german cooperation
DEUTSCHE ZUSAMMENARBEIT

Implemented by
giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Monitoring and Reporting Template

Energy Efficiency Coordination Group meeting
Vienna, 28.06.2017
Armin Teskeredzic
on behalf of GIZ ORF EE

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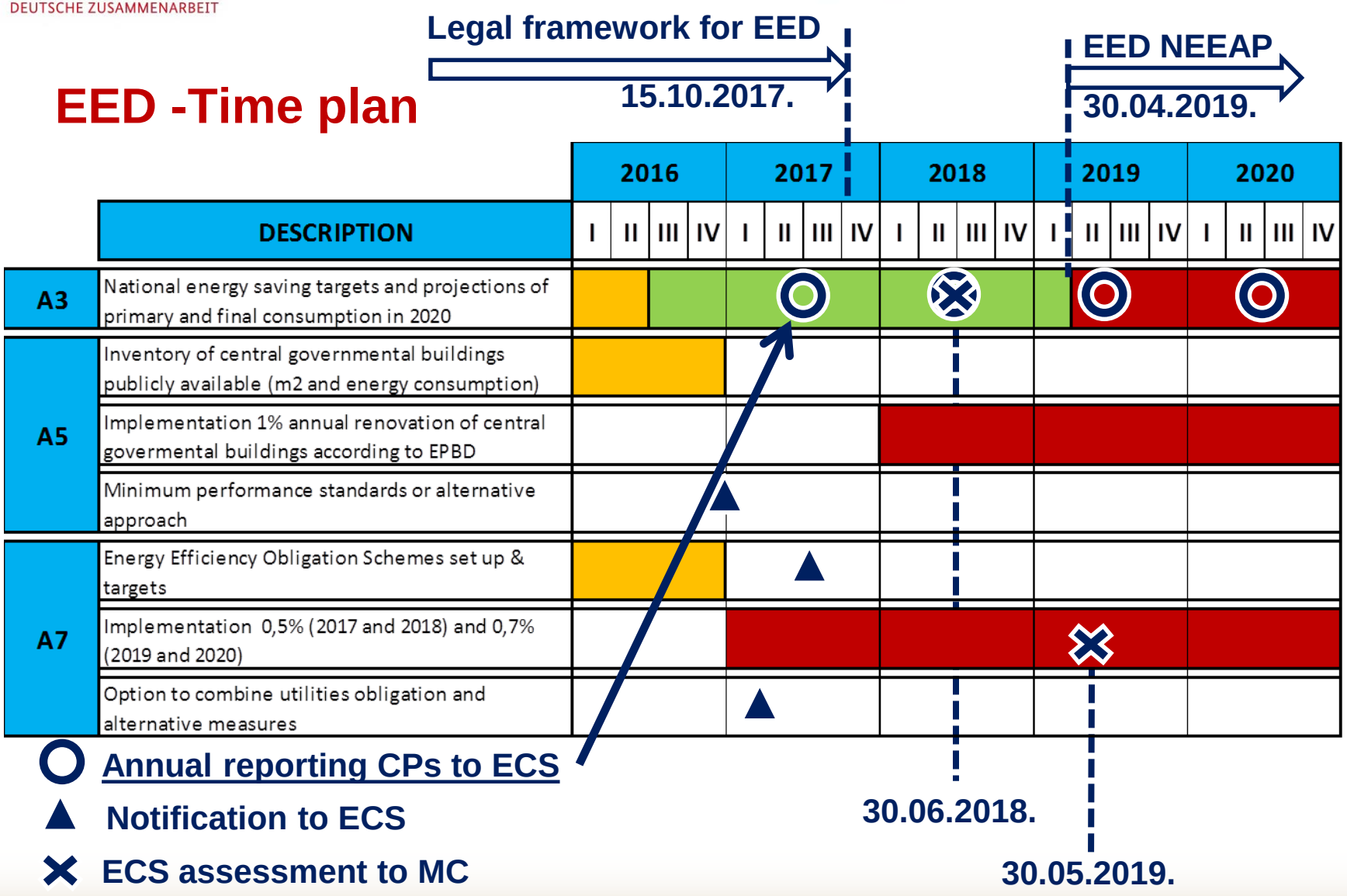
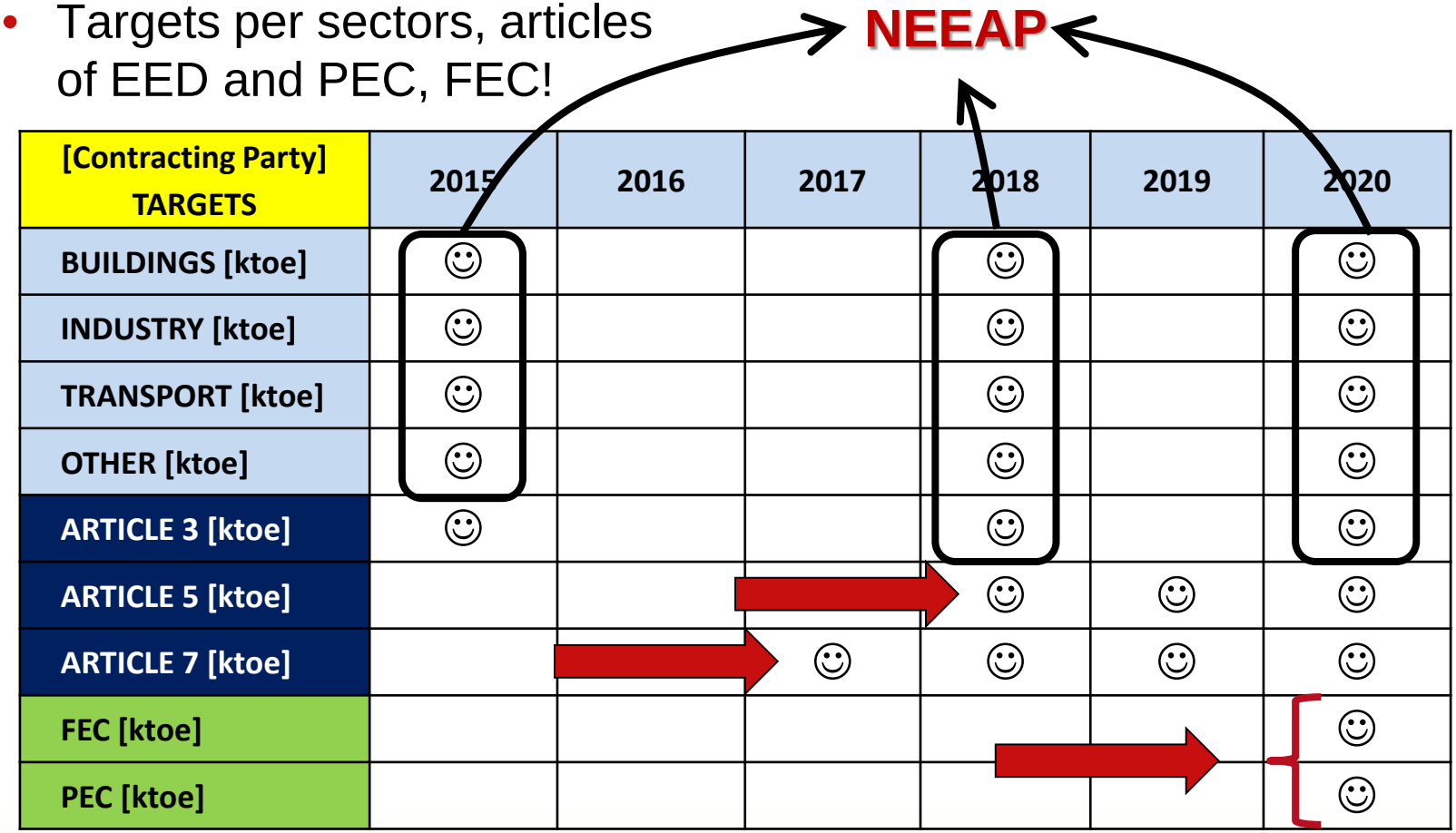
EED -Time plan



Targets explanation and how to get the data

- Targets per sectors, articles of EED and PEC, FEC!



