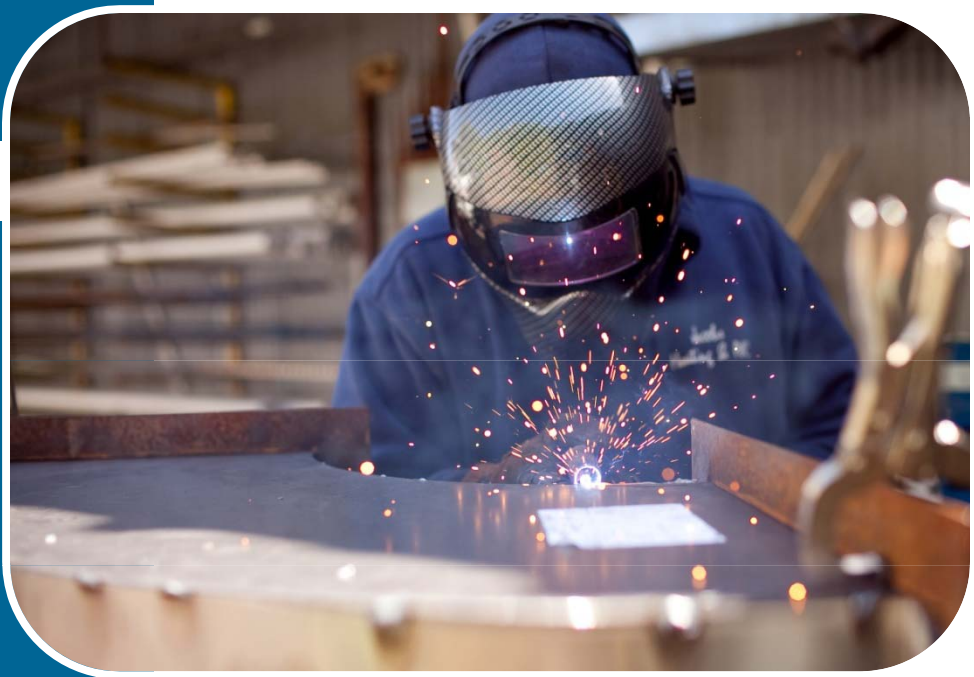


Industry & Ag 2011 Trends: Measures, Markets, and Sources of Savings

EnergyTrust of Oregon

Energy Trust's Production Efficiency Team

PE: Production Efficiency program, developed & managed in house by **Energy Trust Industry and Ag Sector staff**

PDC: **Program Delivery Contractors** are industrial efficiency experts (6 PDCs in 2009 – 2013)

- bring the program to market in assigned territories, meet savings goals
- work directly with industrial energy users or through **Trade Allies**

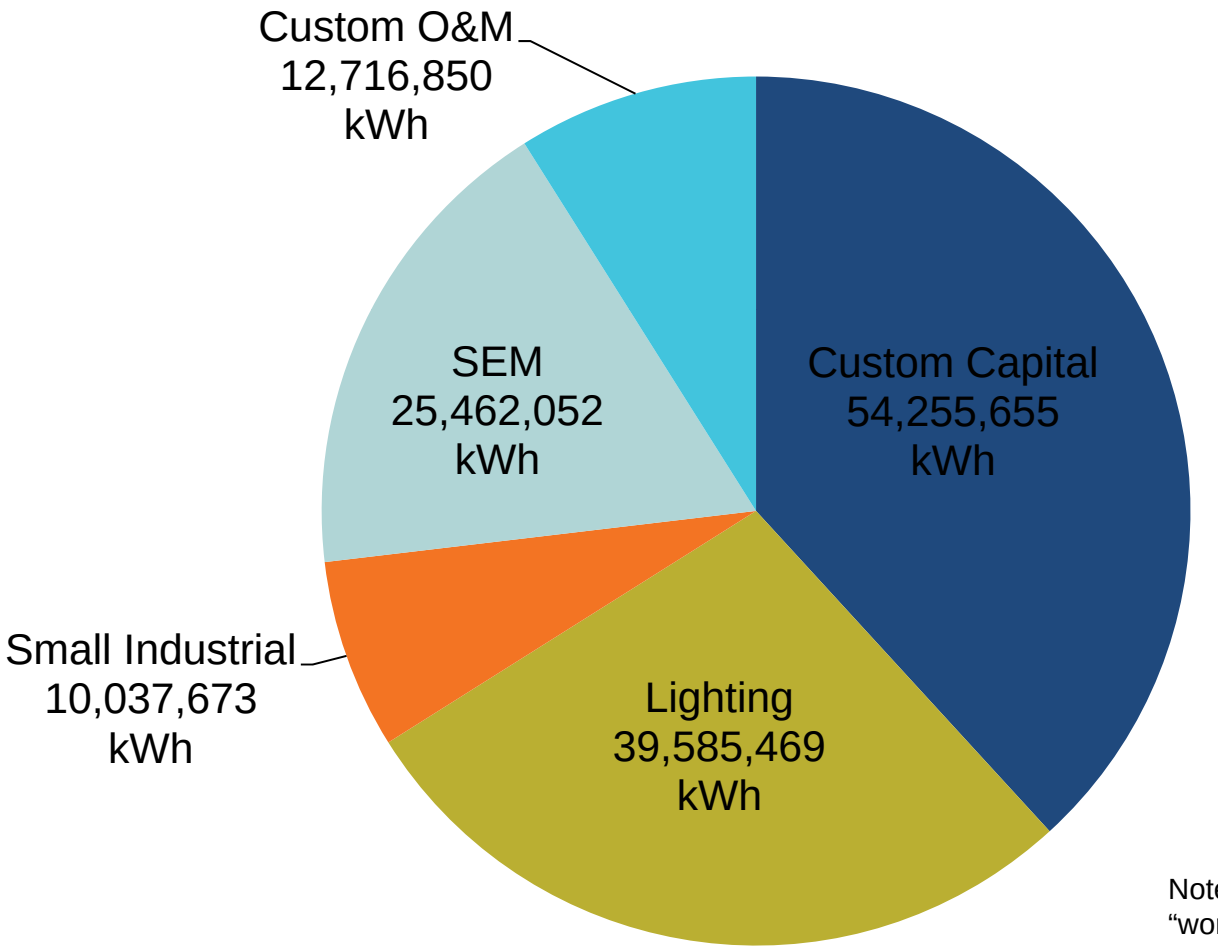
Custom Technical Services

ATAC: **Allied Technical Assistance Contractors** are engineering consultants, perform technical studies, savings verification

ITSP: **Industrial Technical Service Providers** are consultants who provide Strategic Energy Management services or other similar direct technical services

