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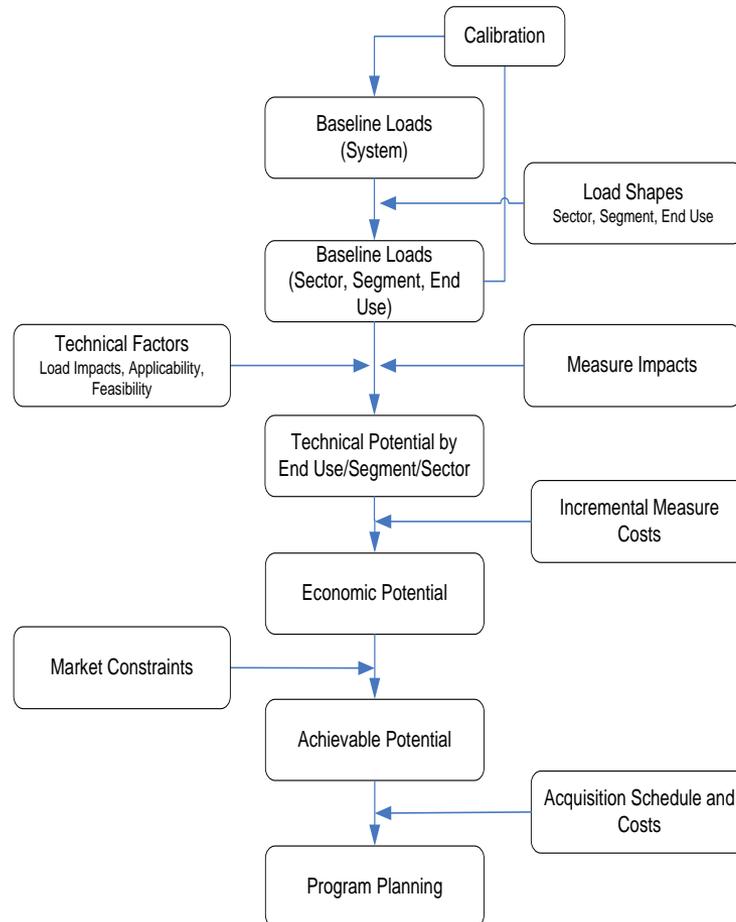
ComEd Potential Study Results

Presented to:
Illinois Stakeholder Advisory
Group
February 23, 2010

Agenda

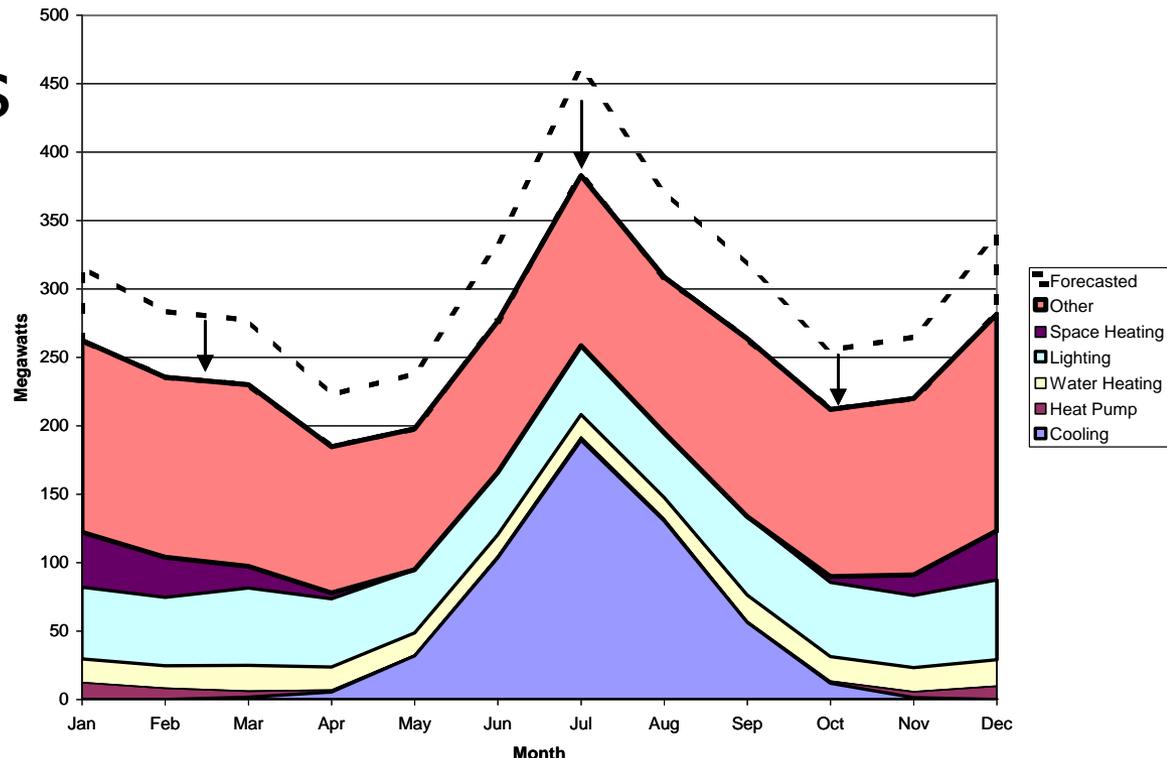
- Overview of Methodology
- Energy Efficiency Technical and Economic Potentials
 - Achievable Potential and Energy Efficiency Targets
- Demand Response Potentials

