



GREEN
GROWTH
KOREA



Green Growth: Addressing Energy & Climate Challenges

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Outline

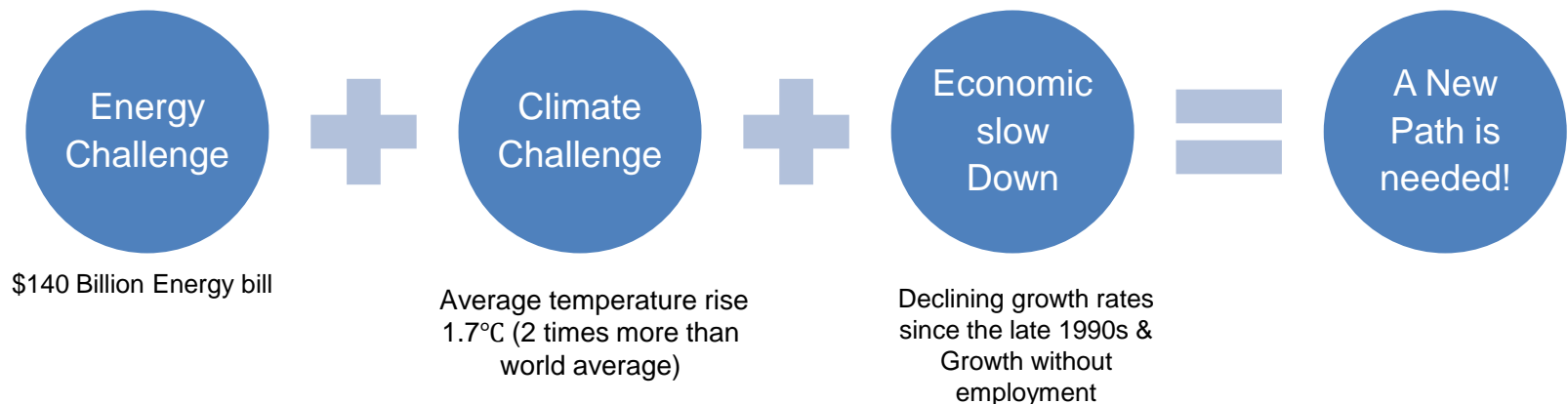
- I. Why **Green Growth**?
- II. Key Progress of Green Growth
- III. Clean Energy Strategies for **Green Growth**
- IV. Global Cooperation

I. Why Green Growth?

- **Increasing Energy Vulnerability**

- **Top 10 energy consumer with 140 Billion USD in energy bill**
- **Trade deficit: 97% of the energy is imported**
- **Dependence on fossil fuels: 83% of the energy is from fossil fuels**