Sources of Savings

Electric - Sources of Savings - 2011



Note: Savings are in "working" numbers

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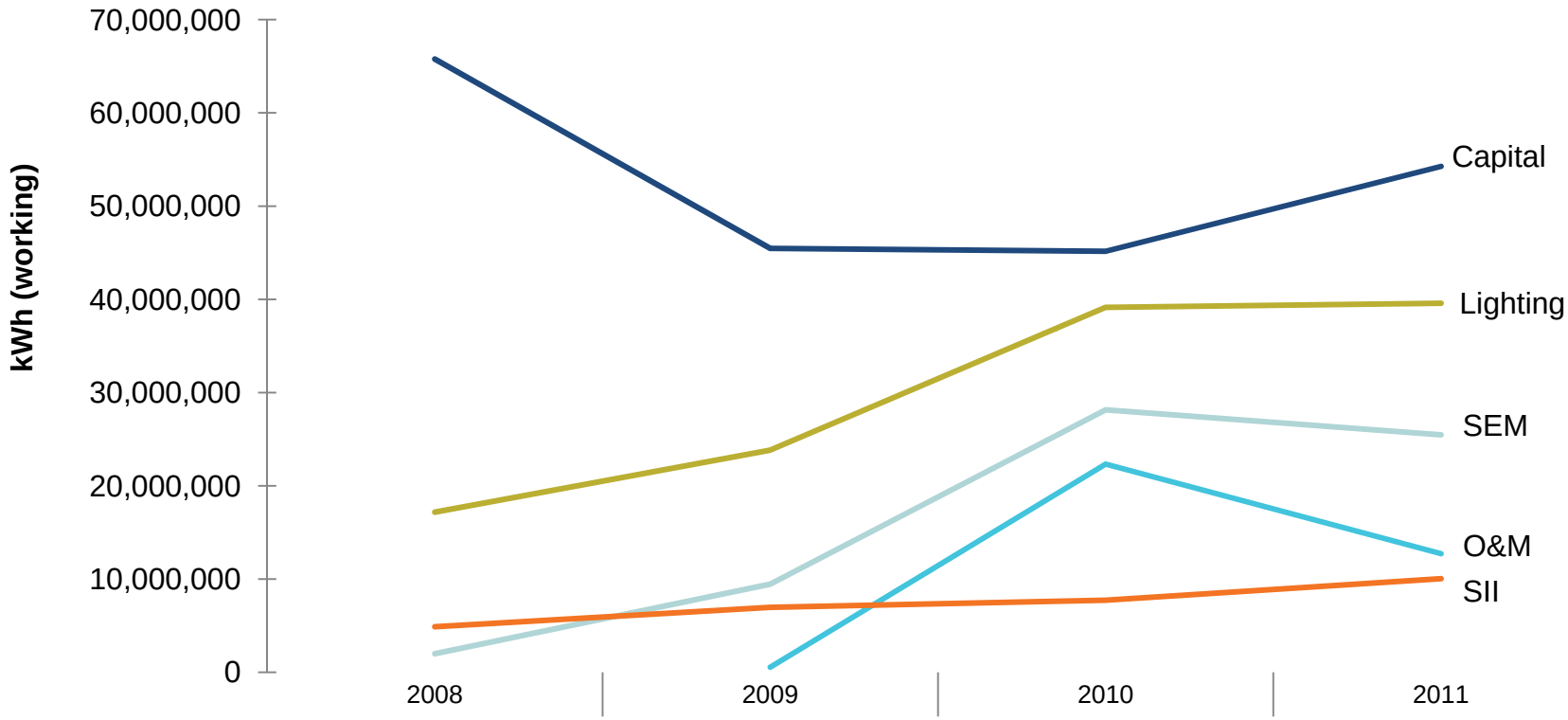
Electric - Sources of Savings - 2008 to 2011



	2008	2009	2010	2011
Custom Capital	65,774,784	45,464,348	45,154,636	54,255,655
Custom O&M		541,368	22,324,325	12,716,850
Strategic Energy Mgmt	1,986,701	9,450,960	28,153,148	25,462,052
Lighting	17,183,656	23,819,557	39,139,427	39,585,469
Small Industrial	4,882,602	6,973,041	7,733,797	10,037,673

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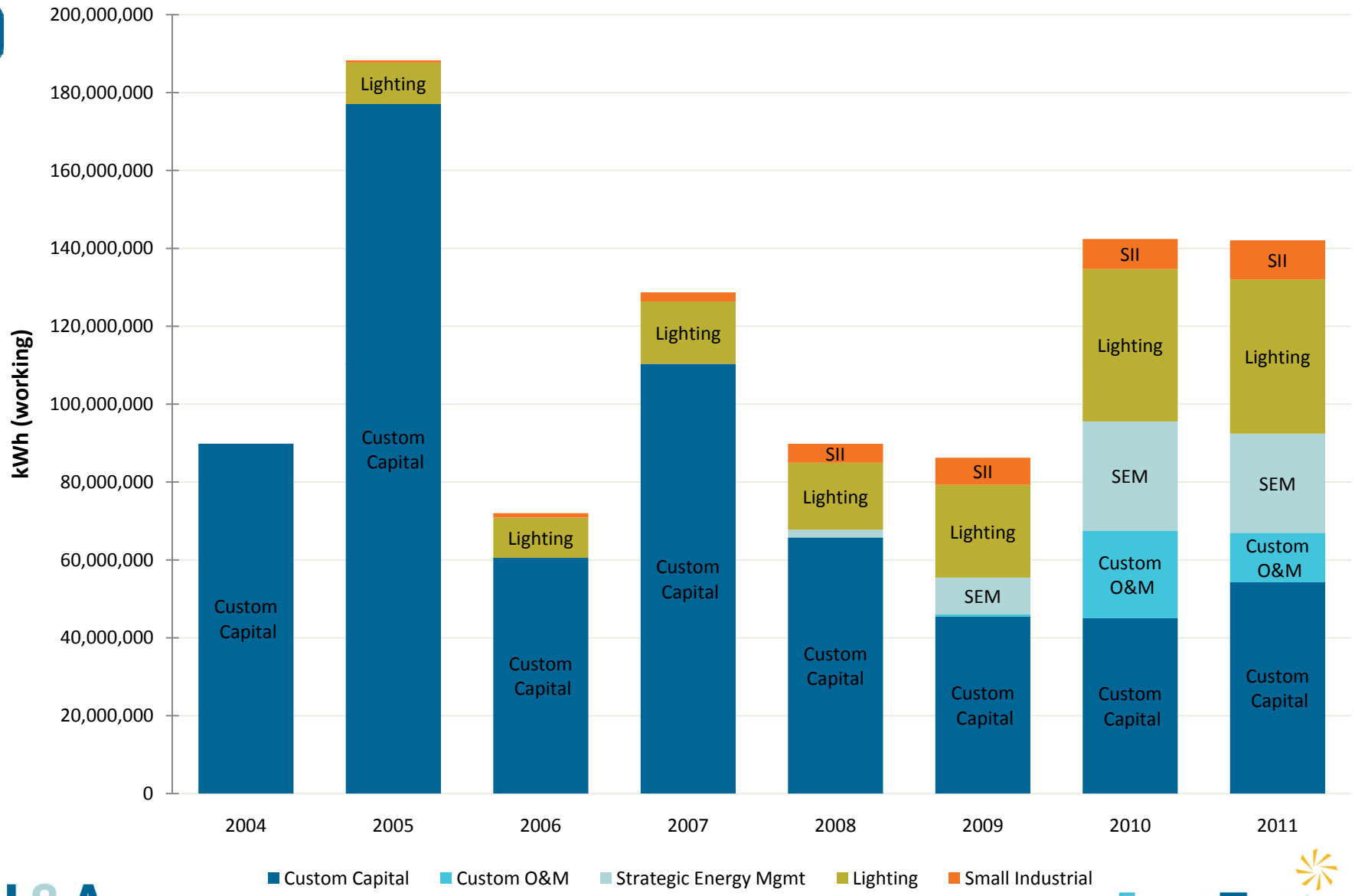
Electric - Sources of Savings - 2004 to 2011



