



FOREIGN INVESTORS COUNCIL

CONSILIUL INVESTITORILOR STRAINI

Fostering investments in the Romanian energy sector

9 June 2015

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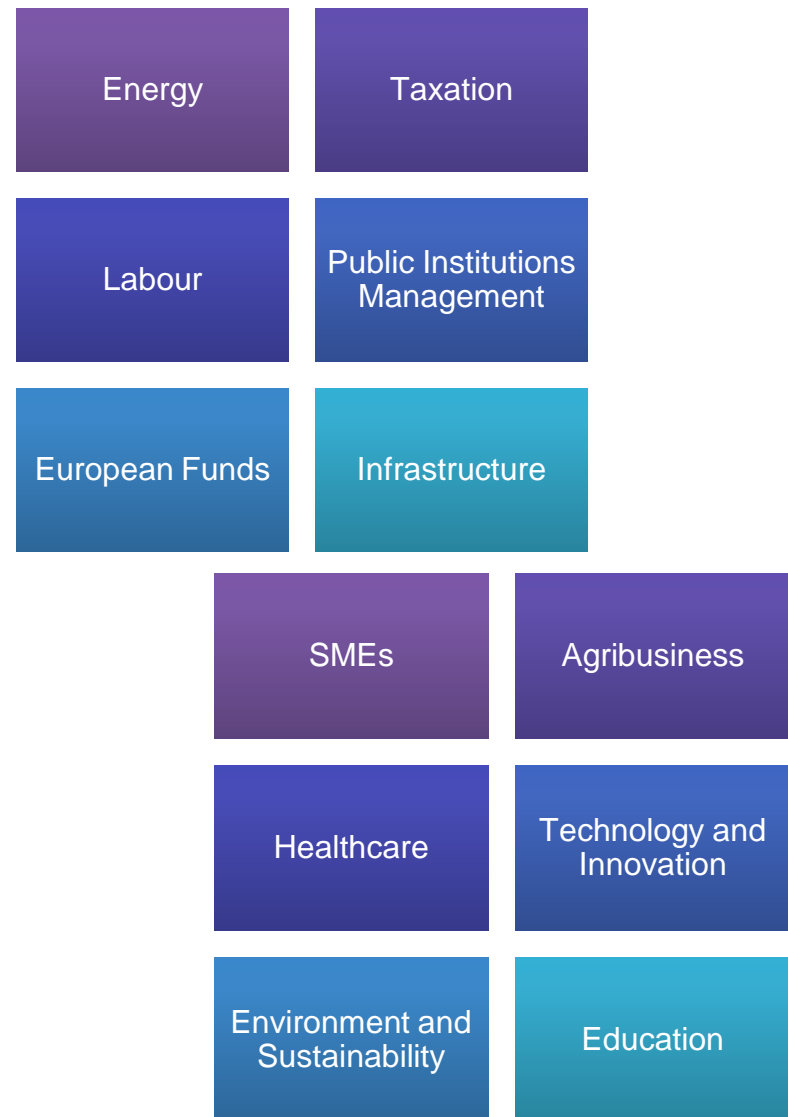
The Foreign Investors Council (FIC) is an association of the leading investors in Romania. The FIC was established in 1997 when it officially began its activity with 25 companies as members.

Today, the FIC has 120-member companies whose cumulated investments in Romania exceed EUR 35 billion, representing approximately two thirds of the total foreign direct investment made since 1990.

The FIC includes multinational companies providing the Romanian economy with a variety of goods and services and creating almost 200,000 direct and indirect jobs.

In the Top 10 largest companies by turnover, 6 companies are FIC members, and 21 member companies are included in the Top 50 – as per the report “Major Companies in Romania” published in 2014, by IBP.

