# Office of Consumer Services Quarterly Meeting January 21, 2014

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ROCKY MOUNTAIN POWER

*Let's turn the answers on.*

# Today's Agenda

- Overview of the Planning Process
- 2013 DSM Potential Assessment and Findings
- Utah Resource Specifics – Focus Areas
- IRP Forecast, DSM Objective, & Action Plan
- Utah End-Use Opportunities by Sector
- Other Areas of Interest?

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# Planning – the Mystery Solved

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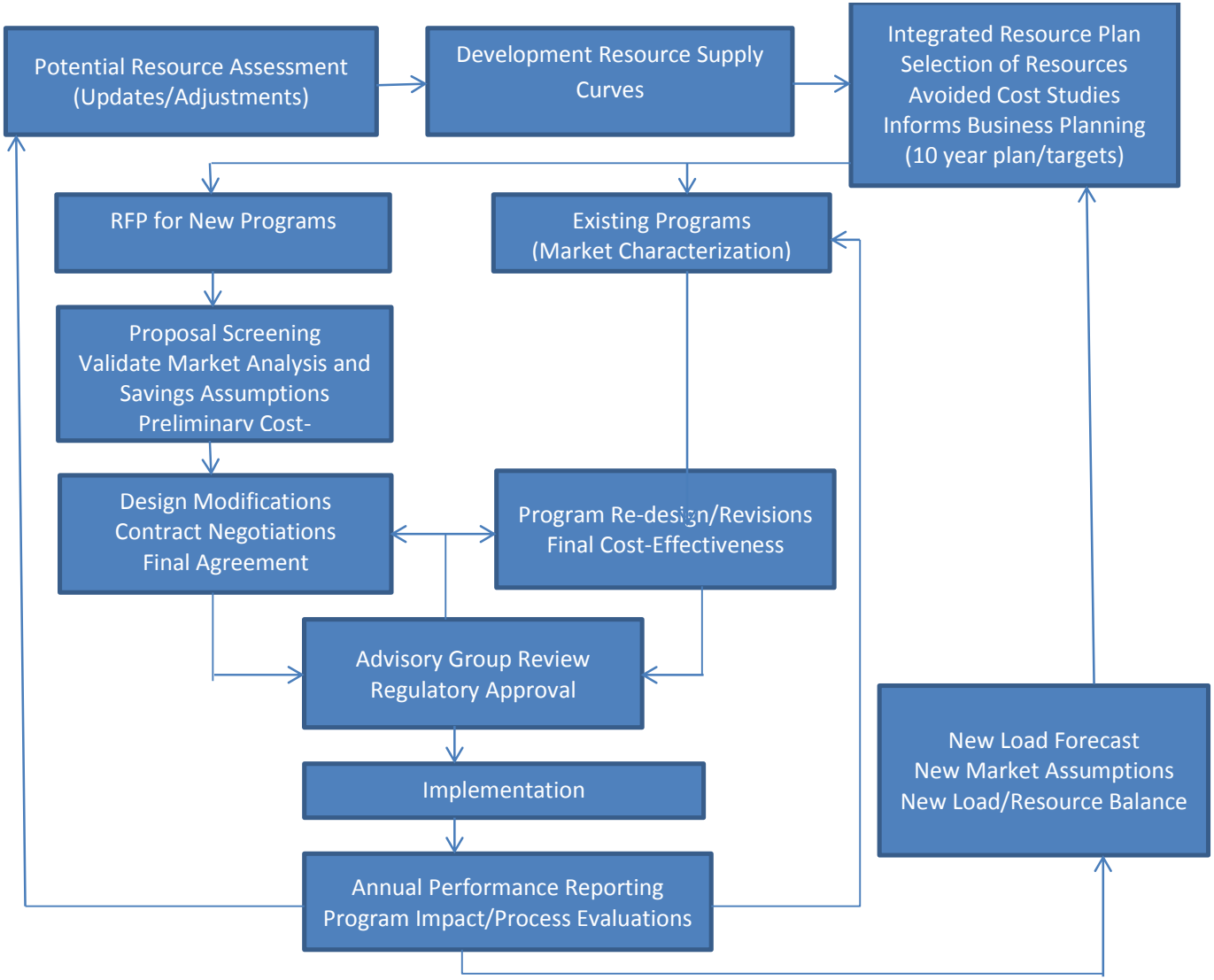
# The Planning Process

