



International Partnership for Energy Efficiency Cooperation

- G8, Brazil, China, India, Korea, Mexico, the European Energy Commissioner and IEA
- IPEEC is a high-level forum for facilitating broad actions that yield high energy efficiency gains, where participating countries see an added value. They include supporting on-going work of the participating countries and relevant organizations, exchanging information on best practices, policies and measures and developing public-private partnerships in key energy consuming sectors as well as on a cross-sectoral basis



- IPEEC Secretariat will be hosted at the IEA, so that the IPEEC can make full use of the knowledge, experiences and capacity of the IEA.
- The Secretariat will report to, and receive its guidance from, the IPEEC Executive Committee.
- Japan chairs IPEEC.
- IPEEC invites all interested countries to join IPEEC after its formal establishment.

IPEEC tasks (current)



- 4E an IEA Implementing Agreement for advancing appliance efficiency for many of the products managed in EECA's products programme. An annex on Standby is included.
- SBN – Sustainable Building Network. This German government / IEA led initiative links an number of IEA implementing agreements and increases the focus on economically optimal methods to advance zero and low energy buildings and retrofit existing buildings. SBN will integrate various IEA implementing agreements and develop new analysis streams – near zero energy buildings, intelligent architecture – buildings matched dynamically to climate, advanced policy options for existing buildings. This has German start up funding of €700k.
- GEEAI – Global EE Action Initiative – offers start up and capacity building support for emerging economies to enable ability to develop EE action portfolios like the IEA/G8 25 recommended EE policies.
- SEAD. Super-efficient Equipment and Appliances Deployment will work with industry to identify and accelerate deployment of advanced efficient technologies in priority appliances. USDoE are funding this to USD3m.
- EMAK Energy Management Network is supported by Japan and sets out to develop the capability of energy managers in industry as they play a critical role in identifying and implementing efficiency and productivity improvements in businesses. Assessment of Financing Mechanisms. This Indian led initiative seek to integrate existing work on financing challenges and solutions and address barriers to the financing of EE
- Indicators, Improving Methods for Measuring and Verifying Energy Efficiency. Given the IEA has leading capability in this area the focus seems to be on developing monitoring capability in economies with little or no experience.

Super-efficient Equipment and Appliances Deployment (SEAD) Program



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International Partnership for
Energy Efficiency Cooperation

David Rodgers
Energy Efficiency and
Renewable Energy



- The Clean Energy Ministerial and Climate REDI
- The Need for Efficient Equipment and Appliances
- Benefits of Collaboration
- Proposed IPEEC Project
- Timeline
- Discussion



- **The Clean Energy Ministerial and Climate REDI**
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On December 14, 2009 in Copenhagen, US Energy Secretary Steven Chu made two announcements:

1. Clean Energy Ministerial in mid-2010 to facilitate and coordinate voluntary adoption of national policies and measures to develop and deploy clean energy
2. \$350M Renewable and Efficiency Deployment Initiative (Climate REDI) to help implement Technology Action Plans produced by the Major Economies Forum (MEF) Global Partnership (www.majoreconomiesforum.org)

- *Solar and LED Energy Access Program*
 - Accelerate deployment of high-quality and affordable solar home systems and LED lanterns to those without access to electricity.
- *Super-efficient Equipment and Appliance Deployment Program*
 - Harness the market power of participating countries to accelerate global efficiency gains for appliances traded throughout the world.
- *Clean Energy Information Platform*
 - Enable countries to exchange information about enabling environments and associated deployment outcomes to identify and facilitate widespread adoption of successful deployment policies and measures.
- *Scaling-up Renewable Energy Program (S-REP)*
 - Under the World Bank’s Strategic Climate Fund, provide policy support and technical assistance to low-income countries developing national renewable energy strategies and underwrite incremental capital costs for renewables.



“Quick Start” – in service to the Major Economies Forum
Global Partnership on low-carbon economies

