



FRANCE: INVENTORY OF ESTIMATED BUDGETARY SUPPORT AND TAX EXPENDITURES FOR FOSSIL-FUELS

Energy resources and market structure

France has very limited fossil-energy resources and imports most of its oil and natural gas and all of its coal. Since even before the oil crises of the 1970s, France has pursued a policy of developing its nuclear energy industry to reduce its dependence on fossil energy imports, though almost all of the uranium needed to fuel its nuclear power plants is imported. In 2009, nuclear power accounted for more than three-quarters of France's electricity generation and 41% of its total primary energy supply. Oil accounts for 30% of energy use, having dropped steadily from nearly two-thirds in the 1970s. Natural gas accounts for 16% and hydro-electric power and other renewable energy sources (including municipal waste) for most of the rest. Treating nuclear power as domestic supply, indigenous production meets just over half of the country's energy use.

Historically, France has had a strong tradition of state involvement in the energy sector. In recent years, however, government ownership of energy companies has diminished somewhat. The oil industry is now entirely in private hands. The privatisation of the previously partially state-owned international oil company, Total, which merged with the former state-owned company Elf in 2000, was completed in the late 1990s. A number of other private companies, many of them foreign-based multinationals, are active in the French refining, distribution and marketing businesses.

The state retains substantial ownership stakes in electricity and natural gas. In November 2004, the two incumbent monopoly companies, Electricité de France (EDF) and Gaz de France, both of which were 100% state-owned, became limited companies with a board of directors. The next year, minority stakes in the two companies were sold to private investors. The state retains an 85% stake in EDF, and holds a 36% stake in GDF Suez as a consequence of the merger of Gaz de France with Suez in 2008. AREVA, the primary manufacturer of nuclear-power systems in France, remains majority-owned by the state (primarily through the *Commissariat à l'énergie atomique et aux énergies alternatives*) although private investors can now hold up to 4% of the capital. The government has created Pluri-annual Investment Plans to evaluate investment choices and to ensure that they align with objectives for desired future developments in the energy sector.

France has liberalised its electricity and gas sectors progressively to comply with EU directives, eliminating the monopoly rights of the two state companies. Transmission and distribution of natural gas and electricity have been unbundled; negotiated third-party access to underground storage of natural gas introduced; and a regulator, the *Commission de Régulation de l'Énergie* (CRE), and a mediator to protect electricity and gas consumers, were established.

Despite recent moves to liberalise the sector, EDF still accounts for the bulk of power generation. The French transmission network is 100% owned and operated by the French transmission system operator, RTE, or *Gestionnaire du réseau*, a subsidiary of EDF. The distribution network is owned by local authorities (*collectivités territoriales*). RTE is mandated to ensure connection and non-discriminatory access to transmission networks to third parties. Eligibility to choose supplier was first offered in France in 2000 to the largest consumers. Since July 2007, all electricity consumers in France are eligible to choose their supplier. However, EDF still has a

dominant market position, and consumer switching rates are very low: as of March 2012, 94% of residential customers and 93% of non-residential customers (by number of sites supplied) were still supplied by EDF.

GDF Suez is similarly still the dominant player in the natural-gas sector, importing the bulk of the country's gas needs and operating, through GRTgaz, a 100% subsidiary, the national transmission system which covers most of the country. In the south-west, there is a separate network operated by Total Infrastructures Gaz France, which is a 100% subsidiary of Total. GDF Suez also owns the majority of the local distribution networks; the remainder are owned by local authorities. GDF Suez and the other incumbent gas suppliers have retained most of the retail market (90% of residential customers and 79% of non-residential customers as of March 2012).

Prices, taxes and support mechanisms

The prices of all forms of energy other than electricity and natural gas are set freely by the market. Electricity and gas customers have a choice of supply from incumbent suppliers at regulated tariffs or from alternative suppliers at market rates. Social tariffs for electricity and natural gas are available to residential customers on low incomes. The social tariff for electricity only applies to rates offered by EDF and local, non-nationalised distributors; the social rate for gas is to be applied by all natural-gas suppliers (including new entrants). The CRE is responsible for proposing changes to regulated tariffs, but the government still has the final say over whether to approve or refuse the change (but not modify it). The CRE is also responsible for regulating tariffs for access by third parties to gas and electricity infrastructure.