FIC Task Forces



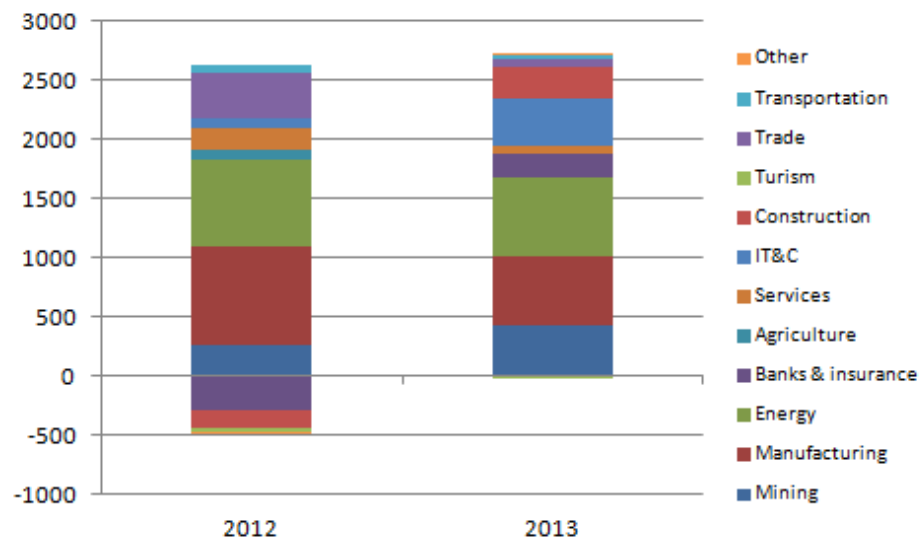


Romania is not attracting yet sufficient foreign investments



EU funds and FDIs are key financing sources for the economic development of the country

Net FDIs in Romania by sector (MEUR)



Source: National Central Bank

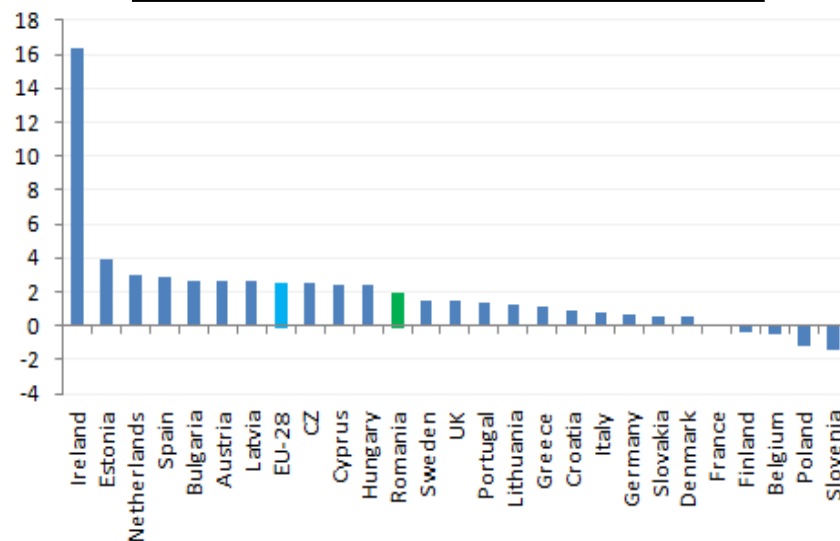
However, Romania is attracting less investments than the average EU-28 (as a share of FDIs in the GDP)

The country attracted less than 2% of GDP per year as FDIs in the period 2010-2013, despite its potential for investments

About 30% of total net FDIs in 2012-2013 in Romania have been contributed by foreign investors in the energy sector

These investments have come in a period of world-wide economic crisis and have helped Romania stabilize its economy, badly harmed in 2009-2010

Direct investment flow in the respective economy (% of GDP, 2013)



Source: Eurostat



EUR
22
billion

2002 – 2014*



EUR
70-100
billion

2015 – 2035**

Important investments are **still needed**:

Reducing the **natural decline** in the current oil and gas production

Gas and electricity **transmission and distribution** networks

Replacing **old conventional** electricity capacities

Developing the capacity and flexibility of the **gas storage** sector

Exploration of new oil and gas reserves

Increasing **energy efficiency**

Improving gas and electricity **interconnections**

District heating infrastructure



Compared to 10 years ago the **attractiveness of energy investments** in the EU has been impacted by several factors



Population is **aging** and **unemployment** is rising



Depressed demand with questionable long-term growth potential in Western Europe

Economic crisis with ongoing and lasting effects



Poor market design to stimulate risk averse investors (in particular for ambitious investment plans)

Ambitious political goals which sometimes lead to **contradictory policies**



Dependence on one critical gas supplier, need to boost European indigenous resources

Slow progress of market integration does not unlock synergies among Member States



European electricity generators faced massive value destruction in the last years



Impairments done by European utilities since 2010

	Southern Europe	Continental Western Europe and Nordic region	UK	Eastern Europe	Others/ non-specific ⁴
2010	€2.5b	€2.4b	€1.1b	€0.3b	€2.3b
2011	€3.4b	€2.7b	€1.4b	€0.6b	€1.2b
2012	€2.9b	€5.5b	€1.6b	€0.6b	€2.2b
2013	€2.5b	€21.1b	€2.6b	€2.0b	€3.8b
Total	€11.3b	€31.7b	€6.7b	€3.5b	€9.5b
Total %	18%	50%	11%	6%	15%

Source: EY analysis; figures are rounded.