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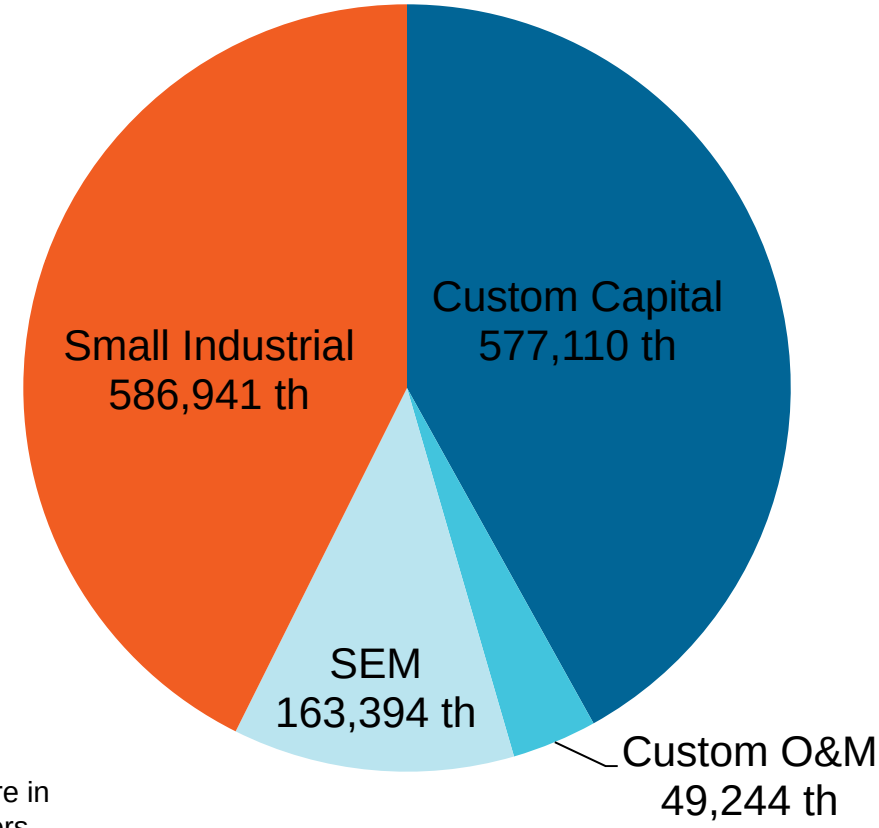
Gas - Sources of Savings - 2011



Note: Savings are in "working" numbers

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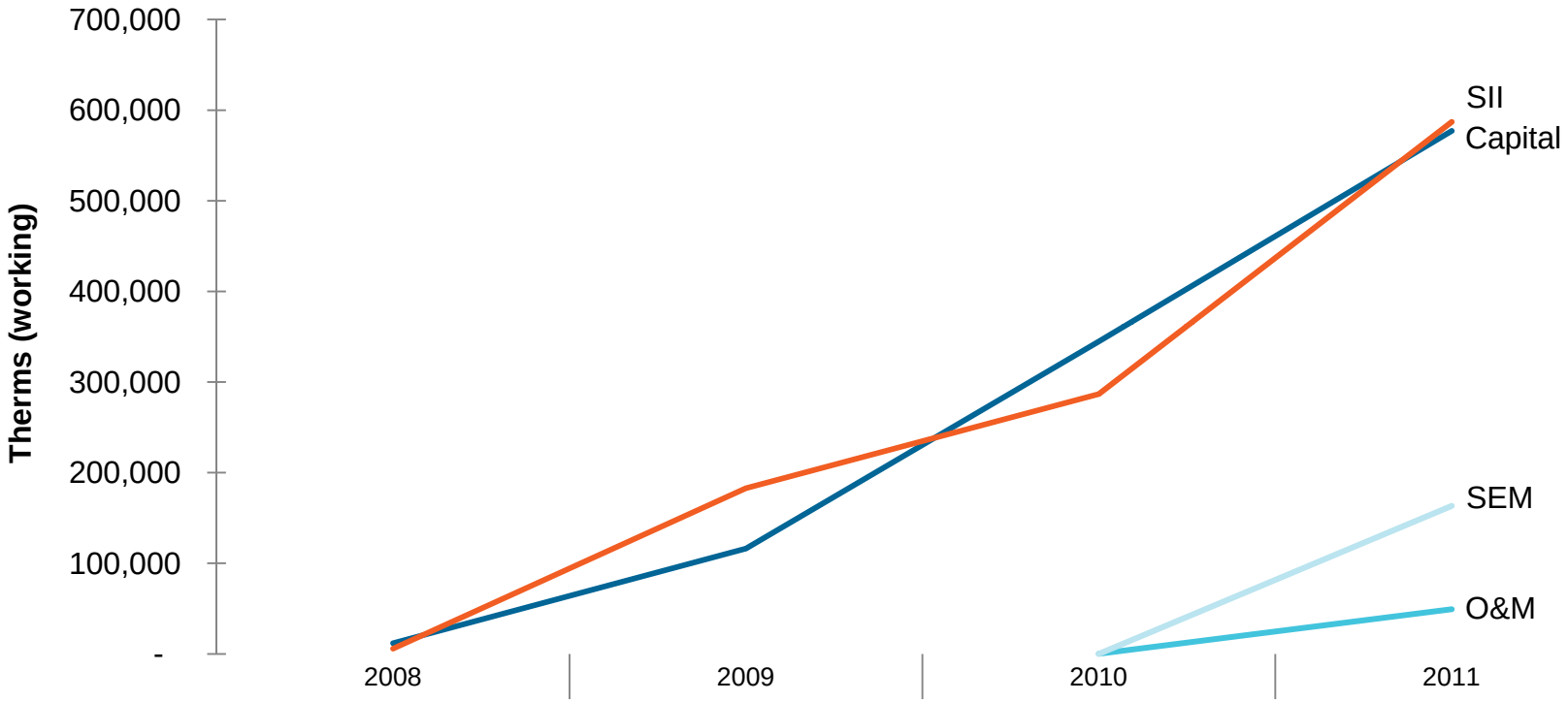
Gas - Sources of Savings – 2008 to 2011