- **Triple Crunch:** energy crisis did not come alone



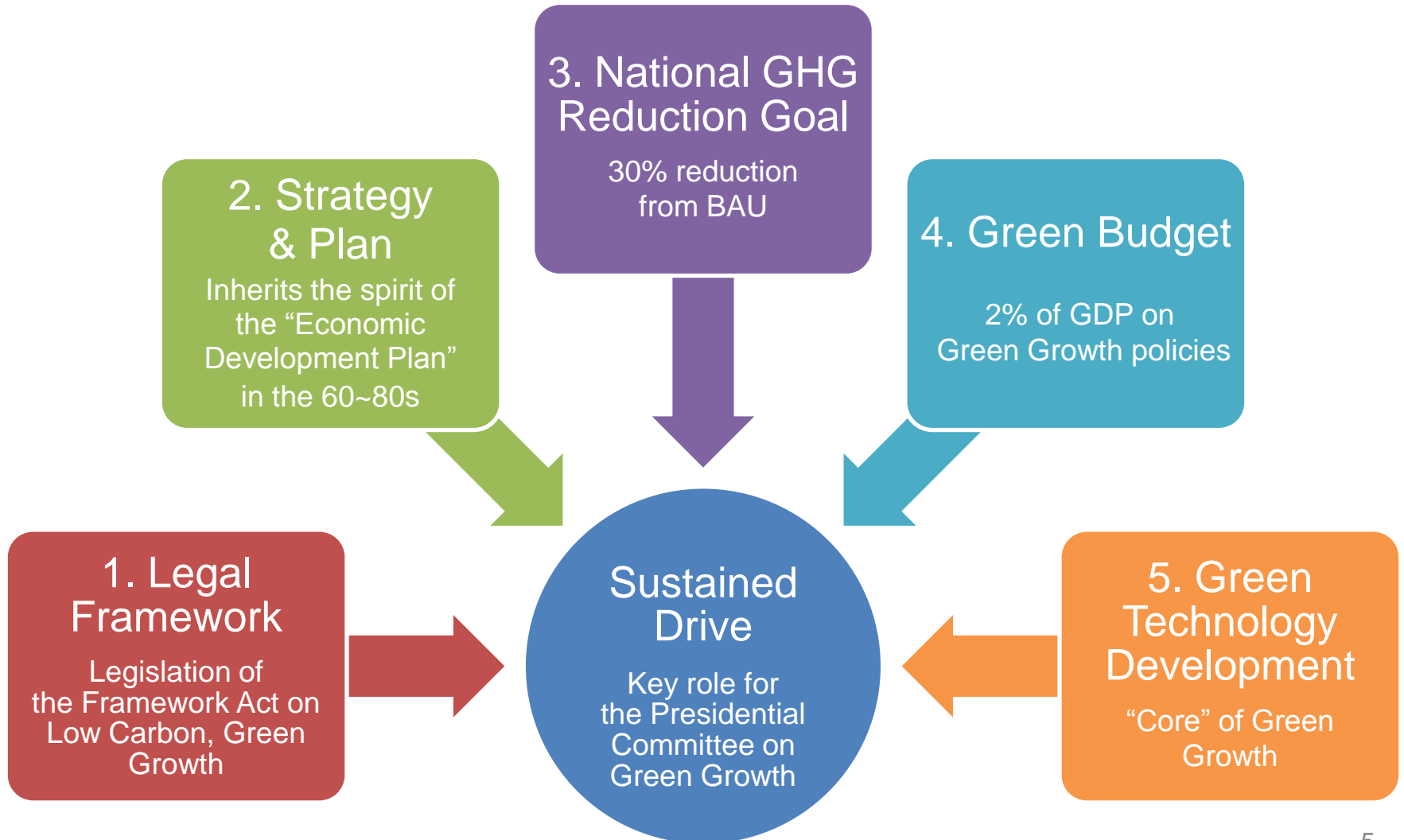
Presidential VISION – Low Carbon, GREEN GROWTH

“Today, on the occasion of the 60th anniversary of the founding of the Republic of Korea, I want to put forward ‘Low Carbon, GREEN GROWTH’ as the core of the Republic’s new vision.”



II. Key Progress of Green Growth

Green Actions



(1) Presidential Committee on Green Growth



Overview

- Established under the direct control of the President
- Manage the national agenda of 'Low-Carbon, Green Growth'



Tasks

- Coordinate and review low carbon green growth policies
- Setup action plans and policy measures for green growth



Milestones

- Dec. 2008 Preparatory TFT organized
- Feb. 2009 1st PCGG meeting (6 meetings has been held)
- Feb. 2009 Government draft of 「Framework Act on Low Carbon Green Growth」 finalized
- Jul. 2009 Five-Year National Plan for Green Growth finalized
- Dec. 2009 「Framework Act on Low Carbon Green Growth」 passed by the National Assembly

(2) Legal Framework

Framework Act on Low Carbon Green Growth

- Enact the Framework Act on Green Growth
 - * effective as of April 14th, 2010
- Has priority over all relevant laws regarding Green Growth

Key Provisions

- 1) Legal grounds for the **Presidential Committee on Green Growth**
- 2) Mandates the government to **foster and support green economy, green industry**
- 3) Foster **financing for green technology R&D and green investments**, as well as, mandates the promotion of **environment-friendly tax reform**
- 4) Mandates government to set concrete **targets for GHG emission reductions**
- 5) Mandates for mandatory **reporting of GHG emissions and setting targets for GHG mitigation and energy saving** of large-scale entities
- 6) Establish National integrated GHG information management system ; **Greenhouse Gas Inventory & Research Center of Korea**
- 7) Provides the legal framework to introduce a **cap & trade system** in Korea
- 8) Articles on environment-friendly **land use, green building, low carbon transportation, green consumption and production**, and other issues related to sustainable development

(3) National Strategy for Green Growth

Framework

Vision

A Model Green Nation - virtuous harmony of environment & economy

Strategic Objectives

Low Carbon Society
&
Energy Security

New Growth
Engine

Enhanced Quality of
Life & Int'l
Leadership

10 Policy Goals

- Reduce GHG

- Greater Energy Security

- Adapt to Climate Change

- RD&D for Green Tech.