European utilities have been significantly harmed by the evolution of the sector since early 2000

About 10 GW of capacity were closed only in 2013, whilst about 7 GW were mothballed

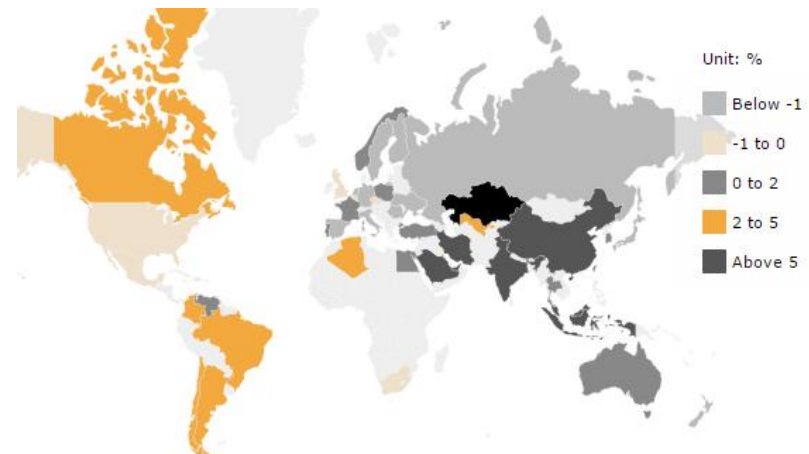
The major European utilities have become more risk averse when analyzing large investment projects in Europe

Although Romania is in a slightly different situation from the one in Western Europe, it needs to compete for investments with other global destinations

Some fundamentals are good (economic and energy demand growth) but they are currently no longer sufficient to attract long term investment

Romania's strategy to attract capital needs to be based on smart regulation and good governance

Electricity demand is stagnating or decreasing in Europe



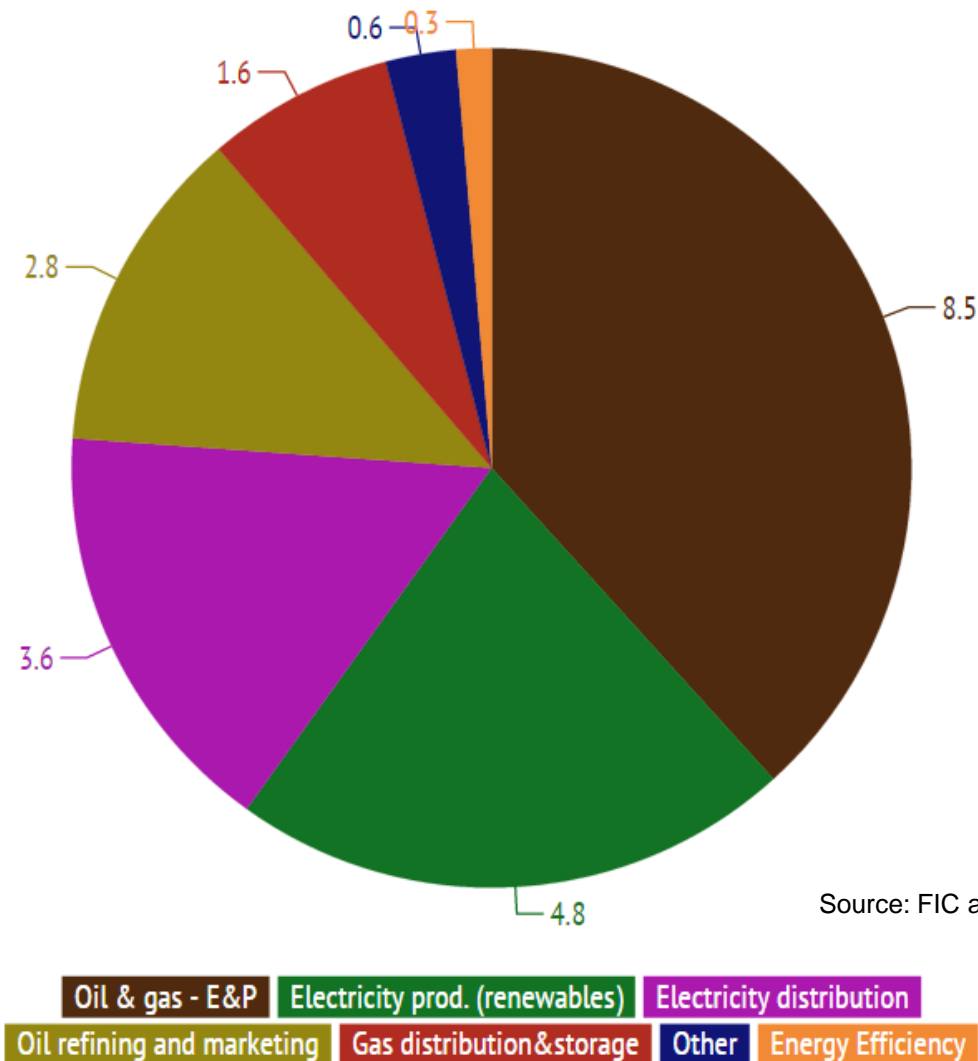
Source Enerdata



Foreign investors in the energy sector have invested in excess of €22 billion since the start of major privatizations in 2002.

