

**Efficient integration of additional renewable energy in the power sector  
SENER**

**Development Engagement Document  
Annex D to  
Danish Climate and Energy Partnership Program in Mexico  
Development Engagement 1**

**FINAL**

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## **1 INTRODUCTION**

The present Development Engagement (DE) document details the objectives and management arrangements for the development cooperation for the period from July 2017 to June 2020 concerning the support for making additional renewable energy available and efficiently integrated in the power sector in line with the clean energy goals in the energy transition strategy ,as agreed between the parties specified below. The development engagement document is annexed to the Mexican Partnership Programme document with the Implementing Partner and constitutes an integrated part hereof together with the documentation specified below. This DE with SENER is part of the support provided through the Climate and Energy Partnership Programme between Mexico and Denmark. The Partnership Programme with Mexico is embedded in the Danish Energy Agency (DEA) Energy Partnership Programme (DEPP) supported by the Danish Climate Envelope focusing on four countries including also China, South Africa and Vietnam.

## **2 PARTIES**

The Danish Energy Agency  
Amaliegade 44  
1256 København K  
Denmark

and

Ministry of Energy (SENER) of Mexico  
Insurgentes Sur 890,  
Del Valle, Ciudad de México. C.P. 03100

## **3 DOCUMENTATION**

The partner documents that support this intervention are:

1. Transition Strategy to Promote the Use of Cleaner Technologies and Fuels (December 2014)
2. Energy Transition Law, December 2015.
3. Special Energy Transition Programme (PETE) 2016-2018, December 2016.
4. Annual Activity Report of SENER (Informe de Labores).
5. Prospectiva de Energías Renovables 2016-2030

## **4 BACKGROUND**

Mexico is known to be an active player in international climate and energy dialogues and has a wide range of climate and energy policies, with targets and supported by plans and strategies. Since the year 2000, Mexico has published three National Strategies on Climate Change and in 2009 adopted its first Special Program on Climate Change. In addition, Mexico has presented five National Communications with their respective greenhouse gas inventories to the United Nations Framework Convention on Climate Change (UNFCCC).

In April 2012, the General Law on Climate Change (LGCC in Spanish) was approved, and made Mexico the first developing country to have a comprehensive law on this subject. This law that sets ambitious targets for greenhouse gas reductions.

Mexico ratified the Paris Agreement in September 2016, and was the first developing country to present its INDC in March 2015. In this, Mexico is committed to reduce unconditionally 22% (below business-as-usual) of its GHG and 51% of Short Lived Climate Pollutants (SLCP) emissions in 2030. This commitment implies that net emissions peak starting from 2026, thus decoupling GHG emissions from economic growth, reducing emissions intensity per unit of GDP by around 40% from 2013 to 2030. The 22% reduction commitment could increase up to a 36% in a conditional manner, subject to a global agreement addressing important topics including international carbon price, carbon border adjustments, technical cooperation, access to low-cost financial resources and technology transfer, all at a scale commensurate to the challenge of global climate change. Within the same conditions, SLCP reductions could increase up to 70% in 2030. There is no specific target for clean energy included in INDC, however, given the large role of the energy sector in emissions, the peaking of net emissions will require a significant contribution from mitigation in the energy sector. How the commitment translates into RE and EE is still to be analysed in detail.

The energy sector is the second largest source of greenhouse gas emissions, after transport, not least due to high dependency on fossil fuels, the main sources of primary energy supply (91%), and with 80% of the electricity generated from fossil fuels. According to the first Biennial Update Report submitted to the United Nations Framework Convention on Climate Change in 2015, Mexico's emissions reached 665 MtCO<sub>2</sub>e in 2013, in which the energy sector (fossil fuels combustion) contributed with 70.8% of the total. Mexico has set target for renewable energy that will help reduce GHG emissions from the energy sector. In the 2016-2018 Special Energy Transition Programme (Programa Especial de la Transición Energética –PETE- 2016-2018, December 2016), is the road map that marks actions to meet the goal for clean energy; by the end of 2024, 35% electricity is to be generated with clean sources (renewable energy, efficient co-generation and nuclear), with foundations laid to achieve the intermediate goals of 25% for 2018, 30% for 2021 and 35% for 2024.