- Foster Green Industry

- Greening the Industry

- Institutional Foundation for Green Economy

- Green Transportation & Land Management

- Green Life-style

- Int'l Role Model

(4) Green Budget

- A total of 107 Trillion KRW will be invested between 2009-2013
 - Invest annually about 2% Korea's GDP

* 2008-2012 National Financial Management Plan: R&D 10.7, SOC 7.3, Environment 3.7, Total Budget 6.2%

	Sub-Total	2009	2010~2011	2012~2013	Increase Rate
Invest Amount Total (Unit: Trillion KRW)	107.4	17. 5	48. 3	41. 5	10.2%

Mitigating Climate Change and Increasing Energy Independency

56.9

14.0%

Creating New Growth Engine

28.6

9.4%

Enriching Quality of Life & Improving Korea's Global Status

27.9

3.6%

* Investment Amount Total is exclusion of overlapping areas of investments among 10 policies (Operations) totalled.

Green Partnership

Green Growth Public Private Partnership

Industry

- Industry
 - Energy
 - Climate Change
 - Green Tech
 - Construction
- SMEs
- Trade & Investment

Science & Technology

- R&D
- Technology transfer
- Education / HR
- Green Tech Infra
- Int'l Cooperation

Green Life-style

- Infra for Green Life-style
- Green Consumption
- Green Public Transportation
- Awareness culture, Ecology & Health

Finance

- Financial Policy
- Investment
- Carbon Market

Green IT

- Greening IT
- Revolutionizing workplace
- IT Infrastructure
- Greening SOC

Green Investment: Top business priority

All Major Business Groups' New Strategic Focus

- Renewable & clean energy
(e.g.) photovoltaic, wind, CTL, GTL
- Next generation electric equipment
(e.g.) LED, rechargeable batteries, fuel cell, green cars
- Energy-intensive and other industries
(e.g.) energy- saving, GHG reduction, RDF, advanced water treatment
- Partnership with SMEs

GREEN PROJECTS: Local Governments

Urban Transportation

- Seoul: Deployment of CNG Buses for public transportation
- Daegu: Designation of mass transportation zones

Building

- Incheon: Installation of LED lightings in all public facilities
- Chungnam: Renewable energy standards for public buildings

Local Housing and Land

- Gangwon: Wood pallet boilers
- Jeju: Carbon-neutral sightseeing sites

Green Jobs and Lifestyle

- Suncheon: Green silver shops
- Urban forests and green ways

Features of Green Growth

Strong Leadership

- Presidential Committee on Green Growth

Fast Integration of the Vision in All Sectors

- Meaningful partnership with private council (business, financial sector, technology experts, local governments, social groups, etc.)

