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CALL FOR TENDERS

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TENDER SPECIFICATIONS

STUDY ON THE MACROECONOMICS OF ENERGY AND CLIMATE POLICIES

Open Procedure

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1. INFORMATION ON TENDERING

1.1 Participation

Participation in this tender procedure is open on equal terms to all natural and legal persons coming within the scope of the Treaties and to all natural and legal persons in a third country which has a special agreement with the Union in the field of public procurement on the conditions laid down in that agreement. Where the Multilateral Agreement on Government Procurement¹ concluded within the WTO applies, the participation to the call for tender is also open to nationals of the countries that have ratified this Agreement, on the conditions it lays down.

1.2 Contractual conditions

The tenderers should bear in mind the provisions of the draft contract which specifies the rights and obligations of the Contractor, particularly those on payments, performance of the contract, confidentiality, and checks and audits.

1.3 Joint tenders

A joint tender is a situation where a tender is submitted by a group of economic operators (consortium). Joint tenders may include subcontractors in addition to the joint tenderers.

In case of joint tender, all economic operators in a joint tender assume joint and several liability towards the Contracting Authority for the performance of the contract as a whole.

These economic operators shall designate one of them to act as leader with full authority to bind the grouping or the consortium and each of its members. It shall be responsible for the receipt and processing of payments for members of the grouping, for managing the service administration and for coordination. The composition and constitution of the grouping or consortium, and the allocation of the scope of tasks amongst the members, shall not be altered without the prior written consent of the Commission.

The tenderer should indicate in their offer whether the partnership takes the form of:

a) a new or existing legal entity which will sign the contract with the Commission in case of award

or

b) a group of partners not constituting a new legal entity, who via a power of attorney, signed by an authorised representative of each partner (except the lead partner), designate one of the partners as lead partner, and mandate him as lead Contractor to sign the contract with the Commission in case of award.

1.4 Subcontracting

Subcontracting is permitted in the tender but the Contractor will retain full liability towards the Contracting Authority for performance of the contract as a whole.

¹ See http://www.wto.org/english/tratop_E/gproc_e/gp_gpa_e.htm

Tenderers must give an indication of the part of the services and proportion of the contract that they intend to subcontract.

Tenderers are required to identify subcontractors whose share of the contract is above 20%.

During contract execution, the change of any subcontractor identified in the tender will be subject to prior written approval of the Contracting Authority.

1.5 Content of the tender

The tenders must be presented as follows:

Part A: Identification of the tenderer (see section 1.6)

Part B: Evidence for exclusion criteria (see section 2.2)

Part C: Evidence for selection criteria (see section 2.3)

Part D: Technical offer (see section 2.5)

Part E: Financial offer (see section 2.6)

Part F: Power of attorney (for consortia only)

1.6 Identification of the tenderer: legal capacity and status

- The tenderer's identification form in **Annex 1** shall be filled in and signed by:
 - The tenderer (including any member of a consortium or grouping)
 - Subcontractor(s) whose share of the work represents more than 20% of the contract.
- In order to prove their legal capacity and their status, all tenderers (including any member of a consortium or grouping) must provide a signed **Legal Entity Form with its supporting evidence**. The form is available on:
http://ec.europa.eu/budget/contracts_grants/info_contracts/legal_entities/legal_entities_en.cfm

Tenderers that are already registered in the Contracting Authority's accounting system (i.e. they have already been direct contractors) must provide the form but are not obliged to provide the supporting evidence.

- If it has not been included with the Legal Entity Form, tenderers must provide the following information
 - For legal persons, a legible copy of the notice of appointment of the **persons authorised to represent the tenderer** in dealings with third parties and in legal proceedings, or a copy of the publication of such appointment if the legislation which applies to the legal entity concerned requires such publication. Any delegation of this authorisation to another representative not indicated in the official appointment must be evidenced.
 - For natural persons, where applicable, a proof of registration on a professional or trade register or any other official document showing the registration number.

- The tenderer (only the leader in case of joint tender) must provide a **Financial Identification Form and supporting** documents. The form is available on: http://ec.europa.eu/budget/contracts_grants/info_contracts/index_en.cfm

2. EVALUATION AND AWARD

2.1 Evaluation steps

The evaluation is based on the information provided in the submitted tender. It takes place in three steps:

- (1) Verification of non-exclusion of tenderers on the basis of the exclusion criteria
- (2) Selection of tenderers on the basis of selection criteria
- (3) Evaluation of tenders on the basis of the award criteria (technical and financial evaluation)

Only tenders meeting the requirements of one step will pass on to the next step.

2.2 Exclusion criteria

All tenderers shall provide a declaration of honour (see Annex 2), duly signed and dated by an authorised representative, stating that they are not in one of the situations of exclusion listed in the Annex 2.

The declaration of honour is also required for identified subcontractors whose intended share of the contract is above 20%.

The successful tenderer shall provide the documents mentioned as supporting evidence in Annex 2 before signature of the contract and within a deadline given by the Contracting Authority. This requirement applies to all members of the consortium in case of joint tender. In case of doubt on this declaration of honour, the Contracting Authority may also request the evidence for subcontractors whose intended share of the contract is above 20%.

2.3 Selection criteria

Tenderers must prove their economic, financial, technical and professional capacity to carry out the work subject to this call for tender.

The Tenderer may rely on the capacities of other entities, regardless of the legal nature of the links which it has with them. It must in that case prove to the Contracting Authority that it will have at its disposal the resources necessary for performance of the contract, for example by producing an undertaking on the part of those entities to place those resources at its disposal.

2.3.1 Economic and financial capacity criteria and evidence

In order to prove their economic and financial capacity, the tenderer (in case of a joint tender the combined capacity of all tenderers and identified subcontractors) must comply with the following criteria:

- The annual turnover of a minimum of €500,000 for each of the last two financial years for which the accounts have been closed.

The following evidence should be provided:

- Copy of the profit & loss account for the last two years for which accounts have been closed,
- Failing that, appropriate statements from banks and
- If applicable, evidence of professional risk indemnity insurance;

If, for some exceptional reason which the Contracting Authority considers justified, a tenderer is unable to provide one or other of the above documents, they may prove his or her economic and financial capacity by any other document which the Contracting Authority considers appropriate. In any case, the Contracting Authority must at least be notified of the exceptional reason and its justification in the tender. The Commission reserves the right to request any other document enabling it to verify the tenderer's economic and financial capacity.

2.3.2 Technical and professional capacity criteria and evidence

a. Criteria relating to tenderers

Tenderers (in case of a joint tender the combined capacity of all tenderers and identified subcontractors) must comply with the following criteria:

- The tenderer must prove research and/or analytical experience in the field of EU and international energy and climate policies; in energy system and macroeconomic modelling and analysis (including econometrics); in energy-related (endogenous) technological change and low-carbon innovation; and in interactions between energy, the real economy and the monetary economy and/or financial sector. The experience must have been obtained in the last three years on continuous basis.
- At least 3 projects must be delivered (or completed) in the area of modelling and analysis of energy-macro-economy linkages, particularly in relation to economy-wide energy technological innovation, energy finance and the monetary economy with direct EU energy and climate policy relevance, in the last three years, with a minimum value for each project of €100,000.
- The tenderer must prove experience of working in English with at least three projects delivered (or completed) in the last three years.
- The tenderer must prove capacity to draft timely reports in English. The tenderer must also have experience, gained in the last three years, in successfully marketing and innovatively communicating their analysis and reports, including the proven ability to convey messages to a wide-ranging audience.
- The tenderer must prove experience of having had projects, within last three years, covering world economies and/or regions that are major international GHG emitters and/or EU trading partners, including experience with projects covering the EU as a region and individual EU member states (at least those more economically powerful), with at least two projects delivered (or completed) in the last three years.
- The tenderer must prove experience, gained in the last three years, in data collection, statistical analyses, various energy-climate-economy-finance modelling and other related methodological approaches, and drafting reports and recommendations.

b. Criteria relating to the team delivering the service

The team delivering the service should include, as a minimum, the following profiles:

Project Manager: At least five years of experience in project management, including overseeing project delivery, quality control of delivered service, client orientation and conflict resolution experience in project of a similar size and scope (being at least in one of the fields covered by this call for tender) with experience in management of team of at least ten people.