	2008	2009	2010	2011
Custom Capital	11,800	116,248	344,852	577,110
Custom O&M			122	49,244
Strategic Energy Mgmt			-	163,394
Small Industrial	5,754	182,776	286,792	586,941

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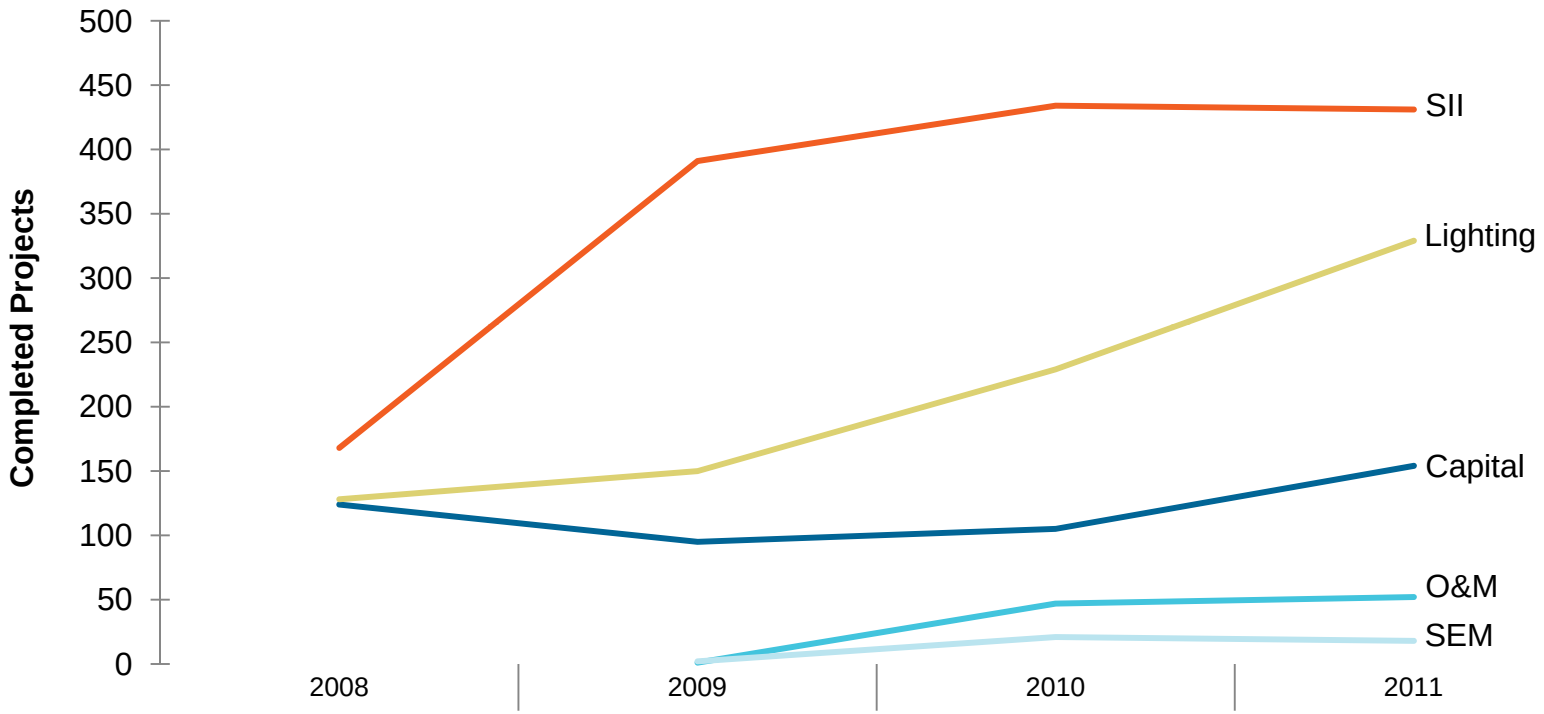
Volume of Projects

Projects - Sources of Savings - 2011



	2008	2009	2010	2011
Custom Capital	124	95	105	154
Custom O&M		1	47	52
Strategic Energy Mgmt		2	21	18
Lighting	128	150	229	329
Small Industrial	168	391	434	431

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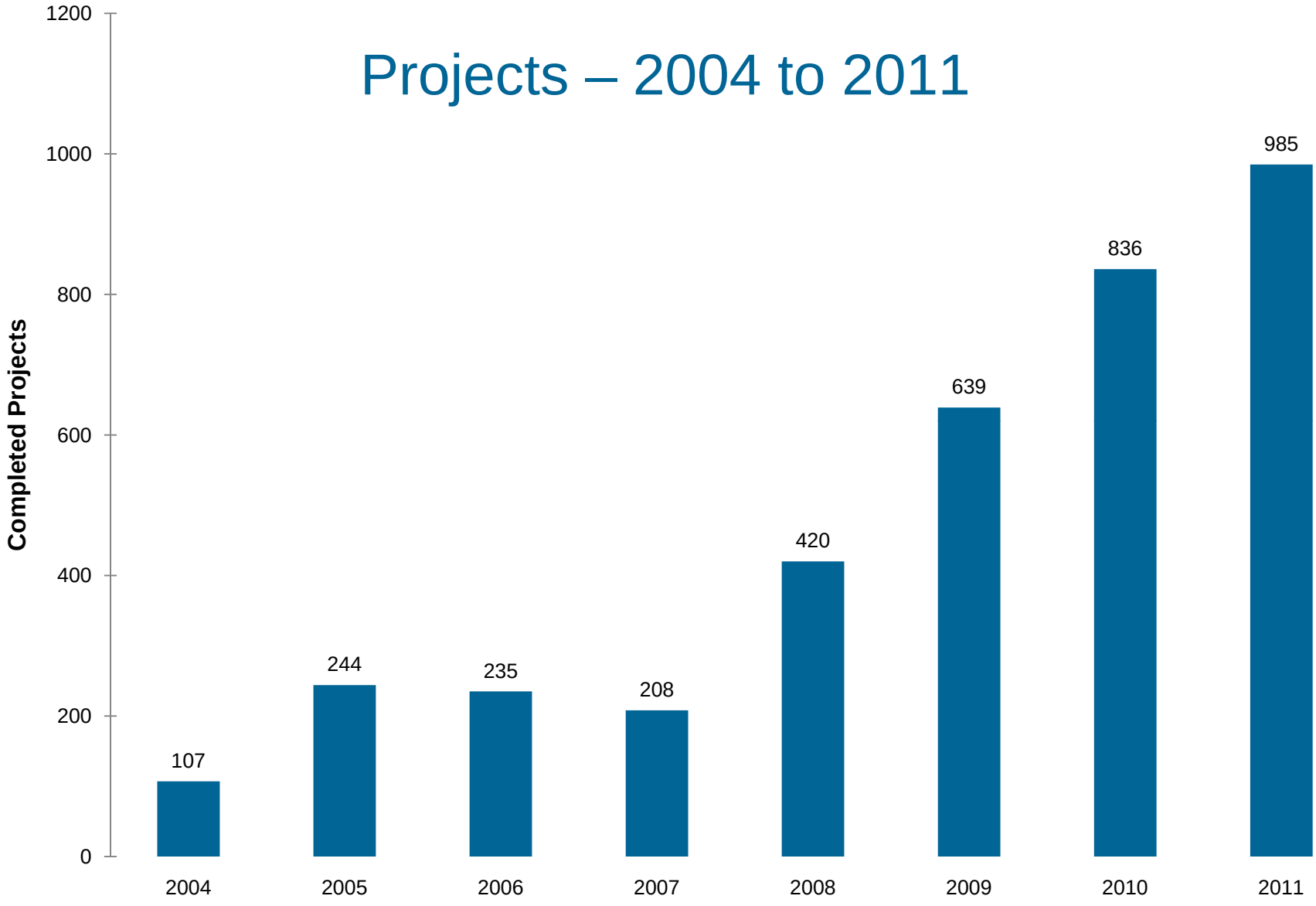
Projects – 2004 to 2011



