

**REPUBLIC OF CROATIA**

**MINISTRY OF ENVIRONMENT AND ENERGY**

**Directorate for Climate activities, Sustainable development  
and Protection of Soil, Air and Sea**



## Multilateral Assessment, Croatia

12 November 2016, Marrakesh

# Croatia, a Member State in the European Union

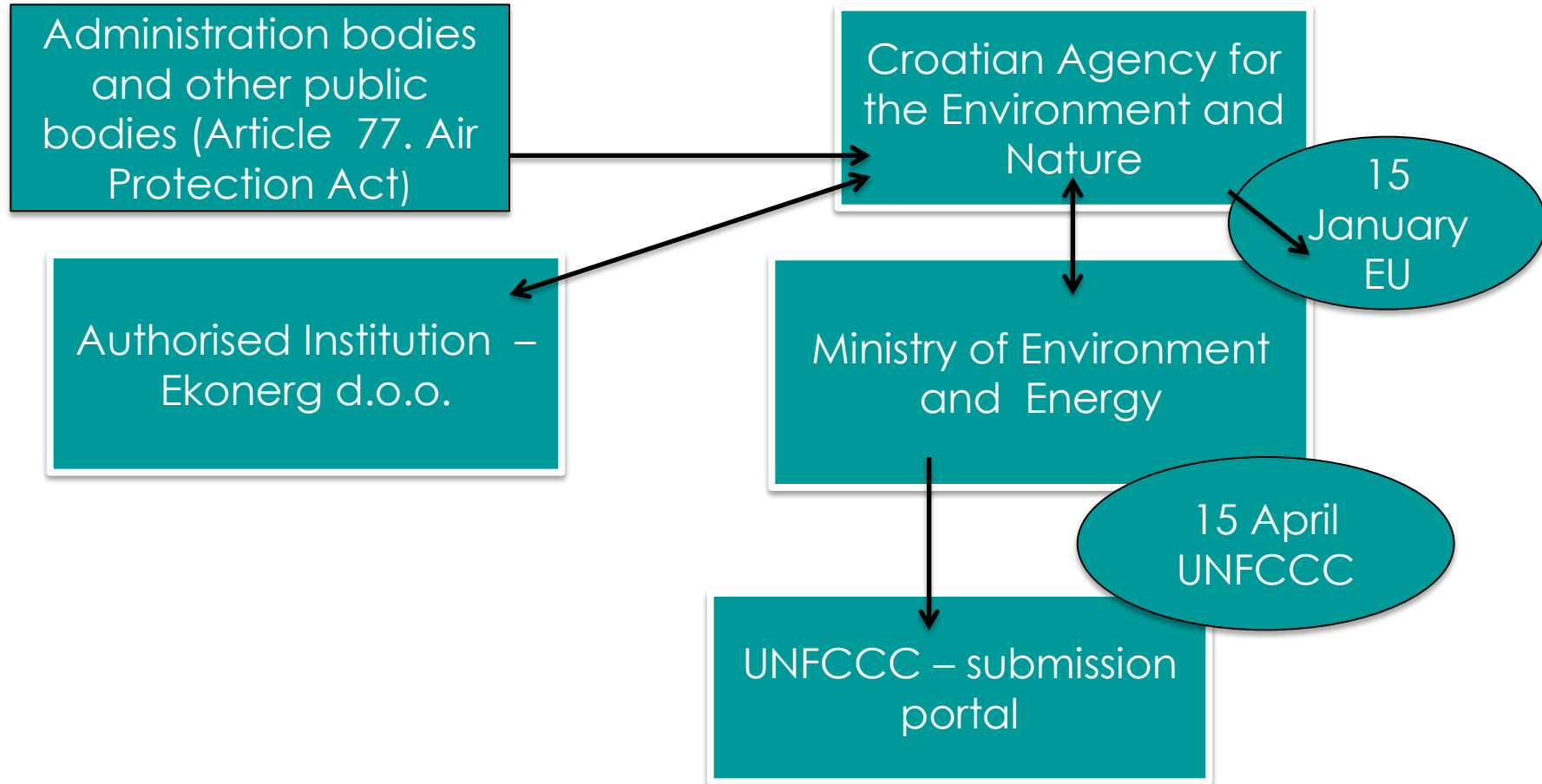
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- Pledge under the Convention for EU and its Member States:
- **Unconditional quantified economy wide emission reduction target of 20% by 2020, compared to 1990 levels**
- Binding commitment under Kyoto Protocol (implementing KP2 since 1.01.2013)
- **KP2: joint commitment of the EU, its MS** and Iceland to reduce average annual emissions during 2013-2020 by 20% compared to base year
- During of the adoption of the Doha Amendment to the Kyoto Protocol. Croatia has committed its participation together with EU and Iceland in the implementation of Doha Amendment to the Kyoto Protocol, and the joint fulfillment of commitments thereunder.

