



Enel Group Carbon Strategy

AEB Moscow 1st October, 2010

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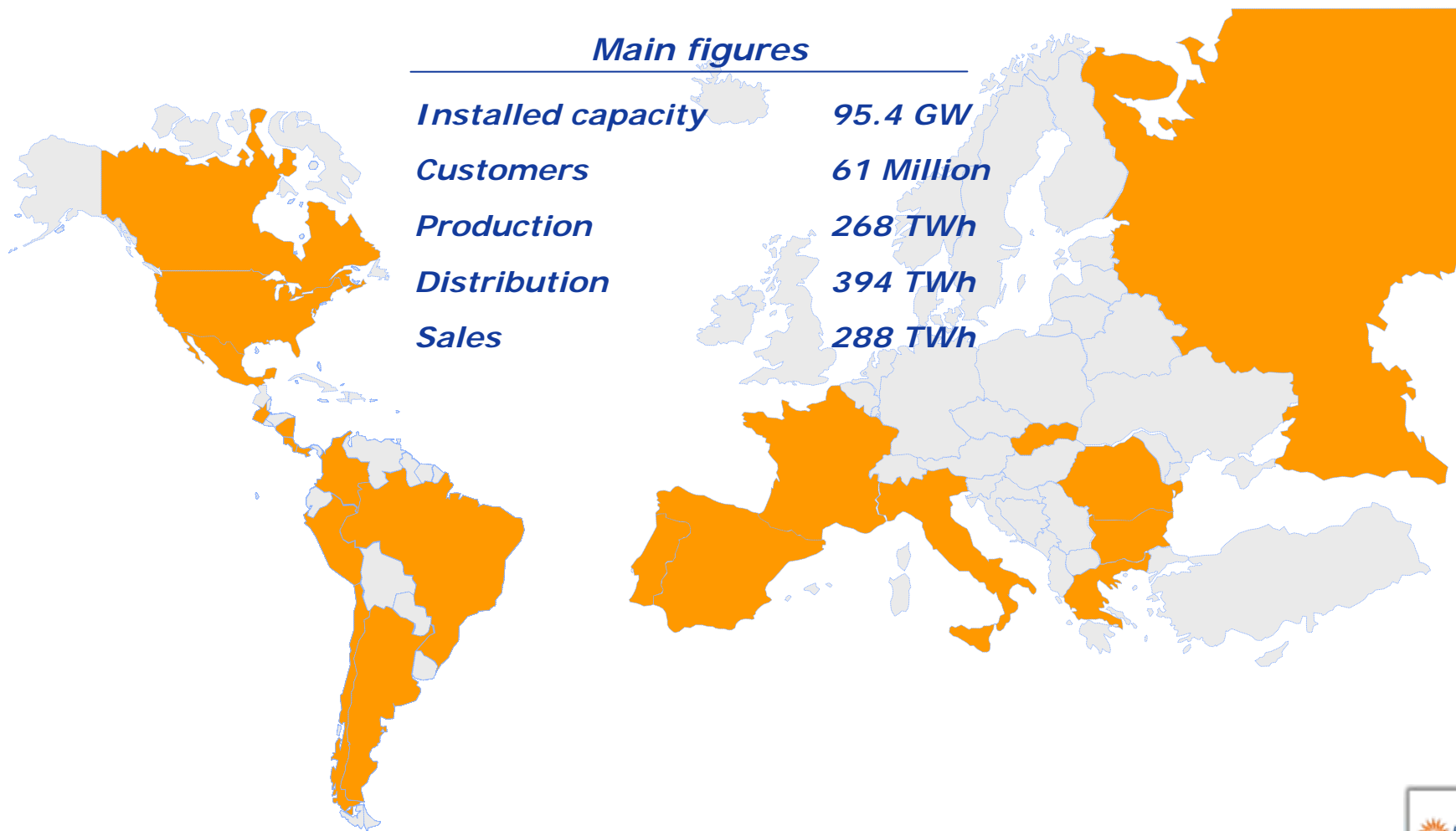
D.ty Head of Carbon Strategy Unit

Enel Trade S.p.A.