Overview of Methodology



Conceptual Approach

- Allocate sales/forecasts to sector, segment, and end use
- Alternative forecast with efficiency measures



Review of Primary Market Research Activities

- Residential
 - 521 telephone surveys
 - 140 on-site surveys
- Commercial
 - 316 on-site surveys
- Industrial
 - 35 on-site surveys of large customers
- Trade Allies
 - 247 telephone surveys of builders, contractors, retailers, and vendors
- Results presented to SAG October 6, 2009

Use of Primary Data

- Data distinguish each utility
 - Saturations
 - Fuel shares
 - Efficiency shares
 - Market shares
- Key inputs into the potential study

Public Access to Primary Data

- Cadmus Online Data Analysis Tool (CODAT)
 - <http://comedsurveytool.cadmusweb.com>
- Repository of research
 - Data collection instruments
 - Cross-tabulations and presentations
 - Datasets
- Ability to prepare custom frequencies and crosstabs

Measures Analyzed

- Comprehensive database of over 250 measures
- Data collected on costs, savings, life, and applicability for all 3,000+ permutations across sector, segment, end use and vintage
- Measures include replacement, retrofit, and new construction

Sector	Measure Counts	Permutations
Residential	106	875
Commercial	154	2,446
Industrial	15	89

Treatment of EISA 2007

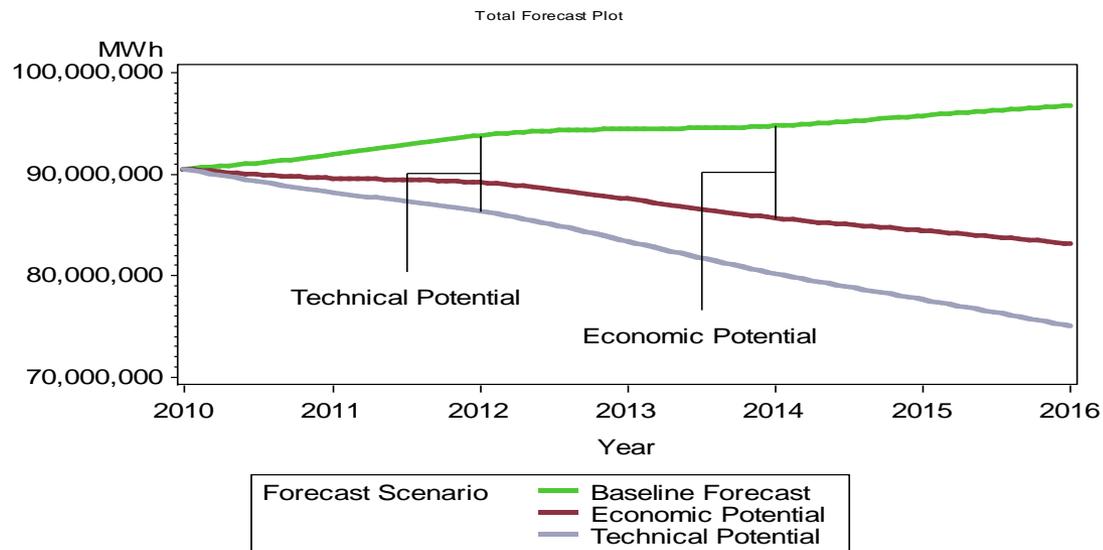
- Energy Independence and Security Act of 2007
 - Mandates lighting efficiency improvements (about 30%) beginning in 2012
 - Does not “ban the incandescent”
- Base case scenario assumes EISA requirements
 - Savings opportunities for CFLs exist, but decrease

