



USAID
FROM THE AMERICAN PEOPLE

CENTRAL ASIAN REPUBLICS

USAID/CAR Energy Links Project and International Energy Charter

12th Meeting of the Task Force on
Regional Energy Cooperation in Central And South Asia

10-11

2016



•

,

-

,

.

•

.

.

,

-

-

,

•

,

.

,

?

?

•

• $\frac{1}{2} \frac{d}{dt} \left(\frac{1}{2} m v^2 \right) = \frac{1}{2} m v \frac{dv}{dt} = \frac{1}{2} m v a$

•

• $\frac{1}{2} m v^2 = \frac{1}{2} m \left(\frac{dx}{dt} \right)^2$

•

• $\frac{1}{2} m v^2 = \frac{1}{2} m \left(\frac{dx}{dt} \right)^2$

•

• $\frac{1}{2} m v^2 = \frac{1}{2} m \left(\frac{dx}{dt} \right)^2$

?

•

•

, : -
, ,
, : ;
, , :
2008 .
2014 – 2015 . : .



•

:

,

,

•

.

.

•

.

(

(

).

)

,

,

.

—

.

—

.



-
-
-
-
-

(

(

)

(

)

,

?

—

▪

			K		T M	
-	+	+	-	-	-	-
	-	+	-	-	+	-
.	-	+	-	-	+/-	-
		+	+	+	+	+
		+	-	-	+	+

2

,

—

▪

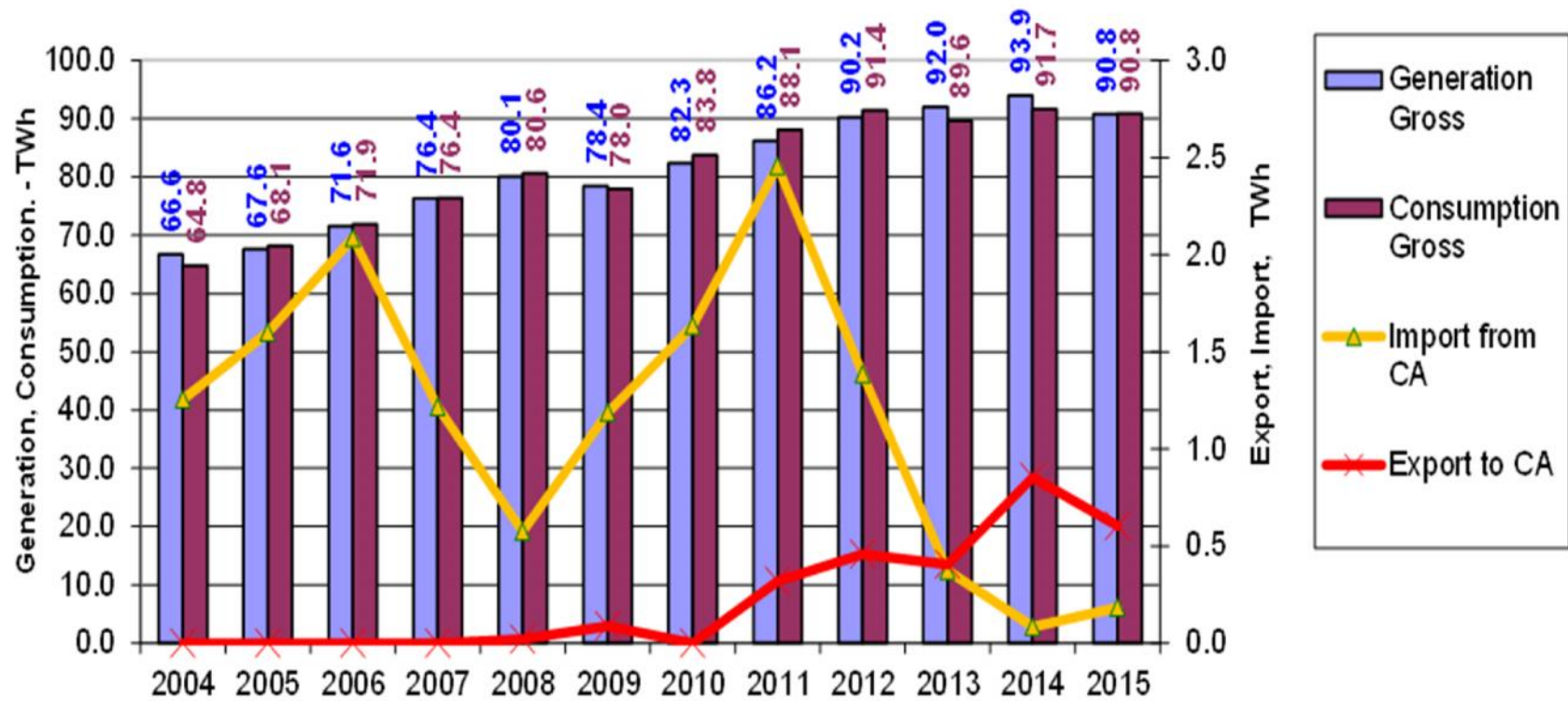
,

,

,

▪

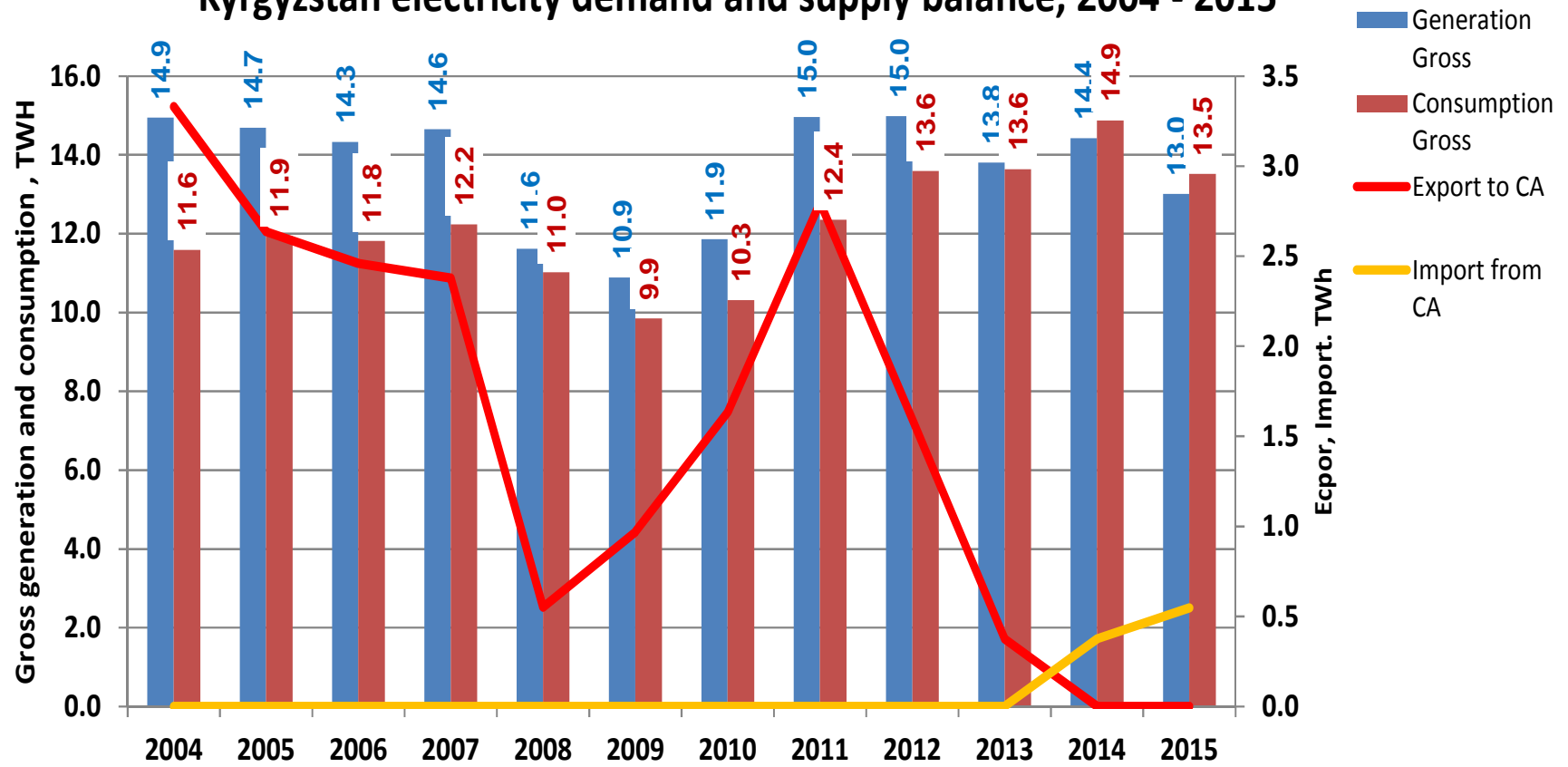
Kazakhstan power system Supply and Demand balance and export / import trends with Central Asian countries, 2004 - 2015