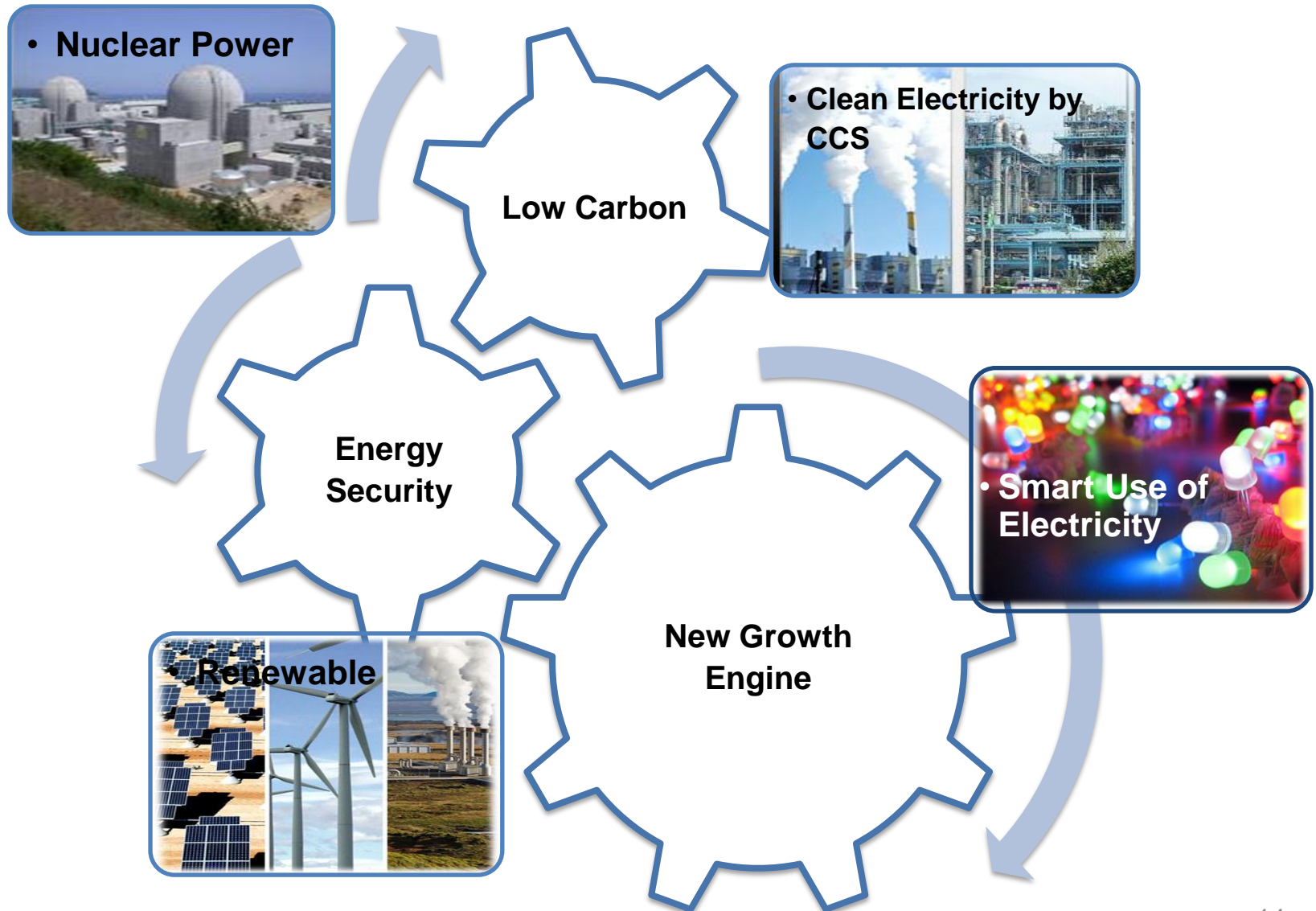
Competitive Industrial Base in Relevant Areas

- Large competent players

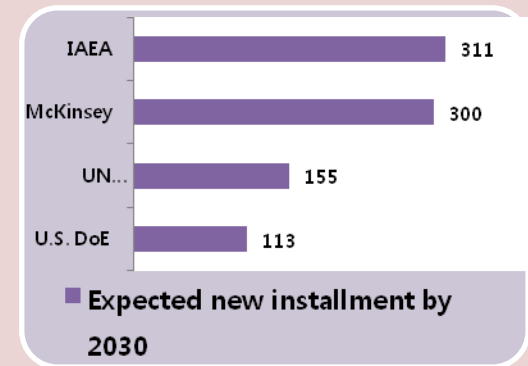
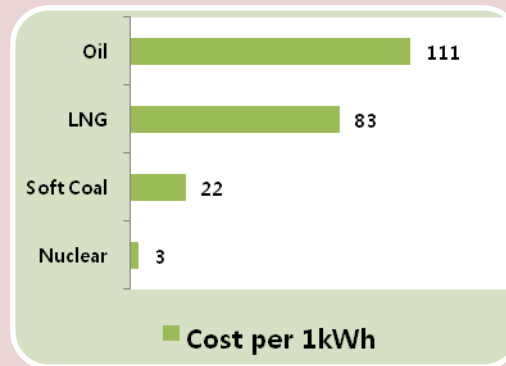
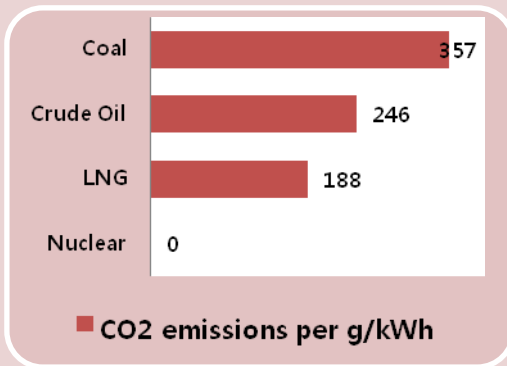
Action - Oriented Strategy