# Monitoring of Greenhouse Gas Emissions, Policies and Mitigation measures in the Croatia

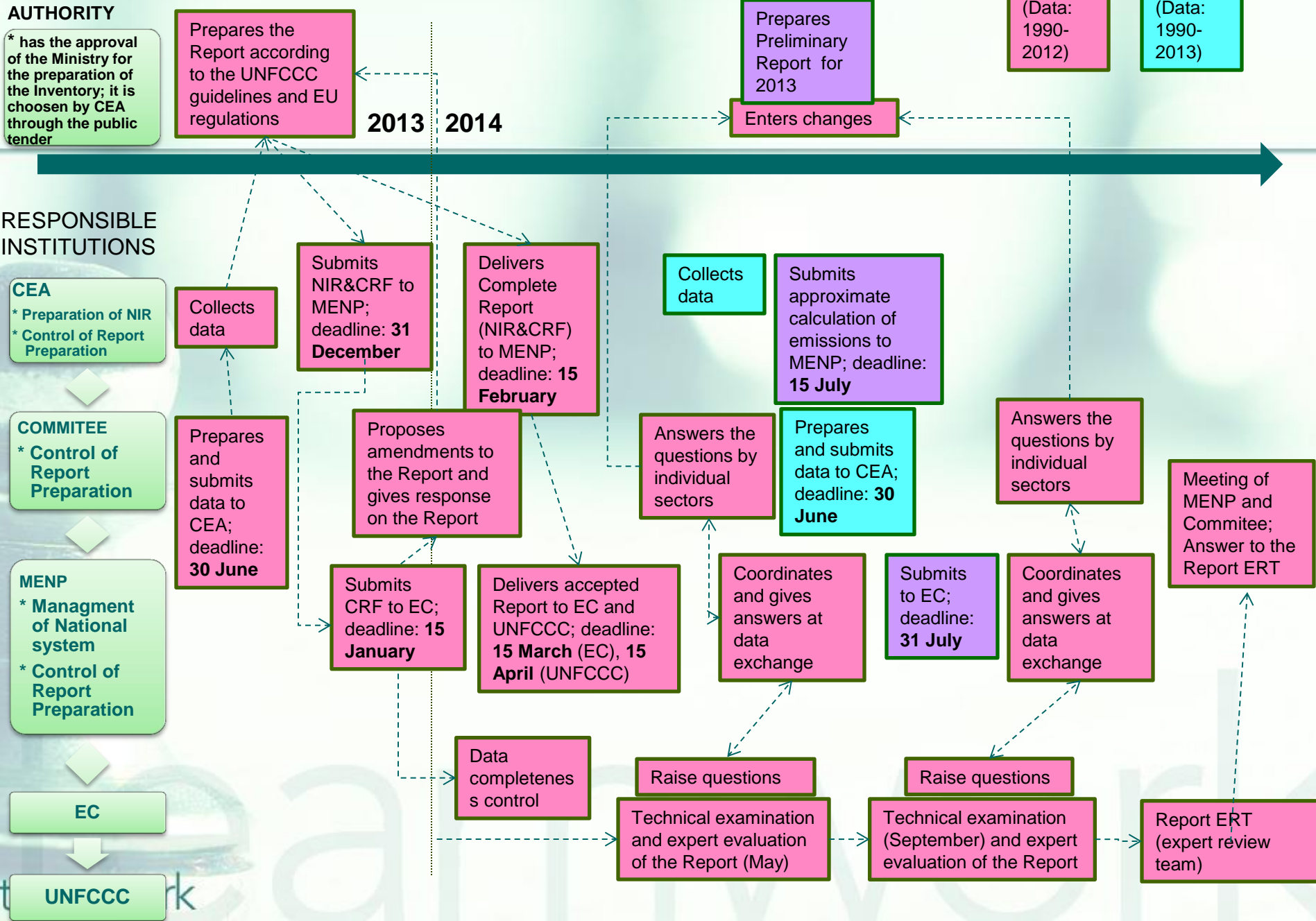
- Air protection act, Regulation
- Establishes **National system for the estimation and reporting of anthropogenic greenhouse gas emissions by sources and removals by sinks**
- the list of greenhouse gases
- roles of authorized bodies and other involved stakeholders
- method of calculating greenhouse gas emissions
- deadlines for producing and submitting the reports to the UNFCCC Secretariat and European Commission
- manner of verifying reports and the methods
- Review of GHG Inventory

# COMMUNICATION SCHEME



Committee for inter-sectorial coordination for a national system for monitoring greenhouse gases members