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# DSM Potential Assessments

- Updated every two years by an independent third party consultant
- Seeks to develop reliable estimates of the magnitude, timing and costs of DSM resources likely available over a 20-year planning horizon
- Assesses current state of efficiency and efficiency remaining and/or end-use loads available for management and likely participation rates
- Calculates the levelized cost to acquire resources available
- Assesses technical and achievable technical and/or market potential – no cost-effectiveness screening
- For Class 2 uses an 85% achievability assumption
- Class 2 opportunities is agnostic as to delivery method – programs, codes, standards, naturally occurring, regional market transformation, etc.
- Source document of IRP inputs for all states (except OR Class 2)

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# 2013 DSM Potential Resource Assessment

- Completed in March, 2013, used to inform the 2013 IRP

- Built upon the 2011 assessment, updates to the energy efficiency analysis included:
  - Accounting for newly enacted building codes and equipment efficiency standards;
  - Accounting for program performance/accomplishments from 2010 through 2012;
  - Incorporating adjustments to measure savings, based on recent evaluation results;
  - Applying 2011 customer information to determine segmentation; and
  - ***Utilization of a revised retail sales forecast/baseline.***

- Together, these changes decreased total achievable technical 20-year potential from 1,156 aMW to 648aMW, a system-wide decrease of 44 percent. <u>Biggest factors:</u>
  - Adoption of enhanced energy efficiency codes and standards (2007 EISA, state and local)
  - Reduction in the Company's long-term retail sales forecast/baseline sales.
    - 25 percent decrease from the 2011 assessment (12% PP, 27% RMP)
    - Largest decrease was in the commercial sector (36%) followed by residential (28%) and then industrial (16%) – but varied by state
    - More on the load forecast later

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# System-Wide Observations

The table below compares energy efficiency Achievable Technical Potential between the 2011 and 2013 Assessments

- It suggests that the decrease in Achievable Technical Potential in the Residential sector is driven by improving market efficiencies whereas the business sector decreases are more related to the Company's forecast reduction in baseline sales
  - Residential savings are smaller as a percent of baseline savings from the last study (15% vs 29%), evidence of improving efficiency in this sector (prior work and codes/standards)
  - Business sector savings are about the same as percent of baseline sales
  - 71 percent of current opportunity (458 aMW) resides in the business sector compared to 56 percent in prior study (643 aMW)

| Sector | Achievable Technical Potential (Year-20 Cumulative aMW) | | Achievable as a Percent of Year- 20 Baseline Sales | |
|---|---|---|---|---|
| | 2011 Assessment | Current Assessment | 2011 Assessment | Current Assessment |
| Residential | 514 | 190 | 29% | 15% |
| Commercial | 361 | 234 | 15% | 15% |
| Industrial | 265 | 207 | 9% | 9% |
| Irrigation | 13 | 13 | 10% | 10% |
| Street lighting | 4 | 4 | 36% | 30% |
| | 1,156 | 648 | 16% | 12% |

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# Utah Specific Comparison

- 25 percent drop in Retail Sales Forecast/Baseline sales (=system drop)
- 47 percent drop in Achievable Technical Potential (system 44%)
  - 67 percent decrease in residential potential despite a 31 percent drop in retail sales forecast/baseline sales (magnified effect of improved codes & standards – EE baseline)
- 60 percent of the 5 state system potential is in Utah (389/648)
- Like the system look, 70 percent is in the business sector

| Sector | Achievable Technical Potential (Year-20 Cumulative aMW) | | Achievable as a Percent of Year- 20 Baseline Sales | |
|---|---|---|---|---|
| | 2011 Assessment | Current Assessment | 2011 Assessment | Current Assessment |
| Residential | 355 | 118 | 30% | 14% |
| Commercial | 258 | 163 | 15% | 15% |
| Industrial | 119 | 103 | 11% | 9% |
| Irrigation | 2 | 2 | 10% | 10% |
| Street lighting | 3 | 3 | 36% | 29% |
| Total | 737 | 389 | 18% | 13% |