Key statistics related to energy consumption

Estimation of key statistics related to energy consumption in 2015	Value	Unit
Primary energy consumption (*)		
Total final energy consumption (*)		
Final energy consumption – Transport (*)		
Final Energy consumption – Industry (*)		
Final energy consumption – Households (*)		
Final energy consumption – Services (*)		
Gross value added by sector – Industry (**) SEE LINK		
Gross value added by sector – Services (**)		
Disposable income of households (**)		
Gross domestic product (GDP) (**)		

(*) Energy statistics
(**) State Statistical office
(***) Independent System Operator (ISO), electricity generation companies.

Key statistics related to energy consumption

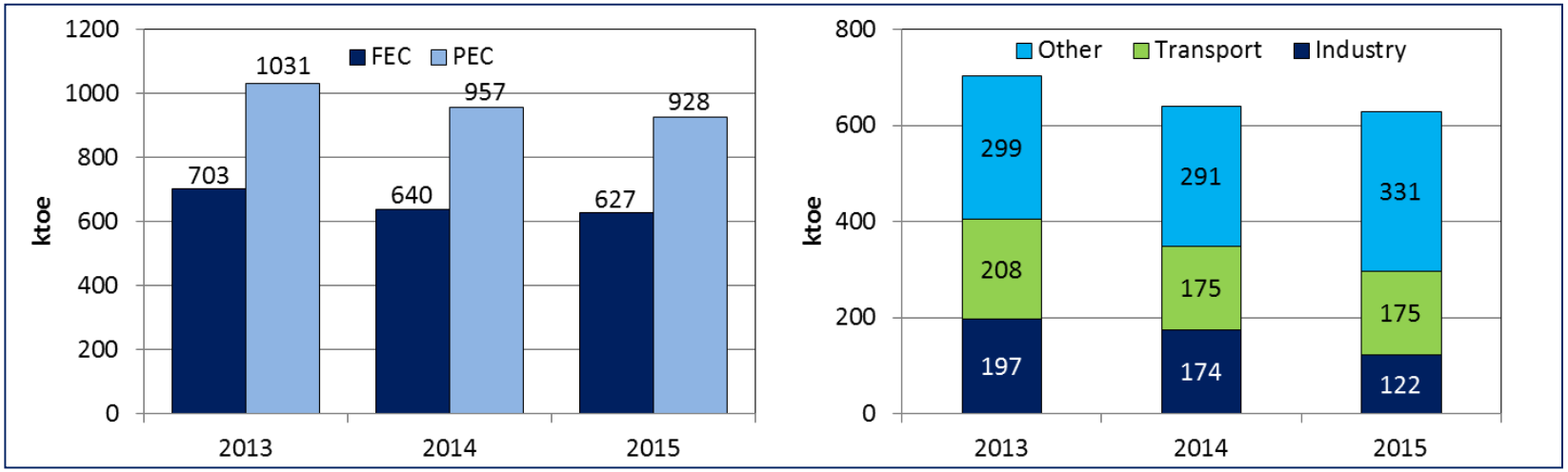
Estimation of key statistics related to energy consumption in 2015 (cont)	Value	Unit
Electricity generation from thermal power plants (***)		
Electricity generation from combined heat and power (***)		
Heat generation from thermal power generation (***)		
Heat generation from CHP, incl. industrial waste heat (***)		
Fuel input for thermal power generation (***)		
Passenger kilometres (pkm), if available (**)		
Tonne kilometres (tkm), if available (**)		
Combined transport kilometres (pkm + tkm) (**)		
Population (**)		

(*) Energy statistics
(**) State Statistical office
(***) Independent System Operator (ISO), electricity generation companies.