The Energy Transition Law (Ley de Transición Energética, December 2015) aims to regulate the sustainable use of energy and articulate the electric industry's obligations regarding the country's need to transition to using clean energies and cutting polluting emissions, while at the same time maintaining Mexico's productivity and competitiveness on the world stage. The law is now a cornerstone of Mexico's legislation on clean energy and energy efficiency, as it provides a regulatory framework that allows all energy sector participants to coordinate long-term efforts, and reaffirm the clean energy goals.

Mexico has also begun a comprehensive reform of the entire energy sector. This includes structural changes in the market and grid, as well as changes of roles of former state-owned companies, and authority among public entities. This is a very wide-ranging reform, with all actors on the energy market involved and where large investments are made that affect the Mexican energy sector decades ahead.

The point of departure of the cooperation with SENER is the energy sector reform legislation. Mexico has advanced capabilities in many areas pertaining to energy, and federal government planning procedures are well in place with a series of vision documents and core programs. Yet, there are challenges ahead attached to the carry through of reforms and newly built institutional framework with new roles and responsibilities for CENACE

and CRE. There are challenges with conversion of policy goals into interventions and practical planning and implementation.

Danish cooperation with Mexico on renewable energy (RE) builds upon the Danish experience with the process of transforming the energy sector, which Mexico is now going through. There is a strong demand from the Mexican partners for collaboration based on the Danish experiences in transforming the energy sector, a transformation that rests on thorough research, adaptation of the power system to make it able to follow changes and development, a continuous development of the regulatory framework, and not least reliable and solid long-term analyses and planning. Support based upon Danish core competencies and international best practice within modelling, policy support and analytical capacity assist Mexico in meeting these challenges. Most cooperation will be continuation of activities from previous programme because it has shown useful and effective. This is aligned with Mexico's legislation and strategy and planning documents, and have been discussed with the partners in detail. The cooperation takes into account the lessons learned from the previous successful cooperation, including the importance of continuous technical assistance (TA) presence; utility of peer to peer knowledge transfer; and leveraging the credibility of DEA as a government organisation.

The DE will centre around cooperation with SENER. SENER is responsible for energy sector policy, planning and regulation, and design and implementation of energy policy in Mexico. They also supervise activities undertaken by the state-owned energy companies and manage the energy transition and planning for the medium and long term. Under SENER's jurisdiction is i.a. CENACE, as the Mexican energy system operator, who exercises operational control of the national electricity system, the operation of the wholesale electricity market, etc. Also under jurisdiction of SENER is CRE, the Energy Regulatory Commission (independent), who will manage rules and regulation.

The private sector companies are also very interested in the climate and energy agenda in Mexico. Through the cooperation, specific requests for technologies rise sometimes, and the importance of mobilising the private sector, with their competences and technologies will be an underlying part of the Partnership Programme. An improved enabling environment could pave the way for partnerships between the private sector in Mexico and Denmark. Close collaboration with the Danish Embassy in Mexico on issues related to private sector is expected.

## **5 DEVELOPMENT ENGAGEMENT OBJECTIVE**

The objective of the wider Energy Partnership Programme between Mexico and Denmark is that Mexico is in transition to decouple carbon emissions from economic growth through cost-efficient mitigation actions. This objective is in alignment with Mexico's Energy Transition Law and the ongoing reform of the energy sector. The particular objective (outcome) for this DE is that additional RE is efficiently being integrated in the power sector in line with the clean energy goals in the Energy Transition Law.

This DE targets both the policy level (SENER) that creates the enabling conditions to achieve the clean energy goals – in this case RE - of the government and the implementation level (CENACE) by developing capacity and providing methodologies that enable the integration of large shares of RE in the electricity supply generation mix.

Results and lessons learned from the previous support have informed the design of the new programme leading to agreement by the parties on the following outputs that will contribute to achieving the DE objective:

**Methodologies are established for renewable energy planning and planning capacity is strengthened.**

The previous cooperation has provided technical assistance to SENER and UNAM, National Autonomous University of Mexico (who has been contracted by SENER to support their modelling) in order to integrate the BALMOREL<sup>1</sup> model into the SIMISE<sup>2</sup> as a supplemental power sector module, because the previous module in SIMISE that simulated the power sector was not capable of reflecting the complexity of the power sector. By the end of the previous programme period, the BALMOREL model was fully transferred to UNAM, and the development of the SIMISE model in its present design will be finalised by October 2017 and then SENER is expected to take over responsibility for operation, maintenance and development of SIMISE. SENER and UNAM are currently seeking financing for continued services from UNAM in this respect, in order to ensure that resources are adequate and sufficiently capable modellers are available. The Partnership Programme will focus on supporting SENER in efforts to continuously enhancing the inputs, and as support desk if there is problems running the model. With gradually enhanced capacity, there will be increased emphasis on interpretation and reporting of results, and long term analysis.