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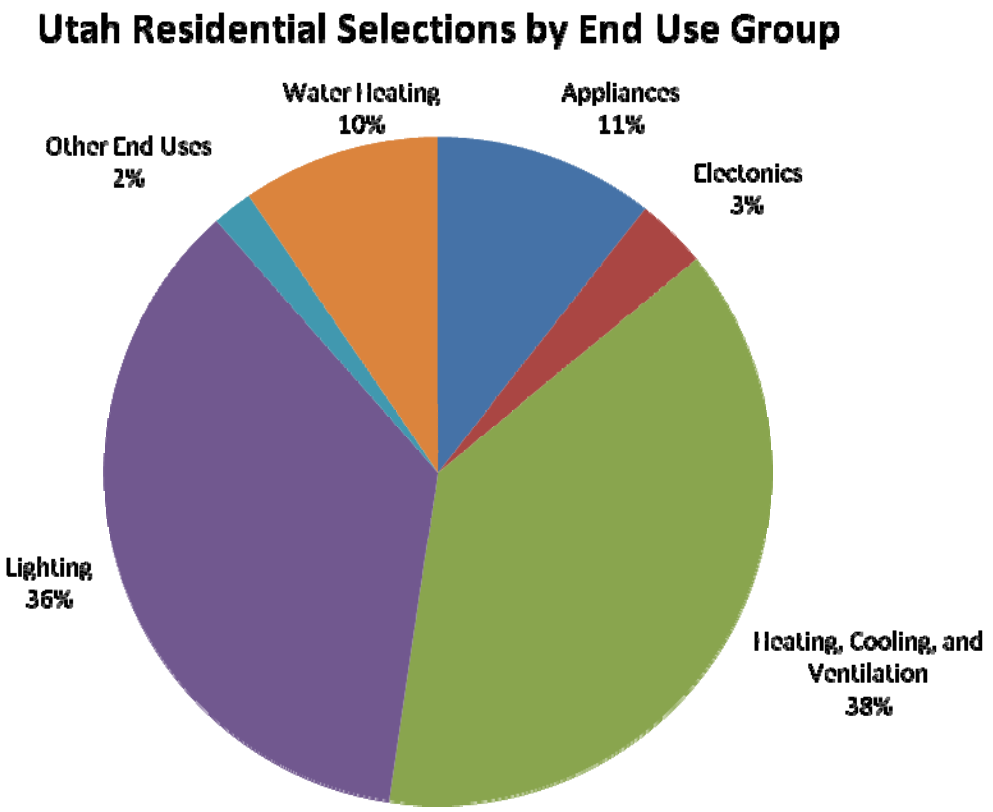
# Utah Opportunities – A Closer Look

