



19 September 2017

## **Eurostat Guidance Note**

### **THE RECORDING OF ENERGY PERFORMANCE CONTRACTS IN GOVERNMENT ACCOUNTS**

This note is mainly intended to provide statisticians with guidance on the recording of Energy Performance Contracts (EPCs) in government accounts. The note is in accordance with the most recent interpretation of the relevant ESA 2010 provisions by the Excessive Deficit Procedure Statistics Working Group (EDPS WG). This guidance note substitutes the previous guidance note on the impact of Energy Performance Contracts on government accounts published on 7 August 2015. Eurostat is releasing this guidance note to ensure an adequate accounting treatment of EPCs as well as to ensure a homogenous statistical treatment across countries.

In particular, the guidance note clarifies that:

- if an EPC-contractor is bearing the majority of the risks and rewards associated with the use of an asset, the EPC-contractor shall be regarded as the economic owner of this asset;
- in the case above, EPCs can either be accounted for by using the operating lease treatment or the buy and leaseback model;
- if the operating lease is used, this will be applicable for both removable and non-removable assets;
- if the buy and leaseback model is used, the loan liability imputed due to the legal transfer of the ownership of the EPC assets to the government, is immediately offset against the loan liability, also imputed, due to a subsequent financial lease between the government and the EPC-contractor (possibility of netting the debt related transactions in the specific case of the buy and leaseback model);
- in cases where no cash payment occurs when the EPC assets are returned to the government at the end of the contract, this is to be recorded as an expenditure for gross fixed capital formation (P.51) with a corresponding capital transfer revenue (D.99) in the non-financial accounts of government. There is no entry in the financial accounts, since the return of an EPC asset with a positive residual value without receiving anything in return is considered to be a 'gift';
- if an EPC is combined with a factoring without recourse agreement, the government is deemed to be the economic owner of the EPC asset, i.e. the asset is to be recorded in the government balance sheet.

## 1 Background

- 1.1. Eurostat published a guidance note on the impact of Energy Performance Contracts (EPCs) on government accounts, on 7 August 2015<sup>1</sup>. The guidance concluded that, in most cases, the additional capital expenditure undertaken by an EPC-contractor on an already existing government asset would be recorded as government expenditure (and the new assets included in the balance sheet of government). Accordingly, an EPC would, in most cases, be considered a contract for the procurement of assets combined with a service contract.
- 1.2. The guidance note specified that an off-government balance sheet recording for an EPC could be applied, if the EPC complied with the accounting rules for an off-government balance sheet public-private partnership. It further clarified that, under certain conditions, and solely for the removable assets covered by an EPC, an operating lease treatment could also be applied.
- 1.3. However, the discussions on the accounting of EPCs in national accounts continued since then. An EPC frequently contains at the same time elements of a rental, a service, a leasing, a purchase and a loan agreement, which makes its recording complex. Beginning from 2016, a number of European statistical experts questioned whether the 2015 guidance note on the accounting of EPCs fully took note of the respective importance of the aforementioned elements of such complex contracts.
- 1.4. There were also justified concerns regarding the specific interpretation of certain ESA 2010 provisions which were updated compared to ESA 95, and the related consequences for the treatment of EPCs in national accounts. In particular, the criteria established in the 2015 guidance note for an operating lease treatment were considered too strict.
- 1.5. In addition, it became evident that new contractual arrangements occurred, for which the existing guidance was considered not to be appropriate and should therefore be adapted. In this context, a new accounting proposal specifically intended to be applied only for EPCs (the buy and leaseback model) was brought into the discussion. This, as well as the difficulties observed with the actual implementation of the 2015 guidance note, led Eurostat to accept the proposal of some Member States, to reflect, together with the EDPS WG, on the most appropriate recording of EPCs in national accounts.
- 1.6. This guidance note concerns only those EPCs which require an initial capital expenditure to improve the energy efficiency of a facility. EPCs where the energy efficiency is obtained through energy management measures like planning, optimization, maintenance of equipment etc., without any investment in equipment addition or renewal, are treated as simple service/maintenance contracts.
- 1.7. This guidance note, first, clarifies that if the EPC-contractor bears the majority of the risks and rewards associated with the use of the EPC asset, the former should be considered as the economic owner of the asset and should record it on its balance sheet. Second, it determines the adequate accounting treatment that is to be applied in such a situation and the related impact on general government net lending/net borrowing and