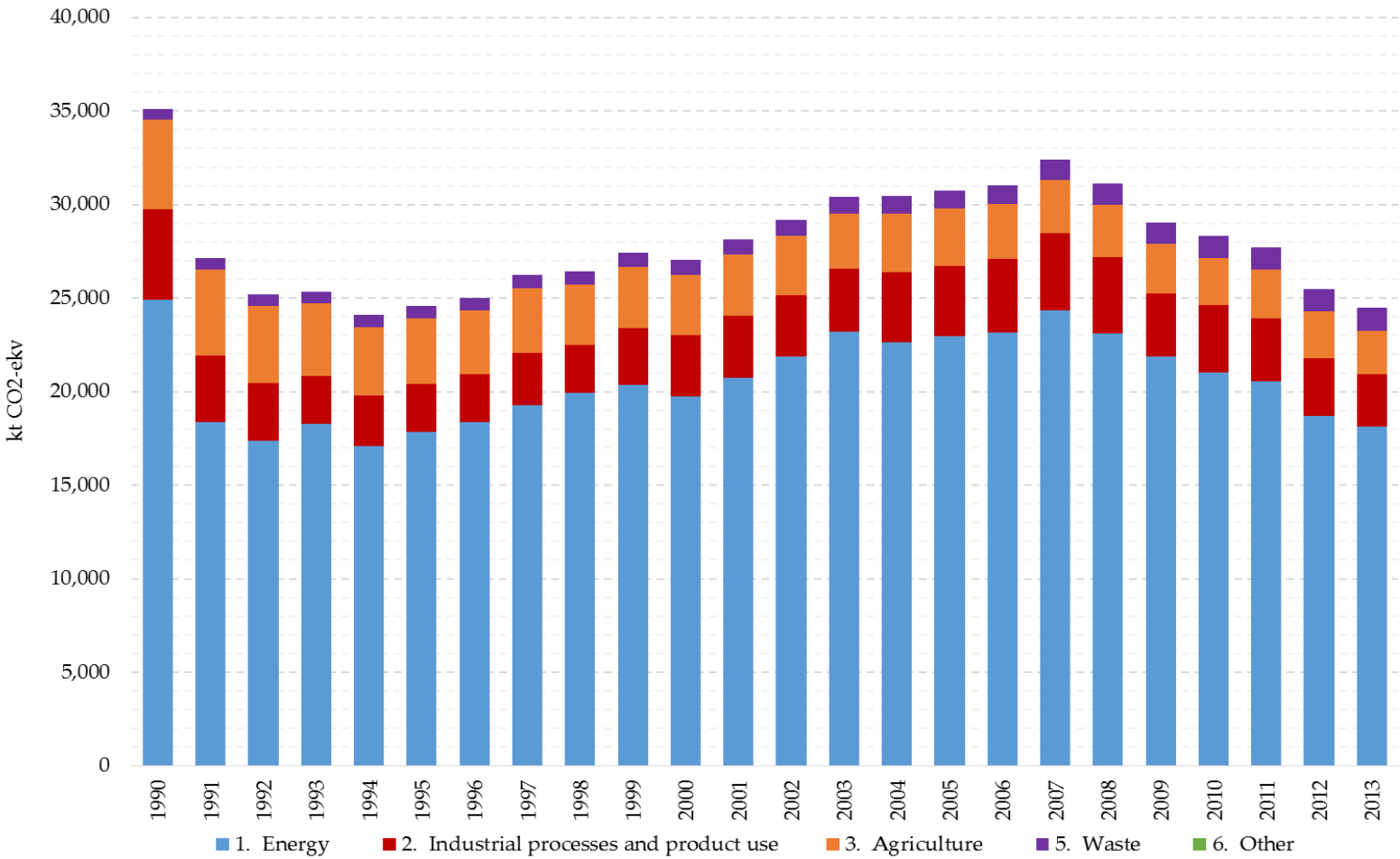
# TIME FLOW OF THE PREPARATION OF NATIONAL INVENTORY REPORT OF GHGs (NIR)



# Monitoring of GHG Emissions, Policies and Mitigation Measures in the Croatia

- A **national system for monitoring the implementation of policies and measures** for the reduction of the greenhouse gas emissions and projections has been established
- The **fulfillment of the obligation is under the competence of state administration authorities** competent for environmental protection, construction, the economy, energy industry, entrepreneurship, agriculture, forestry, tourism and transport
- **Ministry controls the fulfillment of the obligation**
- **Ministry recommends additional measures** for reducing greenhouse gas emissions with the aim of meeting the obligations
- Committee for inter-sectoral coordination for climate change mitigation and adaptation policies and measures

