% | 1,203,726,656 |
| 2027 | 62 | 19,871,727 | 0.00% | 1,232,047,077 |
| 2028 | 62 | 20,335,238 | 0.00% | 1,260,784,767 |
| Escalation | 0.00% | 2.48% | | 11,352,357,162 |
| Avg Population | 62 | | | |

| |
|----------------------------------|
| Industrial HVAC Potential |
| 1,641 |
| Percent of Year 1 |
| 0.000% |

| Measure | Base Eff | New Eff | Hours per Year | Size of Unit (MBtu/hr) | Delta T Adjust | Savings in Therms/Yr (per Site) | |
|--------------------------------|--------------------------|----------------------------|---------------------------|-------------------------------|----------------------|--|--|
| Furnace | 0.8 | 0.95 | 700 | 300 | | 414.474 | |
| | | | Applicable Population | 2 | | TP 740 | |
| Gas Heat Pump | 0.8 | 1.65 | 700 | 300 | | 1352.273 | |
| | | | Applicable Population | 0 | | TP 0 | |
| Programmable Thermostat | 0.8 | Avg Office size 17,500 | 700 | 300 | 5 | 0.087 | |
| | | | Applicable Population | 2 | | TP 0 | |
| Duct Repair | 0.75 | Efficiency restored 0.8 | 700 | 300 | | 175.000 | |
| | | | Applicable Population | 1 | | TP 175 | |
| Ceiling Insulation | Base Eff (R-Value) 10 | New Eff (R-Value) 19 | Avg Office Size 17,500 | Heating Hours 700 | Delta T 1.8 | Savings in Therms/Yr (per Site) 10.445 | |
| | 10 | 30 | 17,500 | 700 | 1.8 | 14.700 | |
| | | | Applicable Population | 1 | | TP 15 | |
| Wall Insulation | Base Eff (R-Value) 5 | New Eff (R-Value) 16 | Avg Office Size 17,500 | Wall Size (Sq Feet) 1058 | Heating Hours 700 | Delta T 7.4 | Savings in Therms/Yr (per Site) 7.536 |
| | | | Applicable Population | 1 | | TP 8 | |
| BAS Controller | Base Eff 0.8 | Energy Savings 0.05 | Hours per Year 900 | Size of Unit (MBtu/hr) 700 | | Savings in Therms/Yr (per Site) 393.750 | |
| | | | Applicable Population | 2 | | TP 703 | |

| | Customers | Industrial Therms/Customer | Escalation Factor | Annual Total |
|----------------|-----------|-------------------------------|-------------------|----------------|
| 2019 | 62 | 16,310,032 | | 1,011,221,984 |
| 2020 | 62 | 16,755,746 | 0.00% | 1,038,856,280 |
| 2021 | 62 | 17,201,398 | 0.00% | 1,066,486,668 |
| 2022 | 62 | 17,643,927 | 0.00% | 1,093,923,467 |
| 2023 | 62 | 18,083,698 | 0.00% | 1,121,189,248 |
| 2024 | 62 | 18,521,057 | 0.00% | 1,148,305,563 |
| 2025 | 62 | 18,964,765 | 0.00% | 1,175,815,450 |
| 2026 | 62 | 19,414,946 | 0.00% | 1,203,726,656 |
| 2027 | 62 | 19,871,727 | 0.00% | 1,232,047,077 |
| 2028 | 62 | 20,335,238 | 0.00% | 1,260,784,767 |
| Escalation | 0.00% | 2.48% | | 11,352,357,162 |
| Avg Population | 62 | | | |

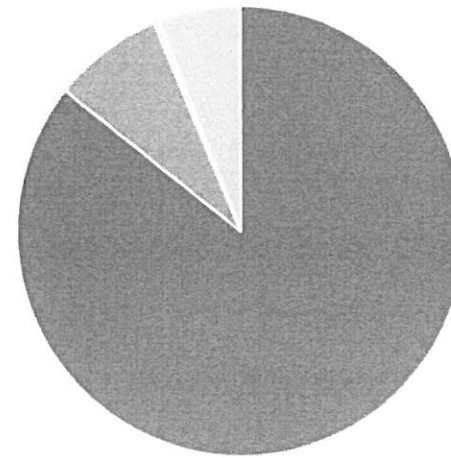
| |
|-------------------------------------|
| Industrial Process Potential |
| 241,517,573 |
| Percent of Year 1 |
| 23.884% |