Energy products and services are subject to VAT at the rate of 19.6%, with the exception of the fixed component of contracts for the distributed supply of electricity, natural gas and liquefied petroleum gas, for which the rate is 5.5%. Excise duties are payable on all sales of oil products (at varying rates according to the fuel, the sector, and the *région*) and a domestic consumption tax is levied on deliveries of coal and natural gas to non-residential consumers. Biofuels benefit, under certain conditions, from a lower rate of excise duty than conventional petroleum transport fuels. The General Tax on Polluting Activities, established in 1999, was extended in 2005 to distributors of automotive fuels that do not meet annual biofuels targets. At the national level, electricity tariffs include a tax called CSPE (*contribution au service public de l'électricité*), which aims to offset the additional costs resulting from electricity production by co-generation, contract purchases of renewable energy, charges resulting from the application of uniform tariffs in areas that are not interconnected, and social provisions. In recent years, the revenues raised by the CSPE tax have not been sufficient to fully offset the additional costs.

There are a number of different mechanisms and arrangements for directing support at some specific fuels and categories of end user. These mainly take the form of partial or full exemptions or refunds on VAT or excise duties on oil products. Examples include a reduced rate of excise duty on fuel used by taxis and specific types of machinery used in farming and construction, and a tax exemption on fuel used by certain boats. In addition, grants are available under certain conditions for upgrading service stations in remote areas. Other incentives include total or partial exemptions on car registration fees and company car taxes for LPG-fuelled vehicles. In most cases, the total annual monetary value of the different forms of support is modest, though it can still represent a substantial transfer from the perspective of the recipient.

Data documentation

General notes

The fiscal year in France coincides with the calendar year. Following OECD convention, amounts prior to 1999 are expressed as 'euro-fixed series', meaning that we applied the fixed EMU conversion rate (1 EUR = 6.559 FRF) to data initially expressed in the French Franc (FRF).

Producer Support Estimate

France used to support production of coal through *Charbonnages de France* (CdF), a state-owned enterprise. Support was at the time deemed necessary owing to the low competitiveness of the French coal industry. By 1990, production had already ceased in the North of the country. An agreement between trade unions and CdF, the *Pacte Charbonnier*, was therefore concluded in October 1994 to organise the progressive dismantling of the remaining production sites. The agreement provided for the end of all production by 2005. This was to be achieved through a series of measures meant to address the social costs associated with mine closures. One such measure, the *congé charbonnier de fin de carrière*, allowed coal miners to stop working at the age of 45 while remaining entitled to payments worth 80% of their previous wages.

The last remaining mine was closed in 2004, ahead of schedule. CdF was liquidated in 2007 and its debt transferred to the French state, along with the responsibility for all inherited social and environmental liabilities. France does not produce coal any more.

Residual Financial Charges of CdF (data for 1990-1996)

This measure provided Charbonnages de France (CdF) with annual payments aimed at relieving the company from some residual financial charges it had inherited from the past. Not much information is available regarding this item but we put it under the ‘capital’ incidence category as suggested by the measure’s title.

Sources: Cour des Comptes (2000), Charbonnages de France (various years), Sénat (various years).

Tag: FRA_dt_04

General Research & Development Grant CdF (data for 1990-1996)

Charbonnages de France (CdF) used to receive annual Research & Development grants whose object remains unclear given the lack of details found in official documents. The fact that the grants were, however, firm-specific directs them to the PSE category rather than the GSSE category.

Sources: Cour des Comptes (2000), Charbonnages de France (various years), Sénat (various years).

Tag: FRA_dt_05

Direct State Aid to CdF (data for 1990-1996)

Charbonnages de France (CdF) had been receiving income support from the French government since the aftermath of the Second World War before the company was eventually liquidated in 2007. This item comprises direct aid that was not earmarked for any specific purpose. Aid stopped in the late 1990s after which it was replaced by annual capital contributions.

Sources: Cour des Comptes (2000), Charbonnages de France (various years), Sénat (various years).

Tag: FRA_dt_06

Interest Payments on 1997-99 Debt of CdF (data for 2000-2007)

This item comprises annual payments made to Charbonnages de France (CdF) in order to cover the interest payments on debt the company contracted in the years 1997 to 1999. Reporting ends with CdF's liquidation in 2007.

Sources: Cour des Comptes (2000), Charbonnages de France (various years), Sénat (various years).

Tag: FRA_dt_07

Capital Contribution to CdF (data for 1997-2007)

Following the termination of direct state aid to Charbonnages de France (CdF) in 1997, it was then decided to provide the company with annual capital grants meant to cover for insufficient equity. Payments went on until CdF's liquidation in 2007.