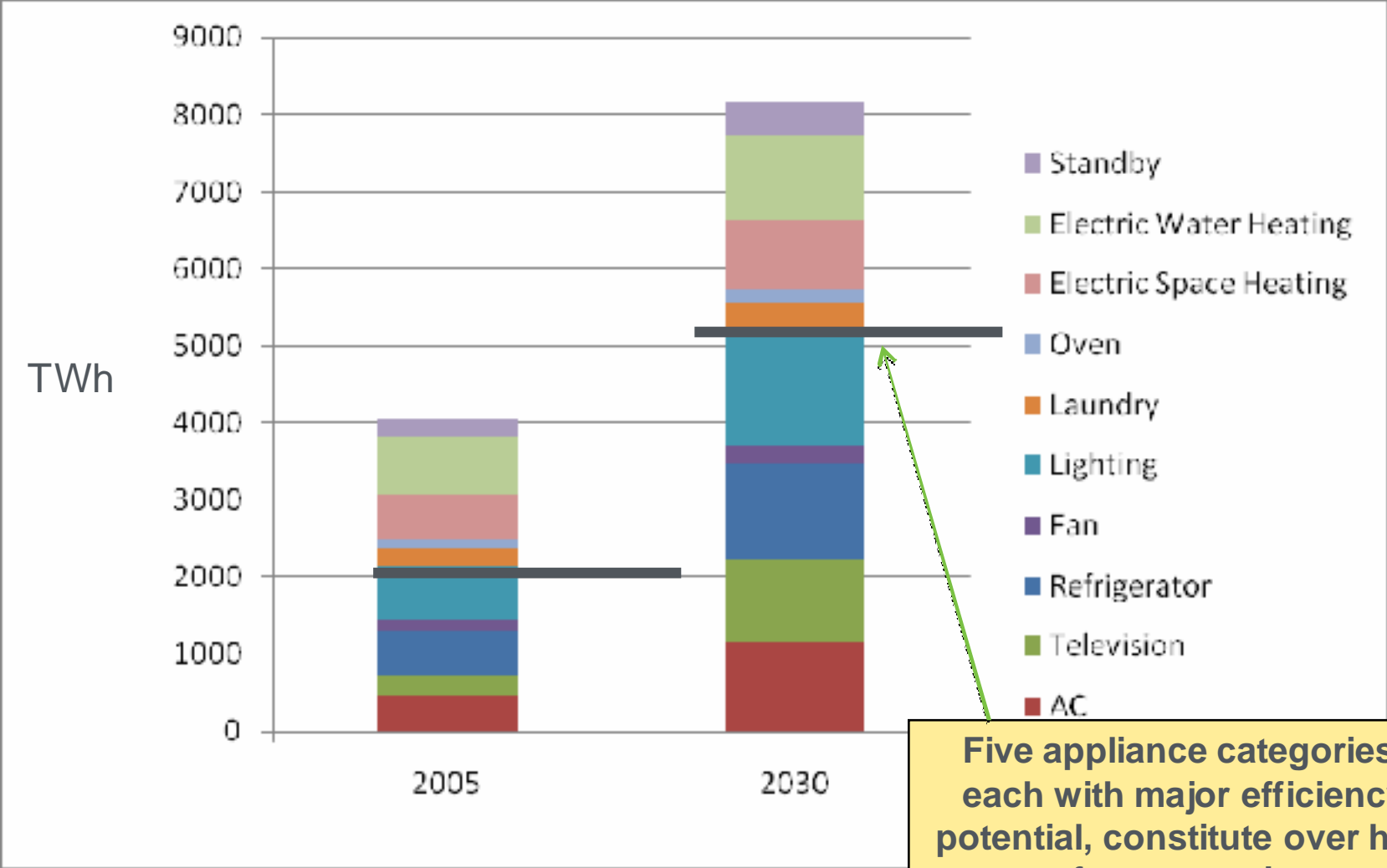


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Global electricity consumption expected to double in 25 years



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Five appliance categories, each with major efficiency potential, constitute over half of consumption