# Greenhouse gas emissions in Croatia



# Croatia, progress in reduction of the emissions

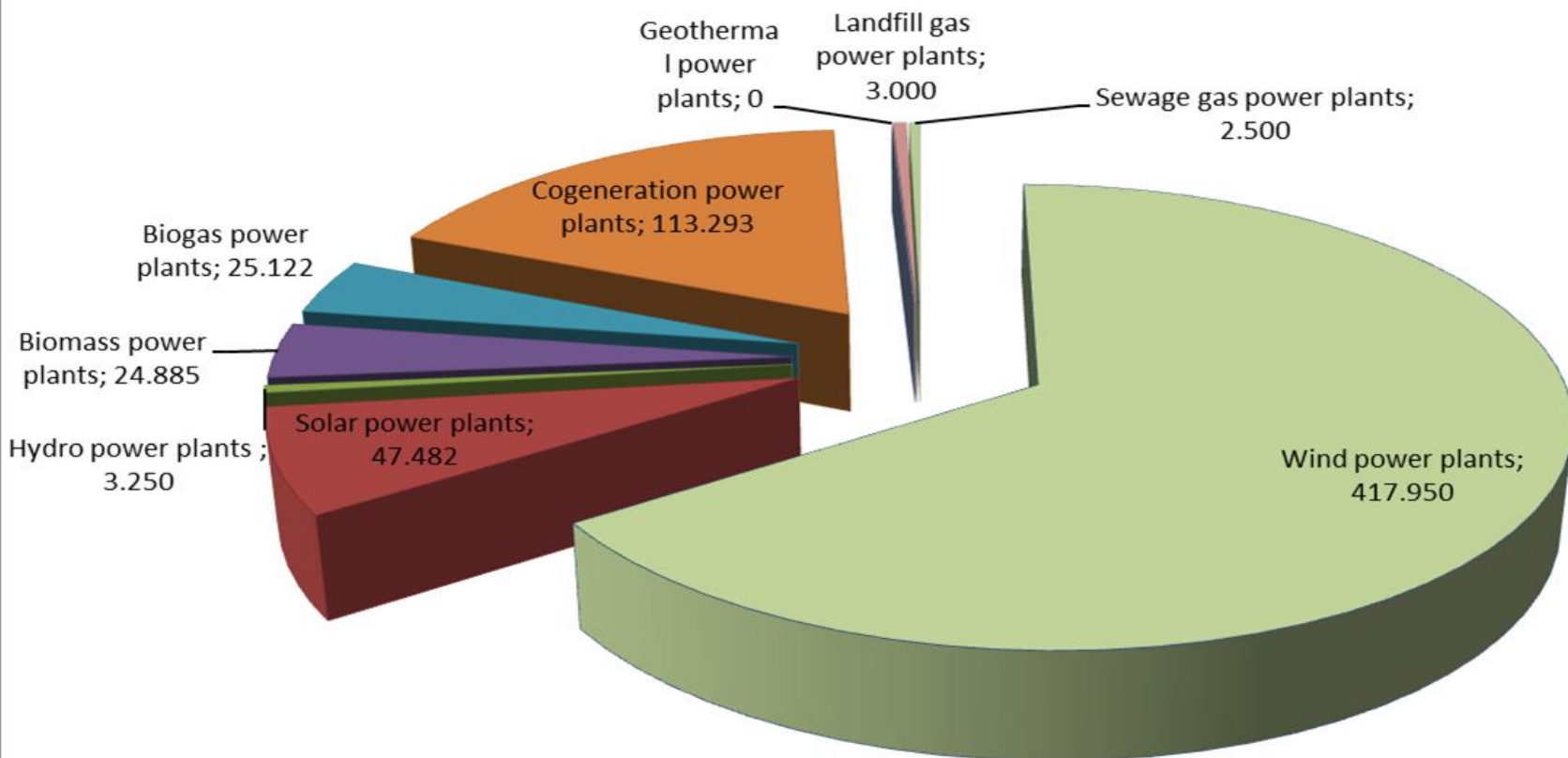
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- Croatian targets within the EU climate energy package
- **ETS - installations are obliged to monitor, report on verified emissions**, electricity generators are buying allowances on auctioning, free allocation based on benchmark- 53 installations
- Small emitters, 5 installations, are excluded from ETS, subject to special tax
- Positive limit for Croatia from sectors not covered by the emissions trading system, (industry, agriculture, transport, waste management, households, service) is 11% compared to the verified emissions from the 2005th year, based on the principle of solidarity within the overall EU target, reduction of the emissions for 20% till 2020
- **Croatia fulfills its obligation in non-ETS sectors emissions** in 2020 will be lower than its national allocation



