

Notification: Study on the frontier shift (otherwise known as ongoing efficiency) for the Dutch gas and electricity TSOs
Organisation: Authority for Consumers and Markets

Ref: 201911006

Purpose of the notification

The Procurement Office of the Ministry of Economic Affairs and Climate Policy (MEA) is publishing this notification on behalf of the Authority for Consumers and Markets (ACM). The purpose of this notification is to determine whether there are parties interested to perform the abovementioned assessment.

Background information.

The frontier shift parameter in Dutch energy regulation represents the improvement in productivity an efficient network operator is expected to make (per year) over the course of the regulatory period. These productivity improvements can be driven by technological progress or lower input prices. As a new regulatory period will start for the Dutch gas TSO Gasunie Transport Services (GTS) and the Dutch electricity TSO TenneT in 2022, ACM is looking to update the frontier shift parameter.

For the current regulatory period (2017-2021) the frontier shift is determined by a weighted average of productivity growth in eight comparator sectors over the two most recent business cycles. The indicators used for measuring productivity growth are total factor productivity (plus an inflation differential) and an output prices index. Both were calculated on a gross output basis, with a value added calculation as sensitivity.¹ The sectoral weights were derived in a follow-up study using the existing cost allocation for GTS and TenneT as a reference base.²

For the upcoming regulatory period (2022 and onwards) ACM intends to build on the current approach. This means that in principle the comparator sectors and the sectoral weights will be retained and that the calculations for frontier shift will be carried out using TFP and OPI indicators. At the same time ACM acknowledges the potential for further refinement. More specifically, ACM is looking to include a decomposition of total factor productivity into opex and capex partial factor productivities. The motivation here comes from possible new ways of estimating capital costs in the regulatory method. Also ACM is considering whether the use of firm level instead of sector level data would be appropriate to establish a (true) frontier shift (as opposed to the sector average). This is motivated by recent research findings of a widening productivity gap between frontier firms and laggards.³

Central research questions

The research into frontier shift that ACM intends to commission consists of the following.

- To carry out an empirical study into frontier shift with data from selected Dutch sectors that can be applied in the regulation of GTS and TenneT following the current approach. Possible datasets here can be EU Klems, OECD Stan or CBS Growth accounting. Special consideration should be given to determining the appropriate measurement period.
- To investigate the feasibility of decomposing total factor productivity into opex and capex partial factor productivities that may be applied as separate frontier shifts in the regulation of GTS and TenneT. Also taking into account that the opex-capital mix in comparator sectors may differ from the input mix at GTS or TenneT. In case such a decomposition is found feasible then these frontier shift calculations should be carried out as part of the research.
- To investigate whether using firm level data instead of sector level data would result in a more accurate measure of frontier shift in the regulation of GTS and TenneT. Possible datasets here

¹ See Oxera, *Study on ongoing efficiency for Dutch gas and electricity TSO's*, April 2016.

² See Ecorys, *Wegingsfactoren voor frontier shift TSO's*, January 2019.

³ See for instance OECD, *The best versus the rest: the global productivity slowdown, divergence across firms and the role of public policy*, November 2016 and OECD, *The great divergence(s)*, May 2017.

can be OECD MultiProd, ECB CompNet or Orbis/Amadeus (Bureau van Dijk). If that is the case (*and* if the available data fits the current approach for frontier shift in terms of sector classification, length of measurement period, etc., *and* if the new dataset is of sufficient extent and quality to perform the required calculations) then these frontier shift calculations, both for frontier firms and as a sector average, should be carried out as part of the research. This would replace the research outlined under the first bullet.

Final product

The final deliverable is a report suitable for publication and written in an accessible way. The final delivery date for the report is 1 May 2020. The method of calculating frontier shift will be clearly described and must be replicable. The report should be understandable to an audience of non-economists as ACM considers it likely that the report will undergo judicial testing.

Extent and duration

The project is expected to last four months. ACM expects a draft report including an indication of the results for discussion two weeks before delivery of final report. ACM expects the consultant to cooperate closely with ACM and to share intermediate results.

Required skills / experience

The company should:

- Have economic expertise in regulated markets;
- Have a proven record of experience in analysing dynamic efficiency;

Application

Interested companies / consultants, fitting the above mentioned requirements, are invited to respond to the Procurement Office of the Ministry of Economic Affairs and Climate Policy, to the attention of Ms. Marjolein Switzar by e-mail IUCEZteam5@rvo.nl.

You do not have to send documents, only an e-mail if you are interested.

Interested parties will receive the request for the tender by e-mail, as soon as possible after the deadline for responding to this Notification. We plan to start with this project early January 2020.

The deadline for responding to this Notification is set at 26 November 2019.