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Les Bilans Energétiques au Liban en 2007

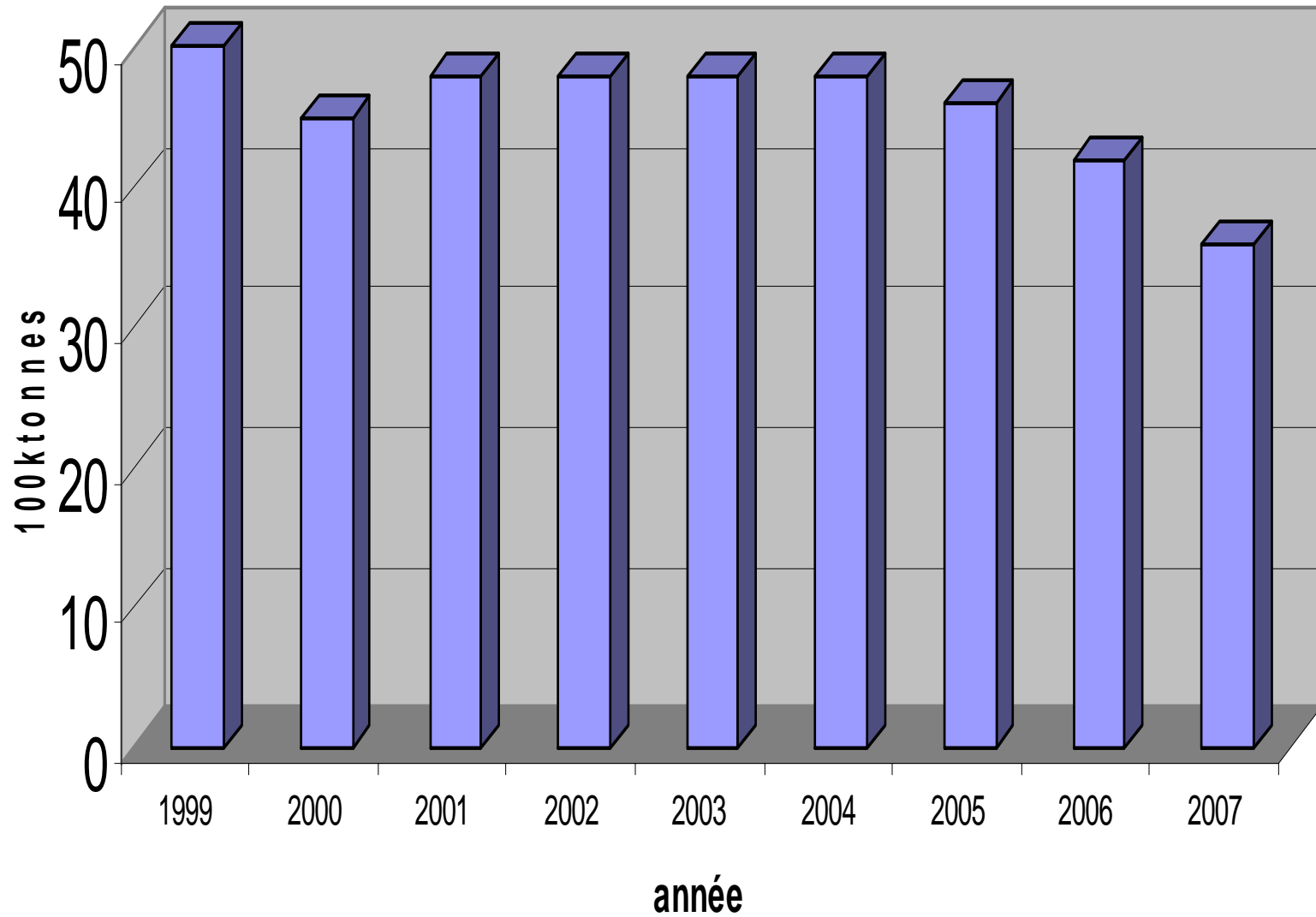


LES IMPORTATIONS DES DERIVES PETROLIERS 1998-2007

PRODUIT	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2007
GPL	99 769	135 269	165 120	157 733	154 825	205 148	220 231	166 133	161 117		103 607
ESSENCE	1 411 756	1 344 096	1 263 757	1 178 800	1 180 374	1 260 417	1 263 245	1 273 104	1 224 606		956 687
GASOIL EDL	543 275	881 116	532 805	573 072	754 411	825 984	842 354		1 057 0704		848 859
MARCHE	88 1343	866 970	782 840	960 211	910 404	1 003 193	904 492		538 575		405 730
TOTAL	1 424 618	1 748 086	1 315 645	1 533 283	1 664 815	1 829177	1 746 846	1 587 669	1 596 279		1 254 589
CARBUREACTEUR	106 881	126 166	124 511	128 196	126 825	124 502	126 679	146 578	103 355		129 725
FIUL OIL EDL	1 439 732	1 217 219	1 294 362	1 355 081	191 307	963 130	961 512		956 609		1 071 200
MARCHE	148 648	307 859	213 468	383 768	1 392 134	321 816	421 094		83 108		
TOTAL	1 588 380	1 525 078	1 507 830	1 738 849	1 583 441	1 284 946	1 382 606	1 360 177	1 039 717		1 071 200
APP	109 535	113 665	94 881	108 614	112 411	84 047	81 475	59 886	43 857		44 466
TOTAL	4 740 939	4 992 360	4 471 744	4 845 475	4 822 691	4 788 237	4 821 082	4 593 547	4 168 931		3 560 274

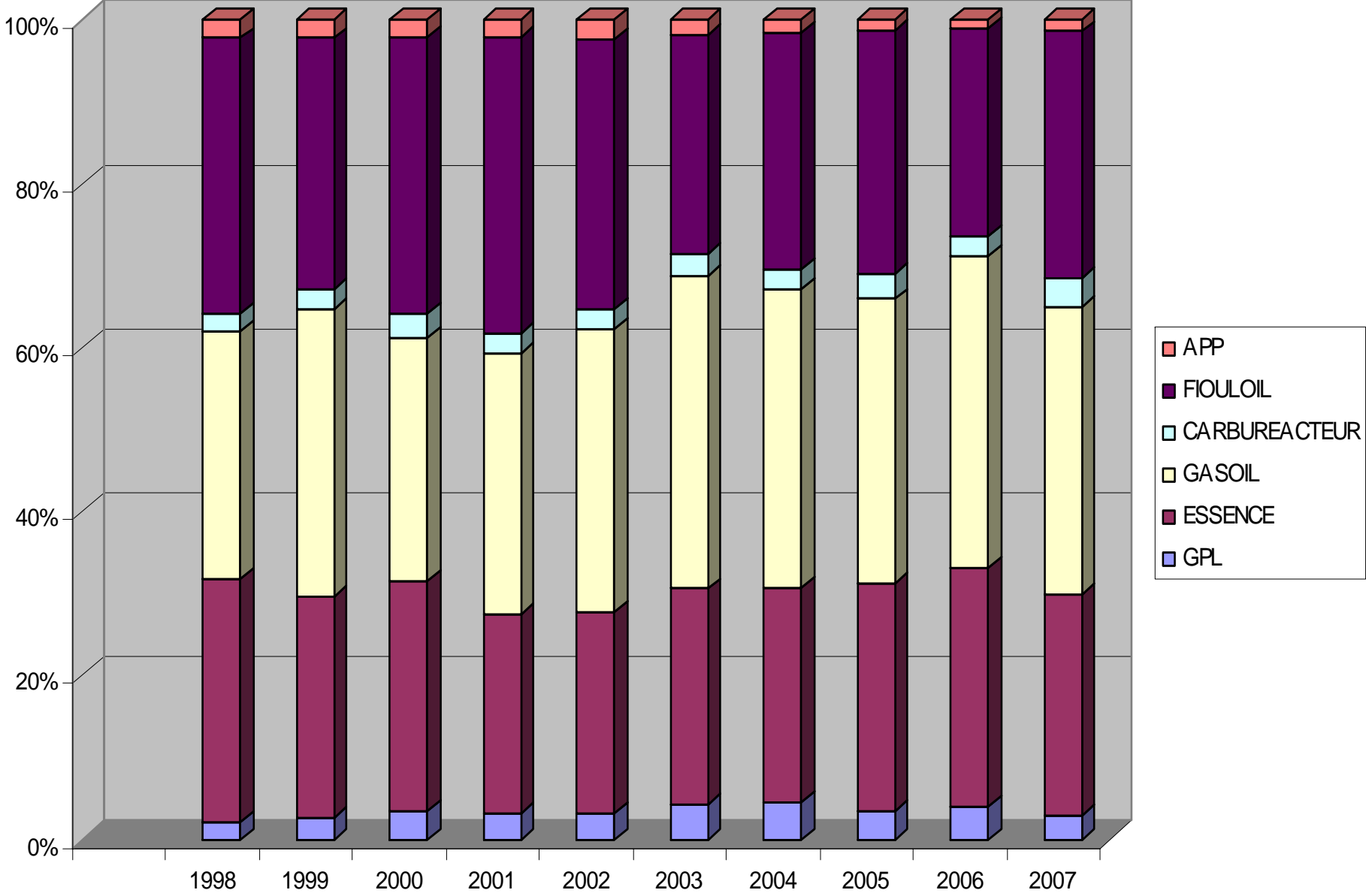
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Evolution des Importations des Produits Pétroliers