| Category | Operating hours per Year | MMBtu/hr rating | Improvement Reduction | Savings in Therms/Yr (per Site) |
|--|--------------------------|-----------------|------------------------------------|---------------------------------|
| Infrared Heating | 8000 | 0.2 | 0.075 | 1200 |
| Applicable Population | | 5 | | TP 5,803 |
| Industrial Dryers | 8000 | 282 | 0.120 | 2,707,200 |
| Applicable Population | | 21 | | TP 57,825,792 |
| Direct Heating | 8000 | 282 | 0.100 | 2,256,000 |
| Applicable Population | | 21 | | TP 48,188,160 |
| Combined Heat and Power (thermal) | 8000 | 410 | Useable 0.250 | 4,592,000 |
| Applicable Population | | 34 | | TP 154,291,200 |
| Exhaust Gas Heat Recovery | 8000 | 282 | Recovery Amount (percent) 0.115 | 2,594,400 |
| Applicable Population | | 21 | | TP 55,416,384 |

| | Commercial Technical Potential | Percent of All Projected Sales |
|---------------|--------------------------------|--------------------------------|
| Water Heating | 128,633,599 | 2.176% |
| Cooking | 12,024,691 | 0.203% |
| Laundry | 485,552 | 0.008% |
| HVAC | 8,920,538 | 0.151% |
| Total TP | 150,064,380 | 2.538% |

| Peoples Gas System Technical Potential (Commercial) | |
|--|-------------|
| Cooking | 12,024,691 |
| HVAC | 8,920,538 |
| Laundry | 485,552 |
| Water Heating | 128,633,599 |
| Total | 150,064,380 |

Commercial Technical Potential



■ Water Heating ■ Cooking ■ Laundry ■ HVAC

| | Commercial | | Escalation Factor | Annual Total |
|----------------|------------|-----------------|-------------------|---------------|
| | Customers | Therms/Customer | | |
| 2019 | 38,226 | 13,924 | | 532,250,868 |
| 2020 | 39,271 | 13,890 | 2.73% | 545,470,612 |
| 2021 | 40,315 | 13,859 | 2.66% | 558,721,104 |
| 2022 | 41,352 | 13,832 | 2.57% | 571,995,077 |
| 2023 | 42,383 | 13,804 | 2.49% | 585,051,337 |
| 2024 | 43,408 | 13,778 | 2.42% | 598,057,292 |
| 2025 | 44,448 | 13,747 | 2.40% | 611,002,809 |
| 2026 | 45,503 | 13,711 | 2.37% | 623,888,569 |
| 2027 | 46,573 | 13,671 | 2.35% | 636,722,054 |
| 2028 | 47,660 | 13,628 | 2.33% | 649,517,986 |
| Escalation | 2.48% | -0.24% | | 5,912,677,707 |
| Avg Population | 42,914 | | | |

| |
|------------------------------|
| Commercial Cooking Potential |
| 12,024,691 |
| Percent of Total |
| 2.259% |

| | Percentage | Total Buildings |
|-------------|------------|-----------------|
| Assembly | 110 | 4.980% |
| Church | 195 | 8.118% |
| Educational | 159 | 6.619% |
| Restaurants | 160 | 6.661% |
| Grocery | 81 | 3.372% |
| Health Care | 108 | 4.496% |
| Lodging | 69 | 2.873% |
| Office | 390 | 16.236% |
| Other | 34 | 1.415% |
| Retail | 502 | 20.899% |
| Safety | 39 | 1.624% |
| Service | 230 | 9.575% |
| Warehouse | 325 | 13.530% |
| | 2402 | |

| Range/Cooktop | Base Eff | New Eff | Cook Time per Day (hr) | Cooktop Rating (Btu/hr) | Days in Year | Savings in Therms/Yr (per Site) |
|-----------------------|----------|---------|------------------------|-------------------------|--------------|---------------------------------|
| | 0.3 | 0.4 | 8.55 | 88,000 | 365 | 686.565 |
| Applicable Population | | | | 5,521 | TP | 3,790,272 |

| Convection Oven | Base Eff | New Eff | Cook Time per Day (hr) | Oven Rating (Btu/hr) | Days in Year | Savings in Therms/Yr (per Site) |
|-----------------------|----------|---------|------------------------|----------------------|--------------|---------------------------------|
| | 0.35 | 0.5 | 8.55 | 45,000 | 365 | 421.301 |
| Applicable Population | | | | 4,838 | TP | 2,038,219 |

| Energy Star Convection Oven | Base Eff | New Eff | Cook Time per Day (hr) | Oven Rating (Btu/hr) | Days in Year | Savings in Therms/Yr (per Site) |
|-----------------------------|----------|---------|------------------------|----------------------|--------------|---------------------------------|
| | 0.35 | 0.46 | 8.55 | 12,000 | 365 | 89.552 |
| Applicable Population | | | | 4,838 | TP | 433,245 |

| Fryer | Base Eff | New Eff | Cook Time per Day (hr) | Fryer Rating (Btu/hr) | Days in Year | Savings in Therms/Yr (per Site) | Potential from this area |
|-----------------------|----------|---------|------------------------|-----------------------|--------------|---------------------------------|--------------------------|
| | 0.35 | 0.68 | 8.55 | 120,000 | 365 | 636.082 | |
| Applicable Population | | | | 5,148 | TP | 3,274,704 | |