- Secure green budget: 2% of GDP
- Specific guidelines and implementation plans

III. Clean Energy Strategies for GREEN GROWTH



Nuclear Energy with the lowest emissions



Carbon Reduction

*Nuclear energy has the lowest level of CO₂ emissions

*One Unit=7,000,000 ton CO₂ reduction

Energy Security

* Nuclear energy is the most realistic alternative to fossil fuels at the moment with stable supply and low cost per generation.

New Growth Engine

* If Korea exports 10 reactors, it will boost Korea's GDP by 3%.

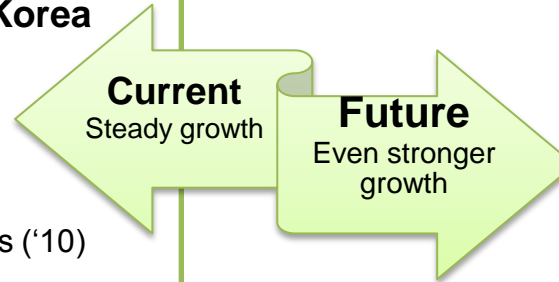
* The global market will have 300 more new reactors by 2030 and the domestic market is expected to grow to 9 trillion KRW by then.

Scaling up Renewable Energy

Growth in Renewable Energy Market in Korea

- **Number of firms:** 41 ('04) → 146('09)
- **Sales:** 0.1 trillion KRW ('04) → 8 trillion KRW('10)
- **Export:** 0.7 billion USD ('04) → 46 billion USD('10)
- **Employment:** 689 persons ('04) → 11,715 persons ('10)

★ **Major policy tool: Feed-in-tariffs**



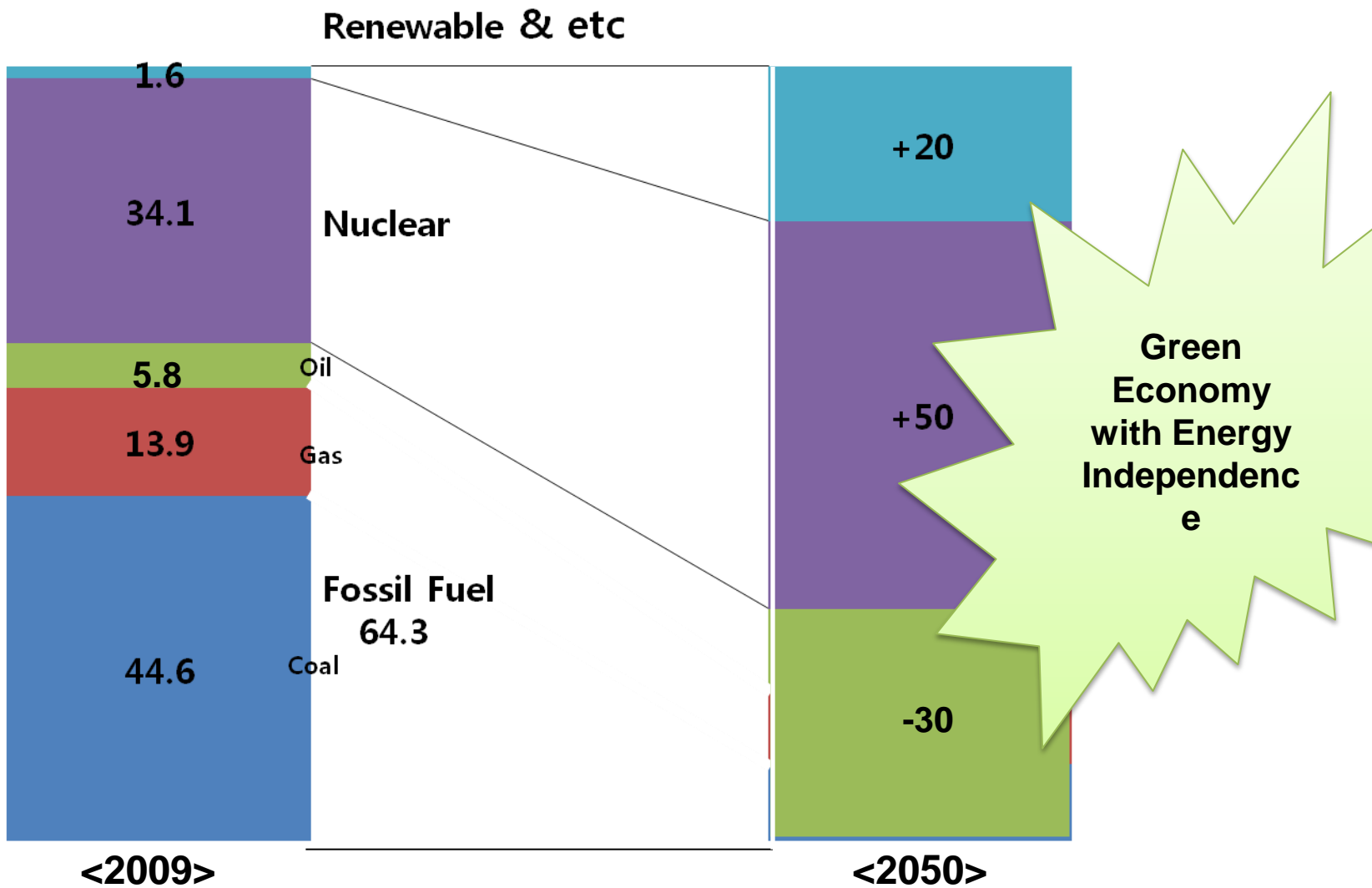
● **Setting Renewable Energy Target** (2.4% in 2007 → **11% in 2030**)

