

ECDBC

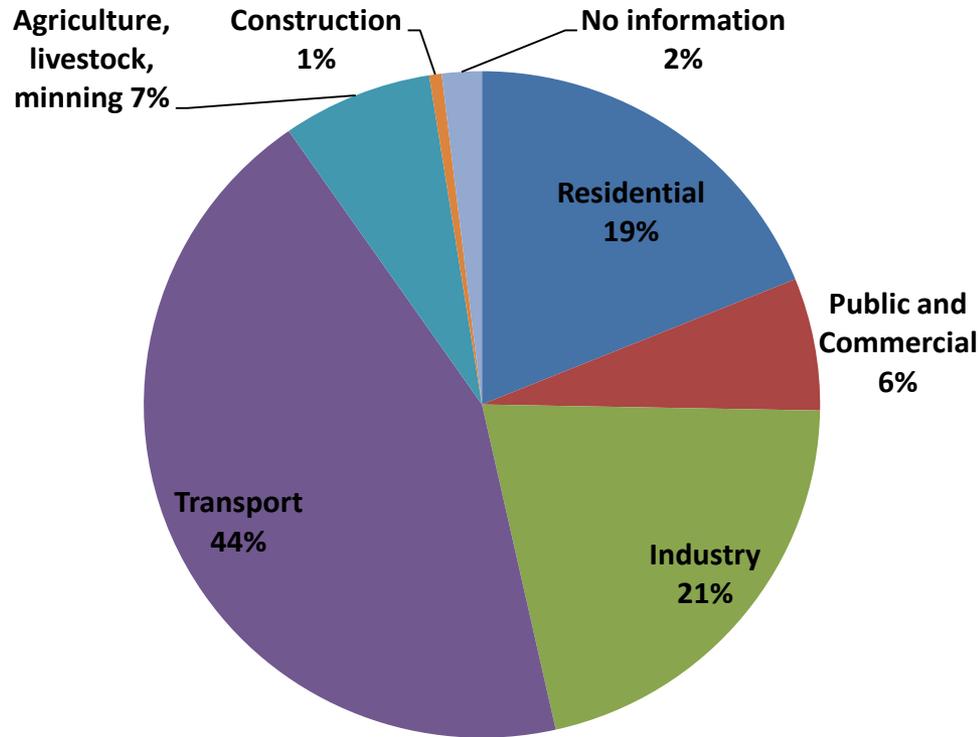
Estrategia Colombiana de
Desarrollo Bajo en Carbono



Libertad y Orden
República de Colombia



Energy Use in Colombia



- Energy consumption in 2012: 1092 PJ de energía.
- Transport sector is the most relevant, followed by industry and residential sector

Context

National Development Plan 2010-2014 (chapter 6):

- The mining/energy sector is considered a growth “locomotive” (key productive sector), and has the responsibility to ensure the energy provision for the development of the other sectors
- The sector’s commitment focuses on supplying the demand with high quality energetic, in a reliable and environmentally sustainable manner.

Context

Law 697, 2001: Program on Rational and Efficient Use of Energy and Other Forms of Non-Conventional Energy (PROURE in Spanish)