| Energy Star Fryer | Base Eff | New Eff | Cook Time per Day (hr) | Fryer Rating (Btu/hr) | Days in Year | Savings in Therms/Yr (per Site) | Technical Potential Omitted from Total |
|-----------------------|----------|---------|------------------------|-----------------------|--------------|---------------------------------|--|
| | 0.35 | 0.58 | 8.55 | 120,000 | 365 | 519.766 | |
| Applicable Population | | | | 5,148 | TP | 2,675,881 | |

| Griddle | Base Eff | New Eff | Cook Time per Day (hr) | Oven Rating (Btu/hr) | Days in Year | Savings in Therms/Yr (per Site) | Potential from this area |
|-----------------------|----------|---------|------------------------|----------------------|--------------|---------------------------------|--------------------------|
| | 0.3 | 0.52 | 8.55 | 25,000 | 365 | 330.079 | |
| Applicable Population | | | | 5,521 | TP | 1,822,246 | |

| Energy Star Griddle | Base Eff | New Eff | Cook Time per Day (hr) | Oven Rating (Btu/hr) | Days in Year | Savings in Therms/Yr (per Site) | Technical Potential Omitted from Total |
|-----------------------|----------|---------|------------------------|----------------------|--------------|---------------------------------|--|
| | 0.3 | 0.38 | 8.55 | 25,000 | 365 | 164.250 | |
| Applicable Population | | | | 5,521 | TP | 906,764 | |

| Steam Cooker | Base Eff | New Eff | Cook Time per Day (hr) | Cooker Rating (Btu/hr) | Days in Year | Savings in Therms/Yr (per Site) | Potential from this area |
|-----------------------|----------|---------|------------------------|------------------------|--------------|---------------------------------|--------------------------|
| | 0.16 | 0.49 | 8.55 | 5,740 | 365 | 120.639 | |
| Applicable Population | | | | 5,521 | TP | 666,005 | |

| Energy Star Steam Cooker | Base Eff | New Eff | Cook Time per Day (hr) | Cooker Rating (Btu/hr) | Days in Year | Savings in Therms/Yr (per Site) | Technical Potential Omitted from Total |
|--------------------------|----------|---------|------------------------|------------------------|--------------|---------------------------------|--|
| | 0.16 | 0.38 | 8.55 | 5,740 | 365 | 103.707 | |
| Applicable Population | | | | 5,521 | TP | 572,531 | |

| | Commercial | | Escalation Factor | Annual Total |
|----------------|------------|-----------------|-------------------|---------------|
| | Customers | Therms/Customer | | |
| 2019 | 38,226 | 13,924 | - | 532,250,868 |
| 2020 | 39,271 | 13,890 | 2.73% | 545,470,612 |
| 2021 | 40,315 | 13,859 | 2.66% | 558,721,104 |
| 2022 | 41,352 | 13,832 | 2.57% | 571,995,077 |
| 2023 | 42,383 | 13,804 | 2.49% | 585,051,337 |
| 2024 | 43,408 | 13,778 | 2.42% | 598,057,292 |
| 2025 | 44,448 | 13,747 | 2.40% | 611,002,809 |
| 2026 | 45,503 | 13,711 | 2.37% | 623,888,569 |
| 2027 | 46,573 | 13,671 | 2.35% | 636,722,054 |
| 2028 | 47,660 | 13,628 | 2.33% | 649,517,986 |
| Escalation | 2.48% | -0.24% | | 5,912,677,707 |
| Avg Population | 42,914 | | | |

| |
|-------------------------------------|
| Commercial Laundry Potential |
| 485,552 |
| Percent of Total |
| 0.091% |

| | | Percentage | Total Build |
|-------------|------|------------|-------------|
| Assembly | 110 | 4.580% | 38,226 |
| Church | 195 | 8.118% | 1,751 |
| Educational | 159 | 6.619% | 2,530 |
| Restaurants | 160 | 6.661% | 2,546 |
| Grocery | 81 | 3.372% | 1,289 |
| Health Care | 108 | 4.496% | 1,719 |
| Lodging | 69 | 2.873% | 1,098 |
| Office | 390 | 16.236% | 6,207 |
| Other | 34 | 1.415% | 541 |
| Retail | 502 | 20.899% | 7,989 |
| Safety | 39 | 1.624% | 621 |
| Service | 230 | 9.575% | 3,660 |
| Warehouse | 325 | 13.530% | 5,172 |
| | 2402 | | |

| Dryer | Base Eff (EF) | New Eff (EF) | Loads per Year | Pounds per Load | Savings in Therms/Yr (per Site) |
|-------|---------------|--------------|-----------------------|-----------------|---------------------------------|
| | 2.3 | 3.5 | 1646 | 14.27 | 118,811 |
| | | | Applicable Population | 4,087 | TP 485,552 |