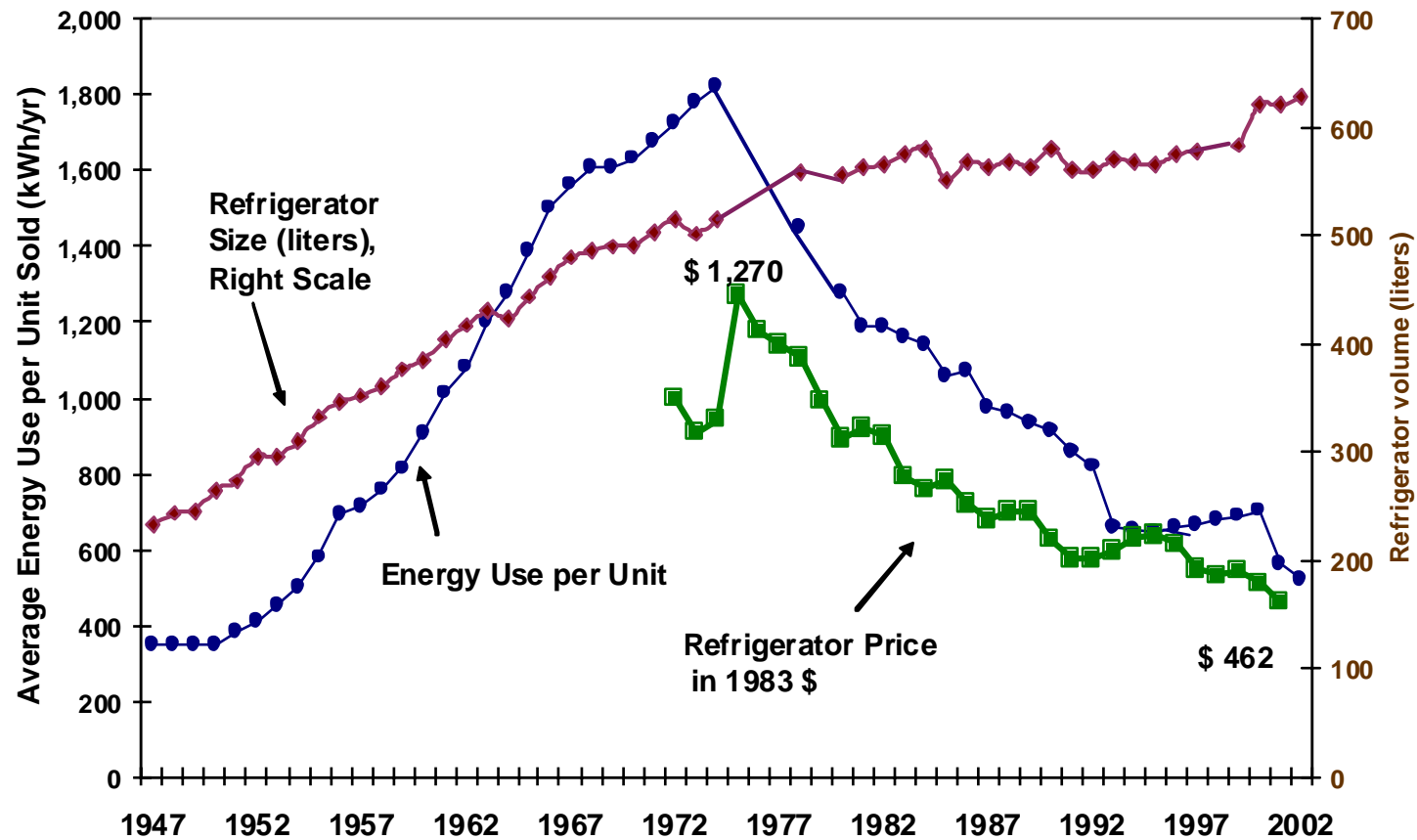
Source: LBNL Nov, 2009

Refrigerators: Great Progress More Gains Still Available



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United States Refrigerator Use v. Time



- Lighting
 - Many countries are reducing use of inefficient incandescent bulbs; encouraging more efficient CFLs and LEDs. Lighting consumes up to 25% of commercial building energy.
- Televisions
 - TV consumption consumes more than 10% of the global residential electricity consumption and is expected to reach ~1000 Tera watt hours in 2030)
- Air Conditioners
 - When properly matched to weather conditions, significant reductions in energy consumption are possible. For example, at least 80% reduction possible from commercially available air conditioners in hot & dry climates



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SEAD Increases Global Benefits Through Coordination



- Accelerate introduction of very high efficiency appliances through coordinated national incentive programs
 - Leverage existing national programs
 - Aggregate demand for super-efficient appliance categories (e.g. refrigerators, LEDs, TVs, or air conditioners) to reduce costs through global economies of scale
 - Coordinated international action can achieve global gains because most appliances are globally-traded (e.g. 15 manufacturers produce more than 70% of global-traded white goods)

- Encourage consumers to select relatively efficient appliances from those available in the market through improved (potentially global) appliance efficiency labels

- Eliminate low-efficiency appliances from the market by encouraging rapid updating of minimum efficiency standards, where cost-effective

Scale of Global Benefits: Refrigerator Example



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Example of how Coordinated Incentive Programs can Yield Significant Gains

Cumulative Costs and Benefits Over 15 Years (2014-2028; 2009 US \$)	OECD	LDC	China	SAS-PAS	Other	Total
Incremental Societal Cost (ISC) (\$ Billions)	30	11	33	27	34	135
Financial Incentive to Manufacturers: 50% of ISC (\$ Billions)	15	5	17	14	17	68
Electricity Savings (TWh)	658	240	736	606	762	3002
Avoided Cost of Conventional Supply (\$ Billions)	46	17	51	42	53	210
Net Societal Benefit (\$ Billions)	16	6	18	15	19	75
CO2 Savings (Mt CO₂)	299	209	687	447	447	2087

Note: Incremental Societal Cost is the difference between super-efficient and average refrigerator sold in each region. Incremental cost is annualized to match the investment and savings period. Financial incentive costs are estimated to be 50% of the ISE because consumers pay part of the incremental cost of super efficient refrigerators. SAS-PAS includes countries such as India, Vietnam, Thailand, Pakistan, etc. Other includes Russia and countries in Eastern Europe, Latin America, and the Middle East. Electricity savings assume a conservative value of only 80% savings compared to that realized in a super-efficient refrigerator.