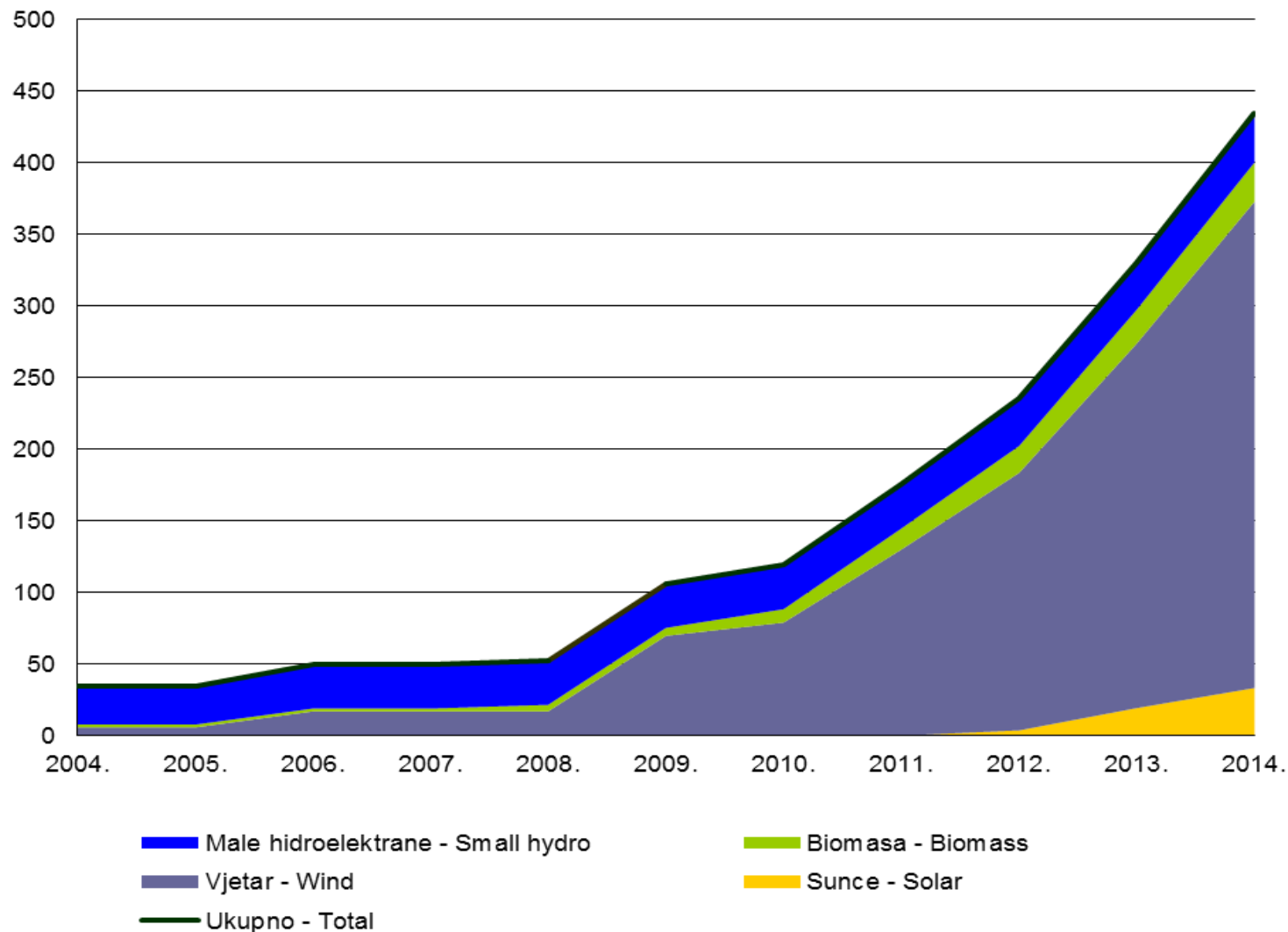
# Target: 20% of renewable energy in gross final energy consumption to in 2020

## Eligible producers Installed Capacity (kW); August 2016



**Renewable energy sources - electricity  
Croatia in feed-in tariff system**

- significant growth of share of RES, from 12,8% share in gross final energy consumption in the 2005 to **28.1% (2013) and 27.9% (2014)**