This work will also feed into the development of future Mexican Renewable Energy Outlook (REO). REO for 2015 and 2016 was developed with support from Denmark, and this DE will continue supporting the development of the annual REO, including updates on the historic record of development, but also the model-based scenario analyses, RE industry development, and RE costs in Mexico. Further, policy analysis on measures to stimulate RE development will be included. This will make the REO the global reference for RE development in Mexico as well as underline and enhance the very ambitious position of Mexico in climate change mitigation and sustainable development.

**Mexican Energy Modelling Laboratory (MEMLAB) established**

SENER's strategic vision is that the SIMISE model becomes the key long term renewable energy planning model in SENER and Mexico, and that its use will not be limited to the Information and General Planning Directorate in SENER but involve other departments and institutions that use energy data and models, especially the National Institute of Ecology and Climate Change (Instituto Nacional de Ecología y Cambio Climático – INECC), the National Commission for Energy Efficiency (Comisión Nacional para el Uso Eficiente de la Energía – CONUEE) and CENACE.

In order to realize and institutionalize SENER's vision and thus further enhance the quality, efficiency and cooperation between institutions involved in energy planning, the

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<sup>1</sup> The BALMOREL energy model is a partial equilibrium model, which supports modelling and analysis of the energy sector with emphasis on the electricity and the combined heat and power sectors.

<sup>2</sup> SIMISE = Sistema de Modelación Integral del Sector Energético. The SIMISE covers all energy sectors and has a macroeconomic module

programme will support the development of a so-called MEMLAB that can coordinate activities in energy modelling and undertake a number of tasks such as: data collection and maintenance of the models, updating and research on energy technology data for Mexico, daily operations of models and further development of the model.

The MEMLAB will also potentially become a centre for applied research for sustainable development in Mexico, and is a response to the increased focus on data and modelling among Mexican ministries, institutions and policy makers. The availability of reliable and consistent data, which are used in analyses carried out by different institutions become increasingly in demand among Mexican institutions who are interested in cost-effective energy sector development, RE development and GHG reductions.

As the modelling is necessary and mandatory for SENER, and others, limited funding might be available. The Partnership Programme will support SENER with developing a platform for the MEMLAB, the business plan and assist in finding finance in Mexico and internationally.

### **Bioenergy resources identified and assessed**

SENER has worked with the development of a biomass overview for some time with different donors. According to Mexican experts and SENER, there is plenty of biomass available in Mexico, but it has to be confirmed, and during the previous programme period, SENER and DEA have initiated cooperation around the Danish areas of expertise within solid biomass and biogas.

The previous programme endeavoured to assess the current amounts and uses of biomass residues in Mexico suitable for bioenergy projects including biogas and combustion of solid biomass. Further transfer of knowledge to SENER will be valuable, and earlier work will now be followed-up based on the findings from these assessments, where some initially identified potential hotspots have already been selected (such as use of bagasse from sugar mills to produce electricity and co-firing of biomass in coal fired power plants in Petacalco). Other hotspots were excluded, some of which are promising and need to be assessed further to identify the best areas for making feasibility studies of selected bioenergy hotspots.

In the previous programme period, pre-feasibility studies were conducted in the sugar sector, leading to Mexico submitted a NAMA proposal to the NAMA facility, with support from the CCMEP. The NAMA proposal was accepted and resources for a preparation phase granted. The activities under this output will continue to provide input to the NAMA if and where relevant.

### **Reliability and security of supply with variable RE in the power system.**

As part of the energy sector reform, CENACE has been tasked with transmission system planning. Fulfilling this role includes i.a. market modelling, grid analysis, cost benefit analysis etc. The cooperation with CENACE is based on the experience gained in the previous programme period and consists of two main areas: transmission grid planning and reliable and efficient operation of the system when increasing levels of RE are included. The core of the cooperation is the close collaboration and partnership between the Danish transmission system operator Energinet.dk and the Mexican equivalent CENACE.