■

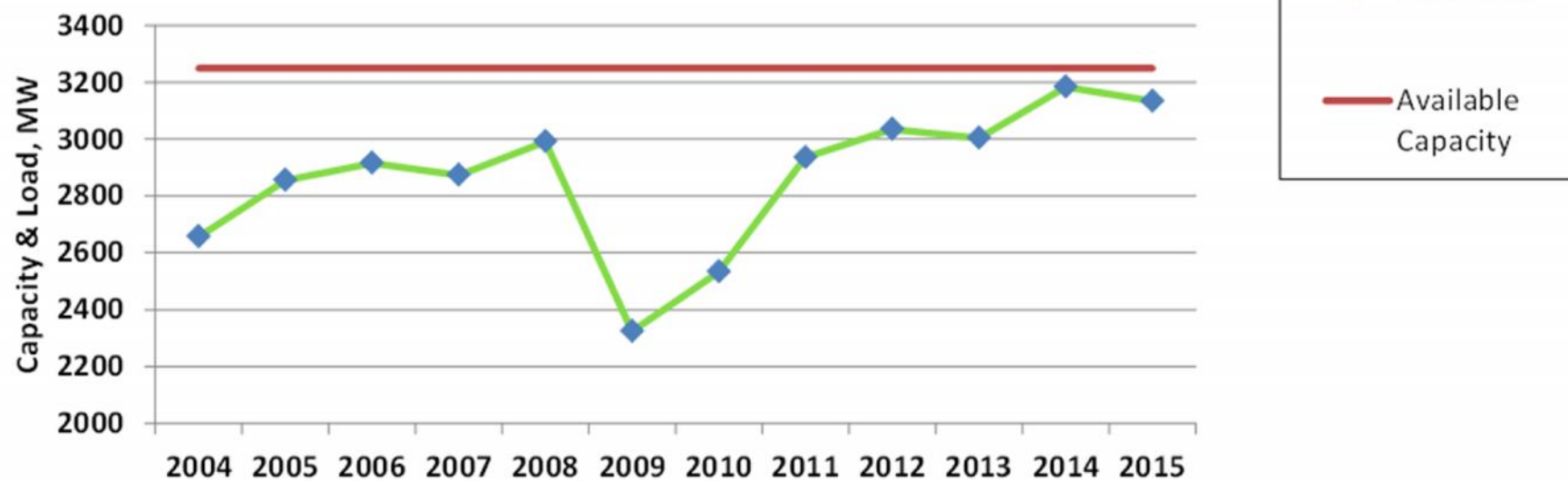
1

Kyrgyzstan electricity demand and supply balance, 2004 - 2015