**Installed capacities for RES-E generation in Croatia**

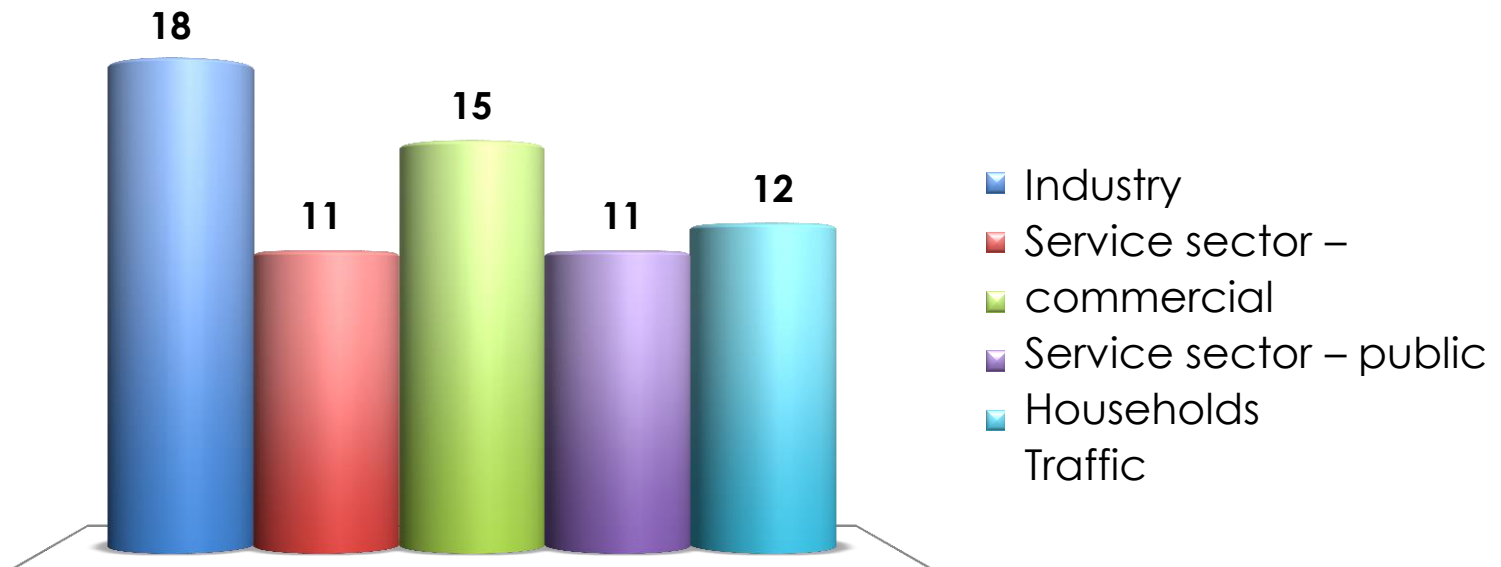
# Energy efficiency

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- **Energy efficiency target: from 1 January 2014 till 31 December 2020** is energy saving 1,938 PJ annually, respectively cumulative 54,250 PJ, e.g. **9% in comparison of the final energy consumption in period 2001-2005**
- **From 1995 till 2014, the energy efficiency enhancement index decreased, energy efficiency for the overall economy in Croatia was enhanced by 20.7%** as result of index decrease in all sectors, and was brought about mostly by the industry and transport sectors
- **The long-term strategy to encourage investment in the refurbishment of the national building** stock of the Republic of Croatia by 2050 has been adopted in June 2014.
- **Significant change in energy efficiency** in the buildings in 2014 was adoption of the **Law on energy efficiency OG 127/14** regulating efficient energy use, adoption of local, regional and national plans of energy efficiency, energy efficiency obligations, obligations of regulatory body for energy, and particularly energy services, determination of energy savings and consumer rights in application of energy efficiency measures

# 3rd National Energy Efficiency Action Plan briefly

- covering the period 2014 - 2016
- 40 measures in total – 28 taken from 2nd NEEAP, 12 new measures
- Large number of measures, especially informative ones, influence more than one sector



Number of measures that influence each sector

# EEEPF Investments in EE and RES – mitigation

## for 1 € of incentives, 3 € investments

- > more than 16.000 implemented/contracted projects
  - > 223 million EUR – approved by the Fund 2015
- > 616 million EUR – total investments in period 2004- 2015