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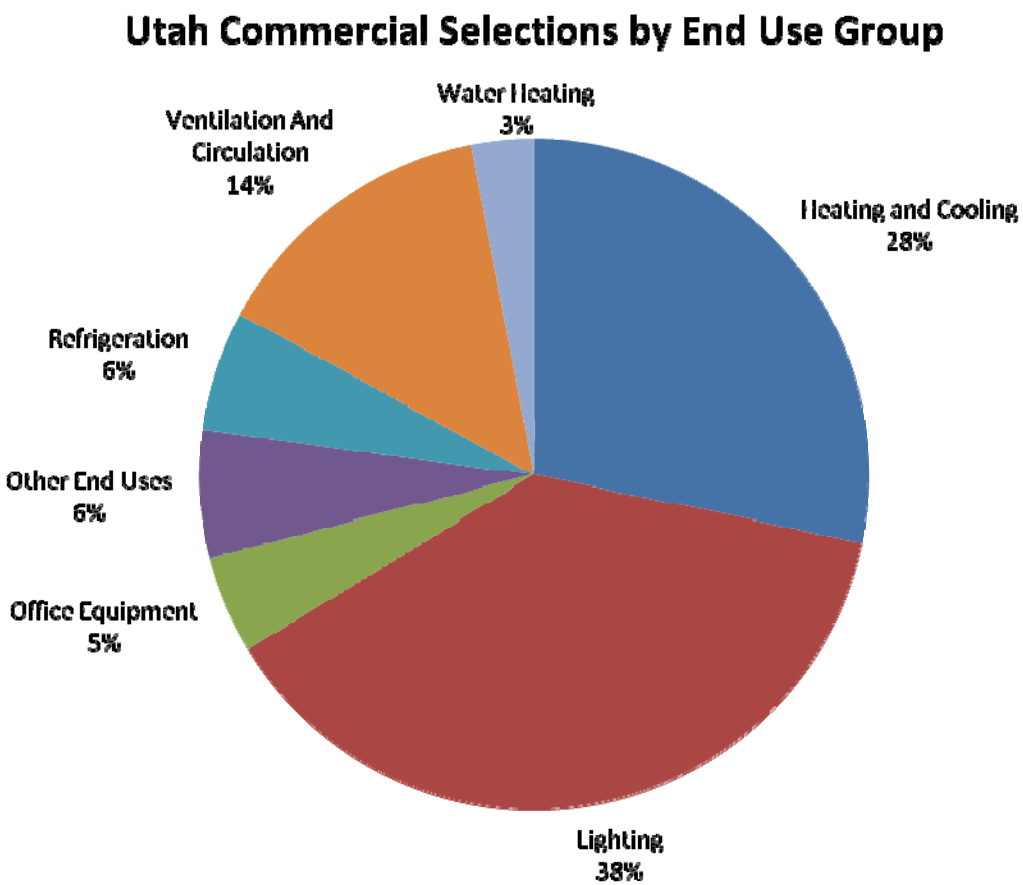


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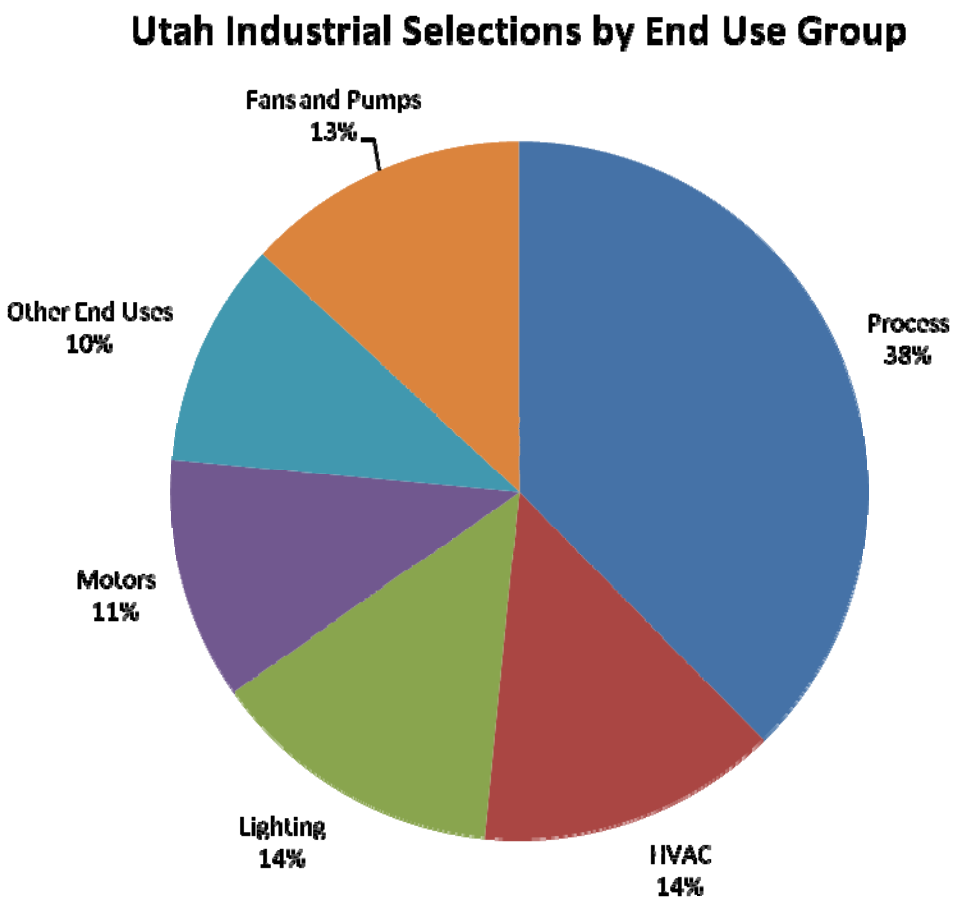