Agenda

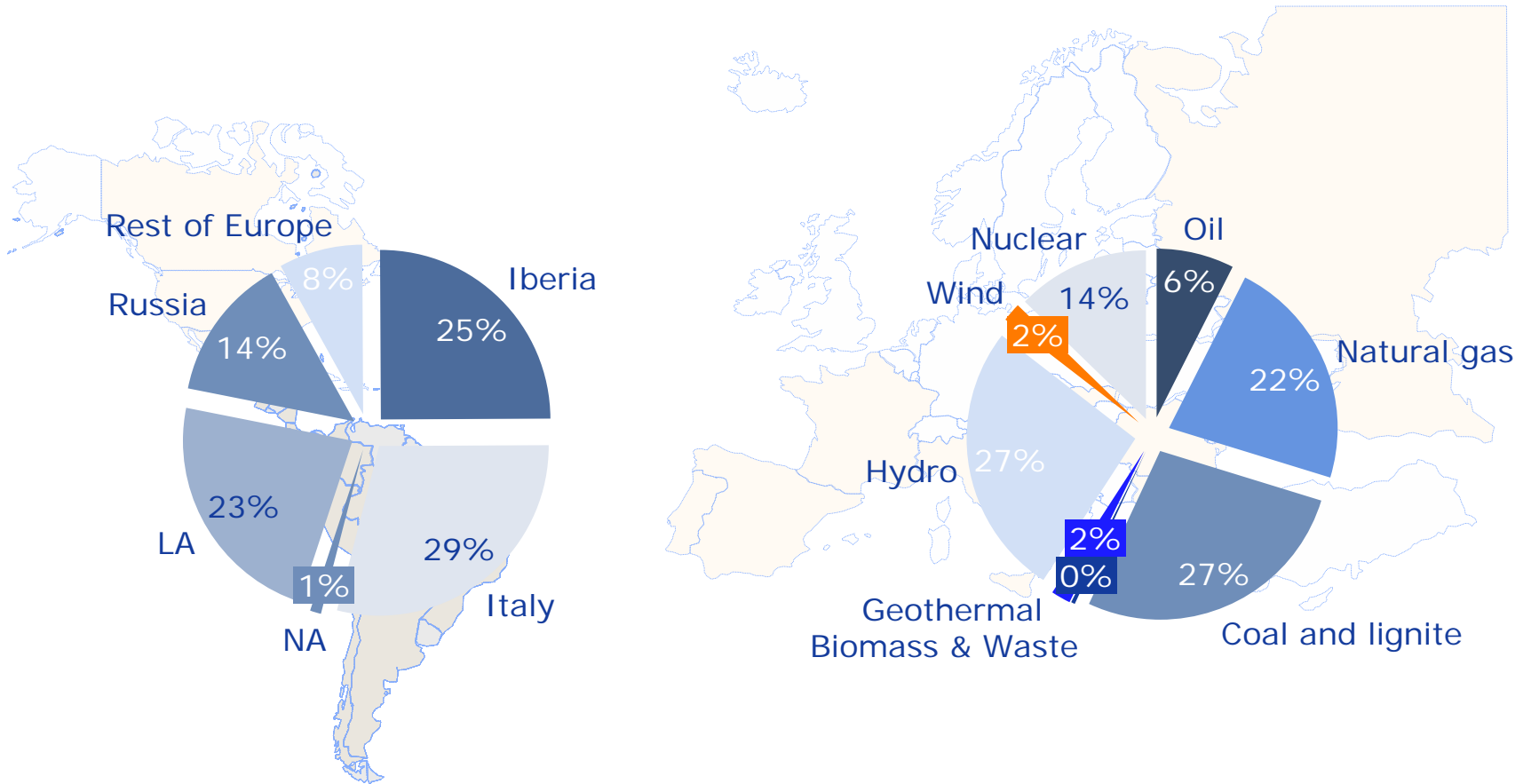
- **Enel Group overview**
- **Enel commitment in the carbon market**
- **Open issues on carbon regulation**