Technical and Economic Potential by Sector (Cumulative from 2011 to 2016)

Sector	Baseline Sales	Technical Potential	Technical Potential as % of Baseline	Economic Potential	Economic Potential as % of Baseline	Average Levelized Cost (\$/kWh)
Residential	31,583,697	8,514,175	27%	4,564,469	14%	\$0.04
Commercial	49,285,486	12,039,102	24%	7,488,711	15%	\$0.05
Industrial	15,816,115	1,563,982 ^A	10%	1,563,982	10%	\$0.01
Total	96,685,298	22,117,259	23%	13,617,162	14%	\$0.04

Technical and Economic Potential by Sector (Cumulative from 2011 to 2016)

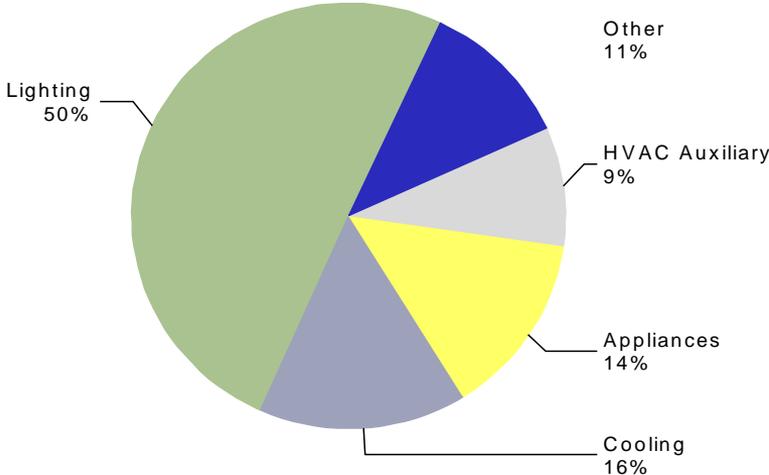
- Baseline forecast shows 5% increase in sales
 - Economic potential shows 10% reduction from forecasted growth



Economic Potential by End Use (Cumulative from 2011 to 2016)

Residential

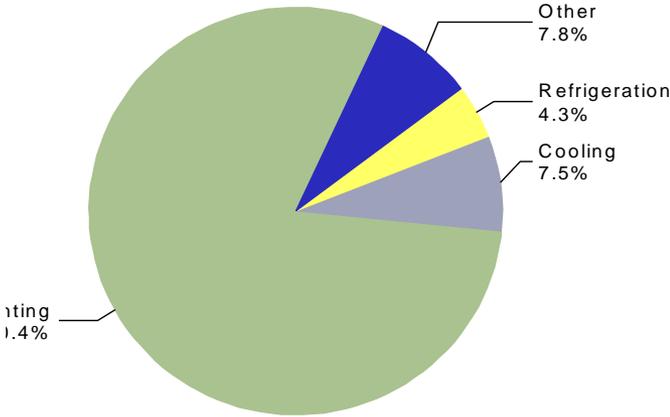
Total: 4,564,469 MWh



Note: "Other" includes:
Space Heating: 4%, Water Heating: 4%, Plug Load: 3%, Heat Pump: <1%, Pool Pumps: <1%