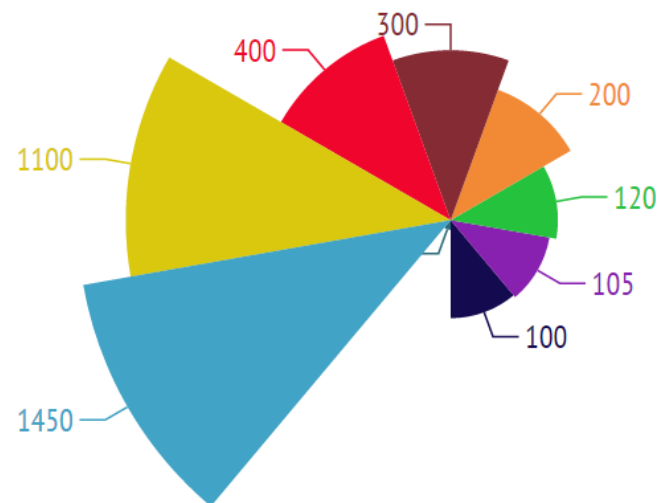
Between 2012-2014, approximately 6 billion euro in new investments have been contributed by foreign companies to the energy sector, mostly driven by investments in renewables, oil and gas exploration and production and gas and electricity networks.

Foreign investments between 2002 - 2014 (billion euro)
Total – €22.2 billion





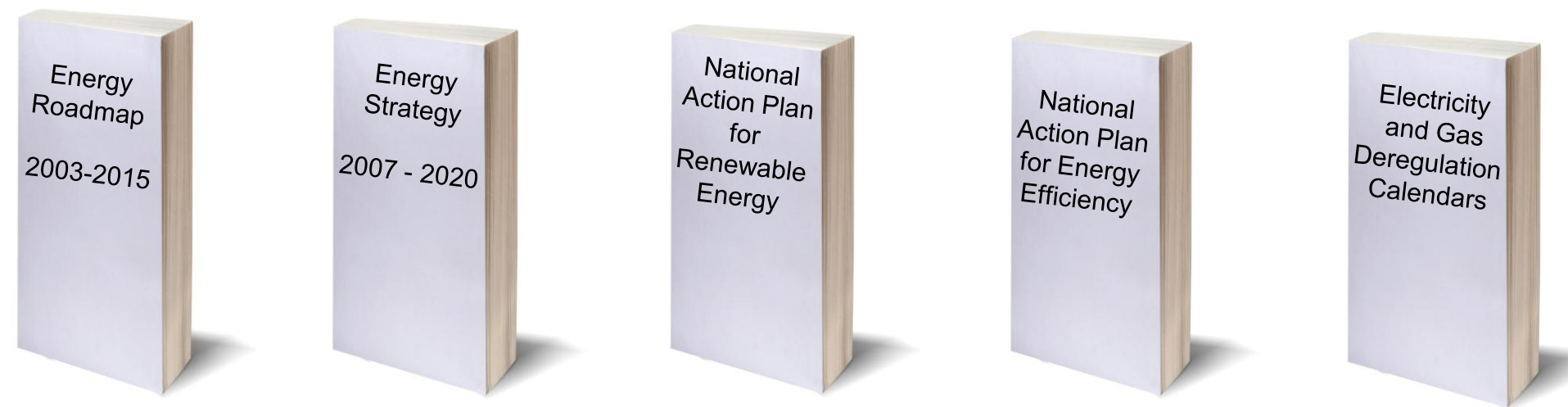
Contributions to the state budget in 2014 (million euro)
Total – 3.7 billion euro



Source: FIC analysis

*Other taxes include the monopoly tax

- Lack of long-term visibility has been detrimental to the development of the sector so far, although Romania did not lack documents that mirrored long-term strategies



These strategic documents lacked proper implementation

- Stop-and-go approach led to partial implementation, sometimes with negative consequences in terms of policy clarity
- No clear timetable, as a rule, has been put forward
- No clear responsibility for implementation has been assigned to public authorities

Clear strategic choices between different possible development pathways and identifiable milestones for implementation are paramount to stimulate new investments in the sector