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# The Art of Forecasting

*"The dip in sales seems to coincide with the decision to eliminate the sales staff."*

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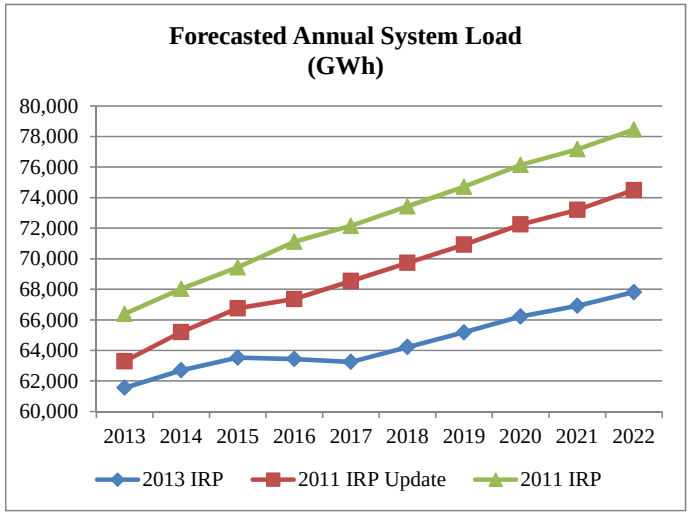
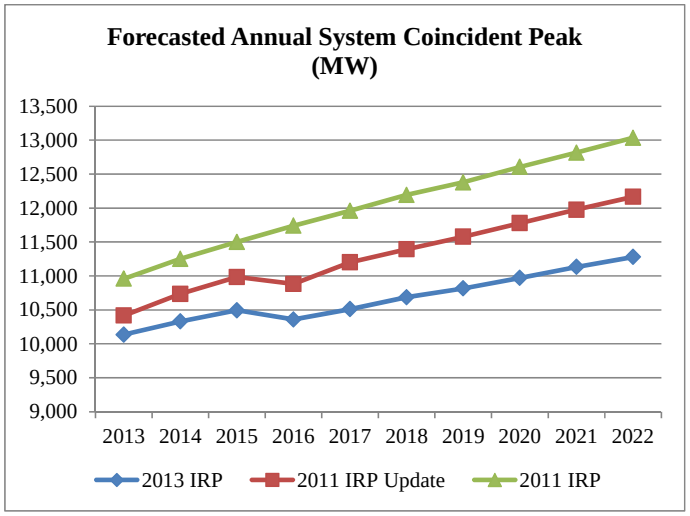
# 2013 IRP Load Forecast

- Lower Load Forecast in 2013 Compared to 2011 (energy and capacity)




- Industrial self-generation (driven by lower natural gas prices)
- Load request cancellations (driven by prolonged recessionary impacts)
- Low power prices (FOT will play a larger role in near-term meeting coincident peak needs)
- Prior DSM and baseline efficiency improvements (less load, less opportunities)