Example – NEEAP Ireland as a model!

Estimate of key statistics related to energy consumption	Value (in each case indicate the units used)
Electricity generation from thermal power plants	1,759 ktoe
Electricity generation from combined heat and power plants	183 ktoe
Heat generation from thermal power generation[5]	1,728 ktoe
Heat generation from combined heat and power plants[6]	0 ktoe
Fuel input for thermal power plants	3,873 ktoe
Fuel input for combined heat and power plants[7]	300 ktoe
Energy transmission and distribution losses (all fuels)[8]	449 ktoe
Total passenger kilometres (pkm) if available	1,886,421 pkm - cars
Total tonne kilometres (tkm) if available[3]	9,895 tkm

PEC and TFEC values, TFEC disaggregated!



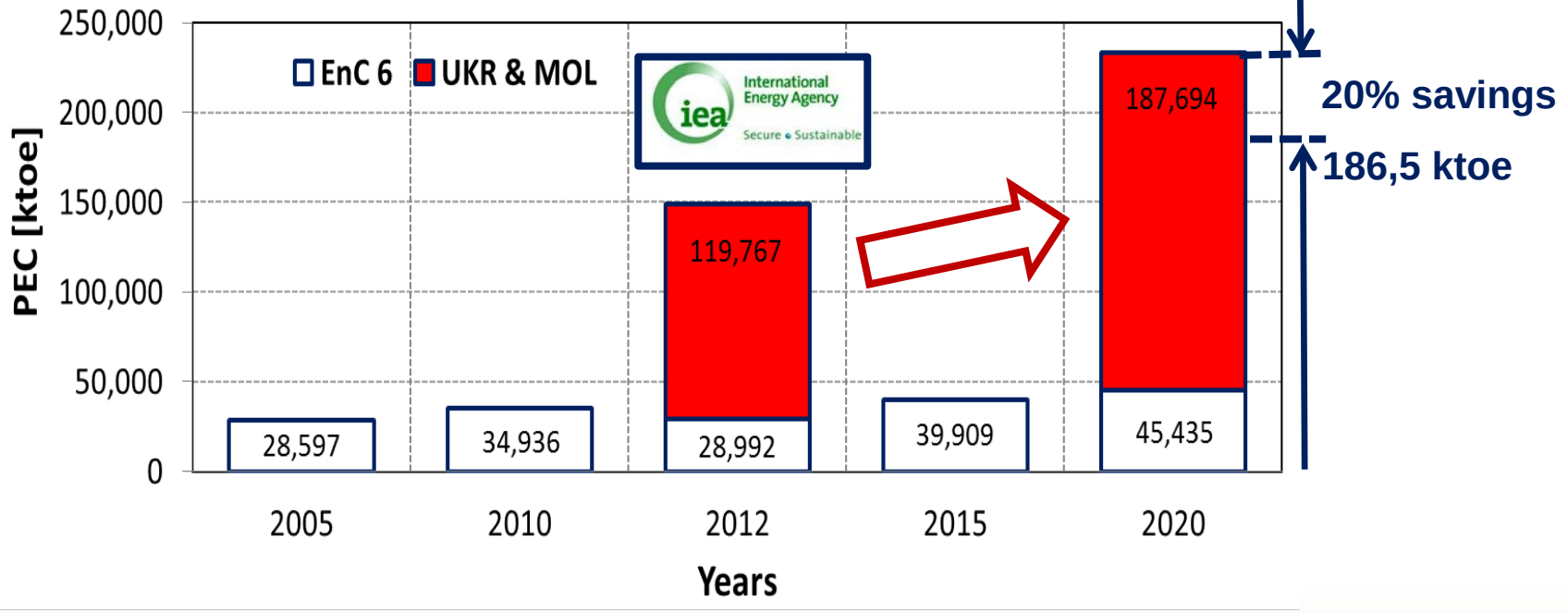
- Capture trends in primary and total final consumption (left)!
- Final energy consumption disaggregated (right)!
- If there are significant differences – comments are required!
- Disaggregation per sectors consistent with national statistics!