| Year | Customers | Therms/Customer | Excitation Factor |
|--------------|-------------|-----------------|-------------------|
| 2019 | 18,226 | 13,924 | |
| 2020 | 39,271 | 13,990 | 2.73% |
| 2021 | 40,315 | 13,859 | 2.66% |
| 2022 | 41,552 | 13,832 | 2.57% |
| 2023 | 42,383 | 13,804 | 2.49% |
| 2024 | 43,408 | 13,778 | 2.42% |
| 2025 | 44,448 | 13,747 | 2.40% |
| 2026 | 45,503 | 13,711 | 2.37% |
| 2027 | 46,573 | 13,671 | 2.35% |
| 2028 | 47,660 | 13,628 | 2.33% |
| Annual Total | 522,750,868 | 545,470,612 | 2.73% |
| Annual Total | 591,677,707 | 649,517,986 | |

| Equipment Type | Base Eff | New Eff | Hours per Year | Size of Unit (MBtu/hr) | Applicable Population | Savings in Therms/Yr (per Site) |
|----------------------------|----------|---------|----------------|------------------------|-----------------------|---------------------------------|
| Furnace | 0.8 | 0.95 | 700 | 205 | Applicable Population | 283,224 |
| Gas Heat Pump | 0.8 | 1.65 | 700 | 205 | Applicable Population | 1,857,448 |
| Programmable Thermostat | 0.8 | 12,000 | 700 | 205 | Applicable Population | 6,060,158 |
| Duct Repair | 0.75 | 0.8 | 700 | 205 | Applicable Population | 119,583 |
| Ceiling Insulation | 10 | 15 | 12,000 | 700 | Applicable Population | 7,162 |
| Wall Insulation | 5 | 16 | 12,000 | 1159 | Applicable Population | 8,255 |
| BAS Controller | 0.8 | 0.05 | 700 | 205 | Applicable Population | 89,688 |
| Demand Control Ventilation | 0.8 | 0.02 | 700 | 205 | Applicable Population | 35,875 |

| | |
|---------------------------|-----------|
| Commercial HVAC Potential | 8,920,538 |
| Percent of Total | 1.676% |

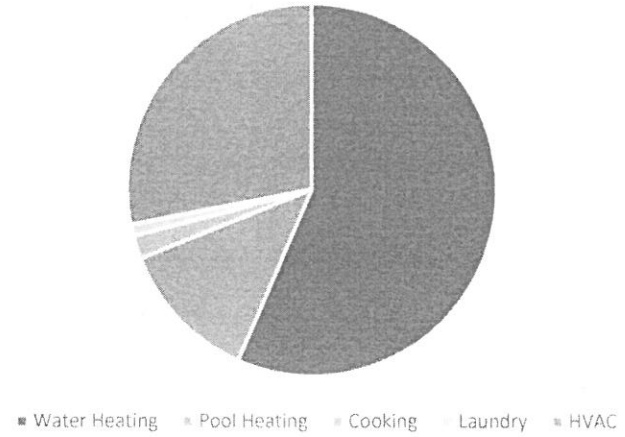
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| Percentage of Types | Total Buildings |
|---------------------|-----------------|
| Assembly | 110 |
| Church | 195 |
| Educational | 159 |
| Restaurants | 160 |
| Grocery | 81 |
| Health Care | 108 |
| Lodging | 69 |
| Office | 390 |
| Other | 34 |
| Retail | 502 |
| Safety | 39 |
| Service | 230 |
| Warehouse | 2402 |

| Residential Technical Potential | |
|---------------------------------|------------|
| Water Heating | 33,995,441 |
| Pool Heating | 7,456,278 |
| Cooking | 1,207,594 |
| Laundry | 606,440 |
| HVAC | 16,868,459 |
| Total TP | 60,134,211 |
| Annual Comparison | 69.37% |

| Peoples Gas System Technical Potential (Residential) | |
|---|------------|
| Cooking | 1,207,594 |
| HVAC | 16,868,459 |
| Laundry | 606,440 |
| Pool Heating | 7,456,278 |
| Water Heating | 33,995,441 |
| Total | 60,134,211 |