Commercial

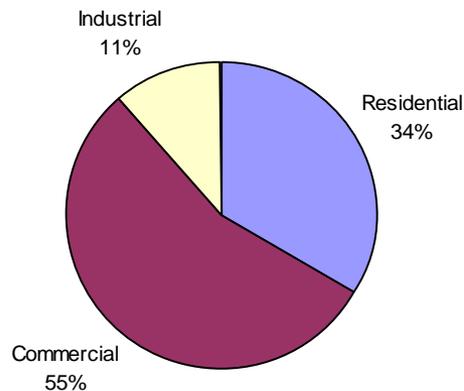
711 MWh



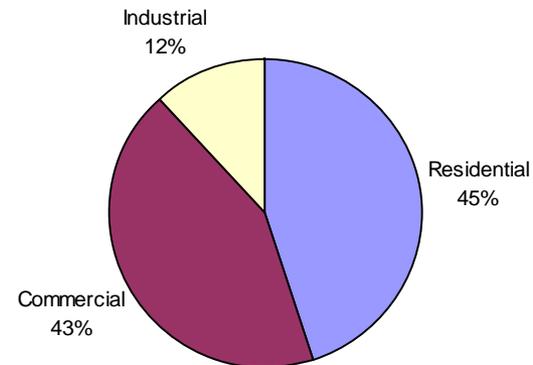
Notes: Heating: 2.2%, HVAC Auxiliary: 1.1%, Heat Pump: <1%, Water Heating: <1%, Cooking: <1%

Economic Potential vs. PY1 Savings by Sector

Economic Potential (Cumulative %MWh in 2016)

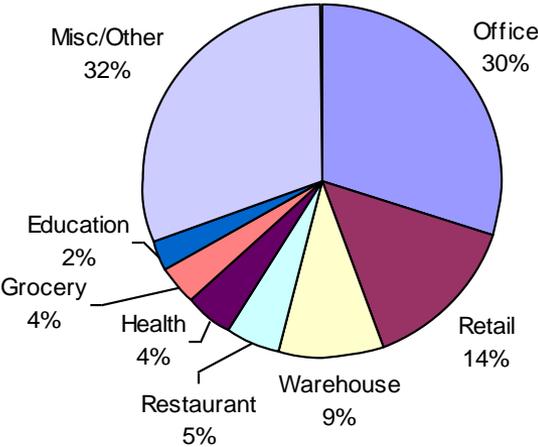


PY1 Savings (%MWh)

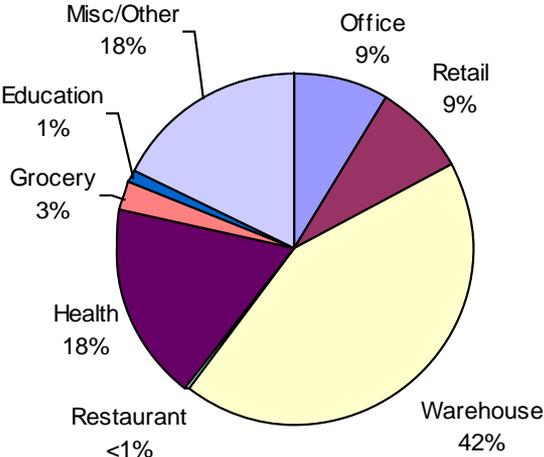


Economic Potential vs. PY1 Savings by Commercial Segment

Economic Potential (Cumulative % MWh in 2016)



PY1 Savings (% MWh)