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# Forecast is Down But Loads Are Still Growing

- **Forecasted Annual Load Growth, 2013 through 2022 (Megawatt-hours)**

| Year | Total | OR | WA | CA | UT | WY | ID | SE-ID |
|---|---|---|---|---|---|---|---|---|
| 2013 | 61,556,386 | 14,877,800 | 4,453,504 | 903,816 | 25,153,750 | 10,190,043 | 3,740,820 | 2,236,653 |
| 2014 | 62,698,447 | 15,150,179 | 4,479,048 | 905,134 | 25,718,951 | 10,408,489 | 3,779,427 | 2,257,219 |
| 2015 | 63,527,998 | 15,371,114 | 4,510,405 | 908,752 | 26,010,382 | 10,626,524 | 3,819,927 | 2,280,894 |
| 2016 | 63,431,505 | 15,638,182 | 4,561,495 | 916,004 | 26,478,252 | 10,856,135 | 3,868,348 | 1,113,089 |
| 2017 | 63,246,311 | 15,821,900 | 4,587,861 | 918,237 | 27,010,019 | 11,012,432 | 3,895,861 | |
| 2018 | 64,219,328 | 16,003,367 | 4,630,207 | 923,755 | 27,542,259 | 11,188,259 | 3,931,482 | |
| 2019 | 65,183,187 | 16,181,469 | 4,672,594 | 928,941 | 28,073,752 | 11,360,999 | 3,965,432 | |
| 2020 | 66,226,672 | 16,377,833 | 4,722,544 | 935,083 | 28,622,538 | 11,563,805 | 4,004,870 | |
| 2021 | 66,917,769 | 16,491,188 | 4,746,086 | 935,580 | 29,021,169 | 11,698,580 | 4,025,165 | |
| 2022 | 67,814,244 | 16,652,789 | 4,784,841 | 938,914 | 29,514,597 | 11,866,488 | 4,056,614 | |
| Average Annual Growth Rate for 2013-2022 | | | | | | | | |
| 2013-2022 | 1.08% | 1.26% | 0.80% | 0.42% | 1.79% | 1.71% | 0.90% | |

- **Forecasted Annual Coincident Peak Load (Megawatts)**

| Year | Total | OR | WA | CA | UT | WY | ID | SE-ID |
|---|---|---|---|---|---|---|---|---|
| 2013 | 10,135 | 2,329 | 743 | 143 | 4,632 | 1,277 | 685 | 327 |
| 2014 | 10,331 | 2,377 | 752 | 140 | 4,745 | 1,302 | 684 | 331 |
| 2015 | 10,494 | 2,408 | 758 | 141 | 4,826 | 1,326 | 701 | 334 |
| 2016 | 10,359 | 2,457 | 765 | 143 | 4,930 | 1,349 | 714 | |
| 2017 | 10,513 | 2,492 | 772 | 144 | 5,014 | 1,371 | 721 | |
| 2018 | 10,687 | 2,522 | 803 | 145 | 5,100 | 1,390 | 727 | |
| 2019 | 10,815 | 2,547 | 786 | 146 | 5,194 | 1,410 | 732 | |
| 2020 | 10,972 | 2,576 | 795 | 144 | 5,290 | 1,429 | 737 | |
| 2021 | 11,133 | 2,604 | 801 | 145 | 5,387 | 1,448 | 748 | |
| 2022 | 11,280 | 2,631 | 807 | 146 | 5,475 | 1,467 | 754 | |
| Average Annual Growth Rate for 2013-2022 | | | | | | | | |
| 2013-2022 | 1.20% | 1.36% | 0.92% | 0.23% | 1.88% | 1.56% | 1.07% | |