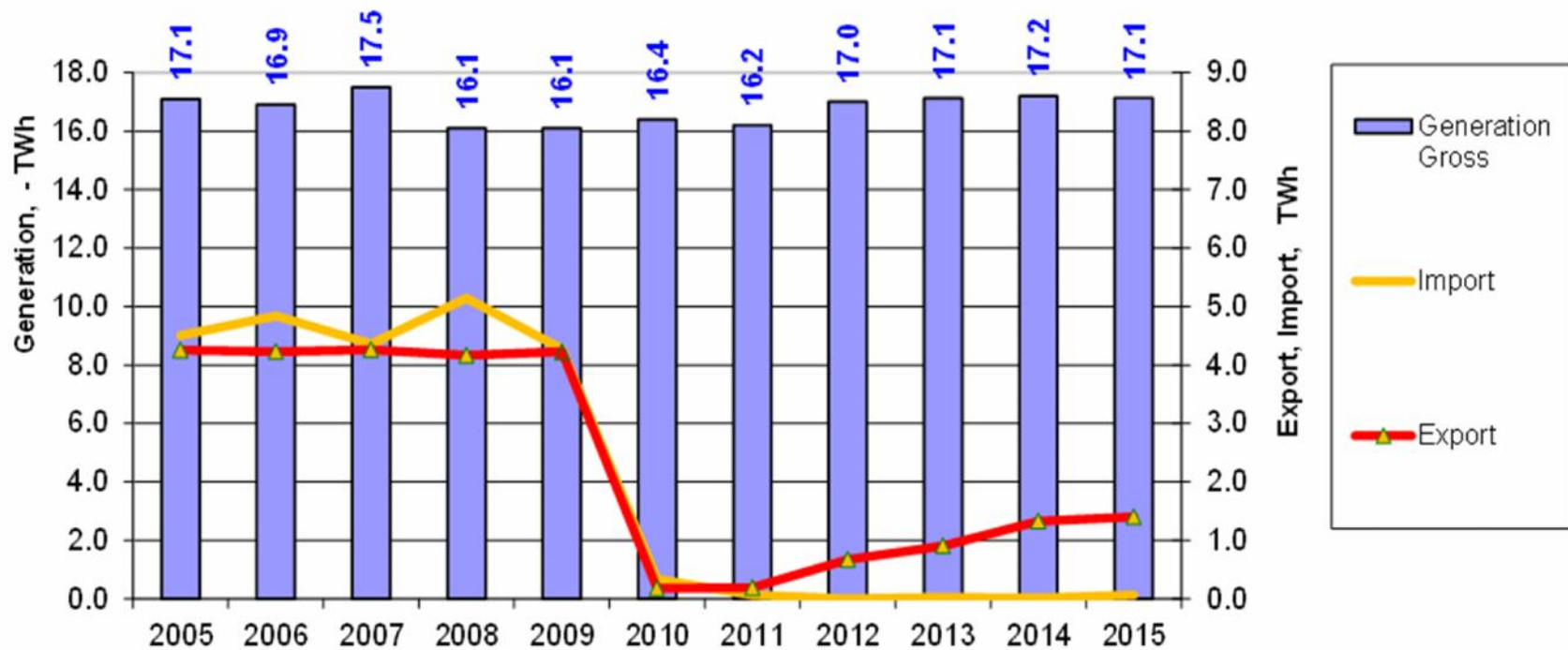
Peak load and available capacity in Kyrgyz power system