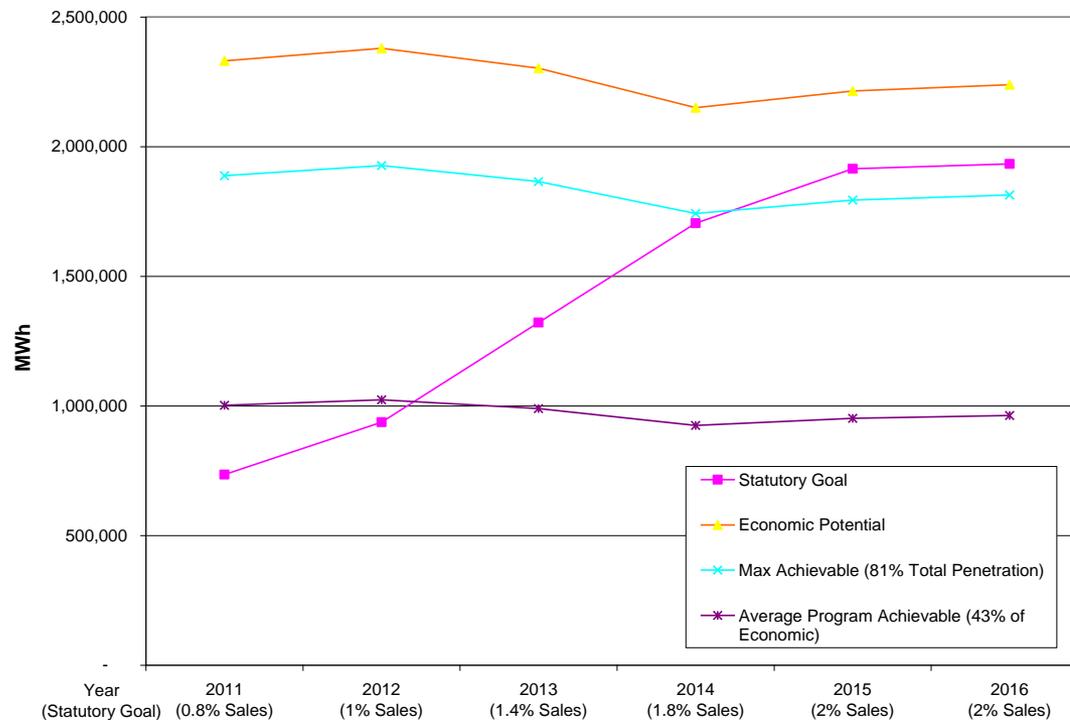
Achievable Potential

Summary of Potential Study Research

- 60 studies covering 40 states, including four national studies (cumulative % of end year sales):
 - Technical potential: 30 studies
 - Average: 27%
 - Economic potential: 33 studies
 - Average: 21%
 - Maximum achievable potential: 38 studies
 - Average: 17% (81% of economic)
 - Minimum achievable potential: 14 studies
 - Average: 8% (38% of economic)
 - Moderate/likely achievable: 11 studies
 - Average: 9% (43% of economic)
 - Average number of years: 15
 - Implied annual achievable: 0.8% per year

Estimates of Achievable Potential vs. Goals

- Goals exceed maximum achievable after 2014



Demand Response (DR) Potential

DR Programs Analyzed

- Direct Load Control
 - AC Cycling Program
- Real Time Pricing
- Interruptible Tariffs
 - Capacity Based Load Response (CLR)
- Demand Buy Back
 - Voluntary Load Response (VLR)

DR Summary of Findings

Strategy	Technical Potential (MW in 2016)	Achievable Technical Potential (MW in 2016)	Levelized Cost (\$/kW)
Residential Direct Load Control	7,780	332	\$48
Residential RTP	2,106	10	\$139
C&I Interruptible Tariffs (CLR)	2,817	542	\$33
C&I Demand Buyback (VLR)	2,212	336	\$2

Note: Individual results may not sum to total due to rounding.
Note: Interactions between programs has not been taken into account.