At least 5 experts whose combined expertise is at least 25 years and covers the fields of international energy and climate policies (with an emphasis on EU), macroeconomics, low-carbon innovation and energy technologies, and interactions between the monetary economy and the real economy. Each expert shall demonstrate relevant higher education degree and / or 5-year professional experience in at least one of the above mentioned fields.

At least 3 experts in the macroeconomic modelling of energy and climate policies related to the topics stipulated in the technical specifications of section 3. Each expert shall demonstrate relevant higher education degree and / or 5-year professional experience in the relevant field.

At least 3 experts with combined expertise of adopting different methodological approaches to evaluating policy aspects of the energy-(macro)economy-innovation-finance nexus (can be both quantitative and qualitative). Each expert shall demonstrate relevant higher education degree and / or 5-year professional experience in the relevant field.

At least 2 experts in database management and data collection. The experts shall demonstrate relevant higher education degree and / or 5-year professional experience in the relevant field.

Language quality check: at least three members of the team should be proficient in English, as guaranteed by a certificate or past relevant experience: this expertise / profiles are the only ones that can be combined with the ones of the above 5 categories: in any case, the tenderers must clearly specify, which members of the team comply with the requirement

c. Evidence

The following evidence should be provided to fulfil the above criteria:

- List of relevant services provided (or completed) in the past three years, with sums, dates and recipients, public or private. The most important services shall be accompanied by certificates of satisfactory execution, specifying that they have been carried out in a professional manner and have been fully completed;
- The educational and professional qualifications of the persons who will provide the service for this tender (CVs) including the management staff. Each CV provided should indicate the intended function in the delivery of the service.

2.4 Award criteria

The tender will be awarded according to the best-value-for-money procedure. The quality of the tender will be evaluated based on the following criteria. The maximum total quality score is 100 points.

Criterion 1: Understanding the policy context (10 points – minimum threshold 60%)

This criterion assesses how the Tenderer understands the current policy context and newest trends in macroeconomics of the energy, climate, innovation and industrial policy debate at the EU-level (but within a global context), and how the Tenderer might link these to the proposed methodology and work.

The evaluation will, among other things, take into account the aspects referred to in paragraph 3.3 (point 3) below.

Criterion 2: Quality of the proposed methodology (60 points – minimum threshold 60%)

The assessment of this criterion is further based on two sub-criteria to help with the transparency of the evaluation process:

Sub-criterion 2.1: Quality of the methods and tools deployed (40 points – minimum threshold 60%): The evaluation will take into account the quality of the proposed methodological choice(s), e.g. the relevance to the objectives of this tender of the proposed approaches and of the models and methods, the degree of added value (in accordance with the point 3.2 below), level of critical approach, coherence, robustness and logical path of the discussion that the methodology is to offer, coverage by the methodology of all topics as described in the current Tender Specifications.

The evaluation will, among other things, take into account the aspects referred to in paragraph 3.3 (points 1, 2, 4, and 6-7) below.

Sub-criterion 2.2: The level of detail and scale of the analysis (20 points – minimum threshold 60%): The evaluation will take into account the level of breakdown and coverage proposed by the tenderer for all the topics described in the current Tender Specifications, e.g. country/regional coverage, sectorial coverage, types of energy technologies, types of economic agents, type of policy measures potentially assessed, type of impacts potentially evaluated, etc.

The evaluation will, among other things, take into account the aspects referred to in paragraph 3.3 (point 5) below.

Both sub-criteria mentioned above will also evaluate:

The overall soundness and quality, but only in the context of sub-criterion in question, of the methodology proposed: whether it enables to achieve reliable results for all tasks described in section 3.5 and logically link the methodology to the objectives under section 3.4; quality of conclusions that the methodology is likely to offer.

Criterion 3: Management / organisation of the work (20 points – minimum threshold 60%)

This criterion will assess how the roles and responsibilities of the proposed team and of the economic operators (in case of joint tenders, including subcontractors if applicable) are distributed for each task. It also assesses the global allocation of time and resources to the project and to each task or deliverable, and whether this allocation is adequate for the work. The tenderer should provide details on the allocation of time and resources and the rationale behind this choice.

This criterion will also assess the potential of the tenderer to communicate effectively with the personnel of the Contracting Authority assigned to the project in a manner that the project requirements are understood and dealt with effectively.

Criterion 4: Quality control measures (10 points – minimum threshold 60%)

This criterion will assess the quality control system applied to the service foreseen in this tender specification concerning the quality of the analysis, the models, methodologies, software and databases uses, their documentation, the deliverables, the language quality check, and continuity of the service in case of absence of the member of the team. The quality system should be detailed in the tender and specific to the tasks at hand; a generic quality system will result in a low score.

Tenders must score at least 60% for each criterion and each sub-criterion and at least 70% in total. Tenders that do not reach the minimum quality thresholds will be rejected and will not be ranked.

After evaluation of the quality of the tender, the tenders are ranked using the formula below to determine the tender offering best value for money. A weight of 70/30 is given to quality and price (quality 70 and price 30).

$$\text{Score for Tender x} = \frac{\text{Total quality score for award criteria for Tender x}}{100} \text{ Multiplied by 70} + \frac{\text{Price of the lowest Tender}}{\text{Price of Tender x}} \text{ Multiplied by 30}$$

2.5 Technical offer

The technical offer must cover all aspects and tasks required in the technical specification and provide all the information needed to apply the award criteria. Offers deviating from the requirements or not covering all requirements may be excluded on the basis of non-conformity with the tender specifications and will not be evaluated.

2.6 Financial offer

The price for the tender must be quoted in euros. Tenderers from countries outside the euro zone have to quote their prices in euros. The price quoted may not be revised in line with exchange rate movements. It is for the tenderer to assume the risks or the benefits deriving from any variation.

Prices must be quoted free of all duties, taxes and other charges, including VAT, as the European Union is exempt from such charges under Articles 3 and 4 of the Protocol on the privileges and immunities of the European Union. The amount of VAT may be shown separately.

The quoted price must be a fixed amount which includes all charges (including travel and subsistence). **Travel and subsistence expenses are not refundable separately. The fixed price offered by the tenderer is used for the calculation of the quality/price ratio.**

A maximum price of **1,000,000 euros** (including all expenses related to the project) is estimated for the total amount of the work required. Offers exceeding this amount will be excluded from further evaluation.

3. TECHNICAL SPECIFICATIONS

3.1 General background

The EU is not far from meeting its 20/20/20 targets at the Union-wide level for greenhouse gas emissions, renewable energy, and energy efficiency. The targets have played an important role in advancing on the EU energy sustainability front, despite the recent financial turmoil and the ensuing macroeconomic downturn. The 2030 Climate and Energy Policy Framework endorsed by the European Council in October 2014 goes further in supporting the transformation of the EU energy sector with a target of at least 40% reduction in GHG emissions, at least 27% share of renewable energy consumed in the EU, and a minimum of 27% in energy efficiency improvements by 2030.² The adoption of the Energy Union Package in February 2015 by the Commission further contributes to EU's climate and energy goals, whilst aiming to ensure secure, affordable, and competitive energy for its businesses and citizens.³

The EU energy system is confronted with several challenges, such as decarbonising the energy mix in response to the climate change challenge, increasing the flexibility of the grid and managing its stability due to higher penetration of renewables, empowering consumers for a more active role, ensuring improved energy security prospects, and building a sufficiently integrated electricity transmission infrastructure, amongst others. Addressing these challenges will have repercussion effects at the economy-wide level on dimensions of particular interest to policy makers, such as trade, energy poverty, energy prices, green growth, employment, competitiveness, leakage, public debt, and current account and fiscal balances. For these reasons, it is important to improve understanding on the macroeconomics of energy and climate policies.