- Thanks to IPOs/SPOs, notable progress was however achieved in improving the corporate governance of state-owned enterprises



Significant improvement of networks reliability achieved due to past investments



Gas distribution and storage



Yearly investments in modernisation reach around **70-90 million euros**

These **significant investments** have contributed to increasing the reliability of the system and to more secure supply to consumers (replacement of steel by PE pipelines and drastic decrease of network defects)

Special attention has also been paid to investments in the safety of gas networks operations

Electricity distribution



Yearly investments in modernisation exceeded **200 million euros**

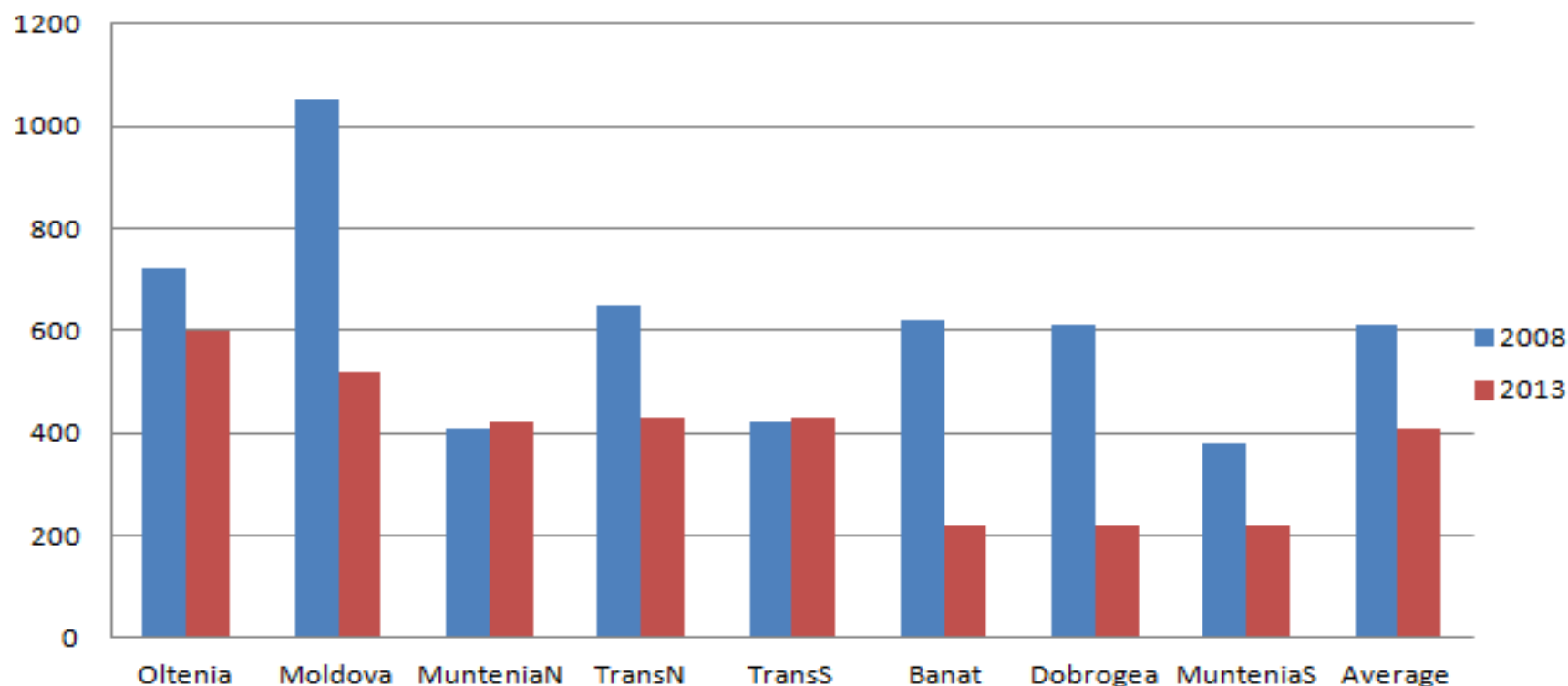
Thousands of kilometers of electrical lines as well as stations and substations have been replaced and the operating efficiency has been increased

The duration of unplanned interruptions (from 638 min/year in 2008 to 427 min/year in 2013) has been **significantly reduced**.