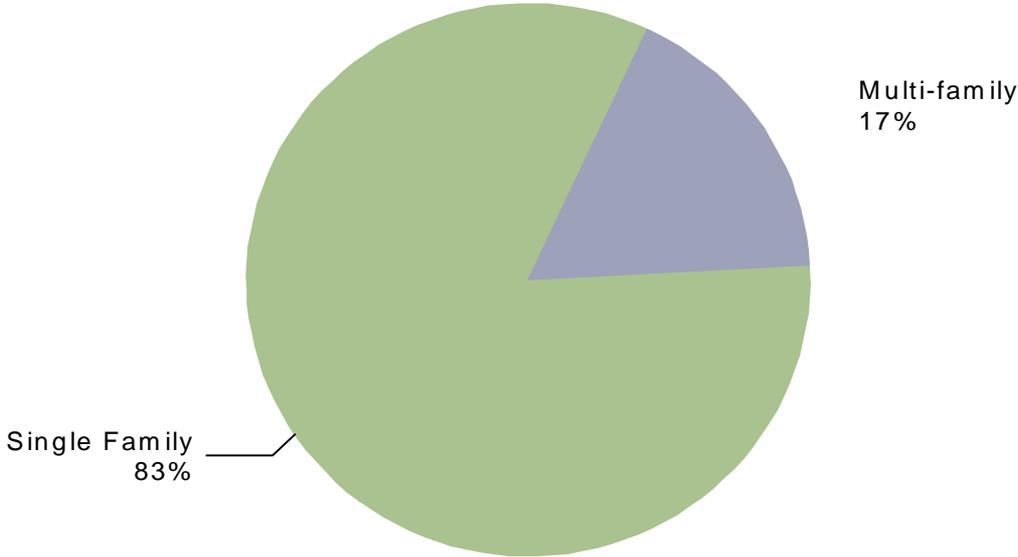
DR Uncertainties

- DLC Program Shows Additional Potential
 - Current penetration of about 3% of eligible
 - Aggressive programs can get over 25% of eligible