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<sup>1</sup> A general description of the main features of Energy Performance Contracts is included in the 2015 Guidance note on the issue.

debt. Third, it clarifies the recording to be applied if the EPC assets are transferred to government at the end of the EPC contract. Finally, it specifies the impact of a factoring without recourse agreement on the risk distribution between the EPC-contractor and the government and its consequence for the balance sheet treatment of the asset.

## 2 Economic ownership of the EPC assets

- 2.1. In the context of an EPC, the EPC-contractor normally carries out an initial capital expenditure in order to improve the energy efficiency of an existing facility. This can include new and/or upgraded equipment (e.g. lightening, heating, ventilation, air conditioning, pumps, boilers etc.) as well as other improvements such as insulation (e.g. changing the roof, walls, windows, etc.).
- 2.2. The remuneration of the EPC-contractor is determined by the energy savings achieved through the upgraded equipment and through the other measures carried out to the structure of the building. The capital expenditure undertaken by the EPC-contractor is paid back from the revenues it realizes over the term of the EPC contract. In most cases, if the necessary savings could not be achieved over the term of the contracts, the EPC-contractor has to cover the gap. Furthermore, the EPC contractor decides which assets are to be installed and when they should be replaced or changed during the term of the contract.
- 2.3. In this context, the question of the allocation of the underlying equipment arises in national accounts, i.e. on which balance sheet (EPC-contractor or government) the equipment is to be recognized, with the corresponding impact on its net lending/net borrowing. According to ESA 2010 7.17, an asset is recorded on the balance sheet of its economic owner which is the entity that is "*entitled to claim the benefits associated with the use of the asset by virtue of accepting the associated risks.*" This means that the allocation of the risks and rewards (related to the holding or use of the asset over a period of time) between the EPC-contractor and the government is the essential feature for the balance sheet treatment of the EPC assets and, therefore, the aspect of legal ownership is not important in this regard.
- 2.4. The EPC-contractor is responsible for the proper operation of the installed equipment, i.e. it bears the maintenance and refurbishment risks during the term of the contract. It also receives most of the benefits of the EPC assets in the form of the generated energy savings (i.e. the monetary equivalent).
- 2.5. However, it could be argued that the government also benefits from the new or upgraded energy equipment, which would question whether the EPC contractor actually takes over sufficient risks and rewards in the context of an EPC. For example, it can be argued that the technical parameters (e.g. oil or gas consumption of heating, the thermal transmission coefficients) of the equipment are available, which allows the calculation of possible energy savings very precisely and which would therefore reduce any existing risk<sup>2</sup> for the contractor. Government will also benefit from the residual value of the EPC asset at the end of the contract (which, however, could be seen in some cases as marginal, due to the relative long average duration of some EPCs). Hence, one may think that the EPC provider is not really exposed to substantial risks and rewards related to the guaranteed energy performance, compared to government.
- 2.6. On the other hand, it could be also argued that the EPC-contractor bears most of the technical risks (i.e. the risk of the sound interplay of the installed components in order

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<sup>2</sup> However, the economic ownership is linked to the bearing of the existing risks and rewards, independently on whether the incurred risks and rewards would be negligible or sizeable.

to actually realize the agreed (calculated) savings) as well as the construction risk and the behavioural risk of the people working in the facility (overheating or ventilation habits). In addition, the EPC contractor will also usually keep all rewards<sup>3</sup> during the contract and carry the risk connected with the payments which it will receive from government and the payments which have to be made to the electricity and/or gas supplier<sup>4</sup>.

### Decision

If the EPC-contractor bears the majority of the risks and rewards related to the use of the EPC assets and in particular, the performance, the maintenance and the refurbishment risks, the economic ownership of the underlying assets is to be considered with the EPC-contractor<sup>5</sup>.