Primary and final energy cap consumption for EnC!

- How the targets were calculated?
- IEA energy balances in 2012 used for estimation of 2020 energy consumption!

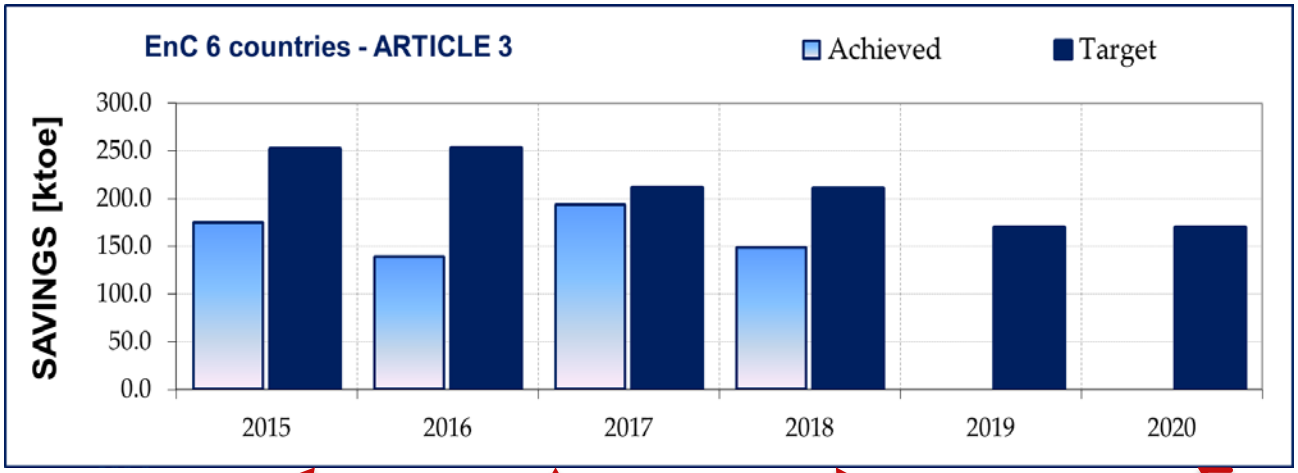
$\overline{PEC_{EnC}} = 187$ Mtoe

$\overline{FEC_{EnC}} = 133$ Mtoe



EnC Secretariat – monitoring tool (example Article 3)

- Recalculation of **individual cap consumption**!



Report:
Achieved vs. Planned for Articles 3, 5 & 7!
Sector targets!

ALB

Contracting Party	2015	2016	2017	2018
BUILDINGS	48.2	42.0	53.0	52.0
INDUSTRY	52.0	63.0	27.0	23.0
TRANSPORT	17.0	18.0	17.0	19.0
OTHER	0.0	0.0	0.0	0.0
ARTICLE 3	117.2	123.0	97.0	94.0
ARTICLE 5	0.0	0.0	1.1	1.3
ARTICLE 7	0.0	0.0	31.0	37.2
FEC	9,750.0	10,100.0	11,250.0	11,530.0
PEC	15,200.0	15,870.0	16,240.0	16,480.0

BiH

Contracting Party	2015	2016	2017	2018
BUILDINGS	48.2	42.0	53.0	52.0
INDUSTRY	52.0	63.0	27.0	23.0
TRANSPORT	17.0	18.0	17.0	19.0
OTHER	0.0	0.0	0.0	0.0
ARTICLE 3	117.2	123.0	97.0	94.0
ARTICLE 5	0.0	0.0	1.1	1.3
ARTICLE 7	0.0	0.0	31.0	37.2
FEC	9,750.0	10,100.0	11,250.0	11,530.0
PEC	15,200.0	15,870.0	16,240.0	16,480.0