EU's energy-related policy strategies not only impact the overall European energy system, but also spur (and are influenced by) changes in the structure of European economies and macroeconomic prospects. There are potentially important macroeconomic implications from investing in low-carbon energy production, efficiency improvements, and innovation, such as impacts on EU prospects for growth, jobs, competitiveness, economic resilience to external shocks, and security of supply, in both the short-term and the longer run.⁴ At the wider international scale, developments in energy-related trends and policies across world regions impacting global energy demand, supply, prices and technologies are also significantly influencing EU's energy and macro-economy. EU energy systems and the EU energy-related policy landscape have to constantly adapt to this, whilst ensuring that the stated EU energy policy objectives are

² SN 79/14 "[European Council \(23 and 24 October 2014\): Conclusions on 2030 Climate and Energy Policy Framework](#)", European Council, 23 October 2014.

³ COM(2015) 80 final "[Energy Union Package: Communication from the Commission to the European Parliament, the Council, the European and Social Committee, the Committee of the Regions and the European Investment Bank – A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy](#)", European Commission, 25 February 2015.

⁴ For example, a recent 2014 study undertaken by the Policy Department B: Structural and Cohesion Policies of the Directorate General for Internal Policies of the European Parliament "[Update on Investments in Large Ten-T Projects](#)" (IP/B/TRAN/FWC/2010-006/Lot4/C1/SC7), found that measuring wider economic benefits and European added value are necessary to justify the socio-economic benefits of multi-billion euro investments in cross-border transport projects.

met. As such, the energy system is deeply embedded in the macro-economy, which, in turn, is rooted in an increasingly interconnected global economy. Energy policies interact with industrial policies and macroeconomics, all which need to be better understood for a more effective implementation of EU's Energy Union.

Within this context, **technological energy innovation plays a crucial role** in determining future changes in the fuel mix, energy efficiency and the demand-side management of energy consumption. Innovation is a key enabler for the transition to low carbon energy systems, and has also been formally acknowledged as one of the five pillars of EU's Energy Union strategy.⁵ Wider potential socio-economic benefits of a more innovative and decarbonised EU energy, also need assessing for a better formulation of EU energy-related policy strategies and understanding of the likely significant interactions between energy, technological innovation and the macro-economy. **The finance-economy nexus is important for better understanding the macroeconomic context that is influencing the effectiveness of energy-related EU policies**, as well for evaluating the impact that such policies may have not only on the real economy (e.g. employment, real output), but also on the monetary dimensions (e.g. inflation, interest rates, financial stability).

3.2 Value added of the proposed work

The proposed work aims **to improve understanding on the energy-(macro)economy nexus applied to energy-related policies**, whilst considering two key areas, where the existing literature is relatively weak and additional analytical insights are needed.

Capturing system-wide energy technology innovation induced by policy: The first relates to capturing the role of innovation and policy-induced technological change,⁶ when analysing connections between the energy sector, the macro-economy and international economics. Induced technological change and innovation are critical issues for energy-related policies, since these may substantially increase the rate at which energy sectors may both decarbonise and improve their efficiency. Many energy-economy models used in the literature only partially cover the treatment of induced technological change,⁷ and several existing macro-models entail limited heterogeneity and disaggregation across economic/energy/innovating agents, sectors and technologies. There is a rich agenda for future research in terms of: assessing the energy and macro impacts of different energy technology-related innovation scenarios, explicitly representing energy-related technologies and practices within economies not at full employment and with spare capacity; looking across the innovation value chain (research, development market uptake) from an international comparison perspective; assessing the impacts of portfolios of energy-related policies in spurring technological change, innovation, and demand-driven

⁵ The [EC Communication on "Energy Technologies and Innovation", COM \(2013\) 253, 2 May 2013](#) acknowledges the need to strengthen the link between the energy innovation chain (and the associated finance measures) with energy policy at the EU level.

⁶ Policy induced technological change (ITC) is meant to refer to endogenous technical change in demand and supply technologies associated with and brought about by energy and climate policies.

⁷ A succinct summary of capturing policy induced energy technological change is covered in Scricciu S, Barker T and F Ackerman (2013) "Pushing the boundaries of climate economics: critical issues to consider in climate policy analysis", *Ecological Economics* 85: 155-165.

growth; or accounting for the heterogeneous behaviour or distributional characteristics of economic agents with respect to low-carbon energy innovation and uptake.

Linking the monetary economy and finance with the real economy: The second concerns the integration of monetary and financial aspects into the workings of the real economy. Monetary frictions and lending constraints have been chiefly absent from the overwhelming research body of macroeconomic modelling of economies and energy systems, which are assumed to be perturbed only by limited external shocks.⁸ Large swathes of the relevant literature typically rest on the money neutrality hypothesis, whereby supply and demand of goods and services are functions of real variables only. Changes in money supply are assumed not to affect the real economy, and policy induced variations in energy asset investments are, in turn, not assumed to affect financial markets. This is contrary to the observed reality, particularly since the onset of the global 2007-2008 financial crisis that has clearly demonstrated how financial markets heavily influence the real economy, including the energy sector. Nonetheless, new innovative methodological approaches and tools that aim to integrate the role of money, finance and lending (as well as the potential role of monetary policies) in influencing low-carbon investments and being impacted by energy-economy interactions are quickly evolving. In addition, the monetary impact on public budgets and thereof on economic growth of energy-related investments and the role of long-term financing for decarbonisation is another area which is gaining attention in the literature.⁹ Money and finance matters are important for understanding the financial feasibility and monetary implications of EU's energy-related policies and low-carbon investment requirements.

This state of play in the energy-economy analytical literature is reflected as well in the work that European Commission services have been undertaking and / or contracting. For instance, the work commissioned by EC services for developing the Reference scenario 2013 on EU energy, transport and GHG emissions trends to 2050 does soft link a top-down macroeconomic model (the GEM-E3 CGE model)¹⁰ with a bottom-up complex energy model (the PRIMES partial equilibrium model)¹¹ that has a detailed representation of energy technological change.¹² However, feedback loops between policy-driven changes in energy systems and the macro-economy were not pursued in the Reference scenario context. The role of the monetary economy (including capital markets) in influencing demand-driven investments in low-carbon energy technologies is also not investigated. On the other hand, EC services have been developing and using the QUEST (dynamic stochastic general equilibrium) macroeconomic model that is able to deal with

⁸ Colander D, Golbderg M, Haas A, , Juselius K, Kirman A, Lux T and B Sloth (2009) "The financial crisis and the systemic failure of the economics profession", *Critical Review: A Journal of Politics and Society* 21(2-3): 249-267.

⁹ For an analysis of energy efficiency investments drivers and the role of finance, see also: www.eefig.com

¹⁰ The GEM-E3 computable general equilibrium model has been developed jointly by used by the E3MLab at the National Technical University of Athens and Joint Research Centre of the European Commission <https://ec.europa.eu/jrc/en/gem-e3>.

¹¹ The PRIMES partial equilibrium energy model has been developed by E3MLab at the National Technical University of Athens, under the leadership of Professor Pantelis Capros: <http://www.e3mlab.ntua.gr/e3mlab/>.

¹² The Reference Scenario 2013 report on EU Energy, Transport and GHG Emissions – Trends to 2050 can be found at: http://ec.europa.eu/energy/sites/ener/files/documents/trends_to_2050_update_2013.pdf

fiscal and monetary policies, and with the banking sector.¹³ Nonetheless, the model is highly aggregated when it comes to portraying energy systems, is limited in its representation of explicit and disaggregated energy-related technological change, with restricted allowance for important transmission mechanisms, such as feedback mechanisms within the supply chain in a demand driven framework.