### **3 Operating lease**

- 3.1. According to ESA 2010 15.08, "*an operating lease is a lease whereby the legal owner is also the economic owner and accepts the operating risks and receives the economic benefits from the asset by charging for the use of it, in a productive activity*".
- 3.2. Thus, under the 2015 guidance note, an operating lease treatment could be applied only when the following conditions were met: (1) the underlying EPC assets were easily (re)movable and replaceable, (2) the EPC-contractor had firmly committed to replace (at any time during the lifetime of the contract) the defaulting or obsolete parts of the equipment, at its own initiative or at the request of the government, (3) there was no commitment from the government to own the equipment nor an option to acquire it at its residual value at the end of the contract and (4) the term of the EPC was not covering the total expected life-time of the EPC assets.
- 3.3. However, the relevance of the aforementioned conditions was questioned against the background of ESA 2010. In particular, whether it would be in all circumstances an indispensable condition that the lessor, in the context of an operating lease, would have to be the legal and economic owner of the leased asset, or whether in situations where the legal and the economic ownership would not coincide, an operating lease would still be possible.
- 3.4. In an EPC, it is the EPC-contractor who decides which asset is installed and when it should be replaced or changed during the term of the contract. Generally, this is considered to be a right to which the legal owner is entitled to.
- 3.5. ESA 2010 15.09 provides further that, in an operating lease, the lessee does not take on the risk and rewards of legally owning an asset such as maintenance and repair costs. In an EPC, the EPC-contractor has the obligation to ensure the proper operation of the installed equipment and, associated with this, to carry out the necessary maintenance and repair. As a result, the dividing line between legal and economic ownership is, in an EPC, more ambiguous.

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<sup>3</sup> This is the standard case for EPCs. However, there may be some contractual variants which allow for sharing the rewards, i.e. if the actual energy saving is higher than the scheduled saving. In such a case, the additional saving is to be shared between both parties. The sharing of rewards could be, under some circumstances and in parallel with the present rules for PPPs, an element which may require the classification of the assets being installed by the EPC contractor, on the government balance sheet.

<sup>4</sup> In some contracts, the EPC contractor is also the electricity and/or gas supplier. This, however, does not fundamentally change the substance of the issue and the rules to be applied.

<sup>5</sup> In order for the EPC contractor to bear the risk and rewards of the underlying asset, the EPC contractor cannot benefit from clauses such as a minimum revenue guarantee or similar arrangements in substance, entered with government.

- 3.6. Thus, the EPC-contractor bears not only the majority of the risks and rewards of economic ownership, but also some rights usually connected with the legal ownership of the EPC assets. This implies a fundamental change compared to a typical operating lease situation, in which the legal and economic owner of the asset can be clearly distinguished. In such circumstances, it could be reasonable to focus more strongly on the economic ownership criteria than on the more ambiguous legal ownership aspect.
- 3.7. Furthermore, it would be helpful to have a look at the conditions for a financial lease with government being the lessee, as a logical alternative accounting treatment. In this context, the lessor would be the legal owner and the lessee the economic owner of the EPC asset. This would be, however, in stark contrast with the accepted view that the EPC-contractor is bearing most of the economic risks and rewards in connection with the use of the EPC assets. Furthermore, the EPC-contractor also bears essential rights that are related to legal ownership of the EPC assets. This may also support the arguments that an operating lease would seem to be a suitable accounting treatment for EPCs.
- 3.8. In this context, it is helpful to recall that ESA 2010 requires that an asset should be recorded on the balance of the entity which is considered as the economic owner of the asset. It is also helpful to recall a key principle of national accounts; i.e. recording economic substance over legal form (see ESA 2010 1.90 and 20.164). This implies that an accounting treatment of an operation should reflect economic reality and not the legal framework in which the operation is carried out.
- 3.9. As far as the length of the lease period is concerned, ESA 2010 15.08 et seqq. are not explicitly combining the existence of an operating lease with the length of the lease period. While ESA 2010 15.12 notes that "*Many operating leases are for short periods ...*", however, it also recognizes that "*Other factors ... may persuade user to lease over long periods rather than purchase ...*" and, even more clearly, ESA 15.18 states that "*Although a financial lease will typically be for several years, the duration of the lease does not determine whether the lease is to be regarded as an operating lease or financial lease.*"
- 3.10. Thus, the length of the lease period seems in ESA 2010 of much less relevance compared to ESA 95 and even long term contracts can be considered in the ESA 2010 as operating leases. However, given the fact that the assets installed by the EPC contractor in order to improve the energy efficiency of a building will be economically owned by government after the end of the contract, Eurostat would question the economic ownership of the assets by the EPC contractor in case the duration of the EPC would be so short not to cover a meaningful part of the economic life of the assets.<sup>6</sup>
- 3.11. A further aspect concerns the type of asset which is suitable for an operating lease, i.e. whether the frequently expressed view that an operating lease would be possible only for removable assets, would be justified in an EPC framework. In the context of an EPC, equipment such as boilers, chillers and electronic control equipment, as well as some work on the structure of the building itself, is considered as removable, whereas windows, roof insulation and wall insulation are considered as non-removable.
- 3.12. For some equipment which cannot easily removed, it is often argued that it shares a common use and function with an existing building, and that they are therefore