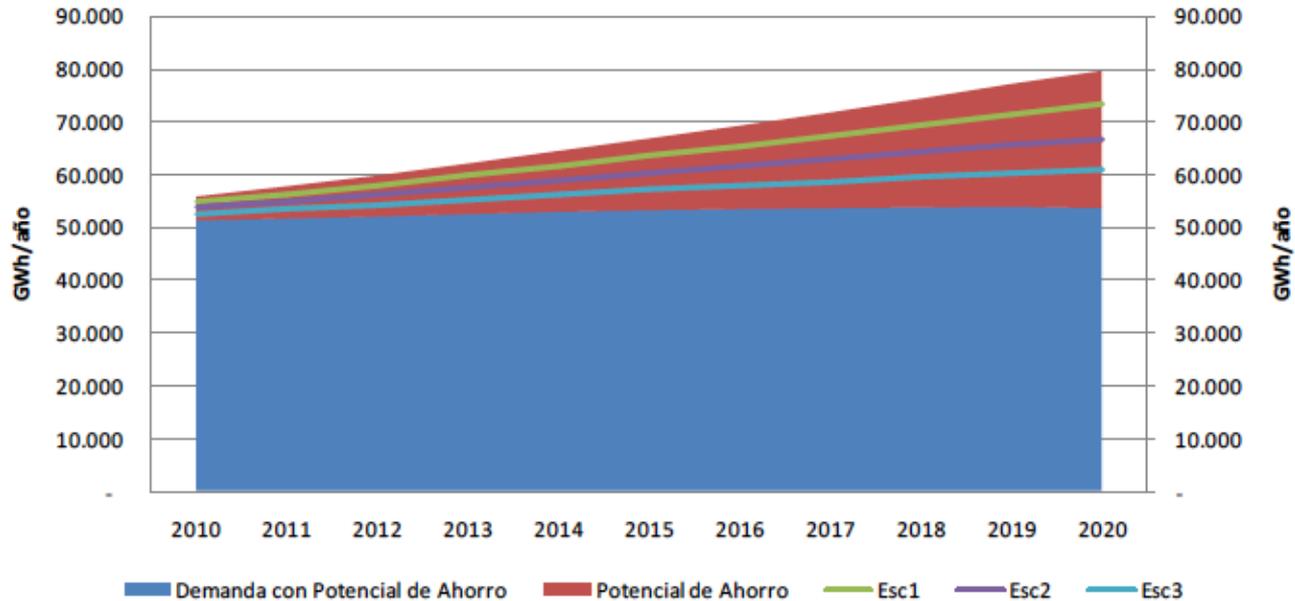
- Declared the rational and efficient use of energy as a social, public and national interest matter, key to ensure complete and timely energy supply, the competitiveness of Colombian economy, the protection of consumers and the promotion of non-conventional energy in a sustainable manner.
- Objectives:
 1. Consolidate a culture for the efficient and sustainable management of natural resources throughout the energy chain.
 2. Build the economic, technical, regulatory and information conditions to further an efficient energy goods and services market in Colombia.
 3. Strengthen institutions and promoting private mixed or social capital business initiatives, for the development of the subprograms and projects that make part of the PROURE.
 4. Facilitate the application of rules related to incentives, including taxes, which allow the promotion of PROURE subprogram and project development.”

PROURE's Areas of Work

- **Residential Sector**
 - Replacing incandescent bulbs
 - Efficient energy use in refrigeration and air conditioning
 - Efficient burners
 - Design, construction and efficient and sustainable use of energy in households
- **Industrial Sector**
 - Optimizing energy use in driving force
 - Optimization of the use of boilers
 - Efficient lighting
 - Comprehensive energy management with emphasis on cleaner production
 - Optimization of combustion processes
 - Cold chain optimization
- **Business and public sector**
 - Dissemination, promotion and application of technologies and best practices in lighting systems, refrigeration and air conditioning
 - Design , construction, energy conversion , efficient and sustainable use of buildings
 - Characterization, management indicators and technical assistance
 - Updated renovation lighting technology
- **Transport Sector**

Indicative Goals

Potencial y metas de ahorro en energía eléctrica



Sector	Potencial de ahorro de energía a 2015 (%)*		Meta de ahorro de energía a 2015 (%)	
	Energía eléctrica	Otros energéticos**	Energía eléctrica	Otros energéticos
A nivel nacional	20,3		14,75	2,10
Residencial	10,6		8,66	0,55
Industrial	5,3		3,43	0,25
Comercial, público y servicios	4,4		2,66	
Transporte	0,44		0,33	
	1,06		0,96	