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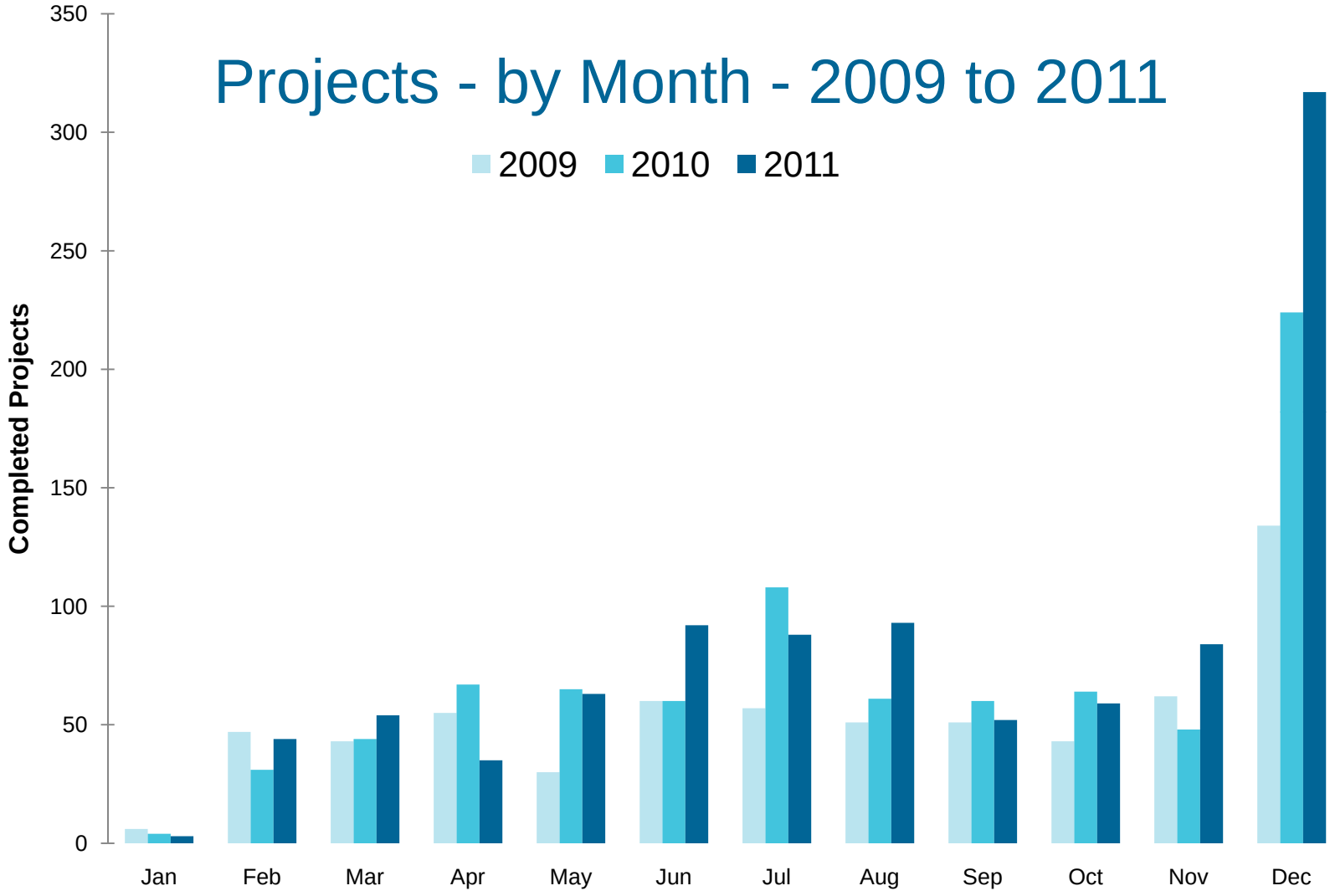
Projects - by Month - 2009 to 2011