Commission services have used or are using several other models and analytical approaches for energy policy analysis related purposes.¹⁴ However, additional work is needed in order to improve understanding on the issues outlined above, in terms of: capturing two-way policy relevant interactions between the macro-economy and the energy sector across EU countries embedded in a global economy; incorporating the issue of innovation and endogenous energy technological change; and accounting for the role of financial markets and players impacting and being impacted by macro-economic and energy system developments. In other words, there is significant value added that further analysis along the lines described herein could bring towards complementing existing analytical efforts of the Commission and further improving the evidence base for robust energy-related policies.¹⁵

3.3 Key expected characteristics of the analysis to be undertaken

1. The study should be of **direct policy relevance**, especially along the lines of the five dimensions put forward in **EU's Energy Union Package**. A particular emphasis needs to be put on the **research, innovation and competitiveness** dimension, as well as on **energy efficiency** and **decarbonising the economy** (although aspects of the EU internal energy market and energy security policy dimensions may be investigated as well).

¹³More on the QUEST global macro-economic model of DG ECFIN can be found at: http://ec.europa.eu/economy_finance/research/macroeconomic_models_en.htm

¹⁴ Examples include the on-going work on: METIS (Markets for Energy and Technology Integrated Systems) modelling and software that focuses on highly disaggregated energy systems, and the development of a short-to-medium term (including hourly projections) of EU electricity, gas, heat, energy demand, and capacity expansion and investment; POTENCIA – a bottom-up detailed energy system for the European Union; the GREEN-X toolbox focusing on energy systems used in various projects and programmes of EC services, such as the [towards2030](#) project (dialogue on a RES policy framework) funded under the Intelligent Energy Europe Programme, all which are modelling tools and approaches focusing on the energy sector with very limited possibilities for investigating interactions with the macro-economy. The ECOGRO stock-flow consistent model used in the on-going FP7-funded project on "[Wealth, Welfare, Work for Europe](#)" does capture the role of innovation and finance in the production and consumption of low-carbon energy, albeit in a highly aggregated manner.

¹⁵ The findings produced by the studies commissioned through this contract could be compared to those produced by existing models used / contracted by the Commission services (e.g. GEM-E3, PRIMES, QUEST, E3ME), where relevant and where results are comparable. This may improve the robustness of modelling findings for policy-making. The analytical work undertaken under this contract may also be linked to relevant work undertaken elsewhere in the Commission. For example, the ongoing work on the Reference Scenario 2015 for EU energy, transport and GHG emissions projections (up to 2050) being developed in the Commission (with input from the PRIMES model) could be used as well in the case studies commissioned here as a reference against which to compare alternative scenarios.

2. In order to achieve the demanding objectives mentioned above, and to overcome the limitations of single standard approaches, it is recommended that the methodological approach combines a **mix of** (preferably descriptive rather normative) **models, tools, and approaches** (can be both quantitative and qualitative) capable to cover the **macroeconomics of energy and climate policies** (including accounting for different macroeconomic causality assumptions), **energy technology innovation, and finance dimensions** required under a consistent framework.
3. The work should **build on recent literature** developments in the field,¹⁶ as well as on **relevant past and on-going EU impact assessments and EU-funded research projects** to limit as much as possible the duplication of existing analytical efforts.¹⁷
4. It would be preferable, as well, for any proposed analyses to be **empirically validated**, and capture, as much as possible, socio-economic realism. The latter may refer to the sub-optimal use of capital and labour resources, the presence of under-employed and un-employed resources, price stickiness, dynamic adjustments, endogenous technological change and money supplies, the multiplier effects of money and finance on investments and the real economy, etc.
5. It would also be preferable that the structure of the macro-economy, the energy sector, and the financial sector are captured explicitly and within a satisfactory degree of resolution or breakdown (e.g. through the use of hybrid models, mixed approaches, and distributional / heterogeneity assessments across households, industries, enterprises, lending agents, technologies, etc.). For this reason, the tenders should include a concise summary table clearly stating: the level of breakdown or the classifications used in the analysis (e.g. EU and non-EU regions/countries; economic sectors; energy technologies, fuels, products; energy producers and users; types of households/consumers; energy-related innovators; and other macro- and energy-related classifications); the type of impacts/indicators for which results can be provided (e.g. macroeconomic indicators, public and private finance related impacts, energy innovation-related indicators, etc.); and the type of energy and climate policies that can be explicitly and/or implicitly captured in the analysis (e.g. energy-related research and innovation policies; ETS/carbon prices/taxes; policies targeting non-ETS sectors; energy efficiency standards and labelling; renewable energy support; EU internal energy market integration and design issues; gas, electricity and heating transmission, distribution and other infrastructural issues etc.).
6. The time horizon of the analysis should cover the **short, medium and long term** (e.g. up to 2050), and make use of different macroeconomic and policy scenarios.

¹⁶ A mix of models and methods could be deployed, although it needs to be ensured that these are interconnected (e.g. soft-linked) and are consistently managed in the project. Examples of models that could be include may refer to simulation non-optimising models, econometric approaches, stock-flow consistent and flow-of-funds macro frameworks, Keynesian, neo- and post-Keynesian models, agent-based models, hybrid models, optimisation models, CGE / DSGE models, amongst others.

¹⁷ Examples on the EC impact assessment side include, amongst others: [Energy Efficiency Communication Impact Assessment SWD\(2014\)255](#); or the [Impact Assessment for the policy framework for climate and energy in the period from 2020 up to 2030 SWD/2014/015](#). Examples on EC-funded research include, amongst others, the FP7-funded [AMPERE](#), [LIMITS](#), [PATHWAYS](#) and [ADVANCE](#) projects or the [GridTECH](#) project funded under the Intelligent Energy Europe Programme.

7. Since the topic of the work is typically subjected to large uncertainties (e.g. developments in fossil fuel prices, innovation pathways etc.), the Commission would welcome approaches that can **deal with uncertainty** and are able to consistently investigate a varied range of impacts under varying scenarios.

3.4 General and specific objectives

3.4.1 General objective

The general objective of this invitation to tender is to improve understanding on the interactions between the macro-economy, the energy sector, and EU policy, with an emphasis on energy technological innovation and the relevance of the monetary economy.

The study is intended to use existing models, tools and methods available in the relevant literature, with limited scope for model development *per se*, having in mind the two-year time frame of the project and the wide scope of the topics to be covered. The study is also intended to complement existing analytical efforts undertaken in the Commission.

3.4.2 Specific objectives

Several specific objectives are required of the analytical expertise and assessment that is to be provided. These specific objectives should not be taken in isolation, but rather in an inter-related manner. This is because the value-added that this call is seeking rests with the integration of these specific objectives under a common umbrella or unified framework.

- The analysis should focus on the contribution of policy-induced technological innovation towards decarbonising energy systems, making these more efficient and adaptive to international competitiveness pressures. It should also investigate the role of international economic developments in influencing EU energy innovation and their implications for EU energy and industrial policies.
- The analysis should address the role of public and private finance and the monetary economy in interacting with the real economy, and influencing and being influenced by energy-related policies and investments in low-carbon energy (including efficiency) technologies. It should cover macro-financial information across both the public and private sectors.
- The analysis should be able to explain past key energy-economy trends, as well as simulate likely future developments and impacts, in the short to medium and long term (up to 2050).
- The analysis should outline not only the risks and costs for the EU energy sector of varying policy scenarios, but also report on potential EU economy-wide impacts. It should allow for interactions between energy, the macro-economy, and the global economy, and provide insights in addition to those of the existing literature (including those funded by EU institutions).

In order for the European Commission to properly assess the value added and appropriateness of the analytical work undertaken, a number of interim studies together with critical components or studies of the analytical package are to be delivered. It is essential that the studies are delivered gradually over the contractual period in order for the European Commission to be able to follow closely on the progress, subject this to in-house and stakeholder reviews, note any failures on the quality of deliverables, and request appropriate corrections.