MNE

Contracting Party	2015	2016	2017	2018
BUILDINGS	48.2	42.0	53.0	52.0
INDUSTRY	52.0	63.0	27.0	23.0
TRANSPORT	17.0	18.0	17.0	19.0
OTHER	0.0	0.0	0.0	0.0
ARTICLE 3	117.2	123.0	97.0	94.0
ARTICLE 5	0.0	0.0	1.1	1.3
ARTICLE 7	0.0	0.0	31.0	37.2
FEC	9,750.0	10,100.0	11,250.0	11,530.0
PEC	15,200.0	15,870.0	16,240.0	16,480.0

...

UKR

Contracting Party	2015	2016	2017	2018
BUILDINGS	48.2	42.0	53.0	52.0
INDUSTRY	52.0	63.0	27.0	23.0
TRANSPORT	17.0	18.0	17.0	19.0
OTHER	0.0	0.0	0.0	0.0
ARTICLE 3	117.2	123.0	97.0	94.0
ARTICLE 5	0.0	0.0	1.1	1.3
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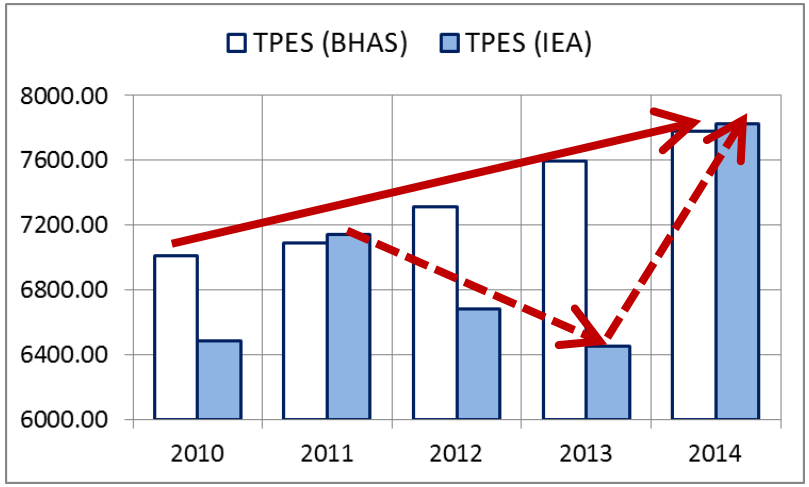
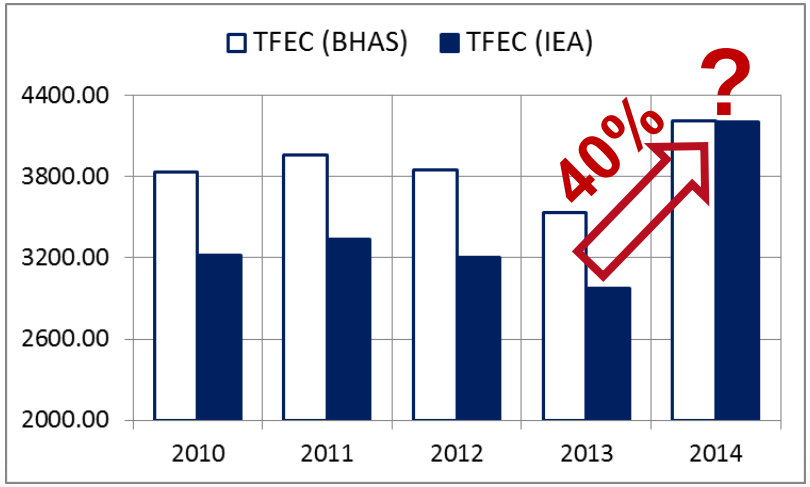
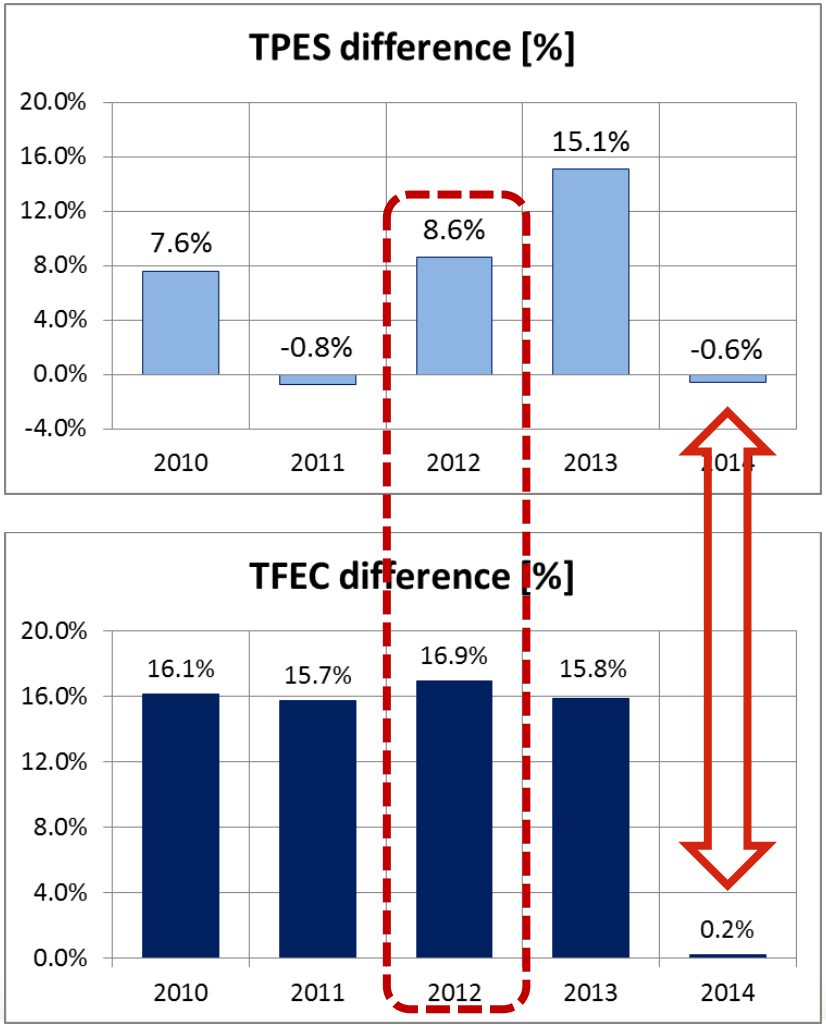
Individual cap consumption – B&H case