2004 - 2015



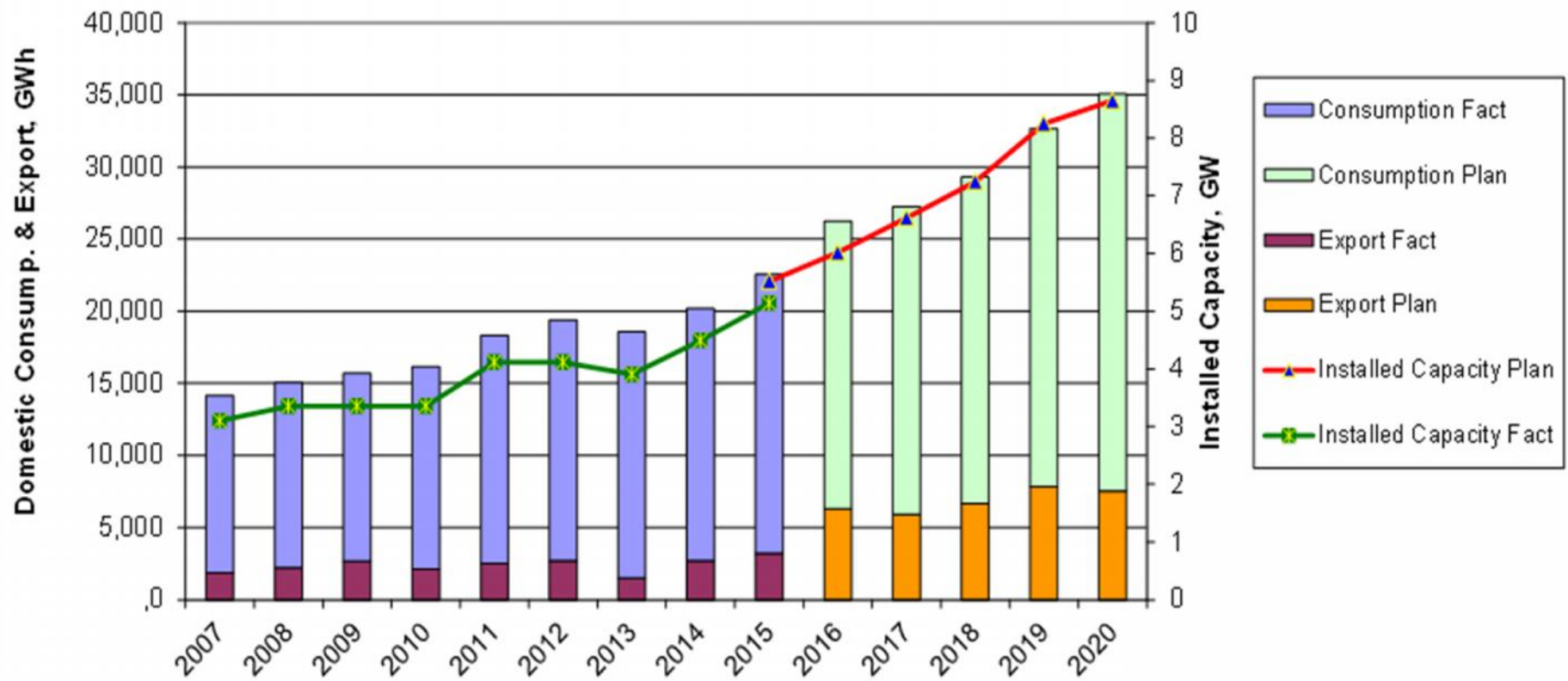


Tajikistan power system Supply and Demand balance and export / import trends with neighboring countries, 2005 - 2015



