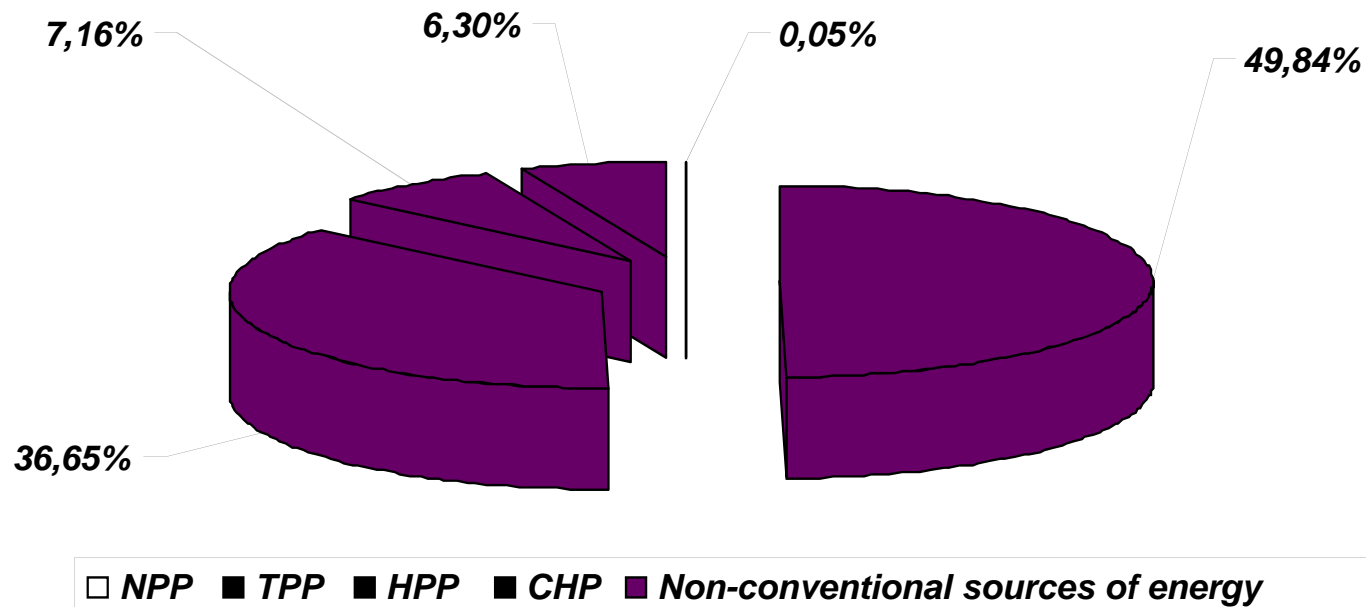


Reconstruction of Thermal Power Plants

Thermal power plants are one of the major electricity generators in Ukraine.

So, in 2009, thermal power plants of Ukraine sold more than 57.37 billion kWh of electricity, which is more than 36.5% of the total sale of electricity.

Structure of sale of electricity by generators in 2009



In Ukraine there 5 generating companies TPP, which include 14 thermal power plants or 102 energy units (2 of which are written off, and 7 are conserved) with total installed capacity of more than 26.5 thousand MW.

Absolute majority of energy units of thermal power plants were constructed in the 1960-s and 1970-s of the last century.



Design service life, i.e. more than 100 thousand hours worked by all energy units.

Margin service life, i.e. more than 200 thousand hours worked by 85 energy units.

Extended service life, i.e. more than 250 thousand hours worked by 44 energy units.

All possible service lives, including physical one, i.e. more than 300 thousand hours worked by 7 energy units.





At present, construction of new energy generating capacities of thermal power plants seems to be a less optimal option of development of thermal generation, than implementation of projects of reconstruction and upgrading of available capacities. It is mostly related to the fact that marginal utility from replacement of certain nodes and devices at functioning energy units is higher, than from full scale construction of new energy generating facilities.

It is necessary to note that physical and moral state of generating capacity of thermal power plants requires quick implementation of projects on reconstruction and upgrading of energy equipment.



In connection with that, the Cabinet of Ministers of Ukraine by its order of 08.09.2004 No. 648-r approved the Plan for reconstruction and upgrading thermal power plants and CHPs for the period of up to 2020, which sets the list of energy units of thermal power plants, terms and estimate values of priority projects of reconstruction and upgrading of energy equipment.

For execution of the aforementioned order of the CMU, the Ministry of Fuel and Energy of Ukraine, by its order of 24.05.2006 No. 183 approved the Procedure for preparation and funding of projects for the purpose of implementation of the plan of reconstruction and upgrading thermal power plants, which envisions the mechanism of setting an investment mark up to the tariff for sale of electricity of a generating company necessary to repay funds used to finance projects on reconstruction and upgrading thermal power plants.



This procedure envisions guaranteed return of 80% of attracted credits, investments or repayment of targeted bonds necessary to fund projects on reconstruction and upgrading of thermal power plants.



The named provision of the Procedure was introduced due to the fact that generating companies TPP operate in the competitive sector of the Wholesale Electricity Market of Ukraine and, correspondingly, it is impossible to guarantee a certain level of efficiency of companies' operations.

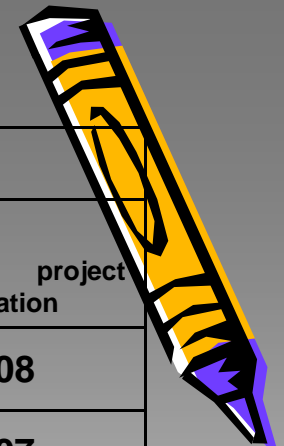




As of May 2010, funding and physical implementation of 12 projects began in the field of reconstruction and upgrading of thermal power plants.

Projects of reconstruction and upgrading of thermal power plants			
Company	Project	Estimated cost of the project (million hrivnas)	Beginning of the project implementation
JSC "Zapadenergo"	Technical re-equipment of ORU -220,330,400 kV of Burshtyn TPP	49,7	2009
	First launching complex of technical re-equipment of energy unit No. 7 of Burstyn TPP	157,2	2009
JSC "Dneprenergo"	Technical re-equipment of energy unit No. 9 Pridnreprvskaya TPP	363,5	2010
	First launching complex of technical re-equipment of energy unit No. 3 of Krivoy Rog TPP	283	2009





Projects of reconstruction and upgrade of thermal power plants			
Company	Project	Project estimated costs (million Hrivnas)	Start of project implementation
"Vostokenergo" Ltd.	Technical re-equipment of energy unit No. 1 of Zuevskaya TPP	196,2	2008
	Technical re-equipment of energy unit No. 2 of Zuevskaya TPP	94,6	2007
	Technical re-equipment of energy unit No. 4 of Zuevskaya TPP	302,7	2010
	Technical re-equipment of energy unit No. 5 of Kurakhovskaya TPP	117,3	2007
	Technical re-equipment of energy unit No. 7 of Kurakhovskaya TPP	327,2	2008
	Technical re-equipment of energy unit No. 8 of Kurakhovskaya TPP	536,1	2009
	Technical re-equipment of energy unit No. 10 of Lugansk TPP	350,3	2008
	Technical re-equipment of energy unit No. 13 of Lugansk TPP	524	2009
Total:	-	3301,8	-

In 2009 energy unit No. 2 of Zuevskaya TPP
And No. 5 of Kurakhovskaya TPP were
put in commercial operation.