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<sup>6</sup> Eurostat will publish in the next months a more detailed operational guidance on EPCs which will cover this and other aspects for the benefit of EPC practitioners.

inseparably combined with an existing building or structure preventing them from being separated and accounted according to the operating lease rules provided in ESA 15.08 et seqq. Such not easily removable EPC assets could be seen as a form of improvements to existing fixed assets (buildings) and should be therefore treated in line with ESA 2010 3.131 (i.e. it is to be recorded as acquisition of new fixed assets of the same kind) and 2008 SNA 10.43.

- 3.13. On the other hand, the EPC-contractor, in order to achieve the agreed energy saving, provides at the same time a package of equipment which may consist of easily removable equipment and some equipment which may be not easily removable, or non-removable. For both the removable and non-removable assets, the operational and maintenance risks, most of the technical and construction risk as well as the performance risk are normally the responsibility of the EPC-contractor. This may question the recording of the removable assets differently from the non-removable assets, i.e. the recording of the former off government balance sheet and of the latter on government balance sheet, even if the economic ownership of both the removable and the non-removable assets rests with EPC-contractor over the duration of the contract. Moreover, it could be difficult from a practical point of view to separate removable and non-removable assets in terms of value for each single contract.
- 3.14. Furthermore, it can be considered that ESA 2010 3.131 and 2008 SNA 10.43 would not be applicable in the case of EPCs because they refer to a standard situation where the owner of the building would be the economic beneficiary, while in the case of EPCs, the economic beneficiary from the installation of the assets might be considered the EPC-contractor (the private contractor), as it will derive its revenue from the performance of the assets installed. In this respect, one may think that non-removable assets should be treated in the same way as removable assets in the context of an EPC, at least by convention.
- 3.15. Thus, the borderline between removable and non-removable assets increasingly blurs within the framework of EPCs, which questions whether ESA 2010 3.131 and 2008 SNA 10.43 provide an adequate accounting guidance for EPC assets (see also ESA 2010 7.01).

### Decision

The national accounts treatment of EPCs should be governed by the general principle of recording the economic reality over the legal form, as stated in ESA 2010 20.164. Based on this general principle, and taking into account the opinion of the majority of the EDPS WG, Eurostat considers that an operating lease treatment for EPCs is applicable whenever the EPC-contractor is considered to be the economic owner of the EPC assets. Following the opinion expressed by the EDPS WG, in the specific context of an EPC, the operating lease treatment could be applied, by convention, for both removable and non-removable assets. As a consequence, only the rental payments (EPC fees) made by government (classified as intermediate consumption – purchase of services) will impact the government net lending/net borrowing (B.9).