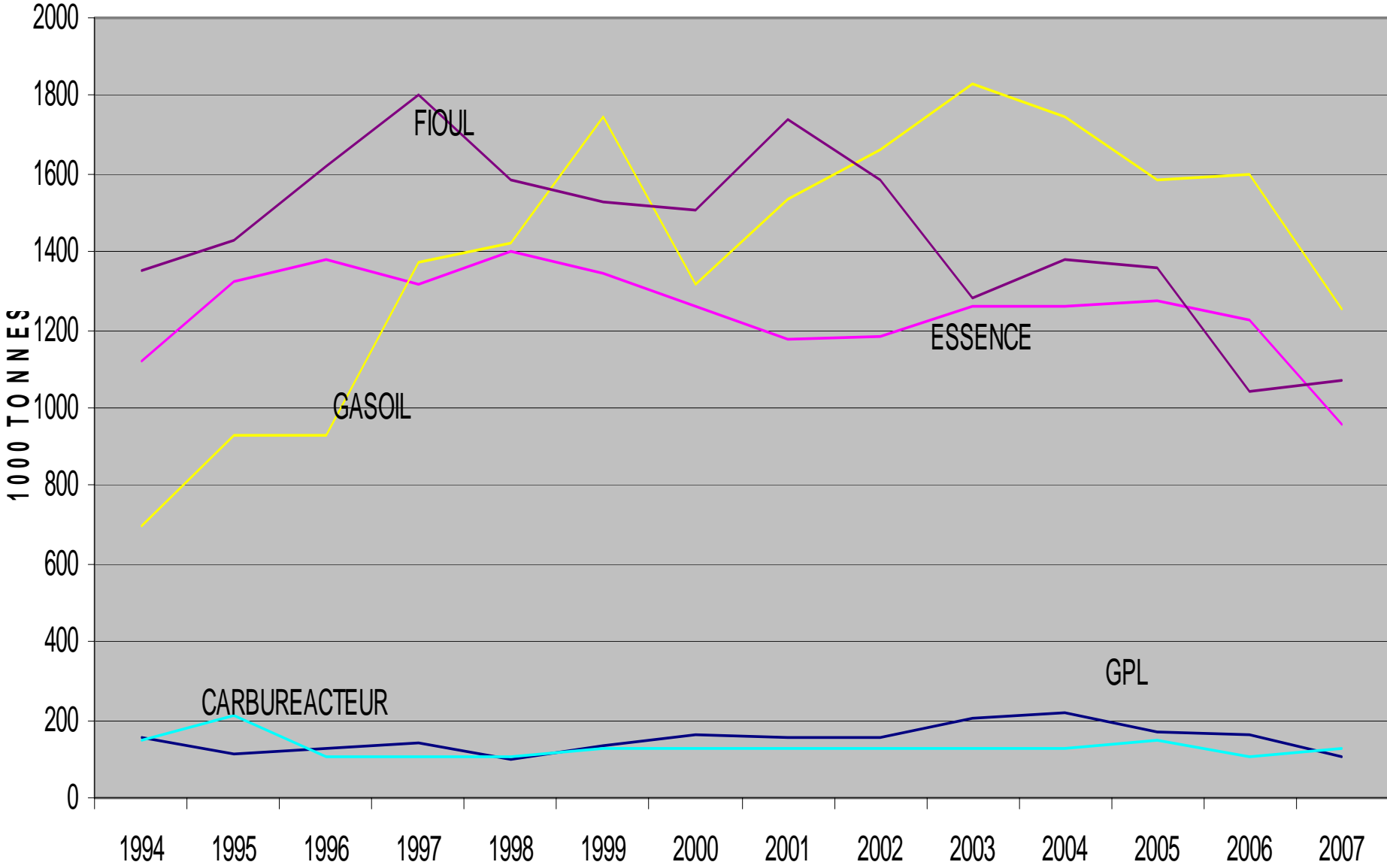
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Répartition des Importations des Produits Pétroliers 1998-2007



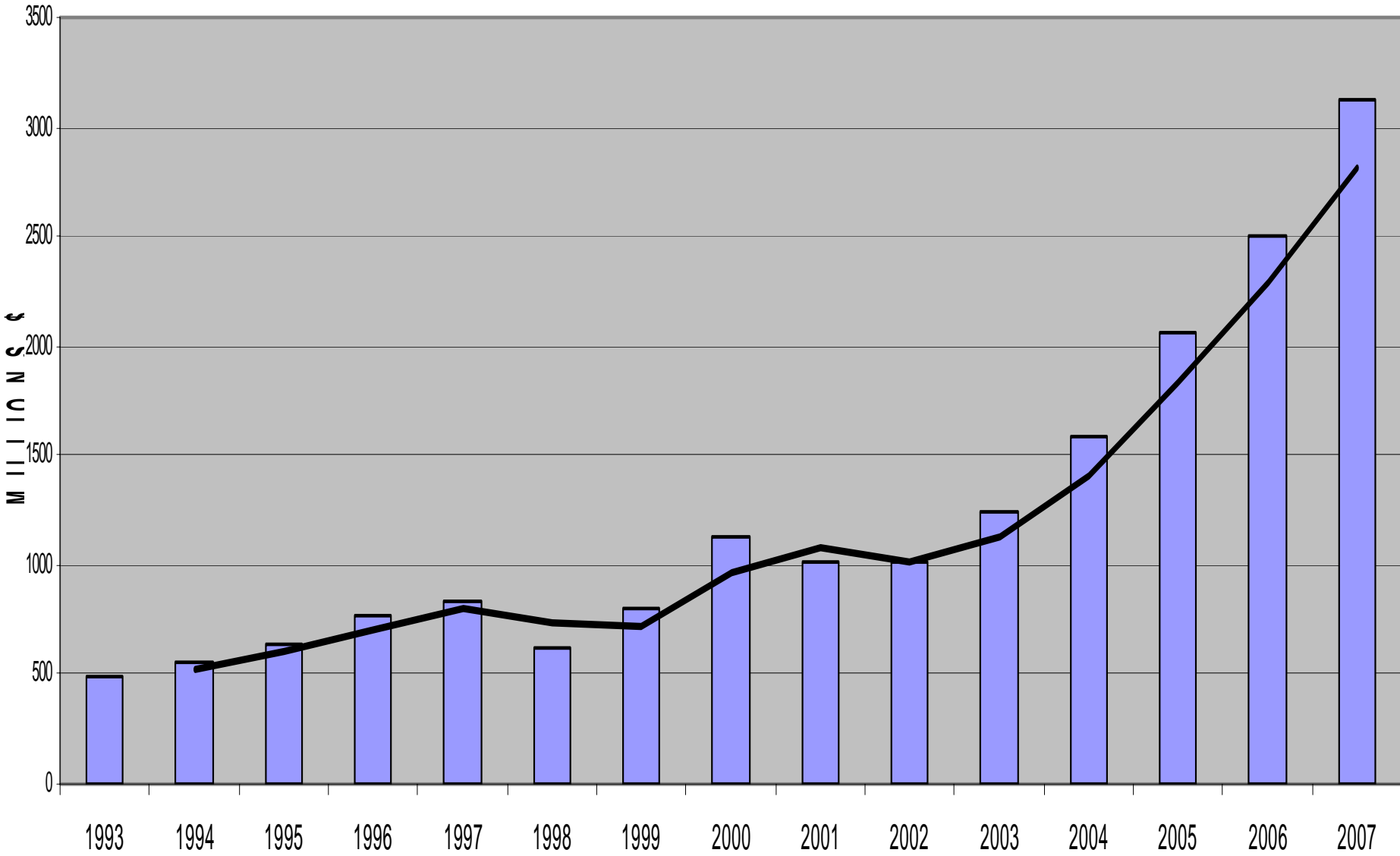
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EVOLUTION DES IMPORTATIONS DES PRODUITS PETROLIERS 1994- 2007



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EVOLUTION DE LAFACTURE ENERGETIQUE 1992-2007