Residential Technical Potential



| | Customers | Residential Therms/Customer | Escalation Factor | Annual Total |
|----------------|-----------|-----------------------------|-------------------|--------------|
| 2019 | 362,478 | 239 | | 86,691,430 |
| 2020 | 371,763 | 240 | 2.56% | 89,223,189 |
| 2021 | 380,824 | 240 | 2.44% | 91,472,233 |
| 2022 | 389,564 | 241 | 2.29% | 93,752,537 |
| 2023 | 397,953 | 241 | 2.15% | 95,946,191 |
| 2024 | 405,968 | 242 | 2.01% | 98,046,872 |
| 2025 | 414,147 | 242 | 2.01% | 100,073,293 |
| 2026 | 422,494 | 242 | 2.02% | 102,068,750 |
| 2027 | 431,013 | 241 | 2.02% | 104,040,315 |
| 2028 | 439,707 | 241 | 2.02% | 105,993,185 |
| Escalation | 2.17% | 0.09% | | 967,305,916 |
| Avg Population | 401,591 | | | |

| Residential Water Heating Potential |
|-------------------------------------|
| 33,895,441 |
| Percent of Year 1 |
| 39.214% |

| Low Flow Shower Head | Base GPM | New GPM | Shower Time (min) | Number People | Showers per Person per day | Delta T | Days in Year | Savings in Therms/Yr (for Home) |
|---|----------|---------|-----------------------|---------------|----------------------------|---------|--------------|---------------------------------|
| | 2.2 | 1.5 | 7.8 | 2.58 | 1.3 | 32 | 365 | 21,211 |
| | | | Homes | | 3.02 | | | |
| | | | Multi-Family | | 2.37 | | | |
| | | | Manufactured | | 2.35 | | | |
| Percent of Homes having Low Flow Shower Heads already 5 percent | | | Applicable Population | 328,686 | | | | TP 6,971,815 |

| Low Flow Faucet | Base GPM | New GPM | Wash Time (min) | Number People | Hand Washes per Person per da | Delta T | Days in Year | Savings in Therms/Yr (for Home) |
|---|----------|---------|-----------------------|---------------|-------------------------------|---------|--------------|---------------------------------|
| | 2.2 | 1 | 0.5 | 2.58 | 8 | 32 | 365 | 9,563 |
| | | | Homes | | 3.02 | | | |
| | | | Multi-Family | | 2.37 | | | |
| | | | Manufactured | | 2.35 | | | |
| Percent of Homes having low Faucet Aerators already 5 percent | | | Applicable Population | 328,686 | | | | TP 3,143,112 |

| Water Heater Temperature Check Card | Base Gallons Per Day | Number People | Delta T | Days in Year | Savings in Therms/Yr (for Home) |
|--|----------------------|-----------------------|---------|--------------|---------------------------------|
| | 34.15 | 2.58 | 10 | 365 | 42,521 |
| | | Homes | | | 3.02 |
| | | Multi-Family | | | 2.37 |
| | | Manufactured | | | 2.35 |
| Percent of Homes having Water Heater Downturn 10 percent | | Applicable Population | 311,387 | | TP 13,240,616 |

| Hot Water Pipe Insulation | R Value Initial | R Value New | Length of Pipe (Feet) | Diameter | PI | Delta T | Time in Year | Savings in Therms/Yr (for Home) |
|--|-----------------|-------------|-----------------------|----------|------|---------|--------------|---------------------------------|
| | 1 | 3 | 6 | 0.75 | 3.14 | 40 | 221.93 | 2,655 |
| | | | Homes | | | | | 3.02 |
| | | | Multi-Family | | | | | 2.37 |
| | | | Manufactured | | | | | 2.35 |
| Percent of Homes Needing Insulation 10 percent | | | Applicable Population | 34,599 | | | | TP 91,849 |

| Condensing Water Heater | Base Efficiency | New Efficiency | Base Gallons Per Day | Number People | Delta T | Days in Year | Savings in Therms/Yr (for Home) |
|---|-----------------|----------------|--|---------------|---------|--------------|---------------------------------|
| | 0.63 | 0.95 | 34.15 | 2.58 | 32 | 365 | 45,834 |
| | 0.9 | 0.95 | 34.15 | 2.58 | 32 | 365 | 5,013 |
| | | | Homes | | | | 3.02 |
| | | | Multi-Family | | | | 2.37 |
| | | | Manufactured | | | | 2.35 |
| Percent of Homes having Condensing Water Heater 1 percent | | | From Tank Applicable Population | 91,974 | | | TP 4,360,030 |
| | | | From Tankless Applicable Population | 28,827 | | | |
| | | | Homes currently have 95.45% have Gas Water Heating | | | | |

| Tankless Water Heater | Base Efficiency | New Efficiency | Base Gallons Per Day | Number People | Delta T | Days in Year | Savings in Therms/Yr (for Home) |
|---|-----------------|----------------|---|---------------|---------|--------------|---------------------------------|
| | 0.63 | 0.9 | 34.15 | 2.58 | 32 | 365 | 40,821 |
| | 0.81 | 0.9 | 34.15 | 2.58 | 32 | 365 | 10,583 |
| | | | Homes | | | | 3.02 |
| | | | Multi-Family | | | | 2.37 |
| | | | Manufactured | | | | 2.35 |
| Percent of Homes having Tankless Water Heater 45,728 rebates over past 14 years | | | From Tank Applicable Population | 33,578 | | | TP 1,484,036 |
| | | | From Tankless Applicable Population | 10,713 | | | |
| | | | Market Study showed 13.64% of homes having Tankless | | | | |