It is important that the Tenderer suggests a set of scenarios and indicators to be investigated that would meet the objectives of this call. Examples may refer to scenarios reflecting different global conditions (e.g. with respect to international fossil fuel prices or the evolution of shale gas in U.S. or the economic growth prospects of EU's main trading partners), and varying EU energy-related policy assumptions linked to technology innovation and/or finance, relative to a baseline scenario. The exact details of such scenarios and indicators to be evaluated will be agreed between the Contractor and the Commission as soon as work has started.

It is also important for the evaluation of tenders, that the Tenderer clearly explains the value added of their proposed work in relation to the existing literature, including past and ongoing analytical / research efforts funded by EU institutions.

3.5 Tasks

3.5.1 Guidance to the work approach to be undertaken

For an increased clarity of the scope of the required work, the tasks are being split into five inter-dependent categories to cover all objectives of the invitation to tender.

1. Accounting for past energy-economy behaviour: The work needs to explain the main drivers behind observed EU energy-related trends (e.g. energy prices, energy demand, energy and carbon intensities, low-carbon energy productivity, distributions across producers/users etc.), including the role of macroeconomic evolutions, global dynamics, technological change, knowledge spill-over, financial/monetary variables and policies.
2. Analysing the role of policy-induced technological innovation in achieving the objectives of EU's Energy Union: The work needs to be capable of: explaining and explicitly portraying energy-related technological change and innovation (e.g. public and private R&D, learning-by-doing, market uptake); the relevance of path-dependent technological choices; how technological innovation can be influenced by energy and climate policies; how it is affected by macroeconomic dynamics and other socioeconomic and policy factors at the global level; what impact different innovation scenarios may have on EU energy systems and the macro-economy; the financial, economic and energy security/stability risks involved with the transition to low-carbon energy; and other related issues that the Commission may require for the duration of this contract. Both energy supply technologies and the demand-side management of energy should be appropriately covered (if possible, including distribution and transmission technologies), and the development of energy technologies would need to be considered from a system-wide perspective. It would need to account for synergies between energy supply sectors, energy end-users and infrastructure-related sectors involved in the generation, storage, transmission, distribution and use of energy, as well as implications for the wider economy. Furthermore, international (intra-EU and extra-EU) technological diffusion impacts would need to be accounted for, such as imitation, information (positive and negative) spill-overs, job shifting and creation, trade, foreign direct investment.
3. Assessing linkages between public and private finance, monetary aspects, the real economy, and low-carbon energy systems transformations: The work would need to evaluate economy-finance-energy behaviour and explain key interactions between variables linked to the monetary economy (e.g. macro-financial

information covering public, household and private debt, credit creation and allocation, inflation rate, exchange rate, financial stability, fiscal revenue), real macroeconomic developments (e.g. economic growth, employment, investments), energy-related policies (ETS, renewable energy sources, energy efficiency), energy system transformations, and low carbon developments. The tenderer is invited to indicate in an explicit way how the role of money and credit will be captured in their proposed approach and analysis (e.g. how liquidity/credit constraints are captured and are assumed to affect energy technology innovation and energy-related behaviour of different types of producers and consumers; how investment needs for innovation and decarbonisation may impact financial variables, etc.).

4. Integrating insights on innovation and finance in the assessment of interactions between energy, the macro-economy, and policy with a focus on the EU: The work should integrate the above mentioned dimensions on innovation and finance, and consider feedback loops and rebound effects between the macro-economy and detailed representation of energy-related sectors across the EU. The work should also be able to endogenise bilateral trade between EU and its main trading partners, and reflect interactions between global economic developments, and EU energy and industrial policies (e.g. changes in fossil fuel prices on the effectiveness of EU energy-related policies, or changes in international trade patterns due to increased EU demand for low-carbon energy consumption). It is preferable that the work discusses as well the heterogeneous behaviour of economic agents with respect to energy demand/supply and price / non-price responsiveness. Both short and long term impacts on energy-related indicators (e.g. wholesale and retail energy prices, energy-related investments, energy demand, energy poverty, etc.) and macro-level variables (e.g. trade, economic growth, employment, nominal and real labour unit costs, competitiveness, leakage, public/foreign debt, current account deficits/surpluses, fiscal balances) would need to be assessed.
5. Incorporating sensitivity and uncertainty: Problems of risk and uncertainty arise throughout the analysis of energy-related policies and their potential sectoral and macro-economic implications. The work would need to cover as much as possible issues related to model-related (theory, parameters) uncertainty, as well as to uncertainty linked to future socioeconomic developments (e.g. evolution of future demographics, economic growth rates, fossil fuel prices, etc.).

Tenderers are invited to provide a detailed breakdown of these tasks, the flow of work, and time table. In order to better understand to what extent the Tenderer has the necessary models, methods and approaches to address the topics under this call, and to what extent the Tenderer also requires time to spend on data and model-related developments/improvements, the tasks above could be split into data-related tasks, model-development/-improvement related tasks, and application of the tools for case studies or topics under investigation. The Tenderers should note though that this call is focusing to a lesser extent on model development *per se*, but rather on bringing together various existing approaches in a consistent manner to ensure that the topics of this call are addressed.

Any databases used for the purpose of this analytical work should be regularly updated and contain all the relevant data series. Any database used should include an adequate description or characterization of main exogenous and endogenous variables (where modelling is concerned), inputs and outputs, policy parameters (where applicable), data extraction sources with a time-stamp. All databases used should rely on credible sources and have the appropriate level of detail, length of time-series, geographical coverage, macroeconomic coverage, industrial sectors coverage, finance sector coverage, energy

system coverage, and energy-related information on innovation, research, technologies and public policies.

3.5.2 Studies to be performed

The Contractor should deliver a number of studies, for which the geographical focus should be the European Union, but embedded in the global economy, with EU's main trading partners being explicitly captured. The Contractor must specify the extent to which they can cover all EU 28 Member States. The time horizon covers the short, medium, and long term (preferably up to 2050 reported on an annual basis); and could vary depending on the topic under investigation. The detailed nature, content, structure and format of each study (including scenarios and indicators to be investigated) will be further discussed and determined during the project between the Contractor and European Commission. The latter will also define the exact geographical scope and time horizon depending on the issue being analysed.

Studies to be deployed may fall in the following categories and should be able to robustly assess, amongst others:

- S.1. Evaluating historical EU energy-related trends, their drivers, and relationship with macroeconomic evolutions at both the EU and global level (preferably including impacts of the 1970s oil crisis). Examples of studies may include panel-data analysis of the drivers of EU energy demand, energy intensity, carbon intensity etc. in the past 3-4 decades or the analysis of actual developments in energy price formation in EU countries within an international comparison perspective.
- S.2. Exploring the role of policy-induced technological innovation and investment-driven low-carbon developments, including demand side management. Sensitivity and uncertainty issues should be explored as well, where relevant. Example of studies that could be undertaken along these lines include: the analysis of the likely effectiveness of various fiscal / regulatory and financial / monetary instruments in promoting low-carbon technological innovation in the areas of energy efficiency, centralised and decentralised electricity and heating generation and transmission (including infrastructure), and energy-end use sectors (industry, transport, buildings); the macroeconomic implications of steering EU innovation policy more towards low-carbon energy (e.g. via increased funding for this purpose from the EU budget or by shifting from a renewable-deployment target towards a renewable-innovation target); the determinants of first mover advantages and how energy-related policies could best ensure this; the role of low-carbon technological innovation in EU's main trading partners and the impacts this may have on EU's energy system and macro-economy via trade, technological diffusion, technological transfer and other transmission mechanisms; or the assessment of EU energy and macroeconomic impacts of various innovation scenarios (e.g. EU leading versus EU following in innovation on low-carbon energy aspects, or differentiating between different types of innovation, such as sustaining innovation, efficiency innovation, and market creating innovation with different labour market implications).
- S.3. Assessing the contribution of public and private finance in mobilising investments in decarbonising EU's energy sector, including financial feasibility and monetary implications. Examples of studies or policy questions may include: the impact of a constrained and troubled monetary economy (e.g. difficult access to private credit,

constrained public budgets, low liquidity in the market, interacting with real macroeconomics) on the effectiveness of EU energy-related policies and EU energy system developments; the impact of global energy-related policies on the probability of stranded fossil fuel assets, on financial systems and monetary variables (e.g. inflation, exchange rates, financial stability); the evaluation of the financial factors (including policy) influencing the cost of different energy technologies; the impact of EU energy-related policies on the financial feasibility and monetary indicators of raising the required energy investment needs (e.g. what are the financial / monetary implications of EU energy efficiency and the associated investment needs). A flow of funds analysis and stock-flow consistent models may be useful, in this respect, in order to assess such interactions.