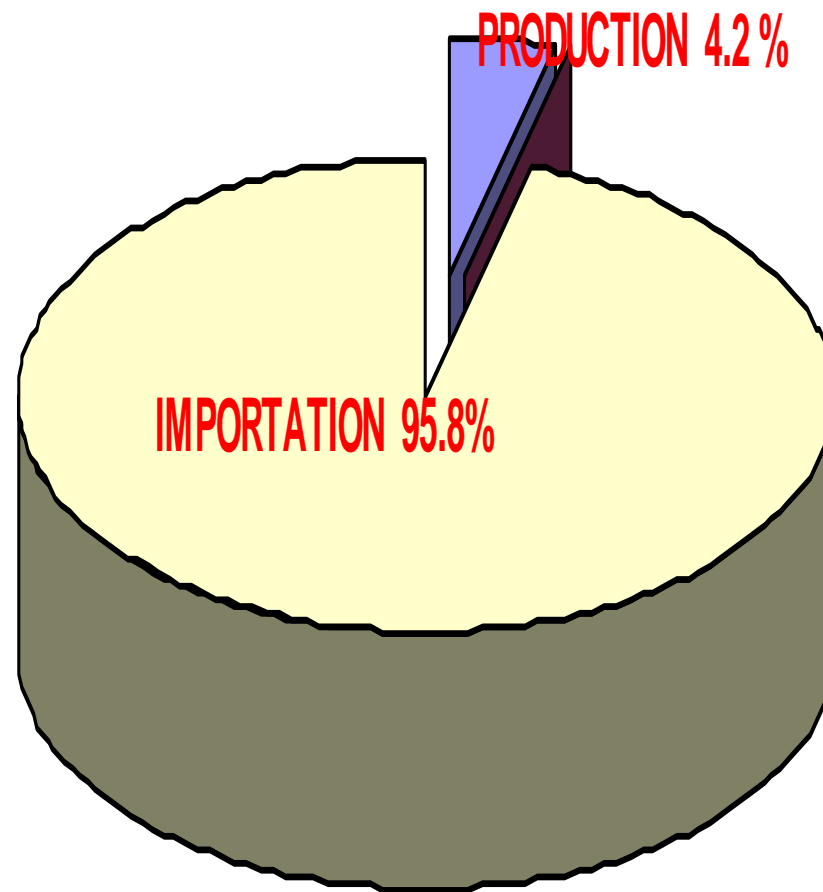


APPROVISIONNEMENT TOTAL EN ENERGIE PRIMAIRE ATEP (KTEP) - 2007

1- PRODUCTION		KTEP	%
1-1 HYDROENERGIE	585 GWH	51	1.3
1-2 ENERGIE TRADITIONNELLE		120	2.9
TOTAL 1		171	4.2
2- IMPORTATIONS		KTEP	%
2-1 GPL	KTONNES 104	118	2.9
2-2 ESSENCE	" 957	1023	25
2-3 GASOIL	" 1255	1355	33
2-4 KEROSENE	" 1	1	-
2-5 FIOUL OIL	" 1071	1029	25.2
2-6 CARBUREACTEUR	" 130	138	3.4
2-7 ELECTRICITE	GWH 972	86	2.1
2-8 CHARBON	KTONNES 200	132	3.2
2-9 A.P.P.	" 45	43	1
TOTAL 2		3925	95.8
3- EXPORTATION		—	—
4- VARIATION DE STOCK		—	—
5- TOTAL		4096	100

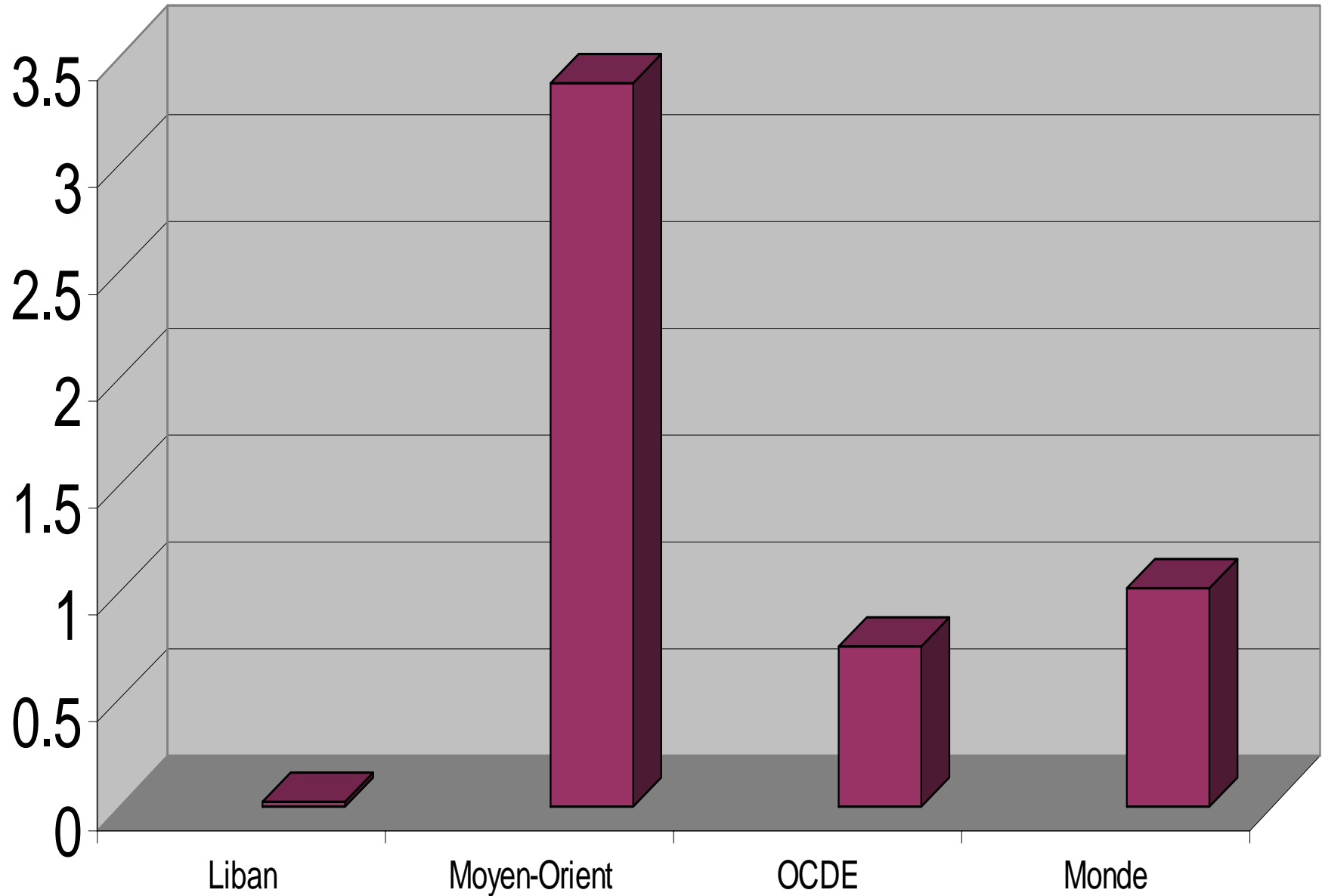
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% Production & Importation Energie Primaire 2007



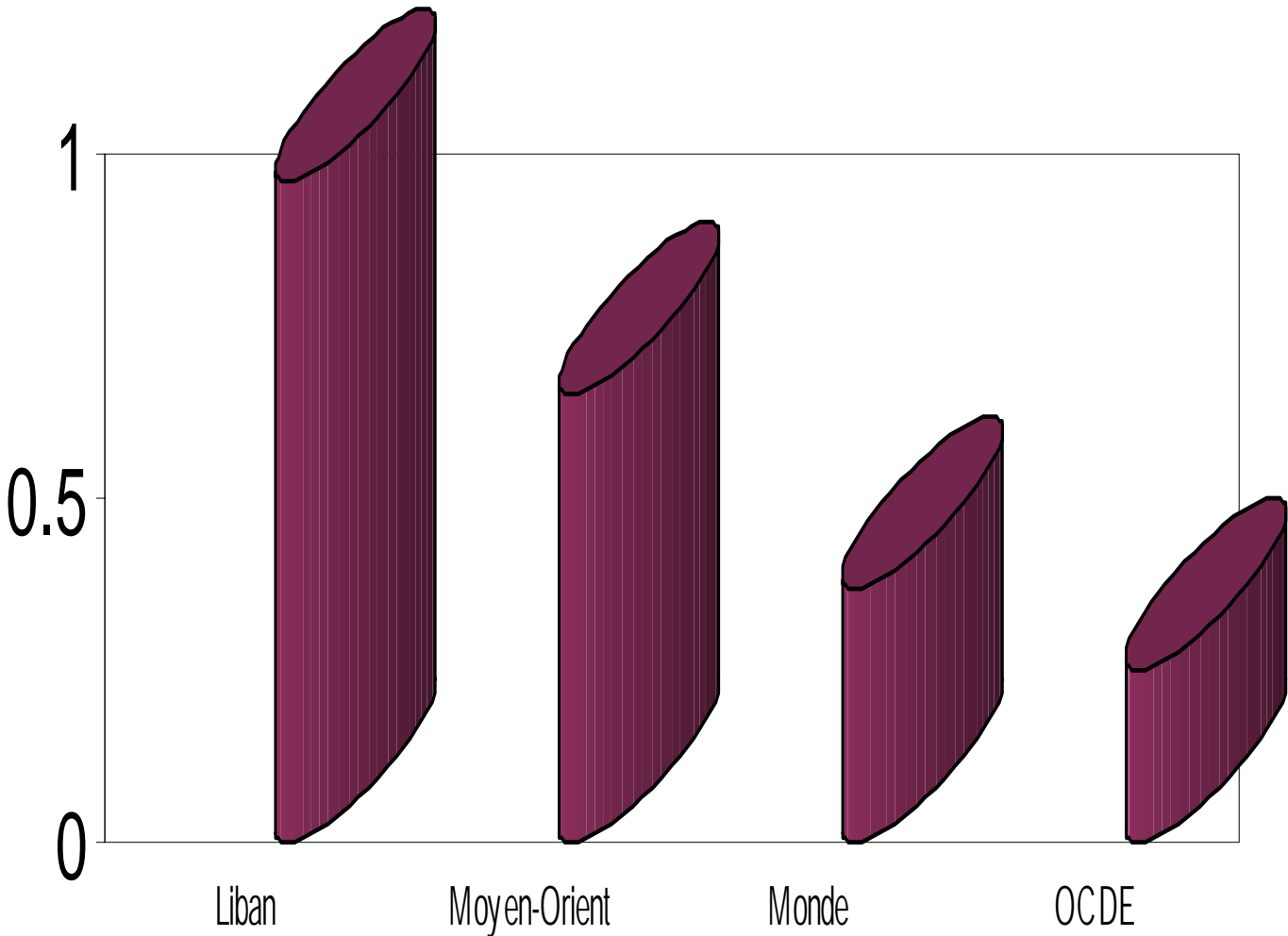
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Indépendance énergétique: production/approvisionnement