● **Enforcement rules and specific guidelines for RPS(Renewable Portfolio Standards) will be proposed('10)**

● **RPS demonstration projects will be launched for 100MW photovoltaic('11)**

Transition to Clean Electricity

Changes in Power Generation by Energy Source(%)



Smart Use of Electricity

Smart Grid

- **By 2030 nationwide introduction of Smart Grid**
- **Smart Grid Test-Bed in Jeju Island with 240billion KRW investment(gov. funding: 6.7billion KRW)**

Green Car

- **Become top 4 player in the global market by 2018**
- **Policy support including tax cuts for wider utilization**
- **Take technological leadership & advantageous position for Global standardization**
- **Acquire world class reputation for product reliability**

LED

- **Become top 3 player in the global market by 2012**
- **Expand certifications for high efficiency LED products**
- **Prepare effective strategies for global standardization & patent competition**
- **Reduce legal & institutional barrier for market entry**

IV. Global Green Cooperation

Green ODA

- Increase from 14% in 2009 to 30% by 2020
- More effective and efficient operation of ODA

East Asia Climate Partnership

- 2008 – 17 key projects with 7 countries & 4 International organizations
- 2009 – 18 new projects

Global Green Growth Institute (GGGI)

- To assist countries in formulating their own green growth plans
- To serve as a global think tank in leading developing countries to a low carbon society

Climate Finance Cooperation

- How do we go about fast start financing?
- Copenhagen Accord agreed on fast start fund of \$30 billion between 2009-2012 / \$100 billion by 2020 a year

An Example of “Me First” Spirit : GGGI

Announced at the 15th UN Climate Change Conference (Copenhagen, 2009.12)

An emphasis on the need for new resources for Global Green Growth Partnership

Initially Korea will be a lead financier : annual 10 million USD for 3 years (2010 ~ 2012)

Common Asset for the Global Community: an inter-governmental organization by 2012



What GGGI will focus on;

Systemizing Theory

- Achieve the theoretical systemization of green growth as a new global development paradigm
- Develop the GGGI model for GHG emissions analysis by 2011

Spreading Green Growth Model

- Host the Annual Global Green Growth Conference in connection with the East Asia Climate Forum
- Issue an Annual Global Green Growth Report

Support to Developing Countries

- Establish green growth master plans for developing countries
- Establish a detailed development plan for green growth industries and technologies

Global GREEN GROWTH

*“If you dream alone,
it may end up with just a dream.*

*But if we dream together,
then the dream can come true.”*