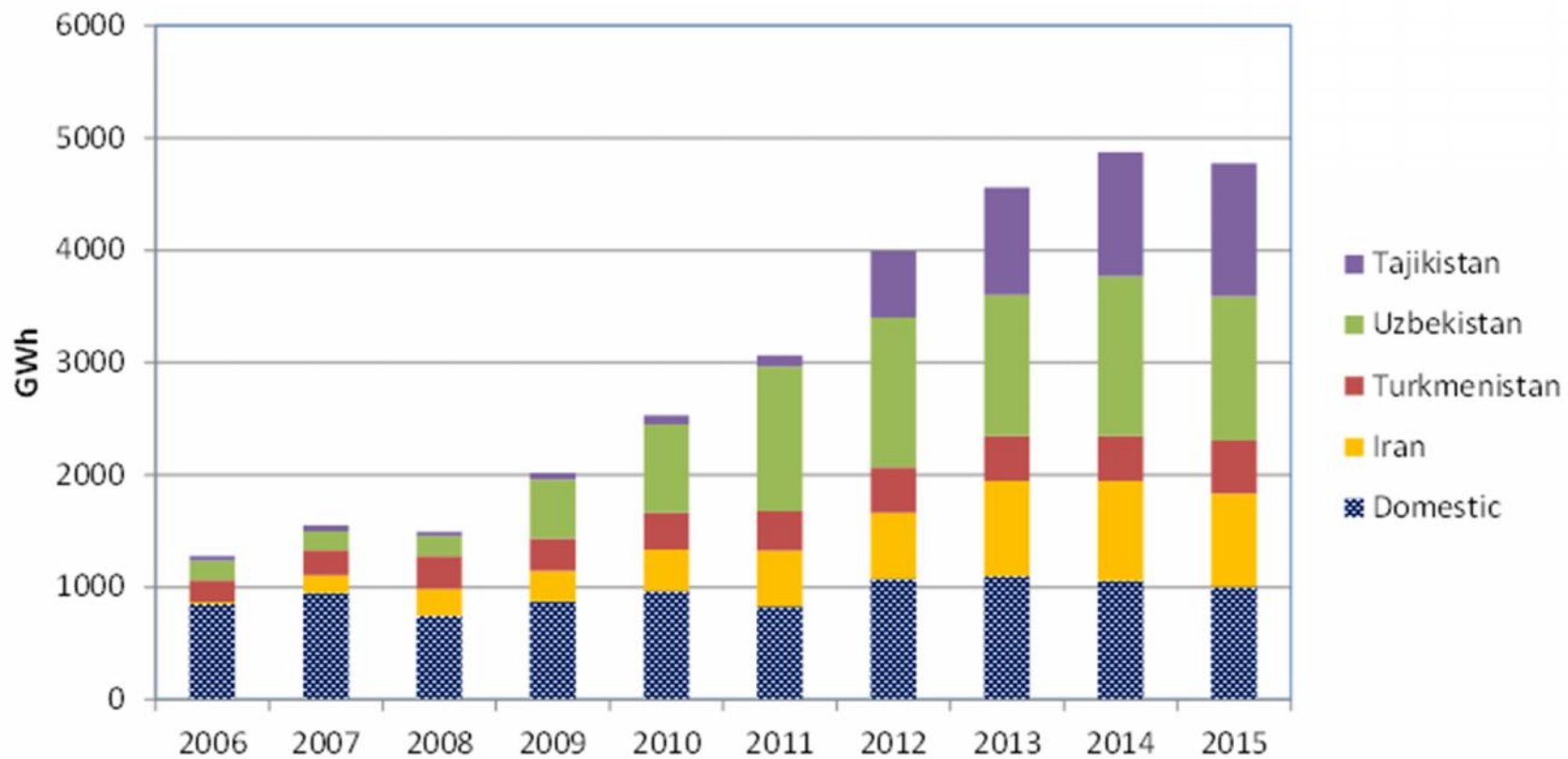


Annual Electricity Generation and export of Turkmenistan
Actual 2007 - 2015 and Energy Development Concept





Afghanistan Domestic Generation and Import



	2013	Import (GWh)						Total
		KZ	G	J	UZ	TM	AF	
Export (GWh)	Kazakhstan (KZ)				406			406
	Kyrgyzstan (KG)	374		21	21			416
	Tajikistan (TJ)		28				939	968
	Turkmenistan (TM)						396	396
	Uzbekistan (UZ)		15				1293	1309
	Total:	374	43	21	426		2629	3494

	2014	Import (GWh)						Total
		KZ	G	J	UZ	TM	AF	
Export (GWh)	Kazakhstan (KZ)		118.7		652			771
	Kyrgyzstan (KG)			13	9			21
	Tajikistan (TJ)		227				1098	1325
	Turkmenistan (TM)						401	401
	Uzbekistan (UZ)		15				1425	1440
	Total:	0	242	13	661		2924	3958

	2015	Import (GWh)						Total
		KZ	G	J	UZ	TM	AF	
Export (GWh)	Kazakhstan (KZ)		421					421
	Kyrgyzstan (KG)			13	9			21
	Tajikistan (TJ)		159				1184	1343
	Turkmenistan (TM)						471	471
	Uzbekistan (UZ)		15				1285	1300
	Total:	0	174	13	9		2940	3556



•

•

•

•

,

▪

▪

,

”

,

,

▪

,

,

▪

- 1



- 2

,

,

,



Vladimir Tsyssin

Transmission systems, Energy Links