This item is put under the "income" incidence category because it does not require additional investment on the part of the company. As such, its actual effect is more to support income rather than to finance additional capital investment.

Sources: Cour des Comptes (2000), Charbonnages de France (various years), Sénat (various years).

Tag: FRA_dt_08

Partial Tax Deduction for Exploration Costs (data for 1999-2010)

This tax provision was known as the *Provisions pour reconstitution des gisements d'hydrocarbures* (Provisions for reconstituting oil and gas fields) before it was phased out in 2010. It allowed oil and gas companies operating in France to deduct a fixed percentage of their revenues from their income tax base, provided this amount was later reinvested in exploration. Given that France does not possess abundant petroleum and natural-gas resources, the amounts reported for this provision were fairly small. Recipients were very few, ranging between five and ten per year.

We use production data from the IEA's *Energy Balances* to allocate the annual amounts reported in budget documents to oil and natural-gas extraction.

Sources: Ministère de l'Économie et des Finances (various years), IEA.

Tag: FRA_te_02

Excise Tax Exemption for Natural-Gas Producers (data for 2007-)

Natural-gas extraction and production activities in France are exempted from paying any excise tax on the energy products they use as process energy (i.e. not as feedstock). The scale of oil and natural-gas production being small in France, the reported amounts do not add up to significant annual tax expenditures, but we nonetheless include the concession for the sake of completeness. Moreover, the very small number of beneficiaries makes transfers per recipient quite significant (two recipients only in 2010).

Sources: Ministère de l'Économie et des Finances (various years).

Tag: FRA_te_11

Excise Tax Exemption for Refiners (data for 1999-)

The petroleum products and natural gas used by refiners as process-energy (i.e. not as feedstock) are exempted from the excise tax that is normally levied on most sales of such products in France. This measure dates back to 1956 and is described as a normal feature of France's tax code in budget documents.

We allocate the annual amounts reported in budget documents to LPG, natural gas, petroleum coke, refinery gas, heavy fuel oil, and other non-specified oil products on the basis of the IEA's Energy Balances for the oil refining sector.

Sources: Ministère de l'Économie et des Finances (various years), IEA.

Tag: FRA_te_24

VAT Exemption for Offshore Drilling Equipment (no data available)

This measure was introduced in 1971 to encourage the exploration for and development of natural resources located on France's continental shelf. It exempted from the regular value-added tax (19.6%) some purchases of equipment by exploration and development companies before it was abolished at the end of 2011. Starting on 1 January 2012, purchases of equipment by oil and gas companies operating on France's continental shelf are now subject to the regular rate of value-added tax.

No estimates of the revenue foregone due to this measure are available.

Sources: Ministère de l'Économie et des Finances (various years).

Consumer Support Estimate

Prime à la Cuve (data for 2005-2009)

This programme was created in 2005 to provide low-income households with grants to help them pay their heating bills. Only those households whose income is not taxable under France's personal income tax were eligible for the subsidy. Following submission of their heating-fuel bills, recipients would receive a lump-sum transfer ranging between EUR 75 and EUR 200. The measure being only transient, it was phased-out in 2009 after the last round of payments was made.

No payments were made in the year 2007 so that a zero value for that particular year is reported.

Sources: DG Trésor.

Tag: FRA_dt_01

Aid to Gas Stations (data for 1999-)

This programme provides certain gas stations in remote areas with annual subsidies aimed at upgrading infrastructure and helping small, declining businesses. It is managed by an *ad hoc* committee—the *Comité Professionnel de la Distribution des Carburants* (Professional Committee for Fuel Retailing)—that was set up in March 1991 to oversee applications and payments.

The measure was allocated to the CSE as it most directly benefits consumers rather than producers. Data could not be found for the years prior to 1999. We allocate the annual amounts reported in budget documents to the different fuels sold in French gas stations (i.e. gasoline and diesel fuel since the shares for other fuels are negligible) on the basis of the IEA's Energy Balances for the road-transport sector.

Sources: Ministère de l'Économie et des Finances (various years), IEA.

Tag: FRA_dt_09

Overseas VAT Exemption for Petroleum Products (data for 1999-)

Petroleum products consumed in certain French overseas *départements* (Guadeloupe, Guyane, Martinique, and La Réunion) have been exempted since 1951 from the VAT that is normally levied on most sales of such products. This concession is meant to help those territories that are both geographically and economically disadvantaged.