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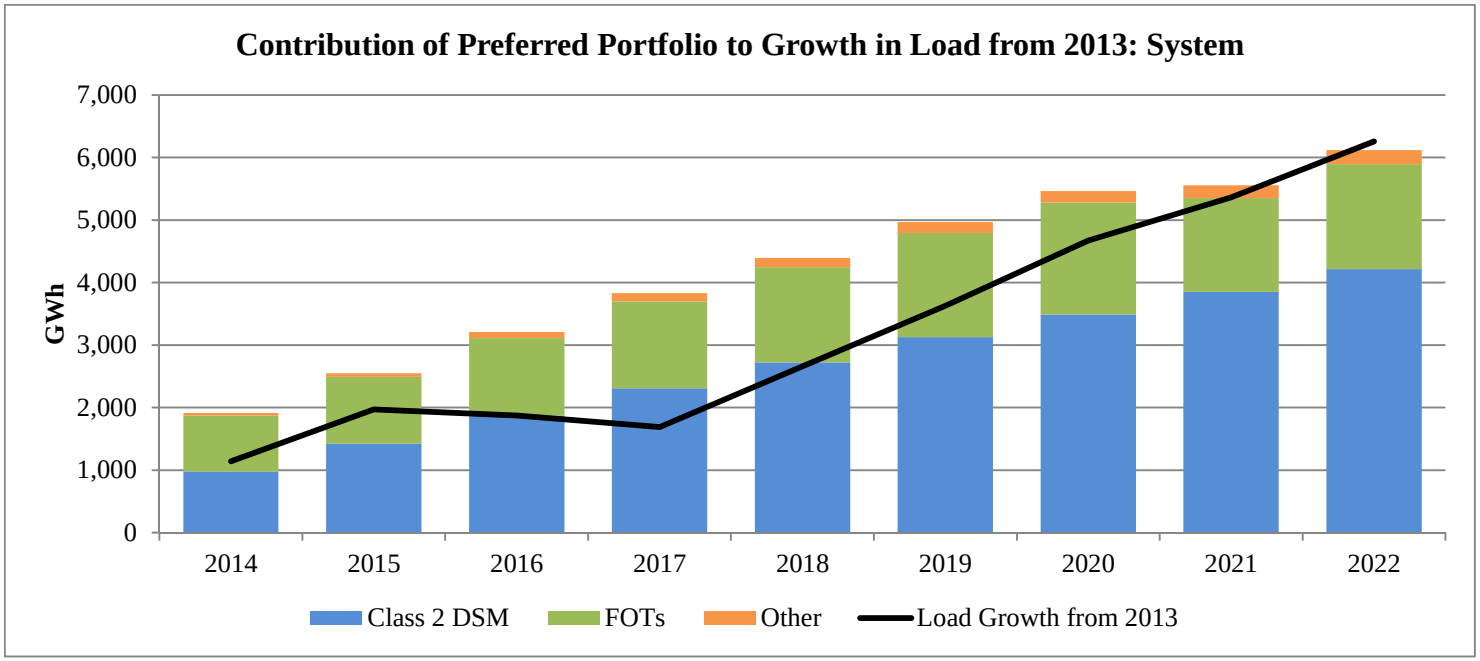
# How Loads Will be Met (Energy)




- New energy efficiency acquisitions are expected at a minimum to meet 67 percent of forecasted load growth from 2013 levels by 2022 (accumulated impact)
- The IRP action plan identifies steps the Company will take in the next two to four years to accelerate the acquisition of cost-effective energy efficiency resources

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# Action Plan

- Acquire 1,425 – 1,876 GWh of cost effective energy efficiency resources by the end of 2015 (average of 475-628 GWh/year, 2013-2015)
- Implement an enhanced consolidated business program to increase DSM acquisition from business customers
- Revisit small-mid market delivery/programs
  - Greater use of 3rd party vendors for marketing, outreach/proactive efforts
  - Expand trade ally network/increase prescriptive measure savings
  - Implement direct Install initiatives/hard to reach customers
  - Investigate behavior programs for the commercial sector
- Expansion of recycling program to incorporate retail appliance distributors and possibly commercial units
- Expand residential programs
  - Implement cost effective direct install options
  - Increase qualifying measures and expand “bundled” measure incentives
  - Expand residential behavioral programs