The **€3.5 billion** investments in the electricity distribution networks contributed by the foreign investors have led to a decrease by 1/3rd of the unplanned interruptions of electricity supply to customers

**Unplanned interruptions in electricity distribution
(min/customer/year)**





The rates of return for electricity transmission and distribution were arbitrarily lowered



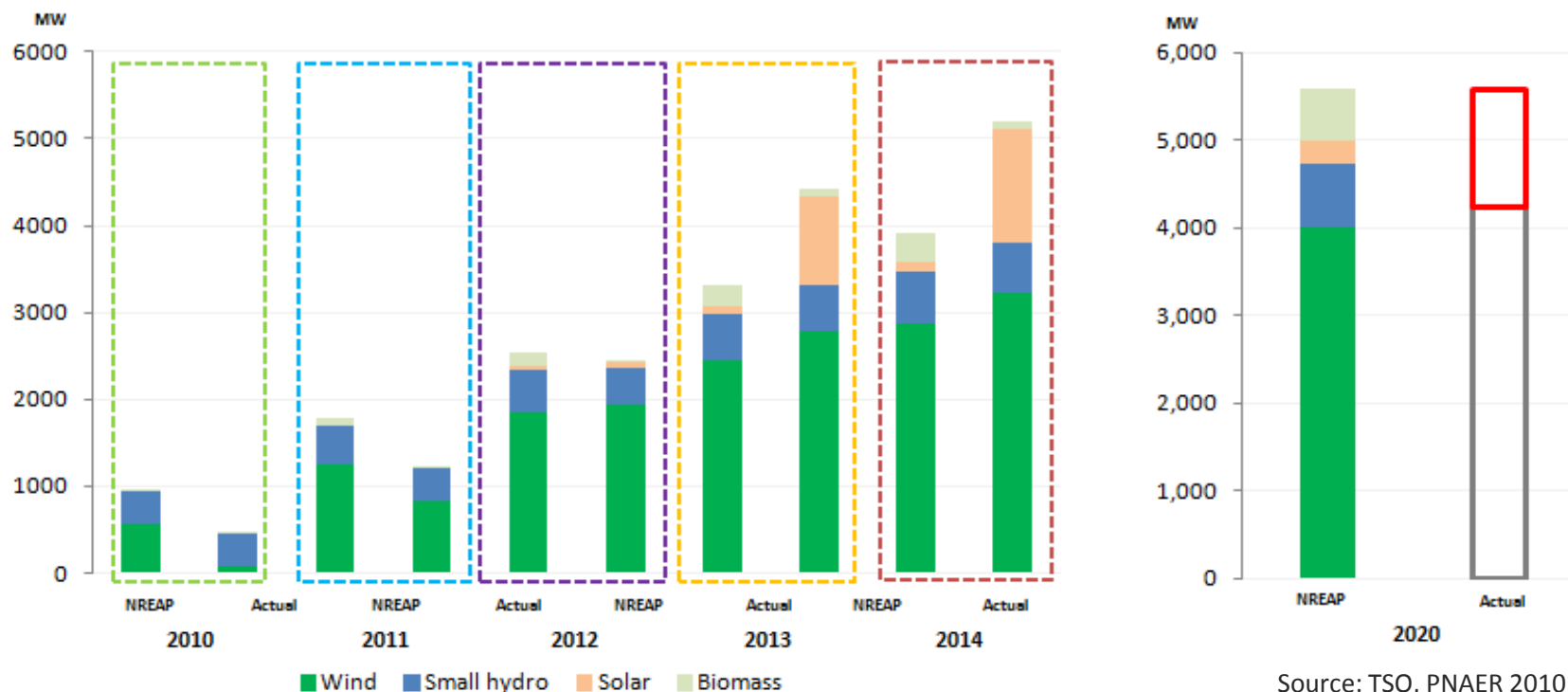
The unilateral decision to change the regulated rates of return for electricity transmission and distribution represented a worrying development that further affects the credibility of the Romanian market

Yearly investment plans were already agreed for period 2014-2018

The change of rate of return comes after successful IPOs of some electricity distribution companies → negative signals regarding the predictability of the regulatory framework for investors

The medium-term business plans of companies have been altered

Growth of installed renewable capacities and benchmarking with PNAER (2010)



Due to these investments Romania is on track to meet its EU commitments in terms of decarbonization of its power generation and of renewable energy share in the total energy consumption

These investments represented an impressive transfer of new technologies and know-how to the Romanian energy sector

The new capacities (except one technology) built until 2014 have been in line with the pathway to 2020 envisaged by the Action Plan for Renewable Energy (PNAER, 2010)



The recent RES policy changes led to a massive destruction of value for investors



EXAMPLE OF REVENUES IN DOBROGEA (2015)

The regulatory changes have brought the total unit remuneration of wind plants well below 50 €/MWh