Because this measure applies to a few other goods in addition to petroleum products (e.g. rice), the reported tax expenditures may overestimate the part of the exemption that effectively benefits fossil fuels. We allocate the annual amounts reported in budget documents to gasoline, fuel oil, kerosene-type jet fuel, and diesel fuel on the basis of data from the *Direction Générale des Douanes et Droits Indirects* on annual imports of petroleum products into French overseas *départements*. Shares for petroleum products other than the four mentioned above (e.g. naphtha, aviation gasoline, paraffin waxes, white spirit) are negligible and are therefore omitted.

Sources: Ministère de l'Économie et des Finances (various years), Direction Générale des Douanes et Droits Indirects.

Tag: FRA_te_03

VAT Reduction for Petroleum Products in Corsica (data for 2007-)

A reduced rate of VAT (13%) applies to petroleum products consumed in Corsica, whereas most other goods and services remain subject to the standard continental rate of 19.6%.

Data prior to 2007 are not available.

Sources: Direction Générale des Douanes et Droits Indirects.

Tag: FRA_te_04

Reduced Rate of Excise for Taxi Drivers (data for 1999-)

Since 1982, taxi drivers in France have benefitted from a reduced rate of excise tax on their purchases of gasoline and diesel fuel. The concession takes the form of an annual, capped refund based on the amounts of fuel effectively consumed.

We allocate the annual amounts reported in budget documents to gasoline and diesel fuel on the basis of the IEA's Energy Balances for the road transport sector.

Sources: Ministère de l'Économie et des Finances (various years), IEA.

Tag: FRA_te_05

Excise Tax Exemption for Certain Merchants (data for 1999-2008)

This tax provision applied to those merchants that operate from a fixed selling point (i.e. that are not itinerant) located in a town counting less than 3 000 inhabitants, while also engaging in small-scale deliveries. The concession was capped at 1 500 litres a year and was phased out at the end of 2008 following a request to this effect by the European Commission.

We allocate the annual amounts reported in budget documents to gasoline and diesel fuel on the basis of the IEA's Energy Balances for the road transport sector.

Sources: Ministère de l'Économie et des Finances (various years), IEA.

Tag: FRA_te_06

Excise Tax Exemption for Co-generation (data for 1999-)

This measure exempts both mineral oils and natural gas burnt for the purpose of co-generation from the excise tax that is normally levied on fuel consumption in France. It applies only to those plants that were built before 31 December 2007, and for no more than five years. The latter period can, however, be extended to ten years in the case of certain plants using heavy fuel oil and flue-gas desulfurization equipment.

We allocate the annual amounts reported in budget documents to heavy fuel oil, refinery gas, and natural gas on the basis of the IEA's Energy Balances for the combined heat-and-power generation sector.

Sources: Ministère de l'Économie et des Finances (various years), IEA.

Tag: FRA_te_07

Excise Tax Exemption for the Ministry of Defence (data for 2006-2009)

The French Ministry of Defence was until recently exempted from paying the excise tax normally levied on most sales of petroleum products in France. The measure proved short-lived, since it was introduced in 2006 and phased out in 2009.

Given that this measure applied for the most part to heavy ground-vehicles such as tanks and trucks, we allocate it entirely to diesel fuel.

Sources: Ministère de l'Économie et des Finances (various years).

Tag: FRA_te_08

Excise Tax Exemption for Local Administrations (data for 2007)

This one-off measure exempted some local and regional administrations from paying the excise tax on natural gas that normally applies in such cases.

Sources: Ministère de l'Économie et des Finances (various years).

Tag: FRA_te_09

Excise Tax Exemption for Biomass Producers (data for 2007-)

This measure is fairly small and exempts some biomass producers (e.g. producers of alfalfa) from paying the regular excise tax on coal products, which are sometimes used for dehydrating biomass. Eligible biomass producers are those for whom energy purchases represent at least 3% of their annual revenues.

We allocate this measure entirely to bituminous coal.

Sources: Ministère de l'Économie et des Finances (various years).

Tag: FRA_te_10

Excise Tax Exemption for Households (data for 2007-)

This measure exempts households from the excise tax that is normally levied on purchases of natural gas in France. Budget documents indicate that this tax concession was introduced in 2007 to remove distortions in the tax treatment of those households that are directly provided with natural gas and those that receive reticulated heat.

Sources: Ministère de l'Économie et des Finances (various years).