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- IPEEC is an excellent foundation for the SEAD project
 - Existing structure facilitates a quick start
 - Access to Secretariat and IEA will avoid duplication
 - The Policy Committee is a valuable audience for SEAD reports and analysis
- Suggested structure
 - International Steering Committee to provide governance and management
 - International Advisory Committee to provide key stakeholder input and advice
 - Participating country teams to conduct technical analysis and work with local stakeholder groups to implement programs



- Composition:
 - Countries committed to collaborative market transformation through financial contributions to support international technical work
 - Countries demonstrating domestic policy leadership to help inform SEAD recommendations and further SEAD objectives
 - Non-IPEEC countries can be invited to join ISC
 - Countries not participating in the ISC will also be strongly encouraged to adopt SEAD recommendations
- Specific Functions:
 - Review and guide the SEAD technical work plan
 - Develop the SEAD action plan, including recommendations for coordinated incentive programs, internationalized labels and strategies to encourage progress on minimum standards
 - Provide reports, analysis, recommendations, and technical support to participating countries
 - Present reports and analysis to the IPEEC ExCo and Policy Committees



- Composition:
 - Core actors such as policy makers, international organisations, civil society institutions, utility companies, regulatory agencies, manufacturers' associations, and academic institutions
 - Examples include: Climate Works Foundation, Collaborative Labels and Standards Program (CLASP), Alliance to Save Energy, Consortium for Energy Efficiency, Association of Home Appliance Manufacturers' Association, UK Energy Saving Trust, European Council for Energy Efficient Economy, World Business Council for Sustainable Development, UNEP, UNIDO, United Nations Foundation
- Specific Functions:
 - Provide needed insights and help garner broader support and outreach for the SEAD effort.
 - Target opportunities for financial support and manufacturer participation in SEAD incentive programs
 - Provide guidance on measurement and verification techniques and priorities to ensure successful evaluation of SEAD efforts

Participating Country Teams



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- Composition:
 - Any country agreeing to join the collaborative SEAD deployment efforts can form a country team to help implement the SEAD program
 - The composition of the country team is the choice of the country, but may include:
 - NGO and industry associations if desired
 - Utilities and other stakeholders
 - Technical support as needed at the discretion of the participating country
- Specific Functions:
 - Receive input and guidance from the ISC
 - Perform the bulk of the technical work and analysis for individual countries, in collaboration with and supported by the ISC.
 - Interact with stakeholders in participating countries to seek inputs, assemble data, review country-specific goals, and help develop action plans.
 - U.S. example: Lawrence Berkeley National Laboratory (LBNL) will provide technical support to the U.S. country team



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Proposed SEAD Timeline



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- **January 2010**
 - Invite countries to the ISC
 - Direct initial technical work
- **February 2010**
 - Review draft technical work-plan
 - Confirm member country participation
 - Identify potential candidates for the IAC
- **March 2010**
 - ISC receives robust technical work-plan for review
 - Establish formal operating relationship with 4E, CLASP, and additional organizations
 - Start mapping of test procedures used for labels and standards across different countries.
 - Convene a meeting of IAC
- **April 2010**
 - Confirm implementation plan
 - Develop declaration for IPEEC policy committee
- **May 2010**
 - Design initial draft financial incentive programs
 - IPEEC Policy Committee issues declaration
 - Prepare final submission and report for the Clean Energy Ministerial
- **June – December 2010**
 - Clean Energy Ministerial makes announcements consistent with the progress of the SEAD effort
 - Technical work deepens and accelerates
 - Develop SEAD labels
 - Launch initial programs
- **January – March 2011**
 - Develop expanded plan for 2011 covering more products, more incentives, and considering standards



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SEAD Contacts



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- Many APEC governments committed to IPEEC
- SEAD offers new political recognition for EGEE&Cs core business of appliance Stds and EE promotion
- SEAD needs EGEE&C's capability e.g. SEER
- Improved context & profile for EGEE&C's work
- Suggest
 - EGEE&C Chair initiate contact with SEAD leadership at DoE.
 - Advise of EGEE&C interest – shared objectives on appliance EE.
 - Outline EGEE&C's credentials and experience.
 - Invite SEAD to discuss how EGEE&C can get involved.