**Public lighting and industry**

**Sustainable construction (buildings)**

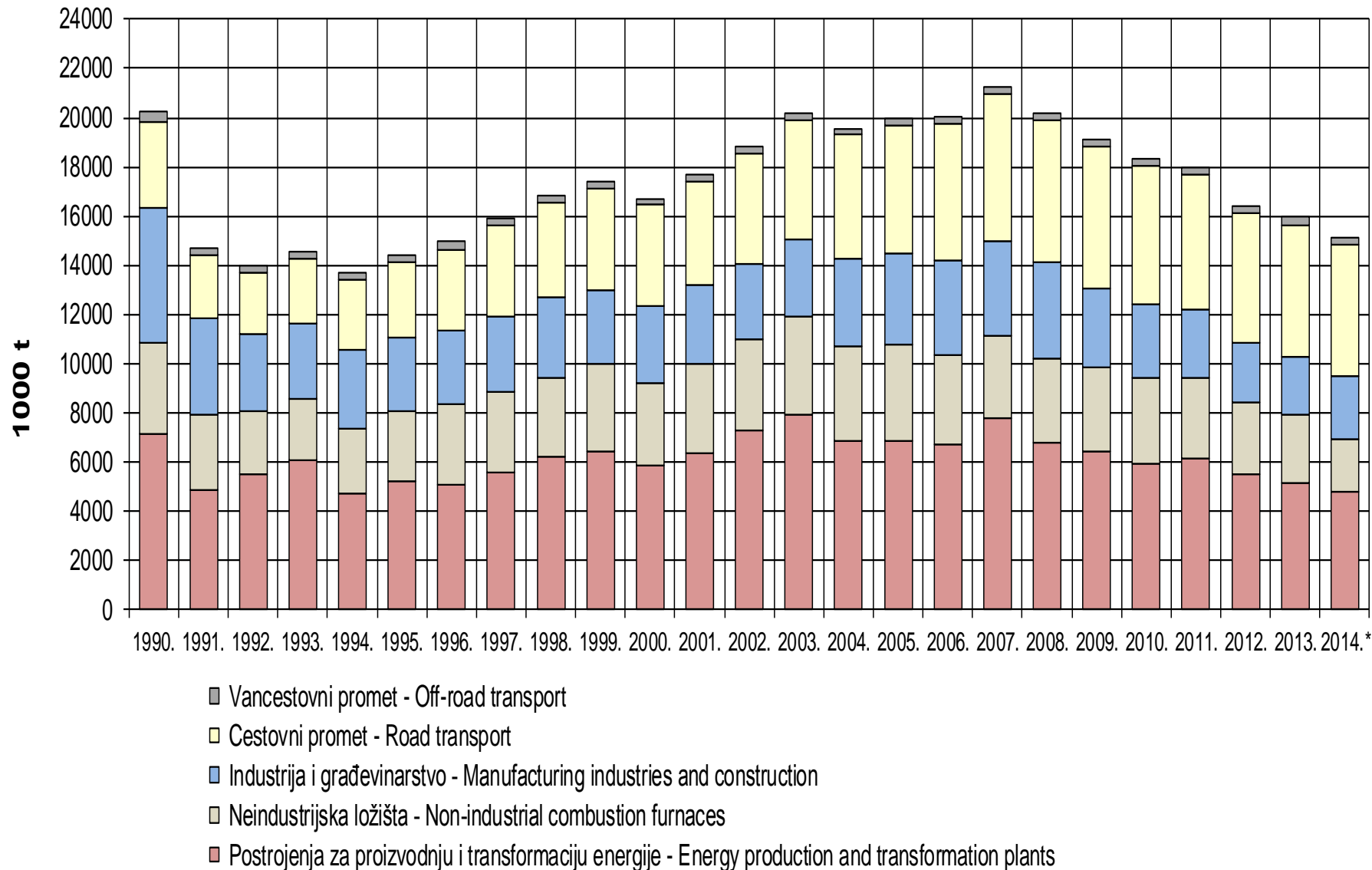
**Renewable energy sources**

**Clean transport**

**Education, research and development**

**Other projects (international cooperation, energy policy development and implementation, promotion)**

# Energy efficiency trend in CO2 emissions from fuel combustion



# Measures in transport sector

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- The contribution of transport sector in 2014, to the total greenhouse gas emissions was 24.65, in comparison with 12.44 percent in 1990.

## Measures:

- Introduction of **scheme for new charge for vehicles**
- **Increasing of the consumers awareness** related to efficiency of cars, CO2 emissions, efficiency of tires
- **public procurement for clean and energy-efficient road transport vehicles**
- Financial support for developing the **infrastructure for alternative fuels**, currently was built over **120 charging stations** for electric vehicles
- **Advanced regulation of traffic in urban area**, equipped with intelligent traffic lights
- **Eco-driving** training for drivers of road vehicles
- **Intermodal freight transport**

# The EU F-gas Regulation 517/2014

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- The Phase-down of F-gases (79% by 2030)
- Covers HFCs, PFCs and SF<sub>6</sub>
- Entered into force on 01.01.2015
- Quota System and registry
- Training and Certification of service technicians and companies
- Reporting – stronger obligation
- Labeling for equipment and containers
- Import of precharged equipment
- Obligations for operators and technicians (leak check-CO<sub>2</sub> equivalent)
- Verification/Auditing