| Energy Star Water Heater | Base Efficiency | New Efficiency | Base Gallons Per Day | Number People | Delta T | Days in Year | Savings in Therms/Yr (for Home) |
|--|-----------------|----------------|--|---------------|---------|--------------|---------------------------------|
| | 0.63 | 0.66 | 34.15 | 2.58 | 32 | 365 | 6,185 |
| | | | Homes | | | | 3.02 |
| | | | Multi-Family | | | | 2.37 |
| | | | Manufactured | | | | 2.35 |
| Percent of Homes having Energy Star Water Heater | | | Applicable Population | 132,616 | | | TP 820,223 |
| | | | Homes currently have 95.45% have Gas Water Heating | | | | |

| Solar Water Heater | Base Efficiency | New Efficiency | Base Gallons Per Day | Number People | Delta T | Days in Year | Savings in Therms/Yr (for Home) |
|---|-----------------|----------------|--|---------------|---------|--------------|---------------------------------|
| | 0.63 | | 34.15 | 2.58 | 32 | 365 | 136,069 |
| | 0.81 | | 34.15 | 2.58 | 32 | 365 | 105,831 |
| | | | Homes | | | | 3.02 |
| | | | Multi-Family | | | | 2.37 |
| | | | Manufactured | | | | 2.35 |
| Percent of Homes having Solar Water Heater 16.00% | | | From Tank Applicable Population | 24,092 | | | TP 4,077,226 |
| | | | From Tankless Applicable Population | 7,551 | | | |
| | | | ability to put solar collectors Homes currently have 81.21% have Gas Water Heating | | | | |

| Energy Star Dishwasher | Gal per cycle base | Gal per cycle new | Loads per Day | Number People | Delta T | Days in Year | Savings in Therms/Yr (for Home) |
|---|--------------------|-------------------|-------------------------------------|---------------|---------|--------------|---------------------------------|
| | 5 | 3.5 | 0.28 | 2.58 | 58 | 365 | 0,741 |
| | | | Homes | | | | 3.02 |
| | | | Multi-Family | | | | 2.37 |
| | | | Manufactured | | | | 2.35 |
| Percent of Homes having Dishwasher 65.40% | | | Applicable Population | 176,504 | | | TP 130,728 |
| | | | 22 percent of these are Energy Star | | | | |

| Energy Star Washer | Base IWF (GPC/CF) | New IWF (GPC/CF) | Loads per Year | Size of washer (CF) | Delta T | Savings in Therms/Yr (for Home) |
|--------------------|-------------------|------------------|-----------------------|---------------------|---------|---------------------------------|
| | 6.5 | 4.3 | 300 | 4.5 | 58 | 22,777 |
| | | | Applicable Population | 336,298 | | TP 7,659,724 |

Technical Potential Omitted from Total

| Front Loading Washer | Base IWF (GPC/CF) | New IWF (GPC/CF) | Loads per Day | Size of washer (CF) | Delta T | Savings in Therms/Yr (for Home) |
|----------------------|-------------------|------------------|-----------------------|---------------------|---------|---------------------------------|
| | 6.5 | 3.2 | 300 | 4.5 | 58 | 34,165 |
| | | | Applicable Population | 336,298 | | TP 11,489,586 |

Note Potential from this area

| | Customers | Residential Therms/Customer | Escalation Factor | Annual Total |
|----------------|-----------|--------------------------------|-------------------|--------------|
| 2019 | 362,478 | 239 | | 86,691,430 |
| 2020 | 371,763 | 240 | 2.56% | 89,223,189 |
| 2021 | 380,824 | 240 | 2.44% | 91,472,233 |
| 2022 | 389,564 | 241 | 2.29% | 93,752,537 |
| 2023 | 397,953 | 241 | 2.15% | 95,946,191 |
| 2024 | 405,968 | 242 | 2.01% | 98,046,872 |
| 2025 | 414,147 | 242 | 2.01% | 100,073,293 |
| 2026 | 422,494 | 242 | 2.02% | 102,068,750 |
| 2027 | 431,013 | 241 | 2.02% | 104,040,235 |
| 2028 | 439,707 | 241 | 2.02% | 105,991,185 |
| Escalation | 2.17% | 0.09% | | 967,305,916 |
| Avg Population | 401,591 | | | |

| |
|---|
| Residential Pool Heating Potential |
| 7,456,278 |
| Percent of Year 1 |
| 8.601% |