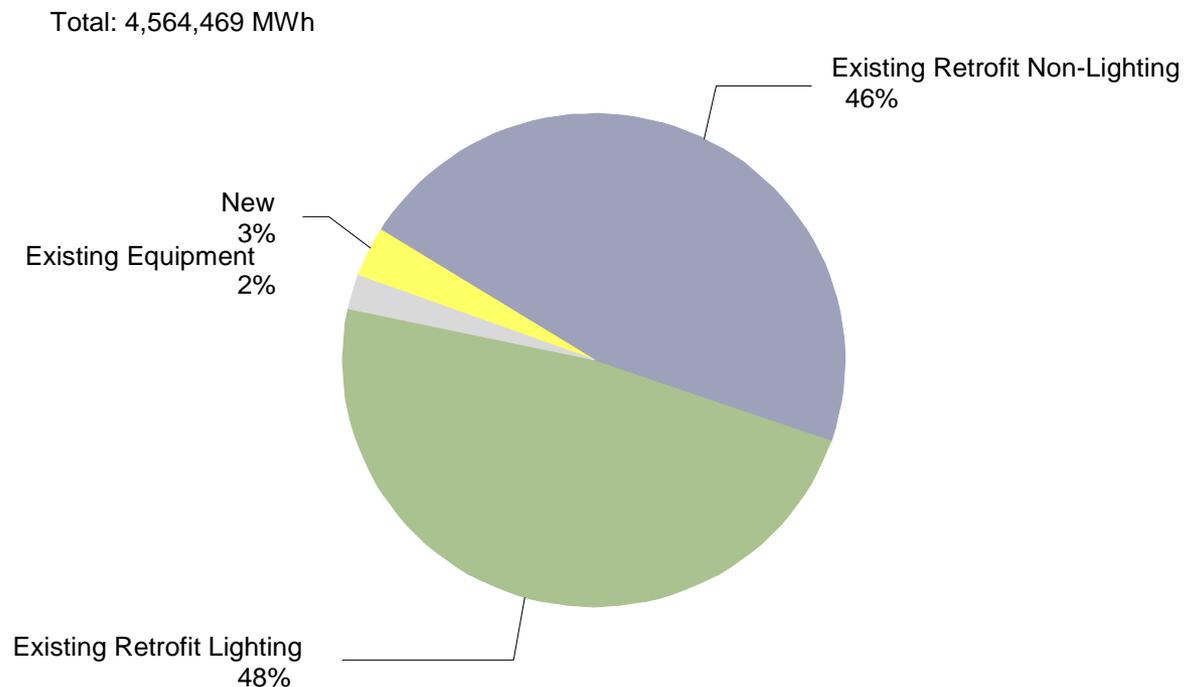
Supplemental Results

Residential Electric Economic Potential by Segment

Total: 4,564,469 MWh

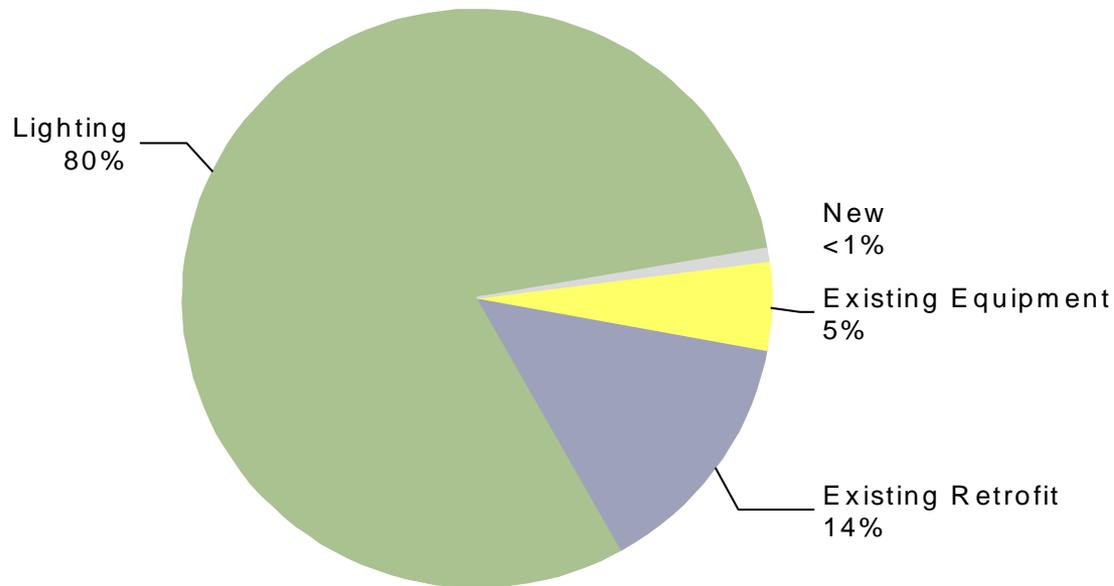


Residential Electric Economic Potential by Vintage and Measure Type



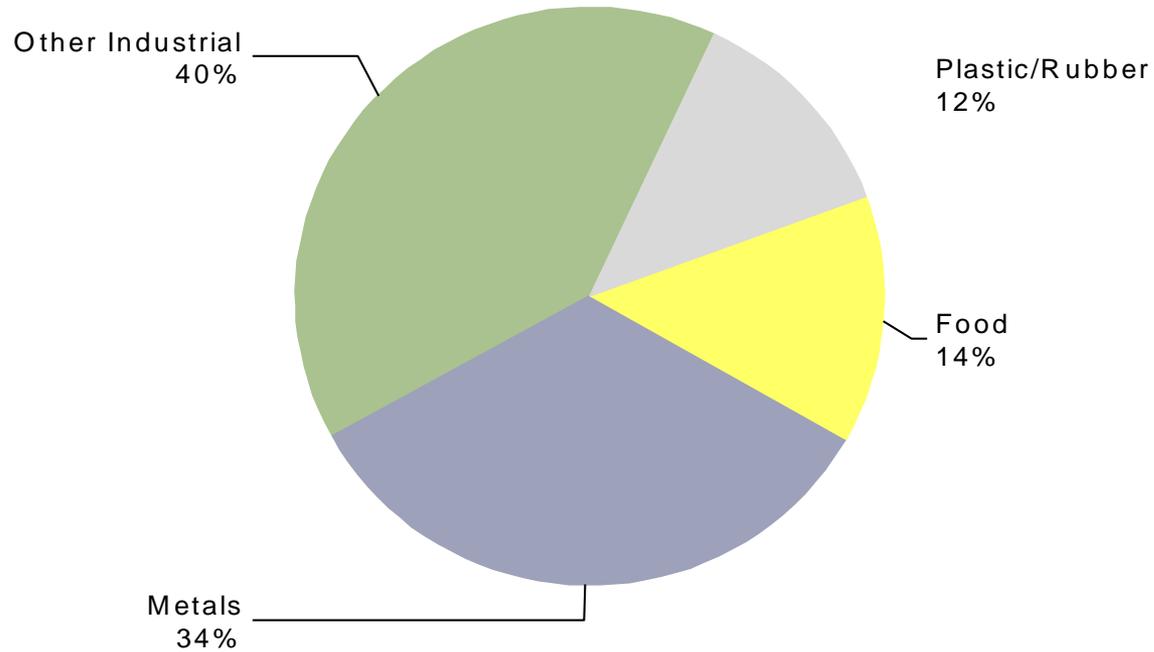
Commercial Electric Economic Potential by Vintage and Measure Type