## 4 The buy and leaseback model

- 4.1. An alternative approach that could be applied to account for EPCs in national accounts is the buy and leaseback model. Within the buy and leaseback model, it is considered that government purchases the EPC asset from the EPC-contractor at inception and, thus, obtains the legal ownership of the underlying assets.
- 4.2. The purchase of the EPC assets leads to an imputed entry in the capital account (expenditure for gross fixed capital formation) with a counterpart entry in the financial accounts in the form of an imputed liability (a loan) towards the EPC-contractor.
- 4.3. Simultaneously, the EPC-contractor leases the EPC assets back from the government via a financial lease, i.e. the EPC-contractor capitalizes the lease and records an acquisition of an asset (EPC asset) financed by an imputed liability (also a loan). This means that the EPC-contractor is considered as the economic owner of the EPC assets, bearing both the economic risks and rewards of using the asset (in order to deliver the energy savings which will constitute the revenue of the EPC-contractor).
- 4.4. As a result, the buy and leaseback model avoids an impact on government net lending/net borrowing in connection with the initial capital expenditure related to the EPC assets, owing to the simultaneous recording of an acquisition and disposal of the same asset.
- 4.5. However, the buy and leaseback model generally involves the imputation of a liability for the buy leg in the government accounts. Within the model, the term of the EPC and the imputed liability will match. The imputed liability could either be considered as a loan liability (F.4) or a trade credit liability (F.81). The imputation of a loan liability (F.4) with a direct impact on the government (Maastricht) debt may be justified due to the usually relatively long duration of EPCs, resulting in an equally relatively long repayment period of the liability within the buy and leaseback model.
- 4.6. The imputation of a trade credit (F.81) instead of a loan for the buy leg may be justified by ESA 2010 5.233, which provides that "*trade credits and advances are financial claims arising from the direct extension of credit by suppliers of goods and services to their customers ...*". ESA 2010 5.234 provides further that "*Trade credits and advances arise when payment for goods or services is not made at the same time as the change of ownership of a good or provision of a service.*"
- 4.7. However, although ESA 5.233 and 5.234 seem to allow the recording of a trade credit liability, ESA 20.132 takes a different position, when it provides that long-term trade credits shall be classified as loans.
- 4.8. Another issue regards the possibility of an immediate offsetting of the corresponding loan assets and liabilities between the government and the EPC-contractor. While ESA 2010 1.110 ESA and 1.111 as well as 2008 SNA 11.40 and 11.41 favour, in principle, the gross recording of financial instruments, some possibilities of netting are still permitted.
- 4.9. Notably, 2008 SNA 11.41d mentions, among others, the netting of transactions in liabilities against transactions in assets in the same asset category but discourages (however, does not exclude) at the same time this form of netting. Thus, one could assume to net, by convention, the imputed debt and debt servicing transactions in the very specific context of "buy and leaseback" model applied for EPCs.

## Decision

Eurostat considers, in accordance with the opinion of the majority of the EDPS WG, that the buy and leaseback model is equally applicable for the recording of EPCs, as the operating lease option, whenever the EPC-contractor is proved to be the economic owner of the EPC assets. In addition, Eurostat considers, following the view expressed by the EDPS WG, that the purchase cost, i.e. the (imputed) liability incurred by the government when buying the EPC asset from the EPC-contractor, is to be treated as a loan liability and is, by convention, to be immediately offset against the (also imputed) loan asset due to the financial lease between the government and the EPC-contractor (offsetting of two imputed loans at inception). As a result, there is no need to impute debt or debt servicing transactions between the government and the EPC-contractor. Therefore, over the lifetime of the EPC contract, only the contractually agreed EPC fees (classified as intermediate consumption – purchase of services) are to be recorded in the government accounts.

### **5 Transfer of the EPC assets to government at the end of the EPC contract**

- 5.1. Usually, the contractually agreed EPC fee paid by government during the term of the EPC includes also pre-payments made for the acquisition of the EPC assets, and, therefore, the return of the assets to government does not entail any cash payment for the residual value (market value) of the assets – if any. In this context, two possible imputations are conceivable, at the moment of the return of the EPC assets to government, either a gross fixed capital formation (P.51) expenditure with a corresponding capital transfer (D.99) revenue, or another change in volume<sup>7</sup>.