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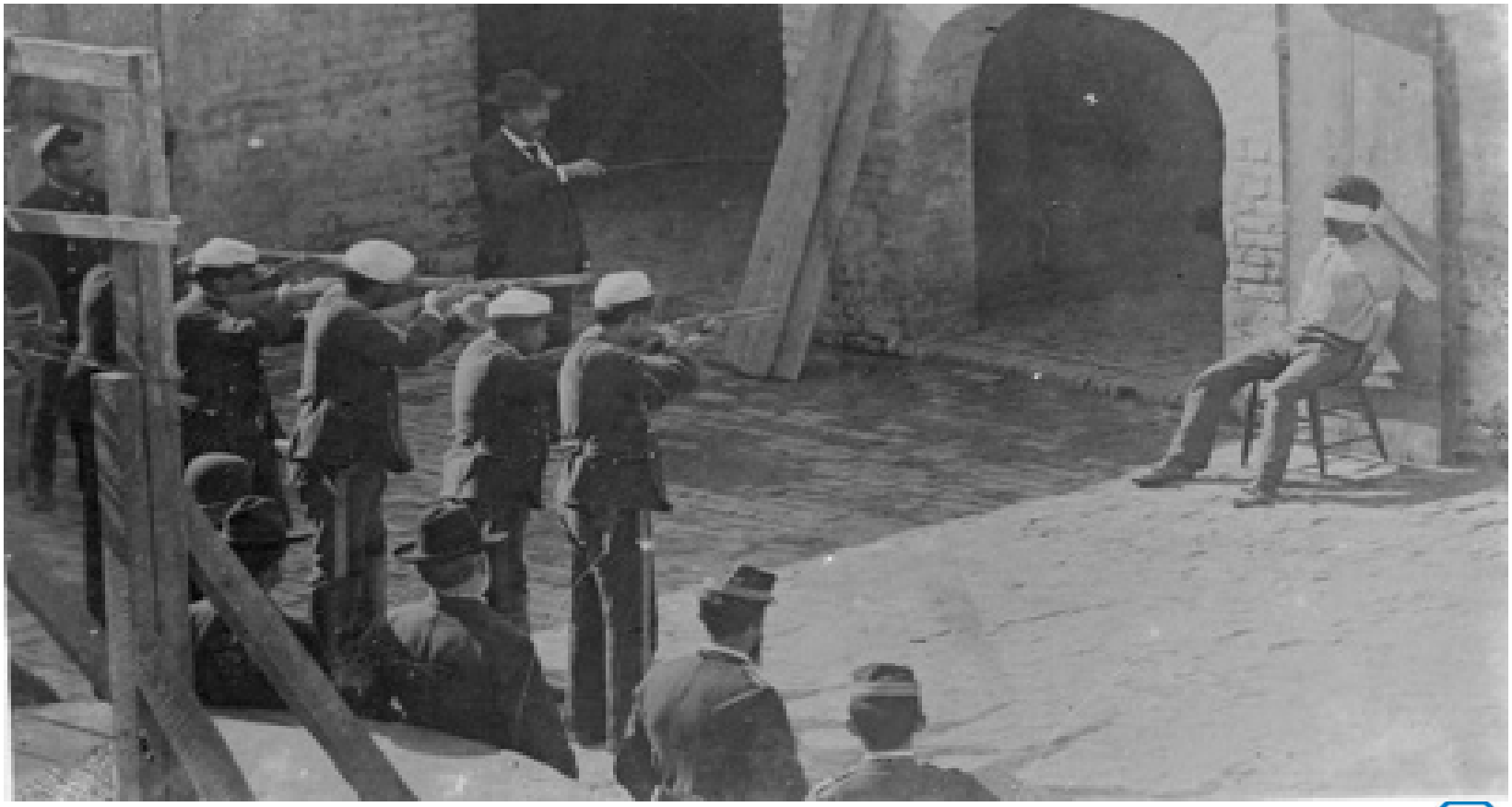
# Questions



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