| Gas Pool Heating | Base Eff | New Eff | Hours per Year | Heater Rating (Btu/hr) | Savings in Therms/Yr (for Home) |
|-----------------------|----------|---------|-----------------------|------------------------|---------------------------------|
| | 0.55 | 0.95 | 700 | 250,000 | 737 |
| | | | Applicable Population | 6,641 | TP 4,893,183 |
| Solar Water Heating | Base Eff | New Eff | Hours per Year | Heater Rating (Btu/hr) | Savings in Therms/Yr (for Home) |
| | 0.55 | | 700 | 250,000 | 1,750 |
| | | | Applicable Population | 2,530 | TP 4,427,165 |
| Insulating Pool Cover | Base Eff | New Eff | Hours per Year | Heater Rating (Btu/hr) | Savings in Therms/Yr (for Home) |
| | 0.55 | | 700 | 250,000 | 107 |
| | | | Applicable Population | 15,811 | TP 1,687,857 |

Technical Potential Omitted from Total

| | Customers | Residential Therms/Customer | Escalation Factor | Annual Total |
|----------------|-----------|--------------------------------|-------------------|--------------|
| 2019 | 362,478 | 239 | | 86,691,430 |
| 2020 | 371,763 | 240 | 2.56% | 89,223,189 |
| 2021 | 380,824 | 240 | 2.44% | 91,472,233 |
| 2022 | 389,564 | 241 | 2.29% | 93,752,537 |
| 2023 | 397,953 | 241 | 2.15% | 95,946,191 |
| 2024 | 405,968 | 242 | 2.01% | 98,046,872 |
| 2025 | 414,147 | 242 | 2.01% | 100,073,293 |
| 2026 | 422,494 | 242 | 2.02% | 102,068,750 |
| 2027 | 431,013 | 241 | 2.02% | 104,040,235 |
| 2028 | 439,707 | 241 | 2.02% | 105,991,185 |
| Escalation | 2.17% | 0.09% | | 967,305,916 |
| Avg Population | 401,591 | | | |

| Residential Cooking Potential |
|-------------------------------|
| 1,207,594 |
| Percent of Year 1 |
| 1.393% |

| Range/Cooktop | Base Eff | New Eff | Cook Time per Day (min) | Cooktop Rating (Btu/hr) | Days in Year | Savings in Therms/Yr (for Home) |
|-------------------------------|----------|---------|-------------------------|-------------------------|--------------|---------------------------------|
| | 0.385 | 0.42 | 30 | 9,000 | 365 | 1.369 |
| | | | Applicable Population | 273,805 | TP | 374,770 |
| 68.18% have gas range/cooktop | | | | | | |
| Oven | Base Eff | New Eff | Cooktime per Day (min) | Oven Rating (Btu/hr) | Days in Year | Savings in Therms/Yr (for Home) |
| | 0.385 | 0.42 | 30 | 20,000 | 365 | 3.042 |
| | | | Applicable Population | 273,805 | TP | 832,823 |
| 68.18% have gas range/cooktop | | | | | | |

| | Residential | | Escalation Factor | Annual Total |
|----------------|-------------|-----------------|-------------------|--------------|
| | Customers | Therms/Customer | | |
| 2019 | 362,478 | 239 | | 86,691,430 |
| 2020 | 371,763 | 240 | 2.56% | 89,223,189 |
| 2021 | 380,824 | 240 | 2.44% | 91,472,233 |
| 2022 | 389,564 | 241 | 2.29% | 93,752,537 |
| 2023 | 397,953 | 241 | 2.15% | 95,946,191 |
| 2024 | 405,968 | 242 | 2.01% | 98,046,872 |
| 2025 | 414,147 | 242 | 2.01% | 100,073,293 |
| 2026 | 422,494 | 242 | 2.02% | 102,068,750 |
| 2027 | 431,013 | 241 | 2.02% | 104,040,235 |
| 2028 | 439,707 | 241 | 2.02% | 105,991,185 |
| Escalation | 2.17% | 0.09% | | 967,305,916 |
| Avg Population | 401,591 | | | |

| |
|--------------------------------------|
| Residential Laundry Potential |
| 606,440 |
| Percent of Year 1 |
| 0.700% |

| Dryer | Base Eff | New Eff | Loads per Year | Pounds per Load | Savings in Therms/Yr (for Home) | Note: assumed all potential is in this area |
|-------------------|----------|---------|-----------------------|-----------------|---------------------------------|---|
| | 3.3 | 5.7 | 300 | 6.36 | 8.306 | |
| | | | Applicable Population | 73,009 | TP | 606,440 |
| Energy Star Dryer | Base Eff | New Eff | Loads per Year | Pounds per Load | Savings in Therms/Yr (for Home) | Technical Potential Omitted from Total |
| | 3.3 | 3.48 | 300 | 6.36 | 1.020 | |
| | | | Applicable Population | 73,009 | TP | 74,498 |