Enel Group Overview



Enel operates in 23 countries as a global integrated energy player

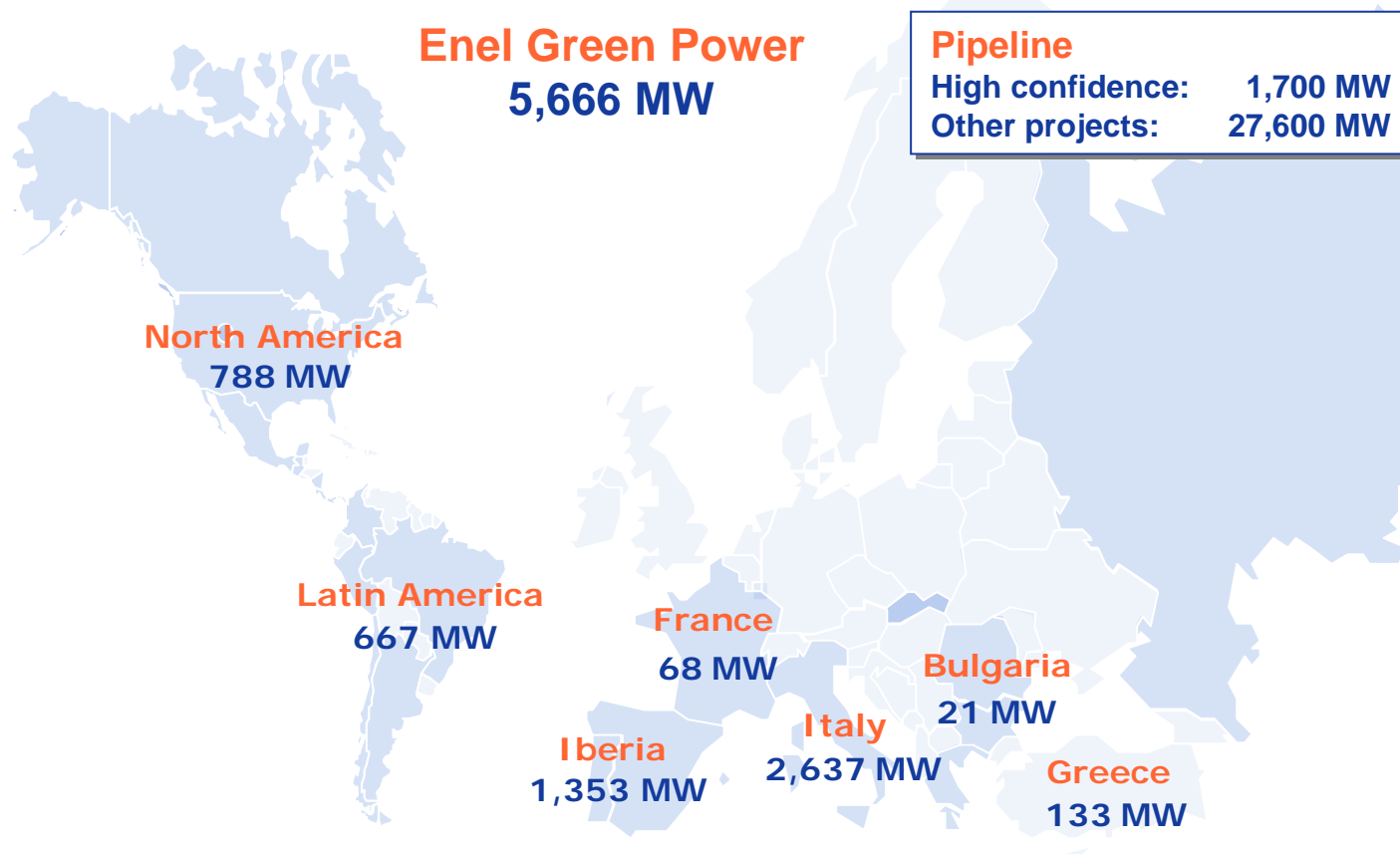
Group generation mix and geographical breakdown