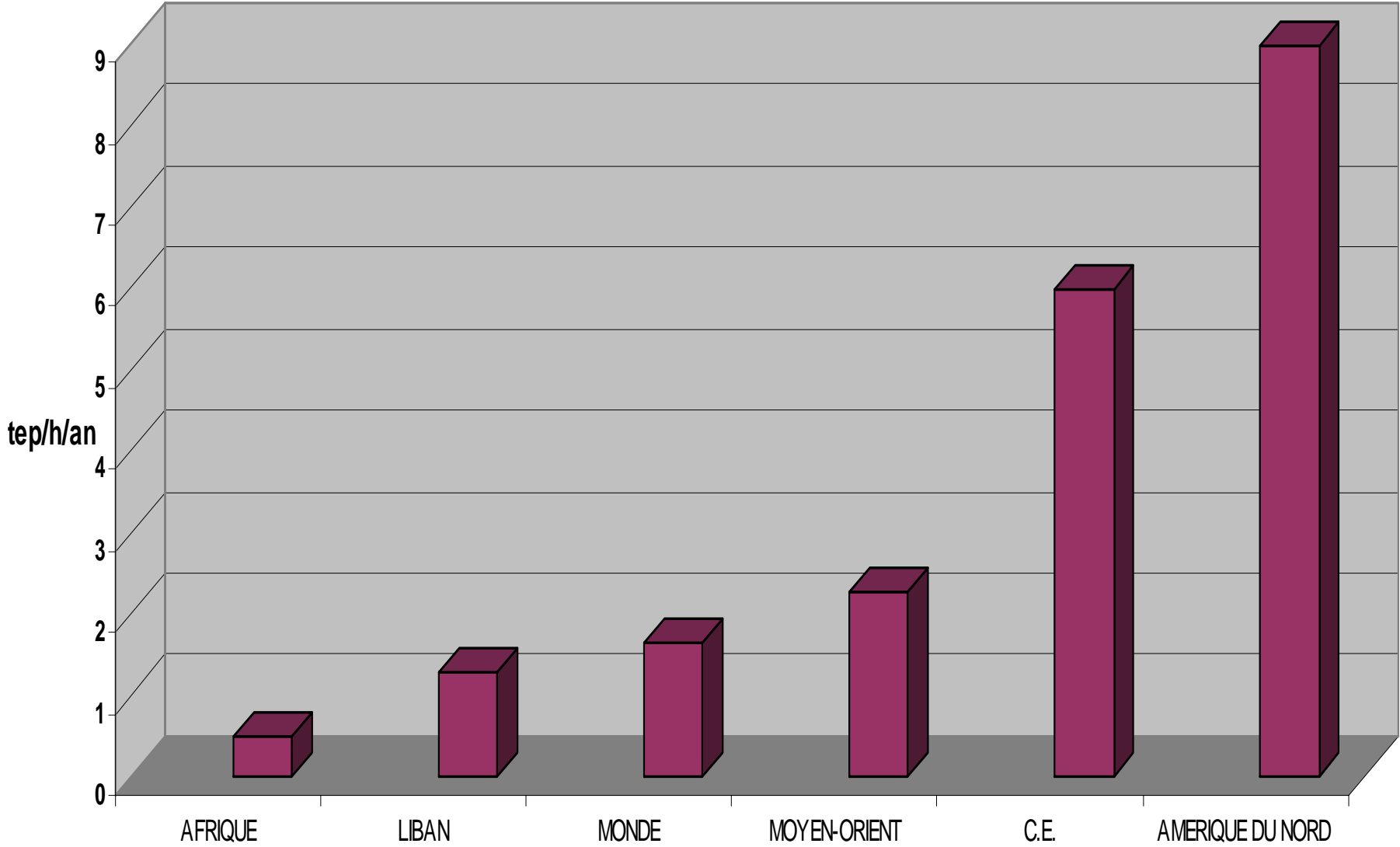
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Intensité Énergétique (TEP/Milliers de \$,90)



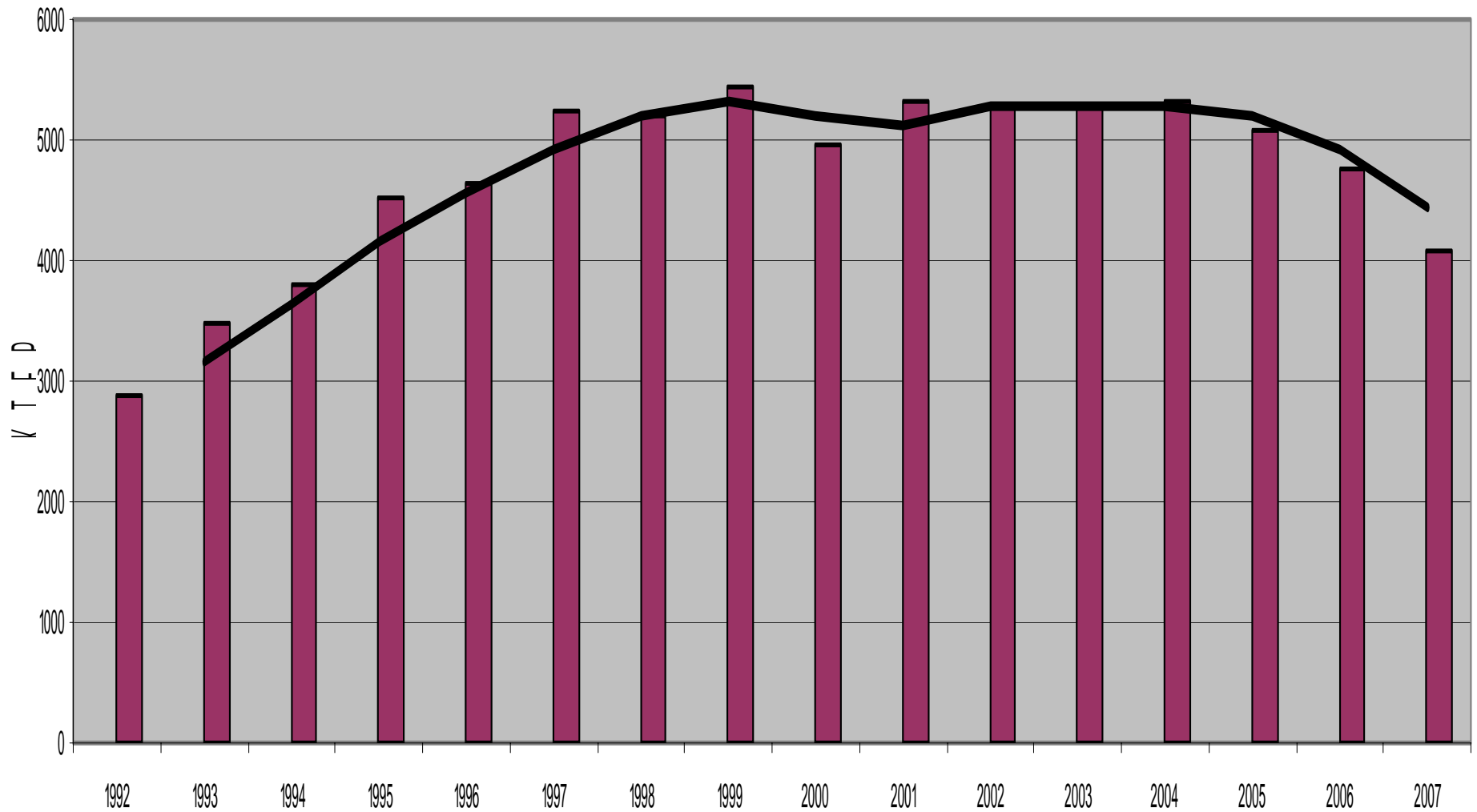
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Approvisionnement Total en Energie Primaire (ATEP)/H/AN



