ENVIRONMENTAL ENERGY TECHNOLOGIES DIVISION

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Presented at ECEEE Summer Study, La Colle sur Loup, 1-6 June, 2009

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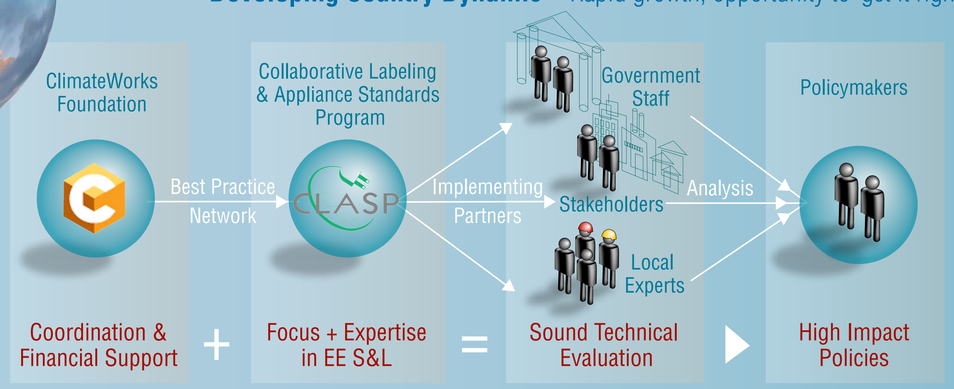
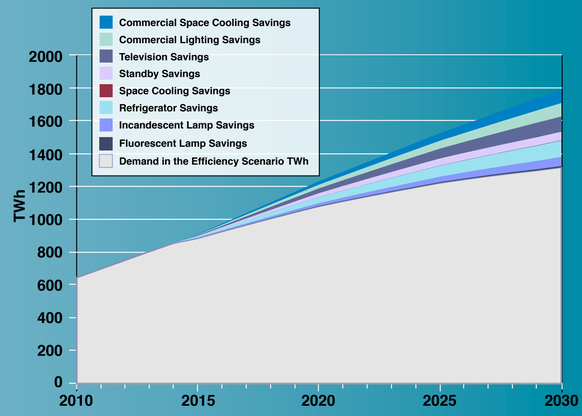
Acting Globally: Potential Carbon Emissions Mitigation Impacts from an International Standards and Labeling Program

Industrialized Country Dynamic—Experience and market to set standards close to 'max tech'
Developing Country Dynamic—Rapid growth, opportunity to 'get it right the first time'

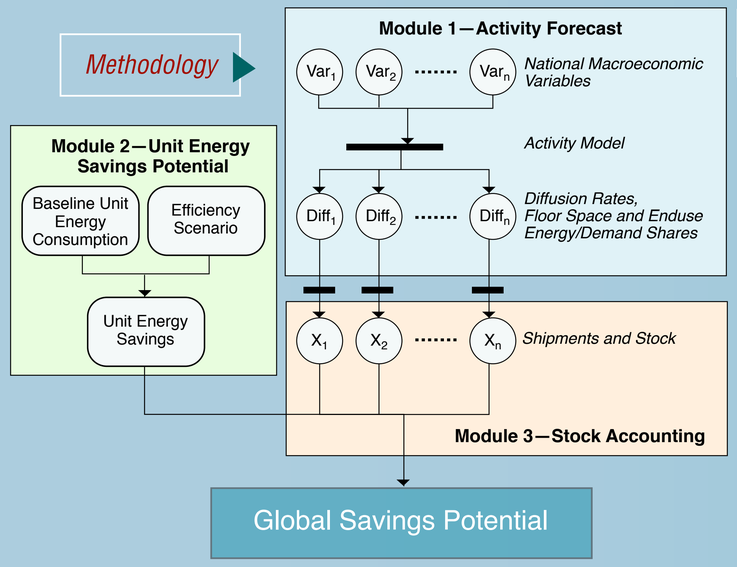


MEPS for Major Porducts Have Potential Turn Down Consumption in Some Countries

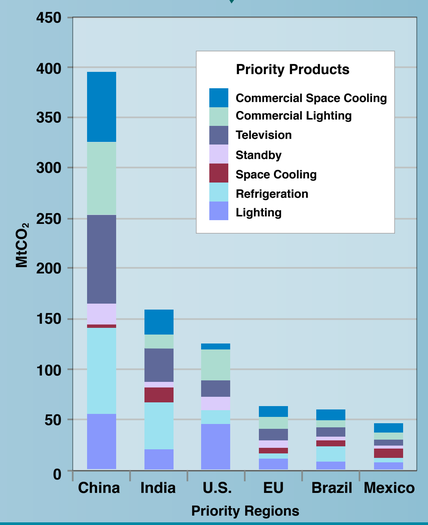


Cost Effecitve, Commercially Achievable MEPS by 2014

Methodology



Maximized GHG Mitigation ~ 1 Gt CO_2 in 2030



End Use	Region	Units	Base Case	2014 Target	Assumption
Fluorescent Tubes	US	W (Tube 3 + Ballast)	34.6	34.6	No further improvement for central
	EU		41.4	34.6	Electronic ballasts
	India		51.6	40.6	Electronic ballasts
	Other		44	34.6	Electronic ballasts
Incandescent	All	% of CFL	Variable	50%	50% share of CFLs by 2030
Refrigerators	US	kWh/yr	562	391	EU A+ level by 2014
	EU		364	271	EU A+ level by 2014
	China		489	302	EU A+ level by 2014
	India		548	223	EU A+ level by 2014
	Brazil		493	232	EU A+ level by 2014
	Mexico		341	188	EU A+ level by 2014
Residential AC	US	EER (W/W)	3.37	3.37	No further improvement
	EU		2.8	4	Current baseline and levels set by Japan's Top Runner Program
	LAM		2.64	4	
	China		2.6	4	
	India		2.4	4	
Televisions	All	Efficiency	100%	148%	Potential efficiency improvement
Standby Power	All	W	44	9	1W in 2014
Commercial Lighting	US	Efficacy	0.97	1.27	See (McNeil, 2008) for definition of efficiency metric and technology assumptions
	EU		0.94	1.18	
	LAM		0.84	1.12	
	CPA		0.84	1.09	
	India		0.84	1.11	
Commercial AC	US	EER (W/W)	2.49	2.64	Minimum LCC for commercial AC + HP
	EU	EER (W/W)	3.27	4.07	A' level by 2014
	Other	EER (W/W)	3.14	4.07	Same as EU, except baseline at "E"