CDBC

Estrategia Colombiana de
Desarrollo Bajo en Carbono

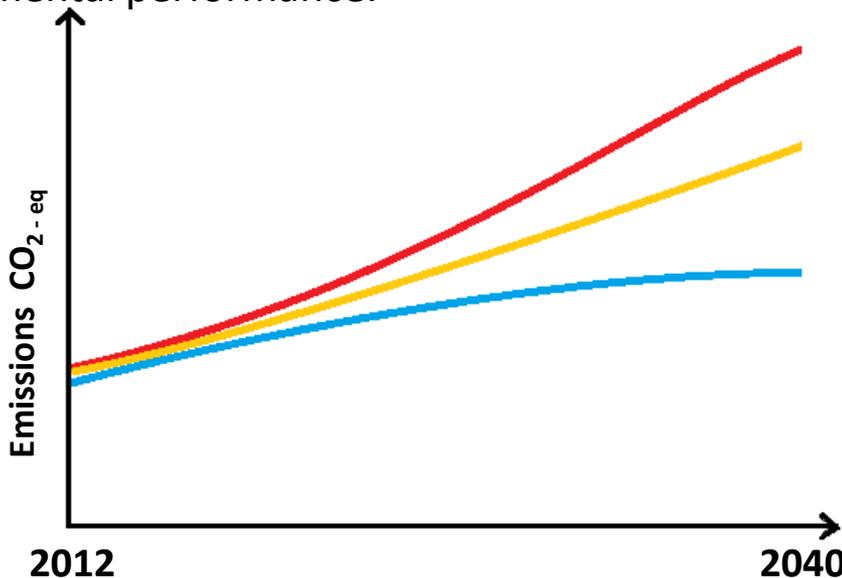


Main Barriers

- (1) High up-front costs
- (2) Lack of innovative financial tools
- (3) Lack of knowledge and expertise and ESCO
- (4) Scarce market opportunities
- (5) Many technologies are still in an experimental stage

The Colombian Low Carbon Development Strategy - CLCDS

The Colombian Low Carbon Development Strategy (CLCDS) is a medium and long term led development program by the Ministry of Environment and Sustainable Development (MADS), the Department of National Planning (DNP), and sectoral ministries of Colombia that aims to promote national economic growth with low greenhouse gas (GHG) emissions through the implementation of plans, projects, measures and policies that contribute to GHG mitigation and, at the same time and strengthen Colombia's economic and social development while meeting the global requirements of efficiency, competitiveness and environmental performance.



- 1) Inertial Scenario
- 2) Reference Scenario
- 3) Low Carbon Development Scenario

CLCDS Components

Component 4. Capacity building.

- Sectoral emission scenarios up to 2040.
- Identification of sectoral mitigation actions.
- Assessment of costs and abatement potential of mitigation options.

Component 1 Begins in 2012

Projection of Sectoral emission scenarios, and Identification and formulation of alternatives for low carbon development

Component 2 Begins in 2013 Sectoral Mitigation Action Plans - SMAPs

- Mitigation options prioritization (NAMAs, programs and policies) to be included in the SMAPs.
- Design of policies, plans, and options.

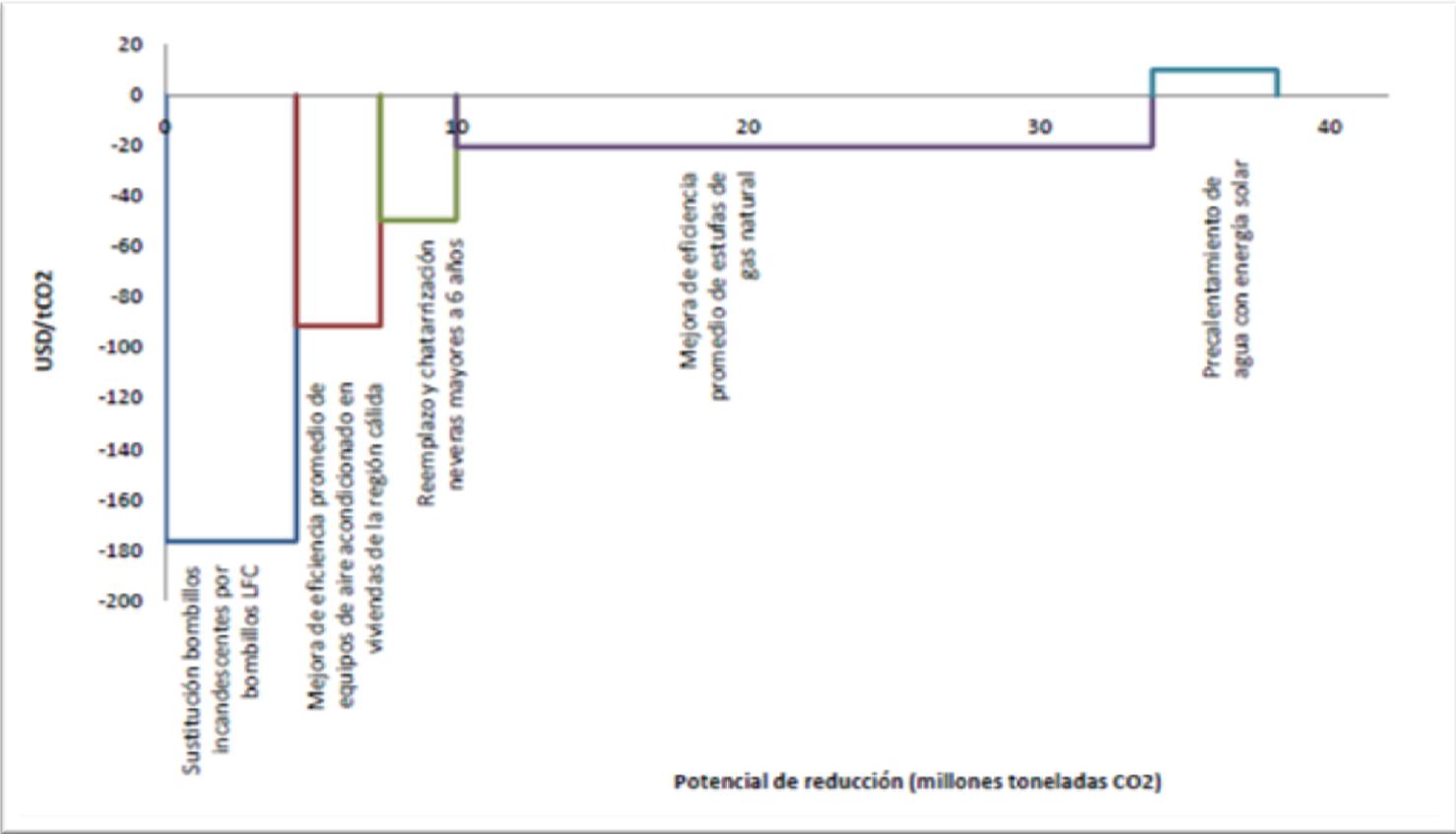
- Sectoral Mitigation Action Plans – SMAPs Implementation
- Development of a monitoring system
- Development of financial and institutional arrangements for each mitigation action in each SMAP.