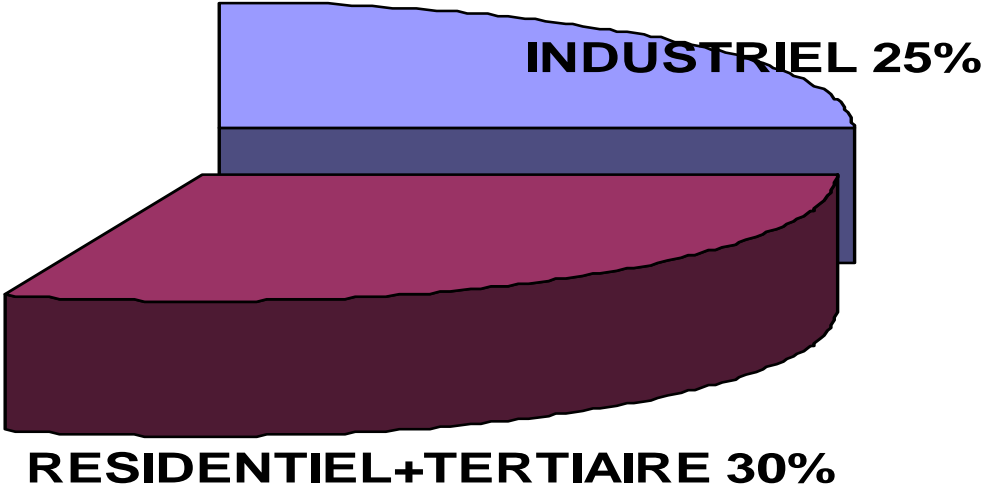
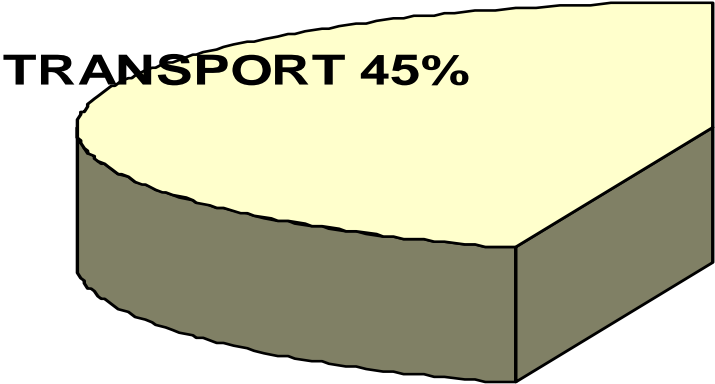


Evolution Approvisionnement Total en Energie Primaire (KTEP) 1992-2007



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VENTILATION ENERGIE FINALE



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CENTRALES HYDRAULIQUES EXISTANTES AU LIBAN

NOM	PROPRIETAIRE	PUISSANCE (MW)
SAFA/RICHMAYA	EDL (ETABLISSEMENT PUBLIC)	13
ABDEL AL ARKACHE	OFFICE DE LITANI (ETABLISSEMENT PUBLIC)	34
HELOU	"	108
NAHR IBRAHIM	PRIVE	48
BARED	PRIVE	33
ABOU ALI	PRIVE	17
BLAOUZA	KADISHA (COMPAGNIE PROPRIETE DE L'EDL)	7.4
MAR LICHAA	"	8.4
BCHARRE	"	3.1
		1.6
	TOTAL HYDRAULIQUE	273.5

CENTRALES THERMIQUES EXISTANTES AU LIBAN

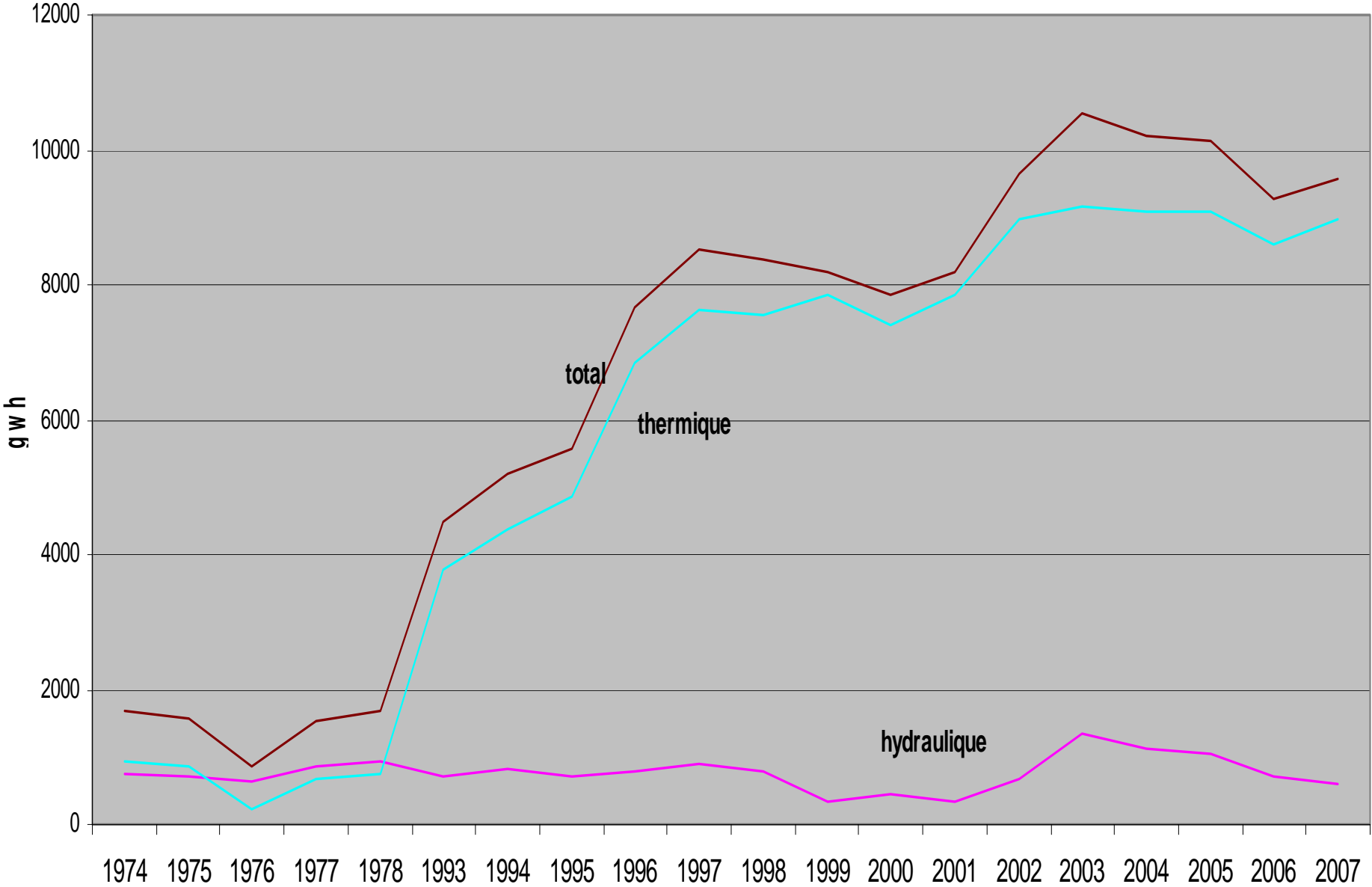
NOM	TYPE	COMBUSTIBLE	PROPRIETAIRE	PUISSANCE (MW)
ZOUK	TURBINE A VAPEUR	FUEL OIL LOURD	EDL	145X3
ZOUK	TURBINE A VAPEUR	DIESEL OIL	EDL	175
JIEH	TURBINE A VAPEUR	GAZ	EDL	18
HREYCHE	TURBINE A VAPEUR	FUEL OIL LOURD	EDL	62X2
BAALBECK	TURBINE A VAPEUR	FUEL OIL LOURD	KADISHA (APPARTENANT EDL)	69X3
SOUR	TURBINE A VAPEUR	DIESEL OIL	EDL	65
ZAHRANI	TURBINE A GAZ	DIESEL OIL	EDL	35X2
DEIR AMAR (BEDDAOUI)	TURBINE A GAZ	DIESEL OIL OU GAZ NATUREL	EDL	35X2
	C.C.	DIESEL OIL	EDL	145X3
	C.C.	DIESEL OIL OU GAZ NATUREL	EDL	145x3
	TOTAL THERMIQUE			2034