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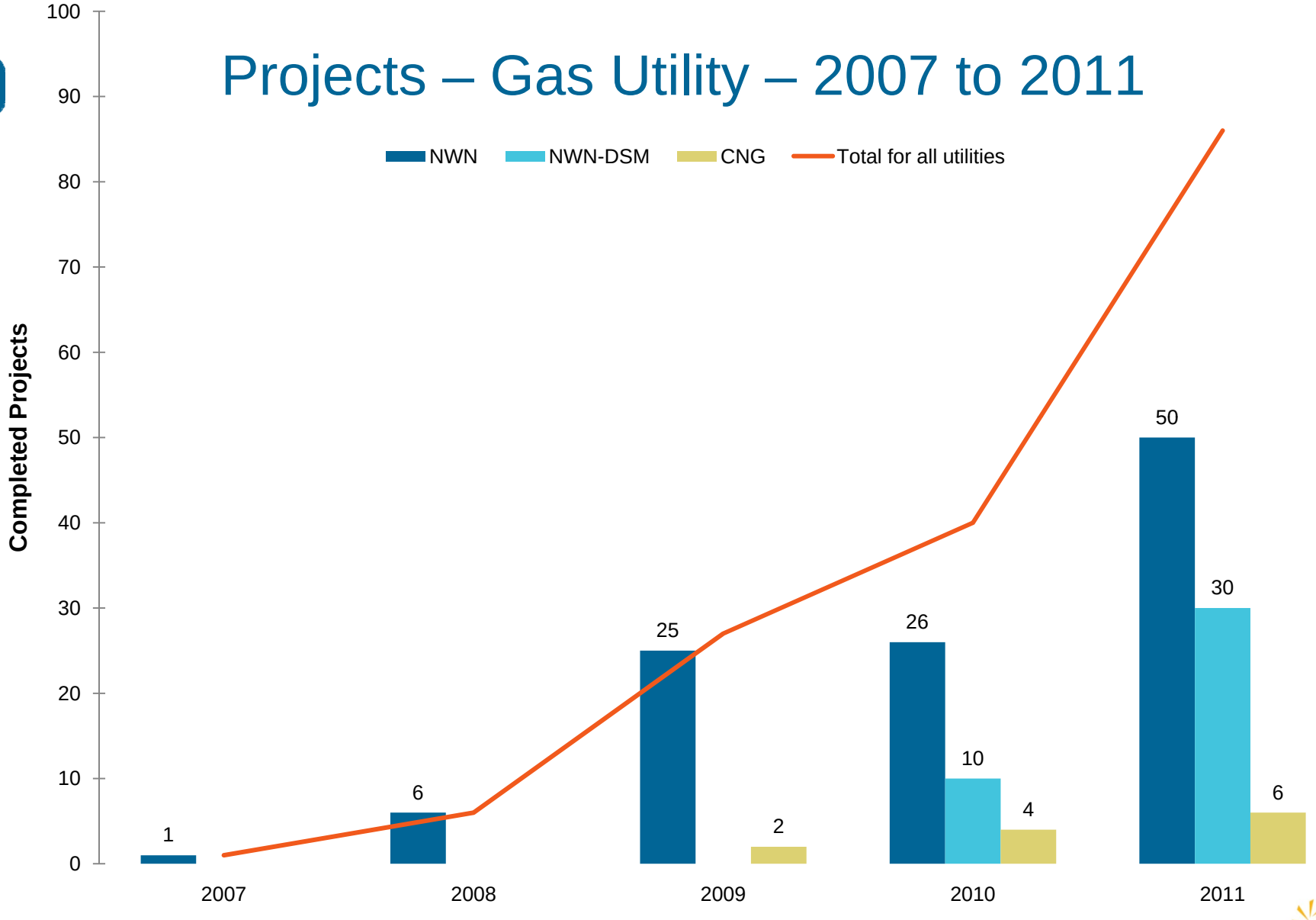
Projects – Gas Utility – 2007 to 2011



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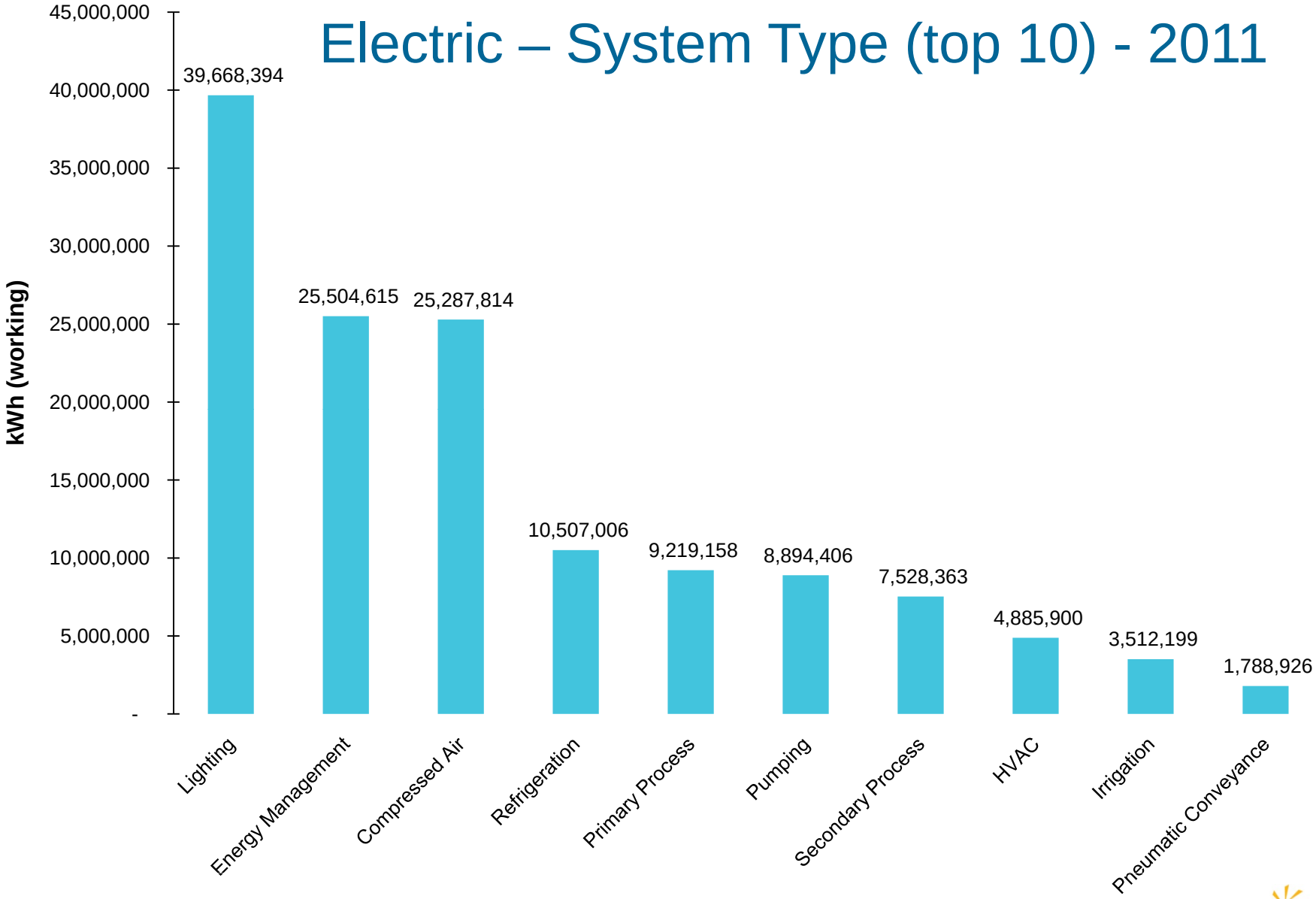
Measures: Savings by System Type

Electric – System Type (top 10) - 2011



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The top ten system types that an energy efficiency measure was applied to	Electric savings (kWh)* claimed in 2011	% of 2011 electric savings	Electric savings (kWh)* claimed from 2003 to 2011	Trend from 2003 to 2011
Lighting	39,668,394	29%	157,301,203	
Energy Management	25,504,615	19%	51,562,849	
Compressed Air	25,287,814	18%	130,786,696	
Refrigeration	10,507,006	8%	45,523,349	
Primary Process	9,219,158	7%	319,276,532	
Pumping	8,894,406	7%	29,521,295	
Secondary Process	7,528,363	6%	54,023,734	
HVAC	4,885,900	4%	28,863,636	
Irrigation	3,512,199	3%	21,543,100	
Pneumatic Conveyance	1,788,926	1%	39,918,587	
Total	136,796,781		878,320,981	