- S.4. Assessing potential impacts of changes in energy systems due to revised or new EU and non-EU energy-related policies (including key parameters that may define EU's Energy Union initiative) on the EU macro-economy (e.g. growth, competitiveness, relative comparative advantage across sectors, employment, trade, fiscal deficits, debt etc.), whilst incorporating the issues of innovation and finance, and accounting for feedback loops between the macro-economy and energy. Sensitivity and uncertainty issues should be explored as well, where relevant. Example of studies or policy questions may include: evaluating the likely impacts of international policies on energy efficiency, renewables, carbon pricing, etc. across world regions (through the use of varying climate/energy policy scenarios) on global energy demand, fossil fuel supply, long term fossil fuel prices, and what this would potentially mean for EU energy, macro-economy, and energy-related policies (e.g. higher carbon prices, stronger mitigation action, higher revenues to be recycled); the better quantification of the benefits of the first mover advantage by explicitly addressing the role of innovation and the monetary economy when determining impacts; evaluating the energy-economy-emissions consequences of different EU gas policy scenarios; or advancing understanding on how policy may help energy-intensive industries be part of and contribute to European decarbonisation.
- S.5. Analysing the impacts of changes in prospective global economic conditions on the effectiveness of EU's energy-related policies in terms of decarbonisation, competitiveness, affordability, and energy security, whilst considering the role of innovation, finance, and feedback loops between energy and the macro-economy. Sensitivity and uncertainty issues should be explored as well, where relevant. Examples of work in this case may include: investigating scenarios with varying international economic prospects on EU energy-related and macro-economic indicators, for example the impact of different US/world gas and international fossil fuel price scenarios on EU energy prices, the competitiveness of EU energy-intensive industries, and the potential for carbon leakage; or the impact of tight financial markets / lending conditions on EU energy technology innovation and energy and climate policy objectives;

The examples of studies mentioned above should provide the Tenderer a comprehensive picture of the type of studies that may be required by the Commission in order to respond to the relevant policy questions. It is important that the Tenderer provides examples of case studies, scenarios, impacts etc. that their analysis could robustly cover, and particularly its relevance for EU energy and climate policies and objectives.

3.6 Input by the European Commission

To ensure relevance of the analytical work for the development of an energy policy for Europe, the policy parameters or scenario settings to be used in the studies and the precise

topics to be analysed will be set out in close collaboration between the European Commission and the Contractor.

The databases of the European Commission (Eurostat) are publicly available but if necessary the Commission might assist in the contacts with Eurostat in order to facilitate data extraction and analysis. The possibility of retrieving data from the existing Energy Market Observatory System (EMOS) database maintained by DG ENER should also be considered as an additional data source.¹⁸

3.7 Deliverables

It is envisaged that the project's specific objectives can be accomplished through the deliverables below, each documented by a report. Due to the complexity of the project, the multitude of ways to achieve the goals of the project, and the fast changing nature of the energy and climate policy landscape and real macroeconomic conditions, this initial list of deliverables, the exact nature of the studies and timetable may be appropriately adjusted during the project, if to improve the quality of the final deliverables and if agreed by the European Commission and the Contractor. The tenderers' could already provide such adjustments with a proper justification in the tender.

The deliverables should be accompanied by Excel files with all tables and charts shown in the final reports (as well as summary tables on inputs and outputs where relevant). These should be made available to the European Commission as requested and as specified in the contract with the Tenderer. It would also be helpful that the Tenderer identifies the individuals to be involved and the time expected to devote on the specific task.

As a rule, all deliverables mentioned under the current paragraph (3.7) the Commission will have, in a maximum 30 days from receipt of a deliverable, to make observations. Within 20 days of receiving the Commission's observations, the Contractor will submit, as requested by the Commission, additional information or a new version of the report, as requested by the Commission.

The exception is the inception report: the Commission must provide its observations in 10 days after receiving the draft report, and the Contractor will submit additional information or a new version of the report in 5 days.

Deliverable D.0: Detailed work programme (inception report) for the whole duration of the project that is to be submitted to the Commission within 1 week after the date of the kick-off meeting. The work programme must not deviate from current Tender Specifications or from the Contractor's offer.

Deliverable D.1: Study on evaluating the main drivers of historical EU energy-related trends, including macroeconomic, policy, and innovation drivers. Please refer to the group of studies S.1 in section 3.5.2 above for more information on this deliverable.

¹⁸ A description of this work and database can be found at the following link containing the closed DG Energy Call for Tenders no. ENER/A4/37/2014 on "[Collection of Data and Services for the Market Observatory for Energy](#)" [ener.a.4\(2014\)1509195](#)

Deliverable D.2: Study on the role of policy-induced technological innovation in fostering sustainable, secure and competitive EU energy. This deliverable should integrate the findings in D.1, where relevant. Please refer to the group of studies S.2 in section 3.5.2 above for more information on this deliverable.

Deliverable D.3: Study on the role of public and private finance in impacting investments in low-carbon energy and energy transition, and interacting with macroeconomic conditions and policy. This deliverable should integrate the findings of D1-D2, where relevant. Please refer to the group of studies S.3 in section 3.5.2 above for more information on this deliverable.

Deliverable D.4: Study on the impact of existing, proposed or potential EU and non-EU energy and climate policies on the macroeconomics of the European Union and its member states, whilst accounting for feedback loops between the macro-economy and energy, and the integration of findings in D1-D3. Please refer to the group of studies S.5 in section 3.5.2 above for more information on this deliverable.

Deliverable D.5: Study on the impact of current and prospective global and EU macroeconomic conditions on EU energy dynamics and the sector's efforts to decarbonise and increase its competitiveness, affordability, and security, whilst accounting for uncertainty, feedback loops between energy and the macro-economy, and the integration of findings in D1-D4.

3.8 Interim Progress Reports

The interim payments in Article I.4.1 of the contract are linked to interim reports and are made on the condition that the Commission has approved all the deliverables preceding to the interim report in question.

Draft interim progress reports (2×), describing the preceding progress / work on the deliverables as defined in the Tender Specifications shall be submitted to the Commission at the end of month 6, and respectively, end of month 18 (after the date of entry into force of the contract, and as specified in section 3.10). The Commission shall have, as a maximum, 30 days from receipt to make observations. Within 20 days of receiving the Commission's observations, the Contractor will submit additional information or a new version of the report, as requested by the Commission.

Interim reports should refer to all progress/ work up to the point of their submission, the future working plan, highlighting all questions and issues that might hinder the timely and complete submission of any deliverable.

With each draft progress report, the Contractor will submit the invoice for the first and second interim payment, respectively. Approval by the Commission of deliverables D.1 and D.2, as well as of the first progress report is the pre-condition for the contractor being entitled to the first interim payment. Approval by the Commission of deliverables D.3 and D.4, as well as of the second progress report is the pre-condition for the contractor being entitled to the second interim payment.

In addition, the contractor must, by the end of each month, throughout the duration of the contract and unless otherwise indicated by the Commission, provide a brief description of work / progress made (in maximum 2 pages), by e-mail to the Commission's contact person.

3.9 Final Reports

The Contractor will submit a **draft final report** to the Commission at the latest **23 months** after the date of entry into force of the contract. The draft final report shall cover the tasks described in the Technical Specifications above.