VENTILATION DE LA PRODUCTION D'ELECTRICITE EN GWH

	2000	2001	2002	2003	2004	2005	2006	2007
CETRALES THERMIQUES								
1- JIEH	1940	1807	1850	1154	1415	1800	1248	1311
2- ZOUK - VAPEUR	3056	3002	3174	2755	2656	2806	2204	2204
3- ZOUK - GAZ	15	0	0	0	0	0	0	
4- SOUR (TYR)	254	359	51	46	66	138	133	146
5- BAALBEK	18	195	145	79	106	137	150	395
6- ZAHRANI	1119	1249	2043	2390	2184	1556	2530	2688
7- DEIR AMMAR	694	947	1416	2414	2291	2355	2038	1968
TOTAL THERMIQUE EDL	7095	7559	8679	8839	8719	8792	8303	8713
8- HREYCHE (KADISHA)	293	282	303	346	353	286	289	278
TOTAL THERMIQUE AU LIBAN	7390	7842	8982	9184	9072	9078	8592	8990
CENTRALES HYDRAULIQUES								
9- SAFA	17	11	26	37	25	22	25	18
10- LITANI	257	146	424	1027	846	775	457	384
11- NAHR IBRAHIM	75	72	94	121	197	105	84	79
12- BARED	43	44	60	85	62	62	52	39
13- KADISHA	58	59	74	92	81	82	77	65
TOTAL HYDRAULIQUE AU LIBAN	449	332	678	1368	1120	1046	695	585
TOTAL GENERATION	7837	8174	9660	10548	10192	10124	9287	9575
IMPORT SYRIE	1397	1263	532	0	216	455	929	972
TOTAL GWH SUR LE RESEAU	9236	9437	10192	10548	10409	10579	10216	10547

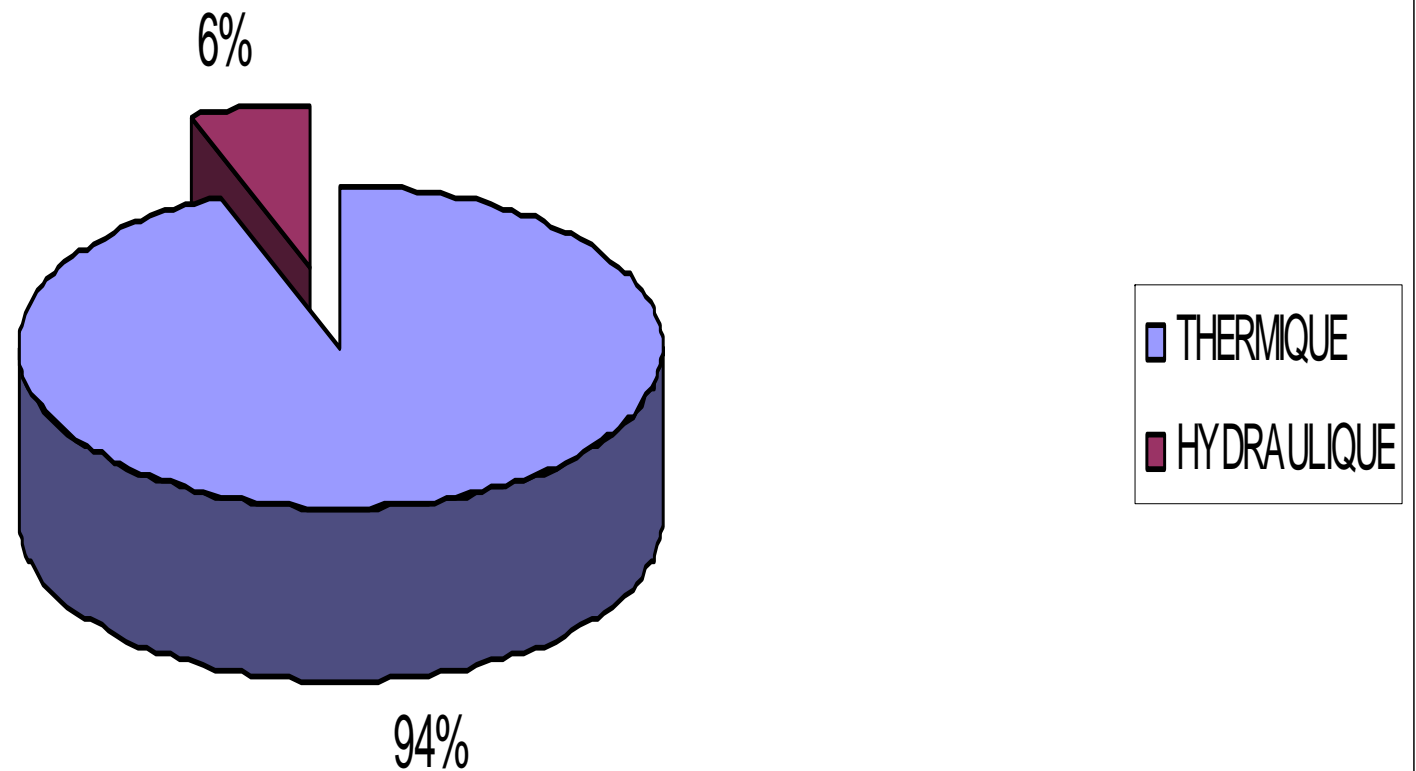
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EVOLUTION DE LA PRODUCTION D'ELECTRICITE



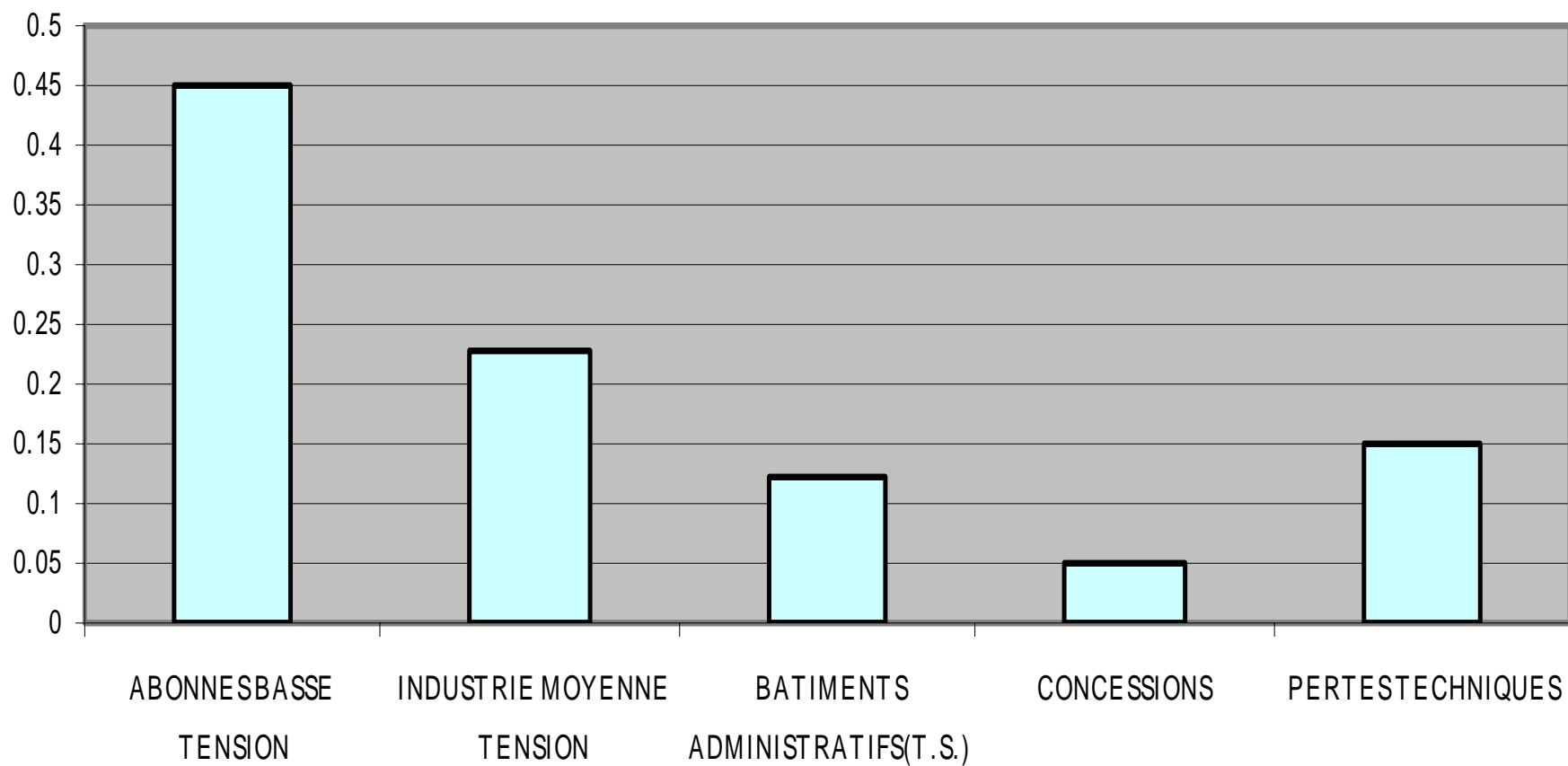
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Ventilation de la Production Electrique en 2007