Tag: FRA_te_12

Reduced Rate for Fuel Oil Used as Diesel Fuel (data for 1999-)

This concession dates back to 1970 and allows users in the farming and construction sectors to benefit from the lower rate of excise tax that applies to heating oil when using the latter in diesel engines. Those two types of fuel are very close and can sometimes be used interchangeably.

Since 1 October 2011, the use of fuel oil as propellant is no longer allowed in farming and other off-road activities. Instead, there is now a specific off-road diesel fuel that must be used in lieu of heating oil. This off-road diesel fuel still attracts a reduced rate of fuel tax of EUR 7.20 per hectolitre (instead of EUR 5.66 per hectolitre for heating oil).

Sources: Ministère de l'Économie et des Finances (various years).

Tag: FRA_te_13

Reduced Rate for Natural Gas Used as Fuel (data for 2007-)

A 100% reduction in the rate of excise tax applies to natural gas when used as a transport fuel. Budget documents indicate that the concession was introduced in 2007.

Sources: Ministère de l'Économie et des Finances (various years).

Tag: FRA_te_15

Reduced Rate of Excise for LPG (data for 1999-)

The use of liquefied petroleum gas in France has attracted a reduced rate of excise tax since 1996. Budget documents indicate that this tax reduction aims to promote the use of LPG and to contribute to the improvement of air quality.

A further reduction in the rate of excise tax applicable to liquefied butane and propane used as fuels (EUR 4.68 per 100 kg instead of EUR 10.76 per 100 kg) is also available to certain specific off-road users.

Sources: Ministère de l'Économie et des Finances (various years).

Tag: FRA_te_16

Reduced Rate for Stationary Engines (data for 2007-)

Users of certain machines that are equipped with diesel-fired stationary engines are not subject to the regular excise tax on diesel fuel. The sectors most concerned by this measure are agriculture and construction.

Sources: Ministère de l'Économie et des Finances (various years).

Tag: FRA_te_17

Reduced Rate for Gasoline in Corsica (data for 1999-)

The use of gasoline in Corsica is subject to a reduced rate of excise tax. This reduction applies on top of an existing arrangement that allows regional authorities (*Conseils Régionaux* and the *Assemblée de Corse*) to vary the rate of excise within agreed limits. Only the former provision is reported here in order to be consistent with federal countries that apply varying rates of excise tax among sub-national units.

Sources: Ministère de l'Économie et des Finances (various years).

Tag: FRA_te_18

Refund for Public Transportation and Garbage Collection Using LPG or CNG (data for 1999-2010)

This measure was introduced in 1997 to provide public transportation and garbage collection with a capped refund (40 000 litres per year and vehicle) of excise tax for compressed natural gas and liquefied petroleum gas. It was phased out in 2008, following a request to this effect by the European Commission.

We allocate the annual amounts reported in budget documents to natural gas and LPG on the basis of the IEA's Energy Balances for the road-transport sector.

Sources: Ministère de l'Économie et des Finances (various years), IEA.

Tag: FRA_te_19

Refund for Diesel Used in Road Transport (data for 1999-)

The excise tax levied on diesel fuel used in road freight vehicles weighing at least 7.5 tonnes is, under this tax provision, partly refunded to targeted users. This concession was introduced in 1999 and is meant to support France's road freight sector. Freight companies registered in other EU countries can benefit from this measure provided they are able to attest having purchased diesel fuel in France for use in eligible vehicles.

Sources: Ministère de l'Économie et des Finances (various years).

Tag: FRA_te_20

Refund for Diesel Used in Public Transportation (data for 2001-)

This measure gives certain providers of public road transportation a partial refund of the excise tax that is normally levied on most sales of diesel fuel in France. Budget documents indicate that this concession was introduced in 2001 to promote public transportation.

Sources: Ministère de l'Économie et des Finances (various years).

Tag: FRA_te_21

Refund for Fuel Oil Used in Agriculture (data for 2006-2011)

Farmers have been attracting since 2004 partial refunds of the excise tax that is normally levied on most sales of fuel oil in France. This adds to the fact that fuel oil is often used as diesel fuel in agriculture, and that, as such, farmers already benefit from a lower rate of excise tax than would otherwise be the case (see "Reduced Rate for Fuel Oil Used as Diesel Fuel" above). The present measure explicitly aims at helping the agricultural sector cope with high energy prices. Although refunds were initially meant to be both discretionary and transitory, they have been reinstated every year since their first inception in 2004, and were again voted in 2012.