A Expected production (Illustrative) 100 MWh		
ELECTRICITY		
B	Curtailment	3
D = A-B Eligible production 97 MWh		
E	Wholesale price (€/MWh)	32.97
F	Capture price (€/MWh)	29.77
G	Imbalance cost (€/MWh)	5.18
H = D*(F-G) Revenues (€)		2,385
GCS		
B	Curtailment 'below' the notified level	1
C	Production exceeding the notified level	19.7
D=A-B-C Eligible production 79.3 MWh		
E	N° of GC per MWh	1
F	% of tradable GC	96%
G=F*D Tradable GC 76.1		
H	GC price (€/MWh)	28.9
I=G*H Revenues (€)		2,200
H+I Total revenues (€)		4,585

Source: Poyry, 2014

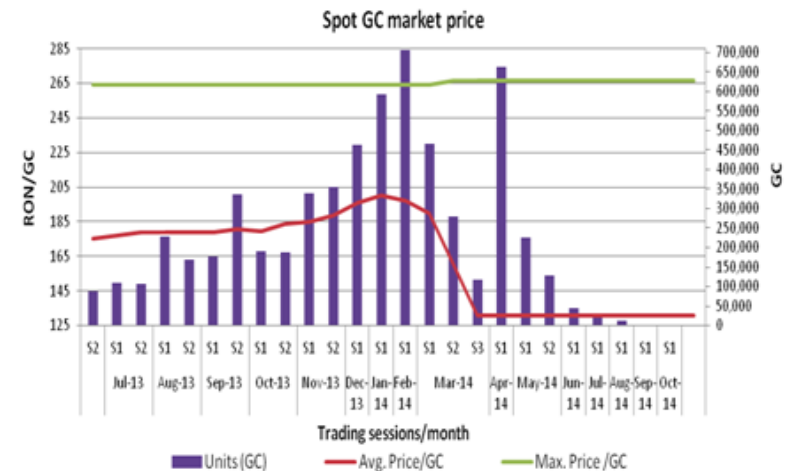
The green certificates market has become very illiquid, raising questions about the sustainability of the support mechanism

The artificially low renewable energy quota is exposing producers to the risk of bankruptcy

Between 2013 and 2015, no less than five legislative changes have been brought to the 220/2008 Renewable Energy Law.

The real total (electricity + green certificate) revenues of a wind farm have been cut by half to approximately EUR 45/MWh, much lower than the total cost (LCOE) of about EUR 100/MWh (COD 2012)

Renewable energy producers have started to do significant impairments of their assets



Source: Opcom



New technologies and cogeneration facilities have been developed by foreign investors in Romania

Romania transposed the Energy Efficiency Directive in 2014 and adopted the third National Action Plan for Energy Efficiency

Policy instruments in the legislation are largely missing

Insufficient resources for central authorities to guide and monitor the implementation of energy efficiency measures

District heating lacks proper incentives for investments

Deployment of innovative technologies is impeded by inadequate legislation

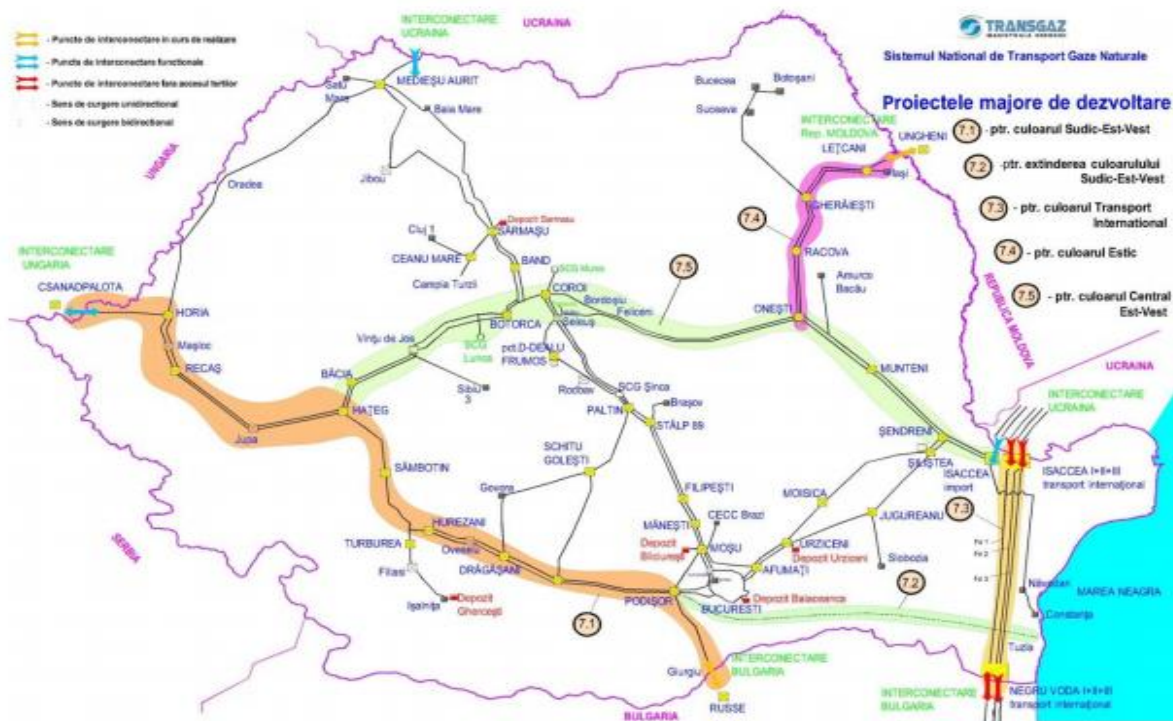
Use of renewable sources for heat production is hindered by the lack of adequate incentives