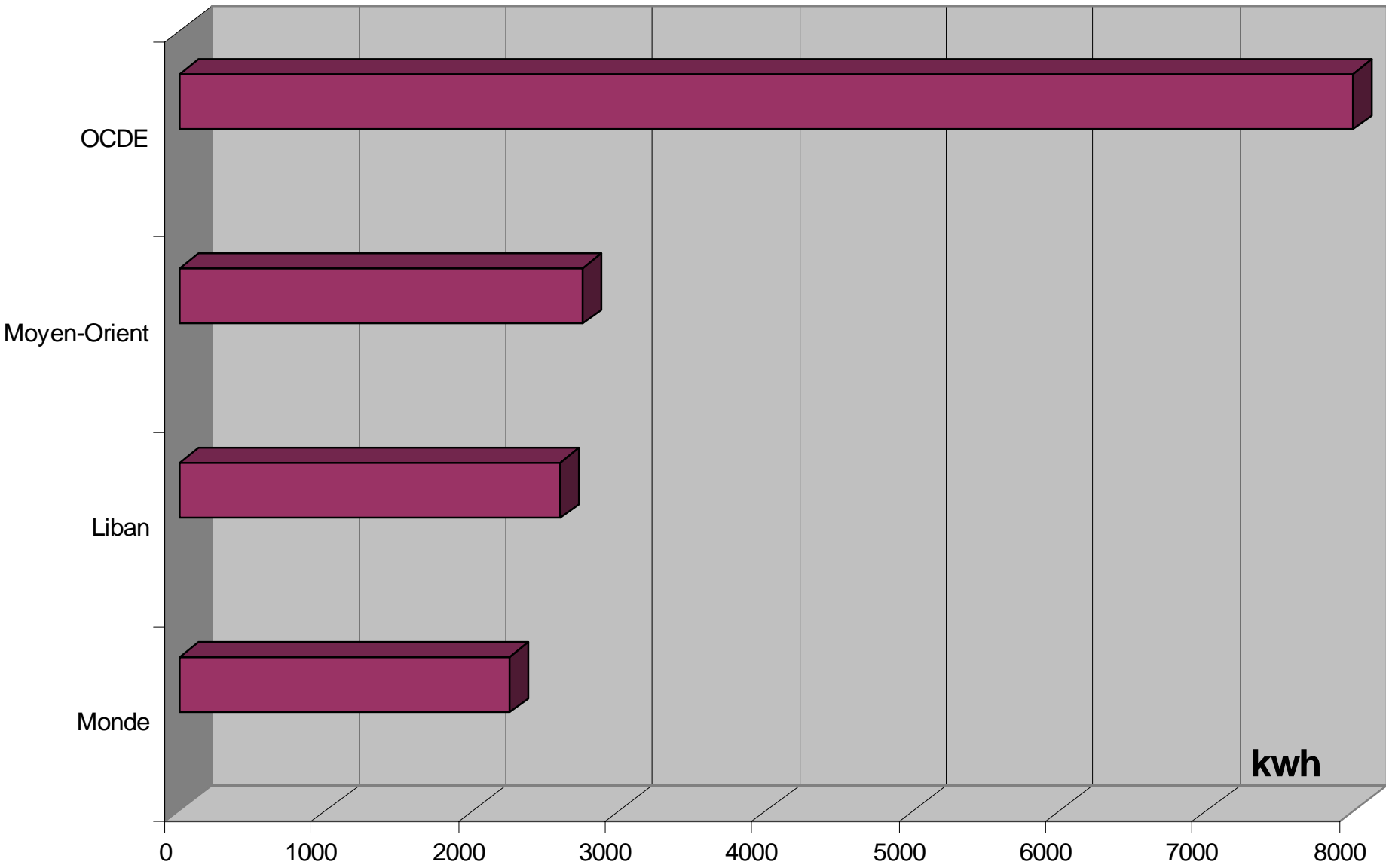
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VENTILATION DE LA CONSOMMATION ELECTRIQUE





Consommation Electrique par Habitant et par An



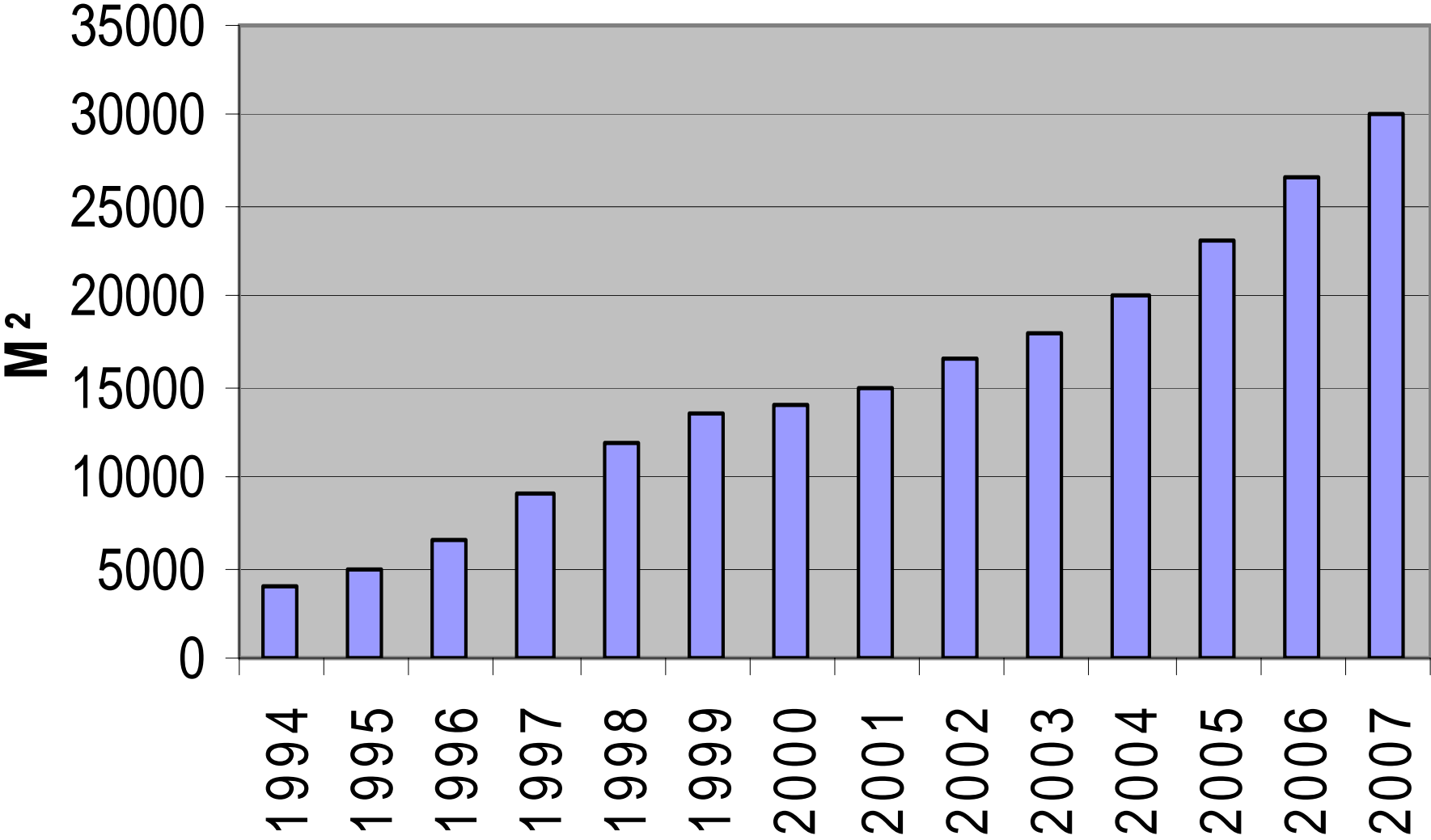
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Tarification du Courant Électrique

Consumption	Tariff LV		Tariff
kWh/month	LBP/kWh		\$ / kWh
< 100	35		0.023
101 - 300	55		0.036
301 - 400	80		0.053
401 – 500	120		0.079
> 500	200		0.132
Small industry	115		0.076
Agriculture	115		0.076
Public	140		0.092
	Tarrif MV		
Industry	320	Peak	0.211
Hotels	112	Normal	0.074
	80	Night	0.053
	50	Reactive kVar	0.033