## Decision

In line with the majority of opinions expressed at the EDPS WG, Eurostat considers that the transfer of the EPC assets at the end of the contract is to be recorded in line with ESA 2010 15.17. This means that, in the case where no cash payment occurs at the time of return of the assets, a GFCF (P.51) expenditure transaction matched by a capital transfer (D.99) revenue transaction for the amount of the residual value of the EPC assets is recorded in the government accounts. There is no impact on the government net lending/net borrowing (B.9), but an increase of the GFCF expenditure (and capital transfer revenue) is recognized. There is no entry in the financial accounts, since the return of an EPC asset with a positive residual value without receiving anything in return is considered to be a gift.

In cases where a cash payment takes place, a transaction (purchase of the EPC assets) at the current market value of the assets must be recorded in the government accounts. As a consequence, there is an impact on the net lending/net borrowing (B.9) for the amount of the GFCF expenditure recognized.

### **6 EPC and financing via factoring without recourse**

- 6.1. The financing of an EPC asset is quite often combined with a factoring agreement. Such an agreement implies that the EPC-contractor sells to a bank or to another financial institution, against a one off payment, the future EPC fees to be paid by the government. The factoring agreement does, in principle, not require that the EPC-contractor has to

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<sup>7</sup> This option was however rejected by the majority of opinions expressed in the EDPS WG.



inform its customer (e.g. government) about the sale, but if the agreement contains a provision that the customer has to pay the EPC fee independently of any contractual disputes (e.g. due to poor performance) between the EPC-contractor and the customer, the customer (government) has to agree on this.

## Decision

In accordance with the majority view expressed in the EDPS WG, a factoring without recourse agreement is considered to shift the risks to the disadvantage of the government and changes the risk distribution between the EPC-contractor and the government. In such a case (i.e. an EPC combined with a factoring without recourse agreement) the economic ownership of an EPC asset is to be considered no longer with the EPC-contractor but with the government. This means that the government has to treat the EPC as a financial lease transaction (with government being the lessee), where the government records a GFCF expenditure for the full EPC capital expenditure at inception, with the imputation of the corresponding government loan liability. The actual EPC fee paid by the government should, therefore, be split between payment for services, debt principal and debt interest.

However, following the same reasoning, in the case of factoring with recourse, the risk would continue to stay with the EPC contractor and not with government, and the EPC asset is to be recorded on the balance sheet of the EPC -contractor whenever the latter is proved to be the economic owner of the EPC assets.

## **7 Conclusion**

- 7.1. Whenever the EPC-contractor can be considered as the economic owner of the EPC assets, both models (operating lease and buy and leaseback) are equally applicable.
- 7.2. The operating lease and the buy and leaseback model, in which the corresponding loan assets and liabilities between the government and the EPC-contractor are netted, both result in the fact that only the EPC fee impacts the net lending/net borrowing (B.9) recorded in the government accounts, with no direct impact on government debt. Therefore, Eurostat considers that, by convention, in order to facilitate the accounting imputations which would be necessary for applying the operating lease and the buy and leaseback model, for each EPC contract only the cash payment (i.e. the EPC fee) can be recorded in the government accounts. The initial capital expenditure made by the EPC-contractor will not impact at inception the net lending/net borrowing or the (Maastricht) debt of government.
- 7.3. This simplified treatment is not applicable for EPC contracts for which, simultaneously, a factoring without recourse agreement has been concluded. This specific EPC arrangement is to be recorded as a financial lease in the government accounts.
- 7.4. Similarly, this simplified treatment would not be applicable for EPC contracts with other specific features that would clearly shift the risks and rewards to government<sup>8</sup> or for which the duration of the EPC contract is considered to be too short to cover a meaningful part of the economic life of the underlying equipment.

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<sup>8</sup> For instance, this would include those cases where the EPC-contractor would receive payments from government, regardless of the energy savings achieved. See also footnote 6.