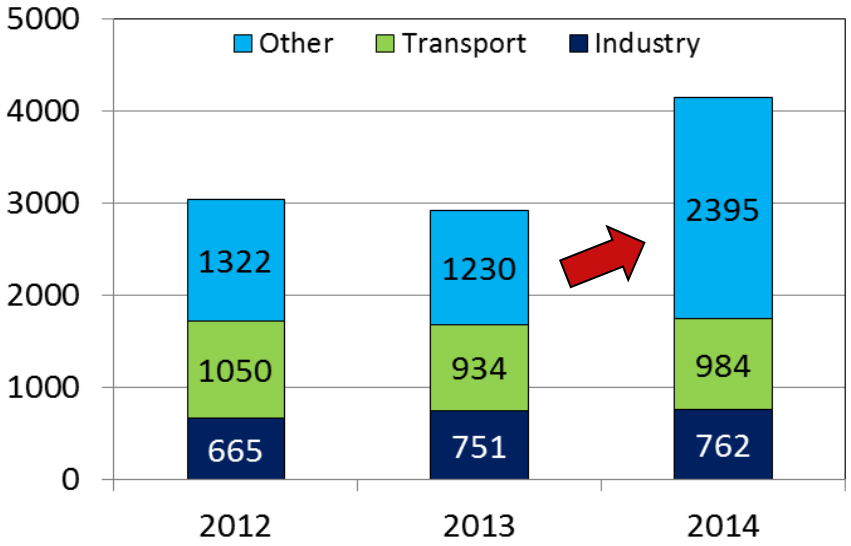
- Total primary energy supply (TPES) and Total Final Energy Consumption (TFEC) significantly different IEA vs B&H statistics (BHAS)!
- TPES increases constantly, while according IEA decreases and suddenly jumps in 2014!
- TFEC decreases in both IEA and BHAS!
- In 2014, IEA and BHAS similar values!