Enel Group has a well balanced mix of electricity generation

Development of renewable energies

Leadership of Enel Green Power



20,7 TWh total EGP Energy Production 2009



Enel's strategy to tackle climate change based on 5 pillars

Innovation

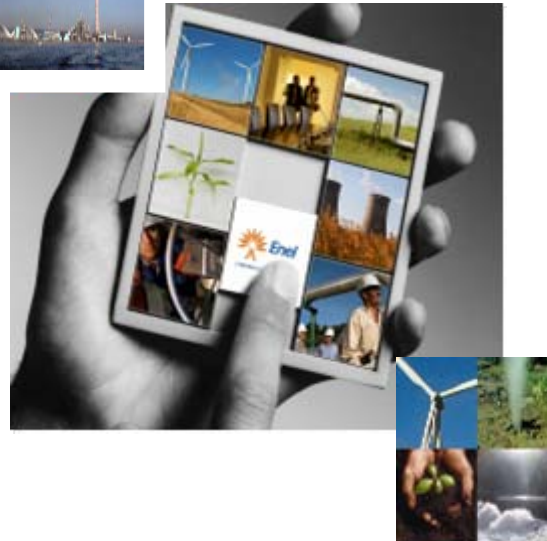
Best available technologies for thermal power generation



Research and innovation investments on new low carbon technologies

Renewable Energy

Zero-emission sources, such as renewables and nuclear



Research

Energy efficiency with smart grids

Environment

Leadership in the global carbon markets of Kyoto Protocol flexible mechanisms

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Enel ranking first among private CDM portfolios

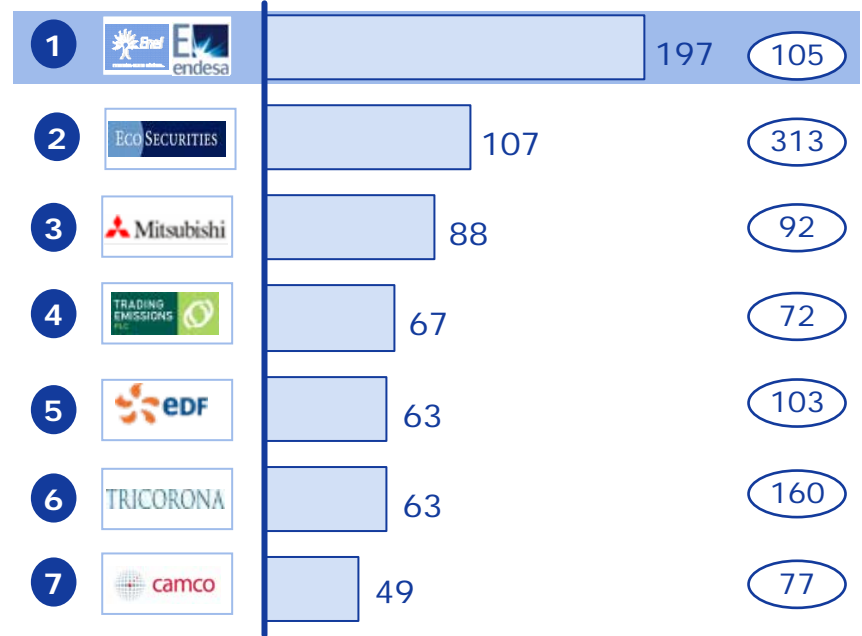
Enel carbon team presence in the world



Top private CERs portfolios

Nominal expected CERs 2012. Million Tm CO₂

Projects
Number



- Enel's Group has a global presence in offset generating countries.