| | Residential | | Escalation Factor | Annual Total |
|----------------|-------------|-----------------|-------------------|--------------|
| | Customers | Therms/Customer | | |
| 2019 | 362,478 | 239 | | 86,691,430 |
| 2020 | 371,763 | 240 | 2.56% | 89,223,189 |
| 2021 | 380,874 | 240 | 2.44% | 91,472,233 |
| 2022 | 389,564 | 241 | 2.29% | 93,752,537 |
| 2023 | 397,953 | 241 | 2.15% | 95,946,191 |
| 2024 | 405,968 | 242 | 2.01% | 98,046,872 |
| 2025 | 414,147 | 242 | 2.01% | 100,073,293 |
| 2026 | 422,494 | 242 | 2.02% | 102,068,750 |
| 2027 | 431,013 | 241 | 2.02% | 104,040,235 |
| 2028 | 439,707 | 241 | 2.02% | 105,991,185 |
| Escalation | 2.17% | 0.09% | | 967,305,916 |
| Avg Population | 401,591 | | | |

| Residential HVAC Potential | |
|----------------------------|--|
| 16,868,459 | |
| Percent of Year 1 | |
| 19.458% | |

| Measure | Base Eff | New Eff | Hours per Year | Size of Unit (MBtu/hr) | Delta T | Savings in Therms/Yr (for Home) | |
|------------------------------|-----------------------|-------------------------|------------------------------|-------------------------|-------------------|--|---------------------------------------|
| Furnace | 0.8 | 0.95 | 700 | 45 | | 49,737 | |
| | | | Applicable Population | 135,361 | | | TP 6,732,418 |
| Hydronic Heating | 0.8 | 0.95 | 700 | 45 | | 49,737 | |
| | | | Applicable Population | 6,750 | | | TP 335,732 |
| Gas Heat Pump | 0.8 | 1 | 700 | 45 | | 63,000 | |
| | | | Applicable Population | 28,778 | | | TP 1,812,987 |
| Programmable Thermostat | 0.8 | Avg Home size 1,938 | 700 | 45 | Delta T Adjust 5 | Savings in Therms/Yr (for Home) 0.010 | |
| | | | Applicable Population | 108,743 | | | TP 1,053 |
| Duct Repair | 0.78 | Efficiency restored 0.8 | 700 | 45 | | Savings in Therms/Yr (for Home) 7.875 | |
| | | | Applicable Population | 93,432 | | | TP 735,775 |
| Attic Insulation | Base Eff (R-Value) 10 | New Eff (R-Value) 19 | Avg Home size 1,938 | Heating Hours 700 | Delta T 7.4 | Savings in Therms/Yr (for Home) 4.755 | |
| | 10 | 30 | 1,938 | 700 | 7.4 | 6.693 | |
| | | Flat to Low Pitch | Applicable Population 5,240 | | | | TP 340,527 |
| | | Regular Pitch | Applicable Population 47,158 | | | | |
| Ceiling Insulation | Base Eff (R-Value) 10 | New Eff (R-Value) 19 | Avg Home size 1,938 | Heating Hours 700 | Delta T 1.8 | Savings in Therms/Yr (for Home) 1.157 | |
| | 10 | 30 | 1,938 | 700 | 1.8 | 1.628 | |
| | | Flat to Low Pitch | Applicable Population 5,240 | | | | TP 6,061 |
| | | Regular Pitch | Applicable Population 47,158 | | | | |
| Wall Insulation | Base Eff (R-Value) 5 | New Eff (R-Value) 16 | Avg Home size 1,938 | Wall Size (Sq Feet) 352 | Heating Hours 700 | Delta T 7.4 | Savings in Therms/Yr (for Home) 2.507 |
| | | | Applicable Population | 52,398 | | | TP 131,369 |
| HVAC Tune Up | 0.78 | 0.8 | 700 | 45 | | Savings in Therms/Yr (for Home) 7.875 | |
| | | | Applicable Population | 82,999 | | | TP 653,620 |
| Weather Stripping | 0.8 | Energy Savings 0.02 | 700 | 45 | | Savings in Therms/Yr (for Home) 6.300 | |
| | | | Applicable Population | 27,305 | | | TP 172,019 |
| Energy Star Windows | 0.8 | Energy Savings 0.2 | 700 | 45 | | Savings in Therms/Yr (for Home) 63,000 | |
| | | | Applicable Population | 123,569 | | | TP 7,784,838 |
| Fireplace Ignition Control | Btu/hr 83.3 | Operating Hours 8760 | New Operating Hours 700 | | | Savings in Therms/Yr (for Home) 6.714 | Technical Potential Omi |
| | | | Applicable Population | 15,252 | | | TP 102,405 |
| Fireplace Pilotless Ignition | Btu/hr 83.3 | Operating Hours 8760 | Operating Hours 700 | | | Savings in Therms/Yr (for Home) 6.714 | Potential from this area |
| | | | Applicable Population | 15,252 | | | TP 102,405 |