Component 3 Begins in 2014

SMAP implementation and development and implementation of a monitoring system

Component 5. Communication and cooperation platform.

Abatement Curves



SMAPs and Institutional Responsibilities

Ministry of Environment and Sustainable Development (MADS)

National Planning Department (DNP)

Ministry of Transport

Transport SMAP

Ministry of Mining and Energy

Electricity SMAP

Mining SMAP

Hydrocarbons SMAP

Ministry of Commerce, Industry and Tourism

Industry SMAP

Ministry of Agriculture and Rural Development

Agriculture SMAP

Ministry of Housing, Cities and Territories

Housing SMAP

Solid Waste and Waste Water SMAP

	Approved
	Under construction

Electricity SMAP

- DEMAND-SIDE ENERGY EFFICIENCY
- NATIONAL ENERGY SYSTEM OPERATION EFFICIENCY
- NON CONVENTIONAL RENEWABLE SOURCES IN THE NATIONAL ENERGY SYSTEM

Electricity SMAP – Energy Efficiency Component

POLICY DIRECTIVE	CLCDS OBJECTIVE	ACTION
Promote and develop the national level energy efficiency policy	GHG emission reduction through energy consumption savings generated by energy efficiency actions and programs.	Institutional strengthening through the creation of an agreement or framework for energy efficiency to support EE projects and initiatives in Colombia.
		Issue EE technical regulation.
		Create an EE fund to support projects in the residential and small and medium business sectors.
		Develop the national domestic refrigerator substitution program.
		Promote and support EE projects in the residential sector.
		Develop the national EE program for air conditioning.
		Promote EE in public lighting.



Lessons Learnt

- (1) The need to reinforce the “win-win” approach as well the co-benefits analysis: “marketing the low carbon measures”
- (2) Need to create innovative financial tools
- (3) Creation of ESCOs and sector strengthening
- (4) R&D is still widely need, with an approach oriented to national circumstances

Examples of actions

- Procedures for issuing technical concepts for tax incentives on energy efficiency
 - Energy efficiency in buildings (GEF Project) . Deliverables:
 - Energy Efficiency Technical Regulation for affordable housing
 - Energy audits
-  Possible NAMA PIN proposal
- Creation of a private or mixed entity to promote energy efficiency

Contact details:

José-Manuel Sandoval

Colombian Low Carbon Development Strategy National Coordinator
Ministry of Environment and Sustainable Development of Colombia

jsandoval@minambiente.gov.co

josemanusandoval@gmail.com