- Offsetting the natural decline in reserves and stabilizing the oil & gas production are key prerequisites to sustaining the country's security of energy supply:
 - Substantial investments in mature fields have led to the stabilization of current oil & gas production in the past years
 - Extensive exploration activity has resulted in identification of new potential reserves
- Investment in exploration programs led to the discovery of new oil and gas fields both onshore and in the Black Sea
- The first deep-water exploration well in the Romanian section of the Black Sea was completed in 2012 and confirmed a natural gas discovery. Further acquisition and interpretation of data are progressing to confirm the resource size and its commerciality. The ongoing exploration program represents, since the beginning, a commitment of \$1 billion by the joint venture partners



Connection of the national gas transmission system to neighboring countries and international transit lines requires further investments and political will:

- to complete the construction of the much delayed Romanian-Bulgarian interconnector
- to complete the reverse flow with Hungary on the Arad-Szeged interconnector
- Transgaz is currently facing a double challenge as regards investments to be done in the short run to ensure an adequate gas pressure in the pipeline system and interconnectivity at European level





Starting with February 2013, additional taxes have been imposed on energy companies without any proper assessment of their economic impact and consultation of the industry while their applicability was extended with one more year until the end of 2015

Windfall tax of 60% applied on the revenues of gas production companies, allegedly as a result of the gradual price deregulation

0.5% tax on the crude oil sales

Tax on “natural monopolies”, affecting gas and electricity transmission and distribution companies

An increase in **excise duties** (0.07 EUR/liter of gasoil and gasoline) in 2014

Special constructions tax applied on the gross book value affecting the entire energy sector

Uncertain **fiscal regime for the oil and gas** upstream operators starting as from January 2016.



Romanian legislation is often inconsistent and inadequate to facilitate the implementation of strategic objectives

Various laws are yet to be harmonized in order to avoid ambiguity and reduce uncertainty for investors

Access to land designated for operations remains very difficult given the absence of cadaster and land book records, and shortcomings in regulating the exercise of servitude rights

Procedures for license granting and administration are bureaucratic and create major delays for operators in implementing their investments

Examples:

Petroleum Law, environmental regulations, construction standards, permitting and authorization procedures etc.

Law 123/2012 and city planning regulations

Contradictory legislation on public procurement and other local regulations



The transition from regulated to competitive gas and electricity markets is not only a matter of price deregulation. Market liberalisation needs a **new market design, i.e. a set of rules, regulations and implementation of market arrangements that are coherent with a pre-determined set of goals**

Significant part of the market instruments are absent or outdated (balancing regime, network code etc)

The wholesale gas market is illiquid and at an incipient stage of development

Lack of visibility regarding the phasing-out of regulated tariffs

Lack of a clear definition of vulnerable consumers in need of targeted support

The system cannot cope well with unusually high peak seasonal demand

Lack of interconnections impedes on capability to quickly import gas in very cold days

Flexibility of gas storages needs to be improved

Costs associated with the security of supply (maintaining gas pressure in the system) ought to be more fairly distributed



The market design must address the following challenges

Wholesale
electricity market
lacks flexibility of
trading instruments

Unclear
investment case
for conventional
thermal
generation and for
other large
investment
projects

Some non-
transparent public
policies and
regulatory
interventions distort
the wholesale
market (e.g. the
support for coal
fired state-owned
producers)

Arbitrary ex-post
interventions in legal
state aid schemes
(such as renewables)
impact the credibility
of the state to plan
and respect
commitments to
investors



Stability

Predictability

Transparency

Well designed, liberalised and functioning wholesale and retail markets

Improvement of the Corporate Governance Standards in SOEs

Continuation of the privatization program – listing shares of state-owned companies

Elimination of unnecessary red tape