* Savings are in "working" numbers

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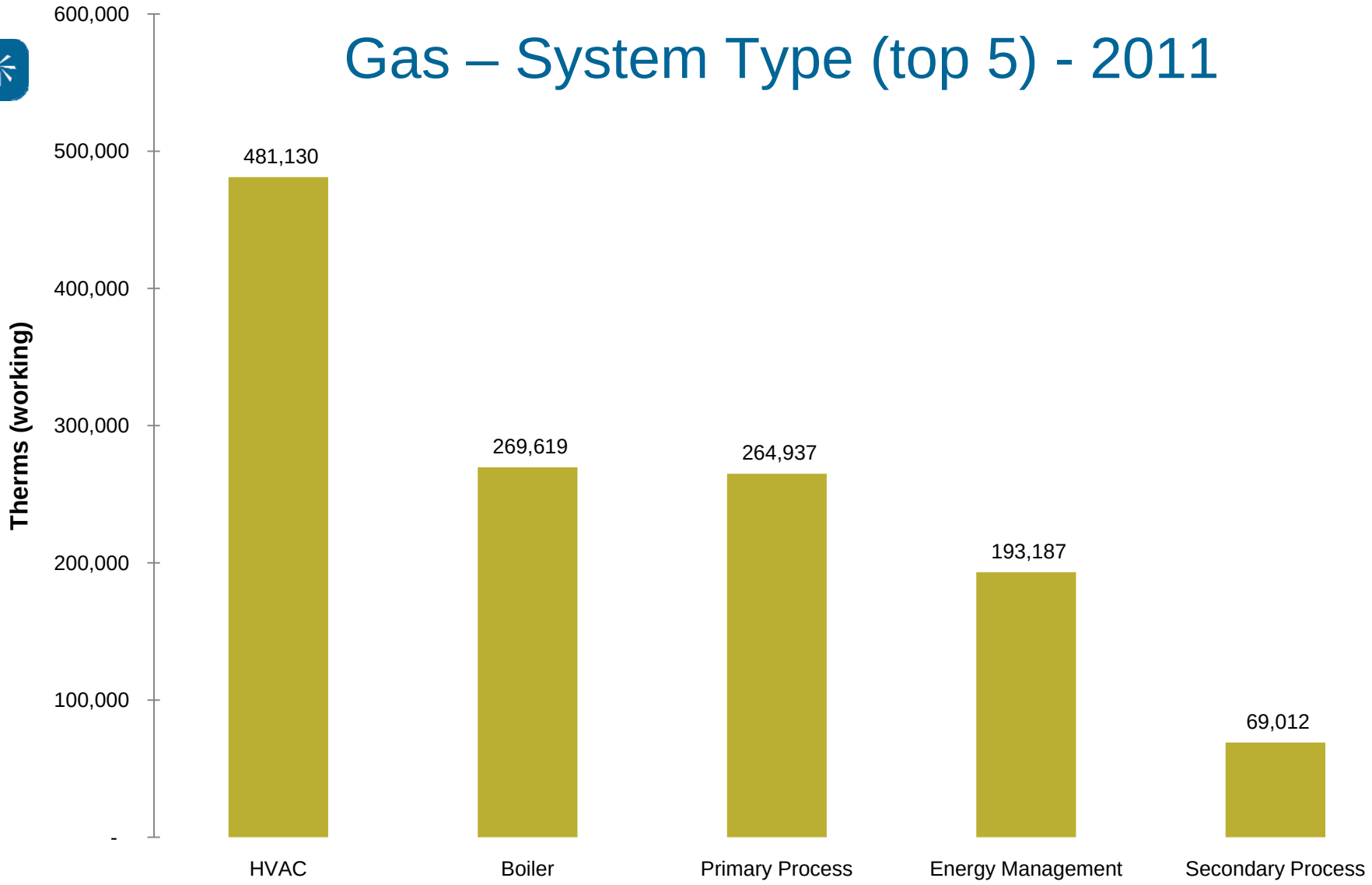
Gas – System Type (top 5) - 2011



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The top five system types that an energy efficiency measure was applied to	Gas savings (th)* claimed in 2011	% of 2011 gas savings	Gas savings (th)* claimed from 2003 to 2011	Trend from 2003 to 2011
HVAC	481,130	35%	961,455	
Boiler	269,619	20%	269,619	
Primary Process	264,937	19%	602,882	
Energy Management	193,187	14%	193,187	
Secondary Process	69,012	5%	107,449	
Total for all types of systems	1,376,689		2,329,225	

* Savings are in "working" numbers

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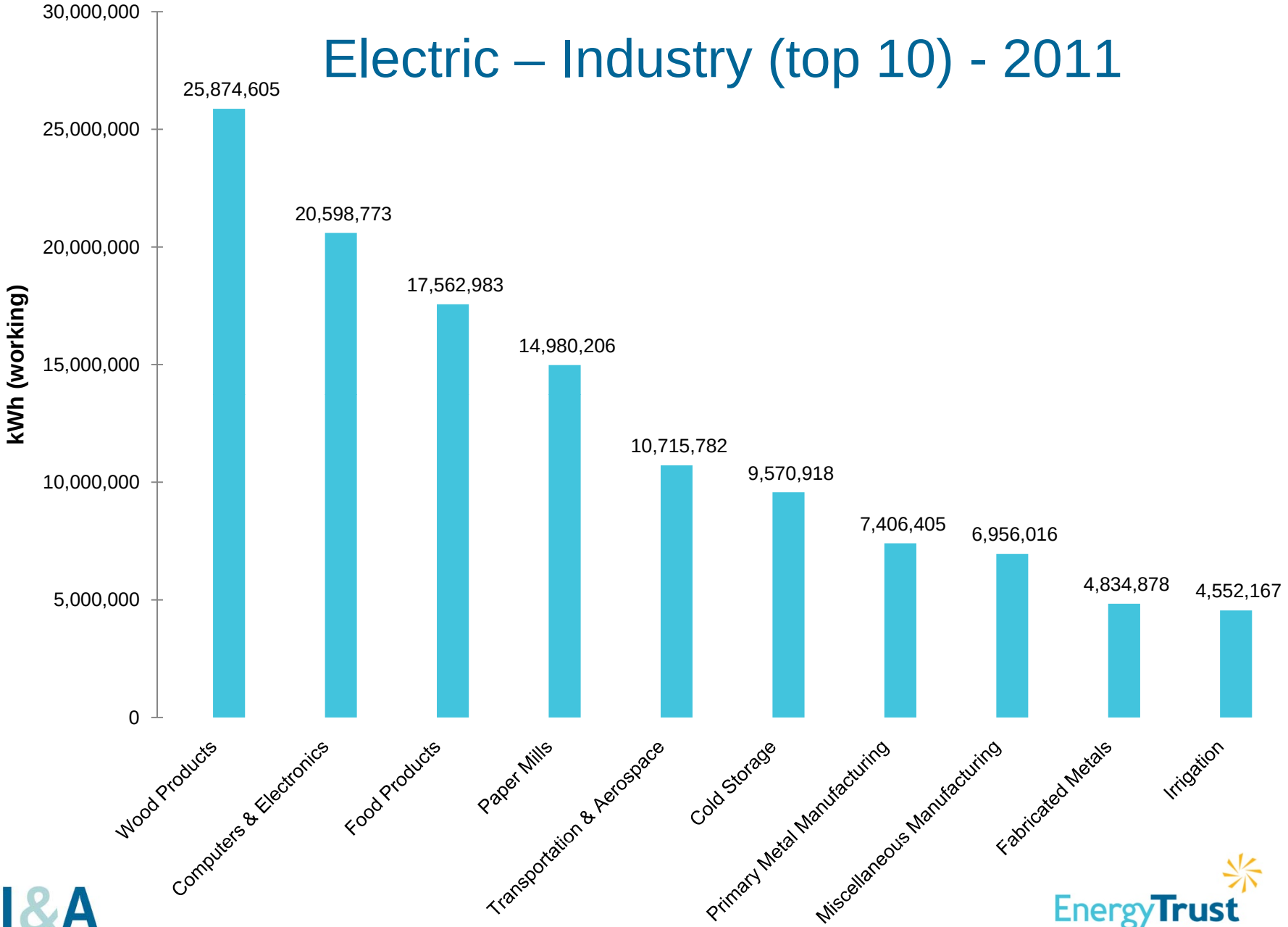
Markets: Savings by Industry Type