Total: 7,488,711 MWh



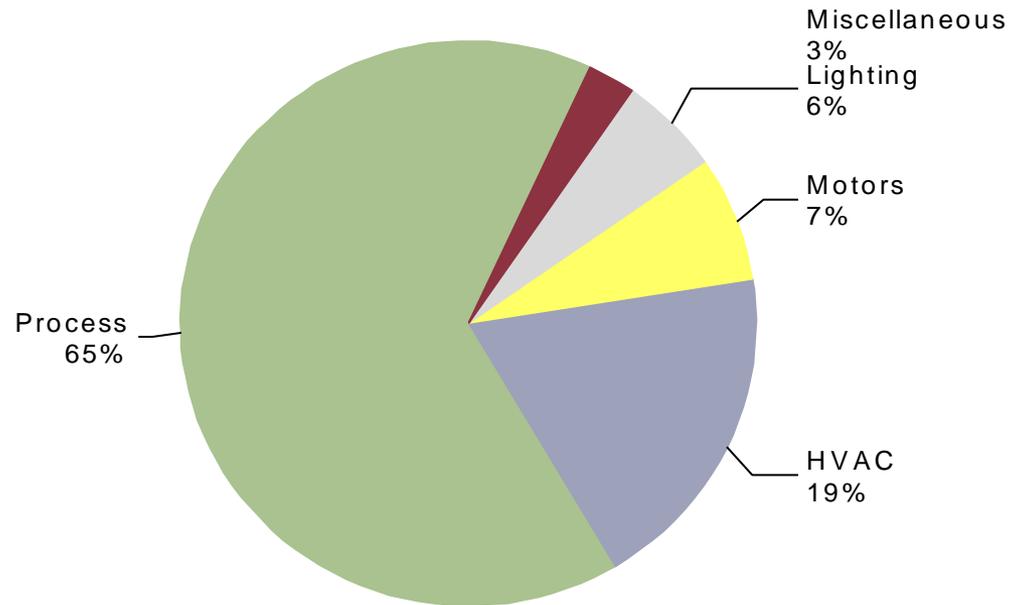
Industrial Electric Economic Potential by Segment

Total: 1,563,982 MWh



Industrial Electric Economic Potential by End Use

Total: 1,563,982 MWh



Economic Potential Scenarios

Electric Potential for CFL Baseline Scenario

Sector	Baseline Sales	Technical Potential	Technical Potential as	Economic Potential	Economic Potential as
			% of Baseline		% of Baseline
Residential	31,583,697	6,837,253	22%	3,665,467	12%
Commercial	49,285,486	12,039,102	24%	7,488,711	15%
Industrial	15,816,115	1,563,982	10%	1,563,982	10%
Total	96,685,298	20,440,337	21%	12,718,160	13%