Estimates for the years 2004 and 2005 are not available.

Sources: Ministère de l'Économie et des Finances (various years).

Tag: FRA_te_22

Excise Tax Exemption for Certain Boats (data for 1999-)

This tax concession exempts the fuel used in certain boats from the excise tax that normally applies to most sales of petroleum products in France. The boats concerned by the exemption are those that are engaged in maritime navigation (including fishing) while not being used for private, leisure purposes. This measure seems to date back to 1928 and is described as a normal feature of France's tax code in budget documents.

We allocate the annual amounts reported in budget documents to gasoline, heavy fuel oil, and diesel fuel on the basis of the IEA's Energy Balances for the domestic-navigation sector.

Sources: Ministère de l'Économie et des Finances (various years), IEA.

Tag: FRA_te_23

Excise Tax Exemption for Domestic Aviation (data for 2000-)

Domestic aviation in France is exempt from the excise tax that is normally levied on most sales of petroleum products. This provision does not apply to aircrafts used for private, leisure purposes, nor does it include international flights. The measure seems to date as far back as 1928 and is described as a normal feature of France's tax code in budget documents.

Although the data we report do not include flights between mainland France and its overseas *départements (DOM)*, estimates from the French *Commissariat Général au Développement Durable* suggest that their inclusion would increase the value of annual revenue foregone from about EUR 300 million to about EUR 550 million.

We allocate this measure entirely to kerosene-type jet fuel.

Sources: Commissariat Général au Développement Durable based on data from CITEPA.

Tag: FRA_te_25

Excise Tax Exemption for Fluvial Navigation (data for 2011-)

This measure was introduced in 2011 to exempt the transportation of freight on internal waterways from the excise tax that is normally levied on most purchases of petroleum products in France.

We allocate this measure entirely to diesel fuel and light fuel oil.

Sources: Ministère de l'Économie et des Finances (various years), CGDD (2012).

Tag: FRA_te_26

General Services Support Estimate

Benefits to Former Miners CdF (data for 1990-2004)

Charbonnages de France (CdF) used to receive annual grants meant to help the company pay for benefits provided to former miners. The latter mostly consisted of benefits related to housing and heating. Responsibility over their payment was transferred to the *Agence Nationale pour la Garantie des Droits des Mineurs* (ANGDM) following the closure of the last coal mine in 2004. Given that CdF was the sole producer of hard coal in France, subsequent payments by the ANGDM are not included in the present inventory.

Sources: Cour des Comptes (2000), Charbonnages de France (various years), Sénat (various years).

Tag: FRA_dt_02

Management of Old Mining Sites CdF (data for 1990-2000)

This item consists of annual grants to Charbonnages de France (CdF) that were meant to finance the company's management and rehabilitation of its old mining sites.

Payments are allocated to the GSSE as they do not increase current production or consumption of hard coal.

Sources: Cour des Comptes (2000), Charbonnages de France (various years), Sénat (various years).

Tag: FRA_dt_03

Sources

Policies or transfers

Charbonnages de France (various years), *Statistique Charbonnière Annuelle*, Archives Nationales du Monde du Travail, Roubaix.

Cour des Comptes (2000), *La Fin des Activités Minières*, Rapport au Président de la République, Rapports Publics Thématiques, Available at: www.ccomptes.fr/index.php/Publications/Thematiques.

Ministère de l'Économie et des Finances (2011), *Rapport du Comité d'évaluation des dépenses fiscales et des niches sociales*, French Government, August 2011, Available at: www.economie.gouv.fr/files/rapport-comite-evaluation-depenses-fiscales-et-niches-sociales.pdf.

Ministère de l'Économie et des Finances (various years), *Documentation Budgétaire*, French Government, Available at: www.performance-publique.budget.gouv.fr/accueil.html.

Sénat (various years), *Rapports d'Information*, Available at: www.senat.fr/.

Energy statistics

CGDD (2012), *Les comptes des transports en 2011 (Tome 1): 49^{ème} rapport à la Commission des comptes des transports de la Nation*, Service de l'observation et des statistiques, Commissariat Général au Développement Durable, French Government, July 2012, Available at: www.statistiques.developpement-durable.gouv.fr/fileadmin/documents/Produits_editoriaux/Publications/References/2012/CCTN%20ann%C3%A9e%202011%20ed.%202012/R%C3%A9f.RapportCCTNentier.pdf.

IEA (2011), *Energy Balances of OECD Countries*, International Energy Agency, Paris.