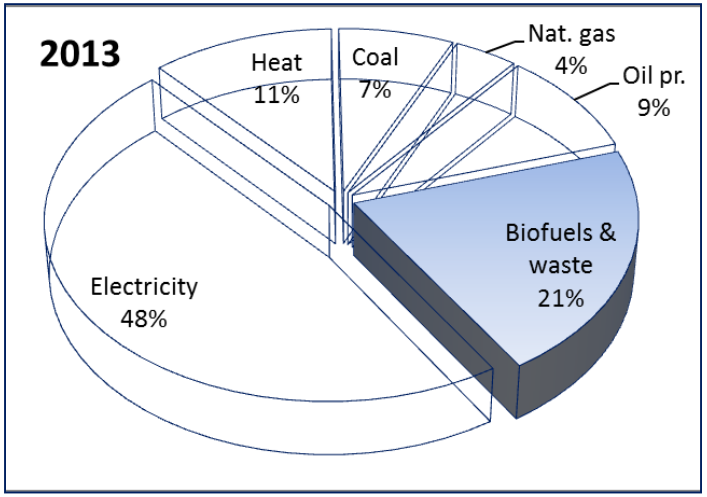
Individual cap consumption – B&H case (cont.)

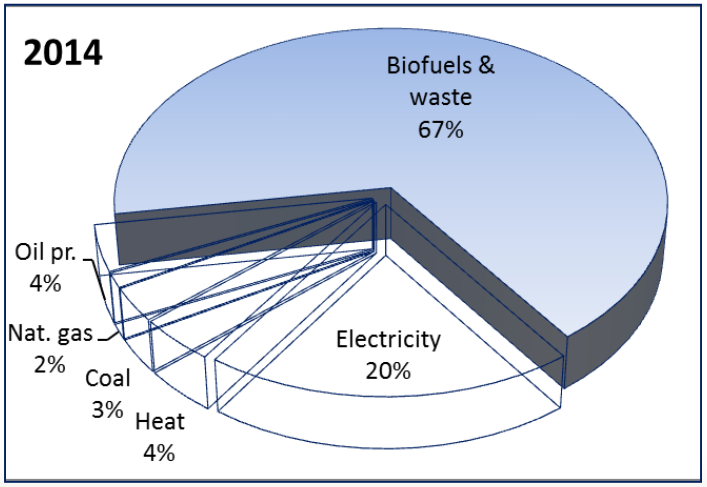


- Overall targets (cap consumption) for EnC contracting parties done based on IEA balances!
- **Problem #1**: BHAS data significantly differs from IEA data in 2012!
- **Problem #2**: Sudden jump in consumption even in BHAS case in 2014!
- **Consequence**: Extremely low individual cap consumption for Bosnia and Herzegovina!

Individual cap consumption – B&H case (cont.)







Residential sector

- Tremendous change in residential sector energy consumption!
- **Problem #2**: Improved statistics in field of biomass consumption!
- **NEED FOR NEW INDIVIDUAL PEC AND FEC CAP CALCULATION!!!**

Thank you for your attention!

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