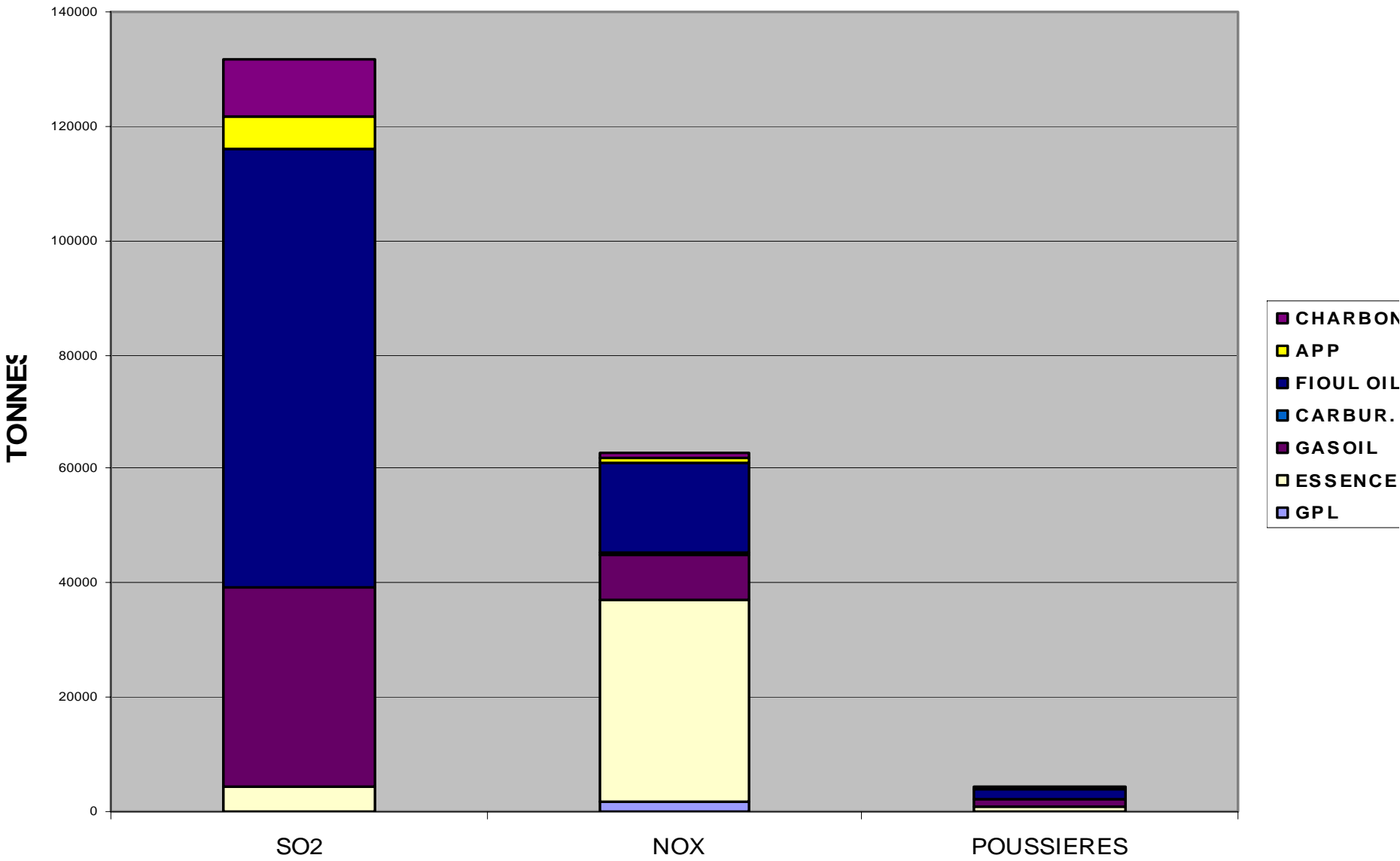


Installed M² of Solar Collectors/year



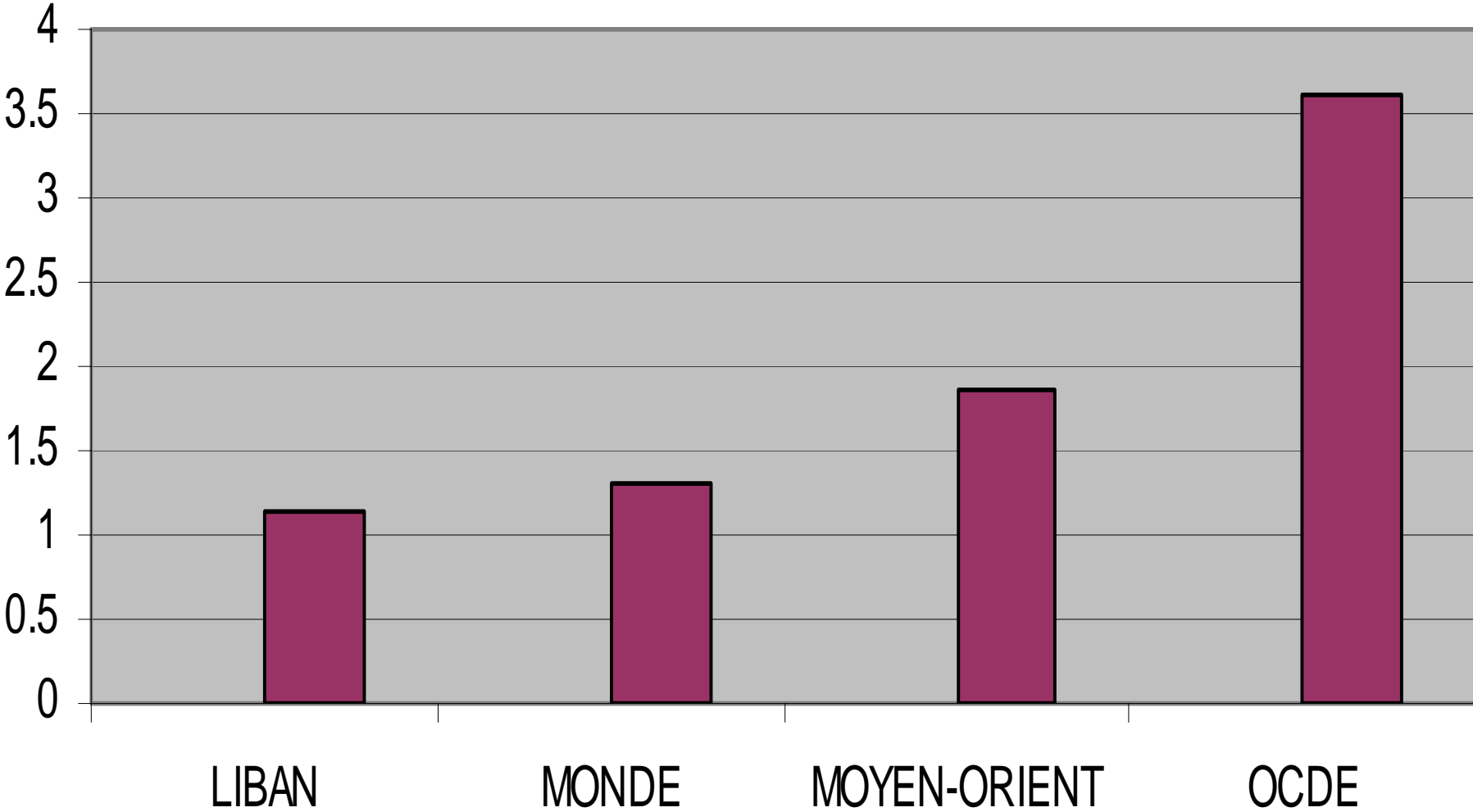
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EMISSIONS EN POLLUANTS ATMOSPHERIQUES LIES AU SECTEUR DE L'ENERGIE 2006



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Emissions en CO2 par Habitant et par an



GOALS



To develop and promote all the scientific and technical methods and means that allow a better management of Energy and Environment as well as related economies on a national level and in the Mediterranean basin in the following fields:

- Renewable energies: solar, wind, biomass, hydraulic, etc...
- Generation and exploitation of the electrical energy.
- Buildings: insulation, glazing, heating, air conditioning, etc...
- Industrial processing, cogeneration.
- Transportation.
- Heat pump and refrigeration.
- Waste.

ALMEE is a non-political & non-profit association.



Son action porte sur le développement et la promotion de tous les procédés et les moyens scientifiques et techniques qui permettent une gestion rationnelle de l'énergie. Ses domaines d'activités sont:

- Energies renouvelables: solaire, éolienne, biomasse, etc...
- Exploitation de l'énergie électrique.
- Bâtiment: isolation, vitrage, chauffage, climatisation, etc...
- Processus industriels, cogénération.
- Transport.
- Pompe à chaleur.
- Déchets.

L'ALMEE est une association apolitique et à but non lucratif.



... that the sun, the wind, the waves and also the wastes produce energy ?

... that by well insulating your home (double glazing, thermal insulation...) you will reduce your heating and air-conditioning consumption and you will also improve your thermal comfort ?

... that the sunflower, the sugar cane, the soya and many other plants can provide us with fuel for our cars with much less pollution than that we are consuming today ?

Designed by: Ricom

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energy saving
solutions

renewable energy

solar system

ozone

air quality

thermal
comfort

Lebanese Association
for Energy Saving
& for Environment

Association Libanaise pour la Maîtrise de l'Énergie et de l'Environnement

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