Electric – Industry (top 10) - 2011



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The top ten industries of sites where an energy efficiency measure was applied	Electric savings (kWh)* claimed in 2011	% of 2011 electric savings	Electric savings (kWh)* claimed from 2003 to 2011	Trend from 2003 to 2011
Wood Products	25,874,605	18%	200,933,374	
Computers & Electronics	20,598,773	15%	87,064,176	
Food Products	17,562,983	12%	81,859,129	
Paper Mills	14,980,206	11%	292,976,321	
Transportation & Aerospace	10,715,782	8%	29,459,331	
Cold Storage	9,570,918	7%	27,944,482	
Primary Metal Manufacturing	7,406,405	5%	17,712,256	
Miscellaneous Manufacturing	6,956,016	5%	32,662,044	
Fabricated Metals	4,834,878	3%	16,167,734	
Irrigation	4,552,167	3%	21,792,032	
Grand Total	142,057,699		939,332,914	

* Savings are in "working" numbers

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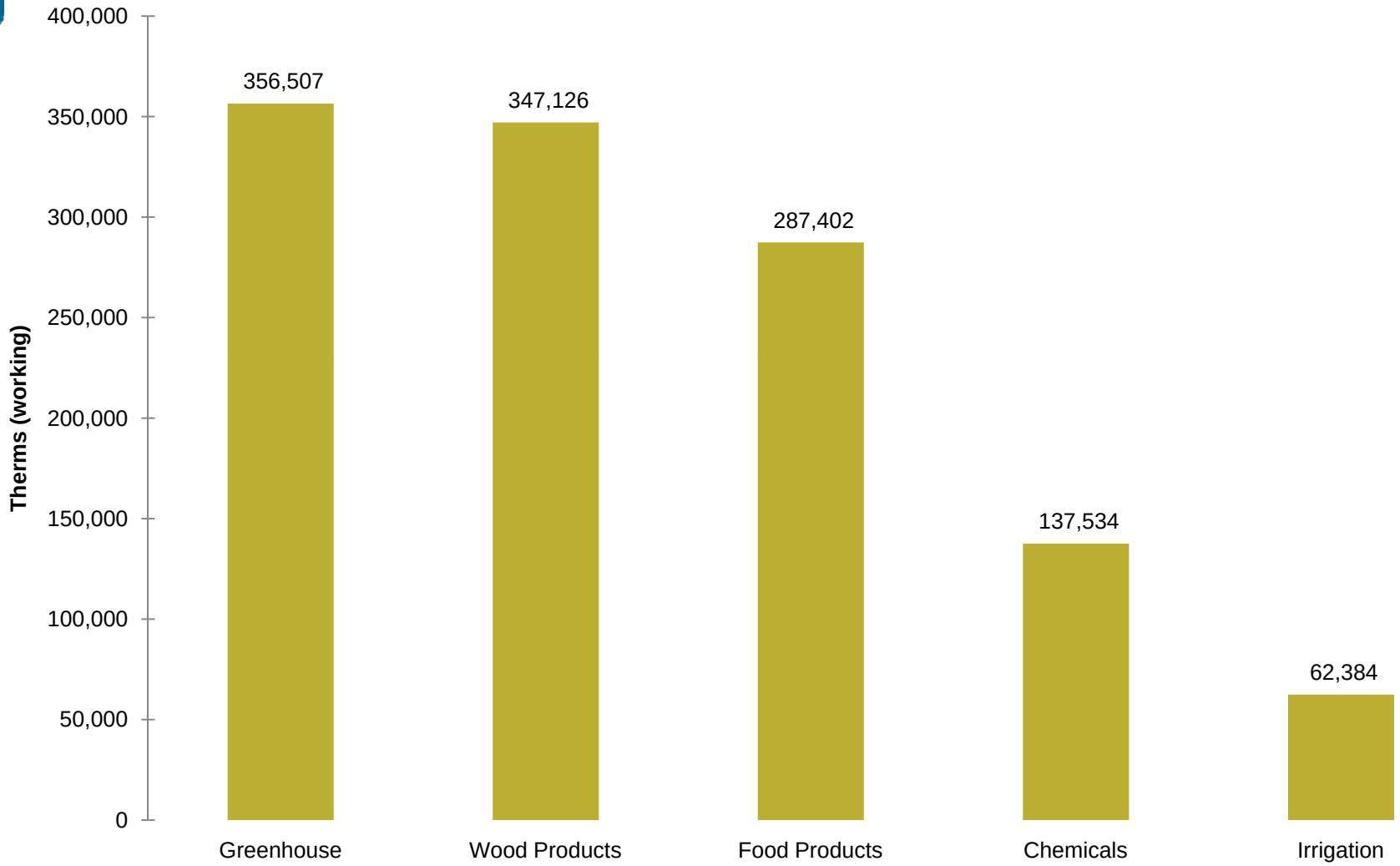
Gas – Industry (top 5) - 2011



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EnergyTrust of Oregon

The top five industries of sites where an energy efficiency measure was applied	Gas savings (th)* claimed in 2011	% of 2011 gas savings	Gas savings (th)* claimed from 2003 to 2011	Trend from 2003 to 2011
Greenhouse	356,507	26%	648,519	
Wood Products	347,126	25%	441,120	
Food Products	287,402	21%	600,619	
Chemicals	137,534	10%	145,437	
Irrigation	62,384	5%	104,285	
Total	1,376,689		2,329,225	

* Savings are in "working" numbers

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