The Commission shall have, at a maximum, 30 days from the receipt of the draft of the final report to make observations. Within 20 days of receiving the Commission's observations, the Contractor will submit additional information or a new version of the final report, as requested by the Commission,

Following the submission of the draft final report, a meeting will be organised in Brussels to discuss the Commission's observation. The exact date will be agreed upon between the parties.

The final report shall include:

- A maximum 3 page publishable abstract with one illustration intended for generalists in the field of energy, macroeconomics, innovation, finance, and barriers, which can be posted on a web site with a quality level typical of articles for the press; to be delivered both in English and French.
- A final technical report incorporating the findings of all the deliverables as described in paragraph 3.7, in a structured way. The quality level should follow standards for a technical report, with clear description of the purpose of the study, the methodology adopted, key findings and policy implications, amongst others.
- All the deliverables mentioned under section 3.7 organised in a comprehensive way.

Approval by the Commission of deliverable D.5, as well as of the draft final report is the pre-condition for the contractor being entitled to the payment of balance.

The Commission may publish any of the deliverables, as well as the final report. For this purpose, the Contractor must ensure that the results are not subject to any restrictions deriving from intellectual property rights of third parties. Should he or she intend to use data in the study, which cannot be published, this must be explicitly mentioned in the offer.

The publishable executive summary shall be provided in both English and French and shall include:

- The following standard disclaimer:
“The information and views set out in this report are those of the author(s) and do not necessarily reflect the official opinion of the Commission. The Commission does not guarantee the accuracy of the data included in this study. Neither the Commission nor any person acting on the Commission's behalf may be held responsible for the use which may be made of the information contained therein.”
- Specific identifiers which shall be incorporated on the cover page provided by the European Commission.

All deliverables should be delivered in 3 copies in paper form and one copy in electronic form, in MS Word. Extensive numerical annexes should be provided on CD or DVD in agreement with the Commission.

3.10 Duration of the tasks

The duration of the tasks shall not exceed 25 months. This period is calculated in calendar days.

Execution of the tasks begins after the date on which the Contract enters into force having been signed by the last party (the Contractor).

In principle, the deadlines set out below cannot be extended. The Contractor is deemed solely responsible for delays occasioned by subcontractors or other third parties (except for rare cases of *force majeure*). Adequate resources and appropriate organisation of the work including management of potential delays should be put in place in order to observe the timetable below.

	Task	Indicative Accompanying Study	Scheduled delivery (in calendar days)
1	Inception Report D.0	-	1 week after kick-off meeting
2	Deliverable D.1 (draft)	S1	by end of month 3
3	Deliverable D.2 (draft)	S2	by end of month 6
4	Draft Interim Progress Report 1 IR.1	S1, S2	by end of month 6
5	Deliverable D.3 (draft)	S3	by end of month 12
6	Deliverable D.4 (draft)	S4	by end of month 18
7	Draft Interim Progress Report 2 IR.2	S1 to S4	by end of month 18
8	Deliverable D.5 (draft)	S5	by end of month 22
9	Draft Final Report	S1 to S5	by end of month 23
10	Final Report	S1 to S5	by end of month 25

3.11 Timetable to observe

A **kick-off meeting** will take place in Brussels, at the latest 30 days following the signature of the contract, in order to clarify the context of the specific tasks and settle all the details of the studies, reports, etc. to be undertaken. The organisation of the work, detailed description of deliverables, work agenda, etc. will be summarised in an Inception Report which will have to be delivered in 1 week after the date of the kick-off meeting.

Following the submission of both interim progress reports and the draft final report, progress meetings shall be organised in Brussels to discuss the Commission's observations. The exact dates will be agreed upon with the Contractor.

If the Commission finds it necessary, additional meetings may be organised, up to 3 at which the Contractor is obliged to participate. All meetings will take place in Brussels.

The Consultant should foresee regular and close cooperation with the European Commission during all phases of the project.

The Contractor will draft the minutes of all meetings, to be approved by the Commission.

3.12 Place of performance

The task will be performed on the Contractor's premises. However, meetings between the Contractor and the Commission shall be held on Commission premises in Brussels. Meetings may also be occasionally held on the Contractor's premises, in order to gain closer insights into the work performed (if deemed helpful).

Minutes of the meetings will be drafted by the Contractor and finalised after taking into account comments by the Commission.

3.13 Intellectual property rights

The Commission may publish (in full or in part) the studies and reports, further elaborate the data and extract materials for publications. For this purpose, the tenderer must ensure that the studies are not subject to any restrictions deriving from intellectual property rights of third parties. Should the tenderer intend to use data in the studies, which cannot be published, this must be explicitly mentioned in the offer.¹⁹

The tenderers are invited to read article I.8 of the draft contract, as published.

4. CONTENT, STRUCTURE AND GRAPHIC REQUIREMENTS OF THE FINAL DELIVERABLES

All studies produced for the European Commission and Executive Agencies shall conform to the corporate visual identity of the European Commission by applying the graphic rules set out in the European Commission's Visual Identity Manual, including its logo²⁰.

The Commission is committed to making online information as accessible as possible to the largest possible number of users including those with visual, auditory, cognitive or physical disabilities, and those not having the latest technologies. The Commission supports the [Web Content Accessibility Guidelines 2.0](#) of the W3C.

For full details on Commission policy on accessibility for information providers, see: http://ec.europa.eu/ipg/standards/accessibility/index_en.htm

Pdf versions of studies destined for online publication should respect W3C guidelines for accessible pdf documents. See: <http://www.w3.org/WAI/>

For graphic requirements please refer to the template provided in the Annex 4. The cover page shall be filled in by the Contractor in accordance with the instructions provided in the template. For further details you may also contact comm-visual-identity@ec.europa.eu.

¹⁹ Ownership, extendibility or maintenance related issues should be clearly mentioned and described in the tenders. The acceptance or not of the issues raised by the tenderer and the possibility of a specific agreement for any of them lies purely with the European Commission.

²⁰ The Visual Identity Manual of the European Commission is available upon request. Requests should be made to the following e-mail address: comm-visual-identity@ec.europa.eu

5. ANNEXES

1. Tenderer 's Identification Form
2. Declaration related to the exclusion criteria and absence of conflict of interest
3. Power of Attorney (mandate in case of joint tender)
4. Standard Word template for studies
5. Draft Contract

ANNEX 1

IDENTIFICATION OF THE TENDERER

(Each service provider, including any member of a consortium or grouping and sub-Contractor(s) whose share of the work is more than 20% of the contract must complete and sign this identification form)

Call for tender ENER A4/2015-436

Identity	
Name of the tenderer	
Legal status of the tenderer	
Date of registration	
Country of registration	
Registration number	
VAT number	
Description of statutory social security cover (at the level of the Member State of origin) and non-statutory cover (supplementary professional indemnity insurance) ²¹	
Address	
Address of registered office of tenderer	
Where appropriate, administrative address of tenderer for the purposes of this invitation to tender	

²¹ For natural persons

Contact Person	
Surname: First name: Title (e.g. Dr, Mr, Ms) : Position (e.g. manager): Telephone number: Fax number: E-mail address:	
Legal Representatives	
Names and function of legal representatives and of other representatives of the tenderer who are authorised to sign contracts with third parties	
Declaration by an authorised representative of the organisation²²	
I, the undersigned, certify that the information given in this tender is correct and that the tender is valid.	
Surname: First name:	Signature:

²² This person must be included in the list of legal representatives; otherwise the signature on the tender will be invalidated.