- Enel's portfolio rank in the 1st position in the CERs market globally

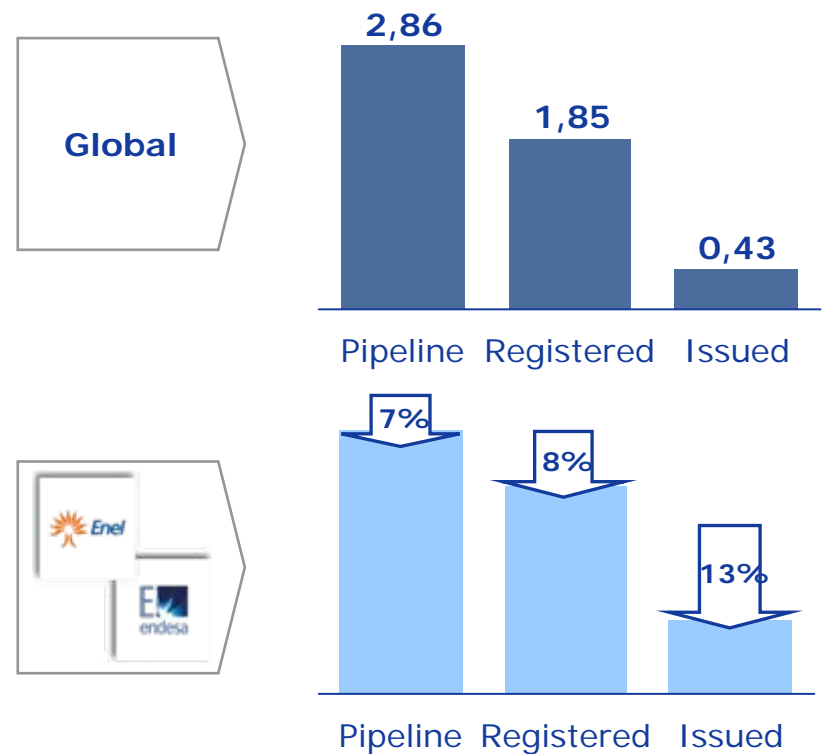


Enel has a leading position in the carbon market

Geographical presence CDM/JI Projects



Potential Volume CERs (Gt)



Source: UNEP, UNFCCC, companies' data

Enel CDM portfolio: an important share of the global market



The new Enel Carbon Strategy Unit

Key priorities: compliance cost minimization and growth opportunities



1. Develop and execute the **compliance strategy** of the Group, minimizing the compliance **cost** while limiting the associated **risks**

2. Capture opportunities in the growing carbon markets addressing **third party needs** or **investing in profitable opportunities** within risk limits

Enel Carbon Strategy Unit well positioned on main business models of carbon industry

Business model	Description
Compliance buyer	<ul style="list-style-type: none"> Cover the compliance needs with a combination of EUAs and CERs, also developing CDM projects, minimizing the cost of compliance
Offset developer (mid-upstream)	<ul style="list-style-type: none"> Develop CDM projects and sell/hedge ERPAs or CERs either to final buyers or to other market operators
Service provider	<ul style="list-style-type: none"> Provide consulting/paperwork services to offset developers
Financial player	<ul style="list-style-type: none"> Provide structuring and risk intermediation services to other market players with liquidity or hedging needs

Enel Group positioning

..will include the major pillars of carbon business



Key potentialities for market success from Enel Group's internal business

Description

- 1 **One carbon strategy**
 - Convergence towards a **consistent and unified Group compliance strategy** for all compliance portfolios

- 2 **Active portfolio management**
 - Improving the **risk / return profile** of **compliance portfolio** by continuous monitoring and undertaking of optimization actions with a view on market and regulatory outlook