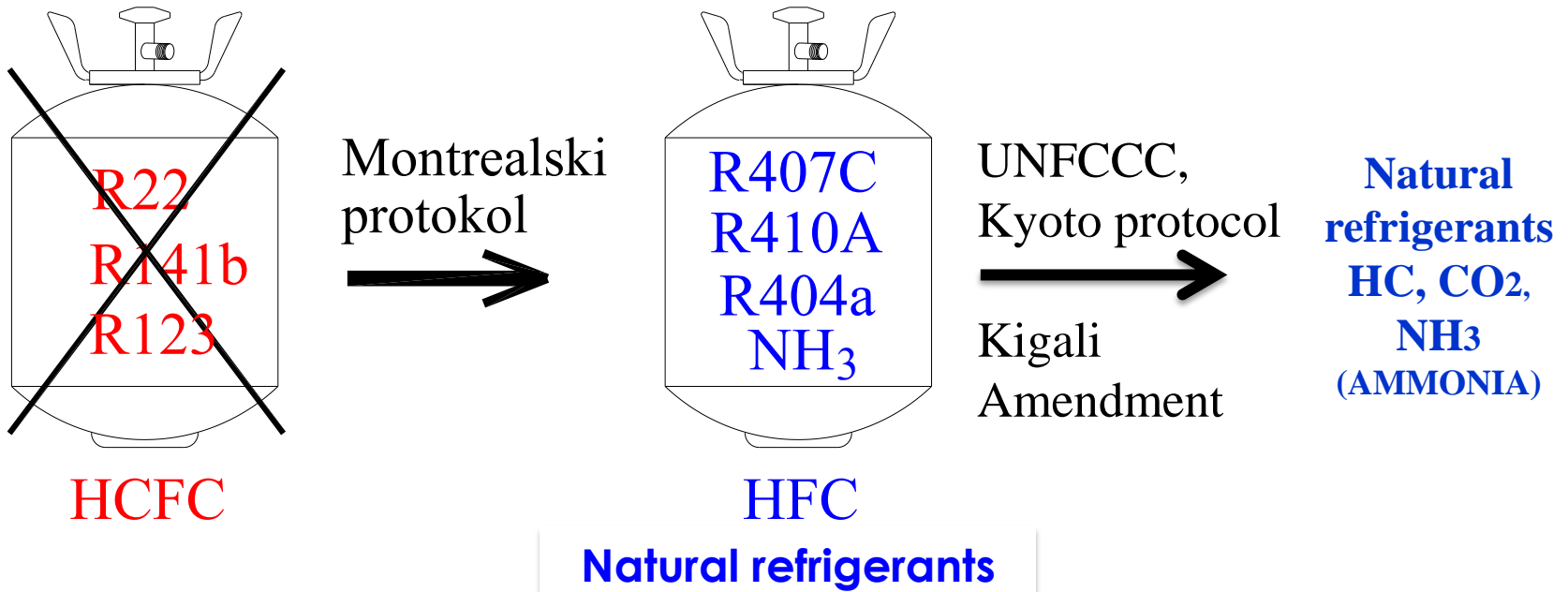


# Phase-down HFC in Croatia, activities

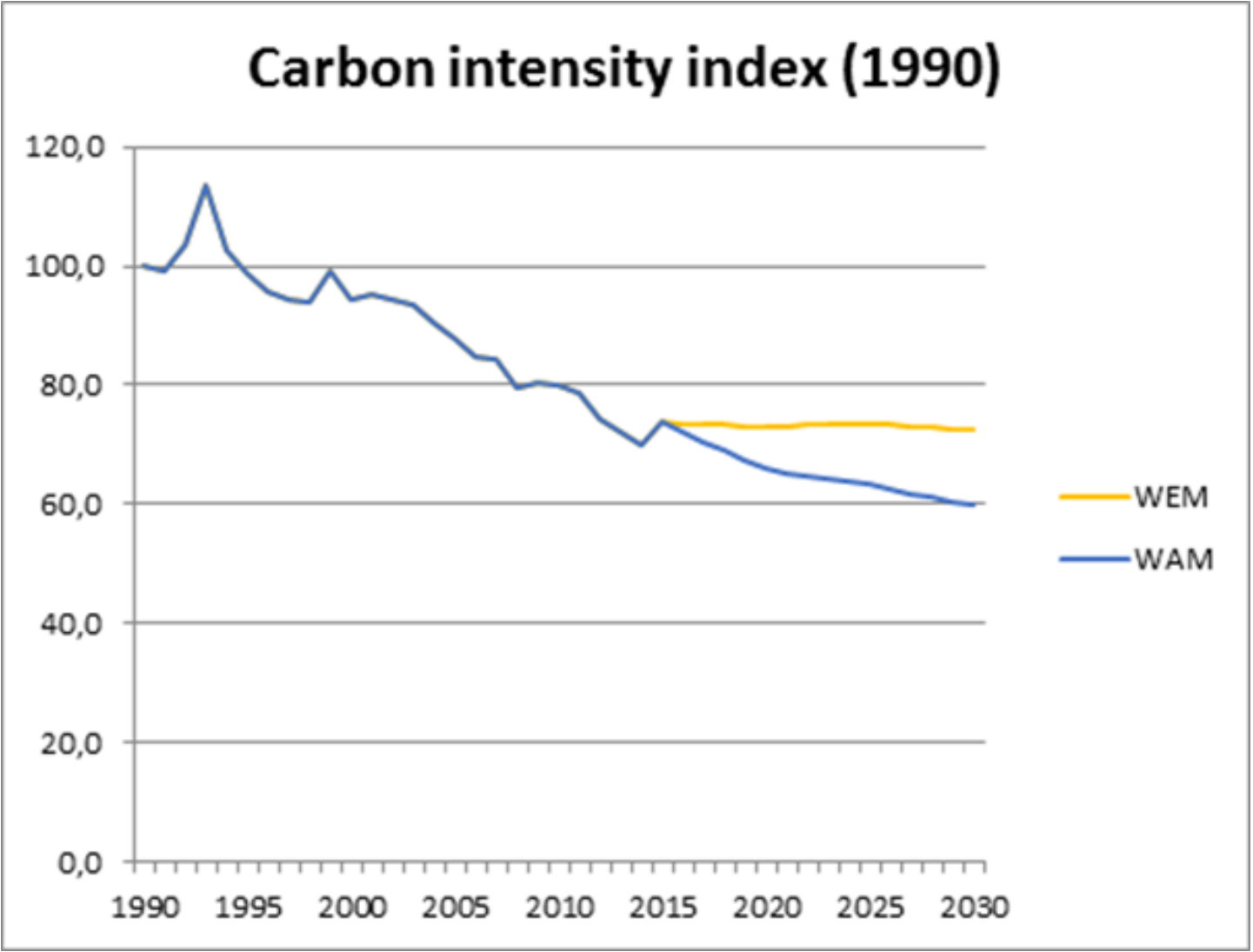
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- Training and certification of service technicians obligatory since 2006
- Certification of company servicing HFC equipment obligatory since 2006
- Training of environmental inspection
- Supply of equipment for RRR Centre (recovery, recycling, reclaim)
  - collected waste HFC – destruction outside of Croatia
  - fee on imported HFC (0,40 €), from this amount we pay destruction of HFC
- Replace of HCFC equipment with Low GWP refrigerant and natural refrigerant (hospitals, museums, state institutions building...)
- Training of custom officers (control of import and export of F-gas)
- Supply of demonstration equipment with HC refrigerant to 8 vocational schools
- Training of teacher in vocational schools regarding use of climate friendly alternatives to HFC

# HCFC and HFC Phase-down in Croatia



# Reduction of the carbon intensity



# Croatia, progres and long term plans

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- Implemented measures are delivering GHG emission reductions
- With the view to new EU climate-energy package and the Paris agreement, preparation of low carbon development strategy till 2030 with a view on 2050 is under way
- Additional benefits - Increasing of the air quality and positive influence on human health
- Opportunity for new investments, green jobs
- It is planned to transform economy growth to a society with low greenhouse gases emissions



**Thank you for your attention**