ANNEX 2

Declaration of honour on exclusion criteria and absence of conflict of interest

(Complete or delete the parts in grey italics in parentheses)
[Choose options for parts in grey between square brackets]

The undersigned (*insert name of the signatory of this form*):

- in [his][her] own name (*for a natural person*)
or
 - representing the following legal person: (*only if the economic operator is a legal person*)
 - full official name:
 - official legal form:
 - full official address:
 - VAT registration number:
- declares that [the above-mentioned legal person][he][she] is not in one of the following situations:
- a) is bankrupt or being wound up, is having its affairs administered by the courts, has entered into an arrangement with creditors, has suspended business activities, is the subject of proceedings concerning those matters, or is in any analogous situation arising from a similar procedure provided for in national legislation or regulations;
 - b) has been convicted of an offence concerning professional conduct by a judgment of a competent authority of a Member State which has the force of *res judicata*;
 - c) has been guilty of grave professional misconduct proven by any means which the contracting authorities can justify including by decisions of the European Investment Bank and international organisations;
 - d) is not in compliance with all its obligations relating to the payment of social security contributions and the payment of taxes in accordance with the legal provisions of the country in which it is established, with those of the country of the contracting authority and those of the country where the contract is to be performed;
 - e) has been the subject of a judgement which has the force of *res judicata* for fraud, corruption, involvement in a criminal organisation, money laundering or any other illegal activity, where such activity is detrimental to the Union's financial interests;
 - f) is a subject of an administrative penalty for being guilty of misrepresentation in supplying the information required by the contracting authority as a condition of participation in a procurement procedure or failing to supply this information, or having been declared to be in serious breach of its obligations under contracts covered by the Union's budget.

- (Only for legal persons other than Member States and local authorities, otherwise delete) declares that the natural persons with power of representation, decision-making or control²³ over the above-mentioned legal entity are not in the situations referred to in b) and e) above;

- declares that [the above-mentioned legal person][he][she]:
 - g) has no conflict of interest in connection with the contract; a conflict of interest could arise in particular as a result of economic interests, political or national affinity, family, emotional life or any other shared interest;
 - h) will inform the Contracting Authority, without delay, of any situation considered a conflict of interest or which could give rise to a conflict of interest;
 - i) has not granted and will not grant, has not sought and will not seek, has not attempted and will not attempt to obtain, and has not accepted and will not accept any advantage, financial or in kind, to or from any party whatsoever, where such advantage constitutes an illegal practice or involves corruption, either directly or indirectly, inasmuch as it is an incentive or reward relating to award of the contract;
 - j) provided accurate, sincere and complete information to the contracting authority within the context of this procurement procedure;

- acknowledges that [the above-mentioned legal person][he][she] may be subject to administrative and financial penalties²⁴ if any of the declarations or information provided prove to be false.

In case of award of contract, the following evidence shall be provided upon request and within the time limit set by the contracting authority:

For situations described in (a), (b) and (e), production of a recent extract from the judicial record is required or, failing that, a recent equivalent document issued by a judicial or administrative authority in the country of origin or provenance showing that those requirements are satisfied. Where the tenderer is a legal person and the national legislation of the country in which the tenderer is established does not allow the provision of such documents for legal persons, the documents should be provided for natural persons, such as the company directors or any person with powers of representation, decision making or control in relation to the tenderer.

For the situation described in point (d) above, recent certificates or letters issued by the competent authorities of the State concerned are required. These documents must provide evidence covering all taxes and social security contributions for which the

²³ This covers the company directors, members of the management or supervisory bodies, and cases where one natural person holds a majority of shares.

²⁴ As provided for in Article 109 of the Financial Regulation (EU, Euratom) 966/2012 and Article 145 of the Rules of Application of the Financial Regulation

tenderer is liable, including for example, VAT, income tax (natural persons only), company tax (legal persons only) and social security contributions.

For any of the situations (a), (b), (d) or (e), where any document described in two paragraphs above is not issued in the country concerned, it may be replaced by a sworn or, failing that, a solemn statement made by the interested party before a judicial or administrative authority, a notary or a qualified professional body in his country of origin or provenance.

If the tenderer is a legal person, information on the natural persons with power of representation, decision making or control over the legal person shall be provided only upon request by the contracting authority.

Full name

Date

Signature

ANNEX 3

Power of Attorney

mandating one of the partners in a joint tender as lead partner and lead Contractor 25

The undersigned:

– Signatory (Name, Function, Company, Registered address, VAT Number)

having the legal capacity required to act on behalf of his/her company,

HEREBY AGREES TO THE FOLLOWING:

- 1) To submit a tender as a partner in the group of partners constituted by Company 1, Company 2, Company N, and led by Company X, in accordance with the conditions specified in the tender specifications and the terms specified in the tender to which this power of attorney is attached.
- 2) If the European Commission awards the Contract to the group of partners constituted by Company 1, Company 2, Company N, and led by Company X on the basis of the joint tender to which this power of attorney is attached, all the partners shall be co-signatories of the Contract in accordance with the following conditions:
 - (a) All partners shall be jointly and severally liable towards the European Commission for the performance of the Contract.
 - (b) All partners shall comply with the terms and conditions of the Contract and ensure the proper delivery of their respective share of the services and/or supplies subject to the Contract.
- 1) Payments by the European Commission related to the services and/or supplies subject to the Contract shall be made through the lead partner's bank account: [Provide details on bank, address, account number].
- 2) The partners grant to the lead partner all the necessary powers to act on their behalf in the submission of the tender and conclusion of the Contract, including:
 - (a) The lead partner shall submit the tender on behalf of the group of partners.
 - (b) The lead partner shall sign any contractual documents — including the Contract, and Amendments thereto — and issue any invoices related to the Services on behalf of the group of partners.
 - (c) The lead partner shall act as a single contact point with the European Commission in the delivery of the services and/or supplies subject to the Contract. It shall co-ordinate the delivery of the services and/or supplies by the group of partners to the European Commission, and shall see to a proper administration of the Contract.

Any modification to the present power of attorney shall be subject to the European Commission's express approval. This power of attorney shall expire when all the contractual obligations of the group of partners towards the European Commission for the delivery of the services and/or supplies subject to the Contract have ceased to exist. The parties cannot terminate it before that date without the Commission's consent.

Signed in on [dd/mm/yyyy]

Place and date:

Name (in capital letters), function, company and signature:

²⁵ To be filled in and signed by each of the partners in a joint tender, except the lead partner;

ANNEX 4

Standard Word template for studies

Add document title 1

Add title 2

How to Use This Document Template

Cover page

Add the title of the document which should be center aligned. Add any other relevant information if necessary which should be left aligned on the left vertical axe of the EC logo.

The font colour of the title should be **White**.

Page set up

- Top margin: 3.5
- Bottom margin: 2.5
- Left margin: 3
- Right margin: 2.5

Headings and subheadings

The following styles should be used for headings and subheadings.

- | | | | |
|---------------------------|-------|---------|----|
| ▪ Heading | | | 1 |
| Font | type: | Verdana | |
| Font | Size: | | 14 |
| Colour: R:38, G:54, B:115 | | | |
| ▪ Heading | | | 2 |
| Font | type: | Verdana | |
| Font | Size: | | 11 |
| Colour: R:38, G:54, B:115 | | | |
| ▪ Heading | | | 3 |
| Font | type: | Verdana | |
| Font | Size: | | 10 |
| Colour: R:38, G:54, B:115 | | | |

Do not use capital letters for the headings/subheadings, the format should always be "sentence case", except for abbreviations.

Body text

Font style: Verdana

Font size: 10

Font colour: Gray 80%

Header

The header should include the EU flag and the reference text:

- European Commission
- The title of the document
- Font type: Verdana Italic
- Font size: 8

Footer

Add the relevant name of the month and year in the footer which should appear to the left below the line.

- Font type: Verdana Italic
- Font size: 8.
- The page numbers will appear automatically.

Bulleted list

The bullet should be square and the colour should be Black. For reference please see list under ["Headings and subheadings"](#). To apply the style of the list, select "List Bullet 2" from the "Style" drop down menu.

Hyperlinks

By default the hyperlinks will appear in blue (colour coder: R:26, G:63, B:124), no underline.

Table of Contents

This template is complete with Styles for a Table of Contents. From the **Insert menu**, choose **Reference**, then **Index and Tables**. Click on the tab **"Table of Contents"**. In the "Format" box, select "From template".

Contract number: N°ENER/A4/2015-436

ANNEX 5

DRAFT CONTRACT

Please see separate document