- 3 **Superior market view**
 - Leverage of **market insight** and **regulatory presidium** to develop a proprietary view of market trends

Potentialities

- A centralized model ensures major **hedging** possibilities and strategic opportunities
- Huge compliance portfolio with **asset-back optimization** potentialities
- Superior **market view** to strengthen value creation potential

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Open issues on future carbon markets regulation that create high uncertainty

Key elements of uncertainty

Kyoto protocol – other new schemes

- Expiring of Kyoto Protocol in 2012: uncertainty on the signing of **global agreement post-2012** and/or emergence of **bilateral agreements** between countries
- **Implementation of emission trading schemes** or some other type of reduction targets in **other geographies**

Phase III in EU-ETS

- Raise of cap to **30% reduction** target
- **Qualitative/geographical limitations** on eligible offsets types and technologies

Offset markets

- **Reform of CDM markets** with streamlined approval process and additional technologies allowed
- **Emergence of alternative schemes** potentially reducing the role of private companies on CDMs



Enel Group key recommendations on climate change

A global agreement with reasonable and achievable emission reduction pathways

Reasonable and achievable long-term targets including clear interim milestones

Progressive establishment of a global carbon market with stable regulatory framework

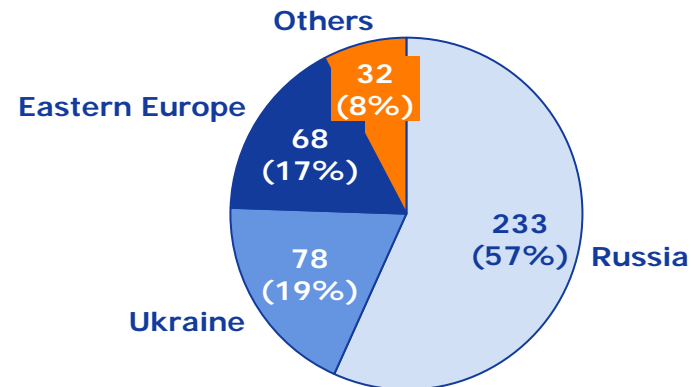
Technology push

Continued direct involvement of the private sector

JI status and regulation

- **Registration process:** 15 projects approved as a result of the 1st tender. 2nd on going. A good signal for the market.
- **Price floor @ 10 €/ERU.** May prevent project owner from early securitization of selling price
- **Track 1 vs Track 2:** One of the approved projects submitted to the JI Supervisory Committee, transferring it from Track 1 to Track 2. A signal towards EU changing appetite?
- **GIS:** still uncertain. May create sustainable back up to AAU utilization.

ERUs Potential Volume up to 2012 (Mt)



Russia and post-Kyoto: linking GHG targets with the country's energy strategy

Russia's energy challenges

- 40% increase in energy efficiency
- Modernization of thermal generation fleet
- Reduction in associated petroleum gas
- Increased penetration of renewable

**HUGE CO2
ABATEMENT
POTENTIAL**

UNFCCC negotiations

- Full banking of surplus AAUs from Kyoto 1st CP? But AAU credibility is a problem to sort out
- 2nd commitment period only with involvement of advanced developing countries
- JI might disappear post-2012! But several solutions are under discussion

What could be done

- AAU surplus as back-up for JI/other offsets
- Cooperation with counterparts to ensure continuation of JI or its enhancement via new mechanisms
- Engage with EU on offset bilateral deals and qualitative restriction issues (Track issue)

Post-Kyoto deal is an opportunity to attract investments for the country's energy strategy

Conclusions

- Russia has a huge carbon reduction potential and it is setting very **ambitious long-term targets** to increase energy efficiency and promote renewable energies, but funding for these programmes is a critical issue
- **Carbon finance** can play a significant role in attracting foreign investments in these sectors
- Need for investors to have a **safer regulatory context** and **certainty** also in the registration process



Thank you

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