Current plans for internal reinforcement of the Mexican transmission grid and connection of electric islanded areas with HVDC (High Voltage Direct Current) connections call for urgent competence building at CENACE within this area. Denmark has vast experiences on building and operating HVDC links since the 1960s and will provide valuable support to strengthen capacity at CENACE.

An essential tool for safe and efficient balancing of electricity systems with high shares of variable renewable energy generation is accurate generation forecasts. Denmark has a wind power share of approx. 40%, and has therefore “state-of-the-art” forecasting tools and procedures for the power control centres.

These activities will be carried out in close collaboration with the Mexican Energy Regulatory Commission, CRE.

## **6 THEORY OF CHANGE**

The theory of change of DEA’s engagement with SENER, is that if SENER is supported in furthering planning, regulation, and policy design and the DE contributes to enhancing its capacity in this regard, then SENER is able to make and implement decisions on expansion and inclusion of RE in the power mix, and Mexico will thus be more likely to be able to reach its clean energy goals.

In order for the support from DEA to be successful, SENER will have attained better knowledge on RE, now and in the future, through enhanced Mexican models and data, increased capacity to run and maintain these models and using this knowledge to plan for cost-efficient RE paths for reaching targets and beyond. The momentum for change will be strengthened by data and modelling results being shared and consolidated among relevant stakeholders, i.a. through the proposed platform. Specifically, SENER will use the information on distribution and concentration of biomass to improve the regulatory framework and increase the role of biomass in the future power supply mix. By providing CENACE with the tools and methodologies to be able to better evaluate and manage the integration of RE into the power system, the enabling environment for the low-carbon energy transition will be improved, leading ultimately to increased RE-share in the energy mix. This will help Mexico mitigating its GHG emissions as set out in domestic policy targets and in commitments made within the Paris agreement.

Realizing the outcome of including RE adequately in the long term strategies and efficiently integrating RE in the power sector depends not only on this DE but on other factors as well that are not under the control of this DE. Successful achievement of the outcome from DEA’s support rests on a set of assumptions including: (i) the Government of Mexico retains its commitment to climate change mitigation and related targets on clean energy, also after the elections to be held in 2018, (ii) the partner institutions have ownership of the cooperation; (iii) staff of SENER remains in posts long enough to take up results from the cooperation and to carry out change; (iv) that energy prices are at a level where investment in RE and RE integration is attractive (v) DEA makes available adequate staff resources, and other expertise and technical assistance are procured in a timely manner.



## 7 RESULTS FRAMEWORK

For Danida's reporting purposes the following key outcome and output indicators have been selected to document progress. Detailed indicators for each output will be revisited and potentially refined as part of the inception, where the baselines and targets, will be adjusted with reference to prevailing knowledge and the Climate Envelope guidelines for monitoring:

Outcome		<b>Additional RE is efficiently being integrated in the power sector in line with the clean energy goals in the Energy Transition Law.</b>	
Outcome indicator		At least 27% clean energy in mix	
Baseline	Year	2017	20% clean energy in mix
Target	Year	2020	<ul style="list-style-type: none"> <li>• Expertise, initiatives and plans in place and providing support to the target for clean energy</li> <li>• At least 27% CE in the power supply mix.</li> </ul>

Output 1		<b>Methodologies are established for renewable energy planning and planning capacity is strengthened.</b> SENER uses improved methodologies in their planning	
Output indicator 1		SENER's planning dept., or a SENER approved entity, runs the energy model including the Balmorel model and is fully equipped to translate policies into model assumptions and vice-versa: to analyse the results of modelling and transform them into policy options.	
Baseline	Year	2017	<ul style="list-style-type: none"> <li>• SENER has limited capacity to do energy sector modelling.</li> <li>• UNAM has some capacity to do energy sector modelling.</li> <li>• REO is developed with support from others</li> </ul>
Target	Year 1.5	2018	<ul style="list-style-type: none"> <li>• SENER/UNAM has some capacity to integrate into the energy modelling the RE data with sufficient spatial refinement.</li> <li>• REO is actualized with minor support, and published</li> </ul>
Target	Year 3	2020	<ul style="list-style-type: none"> <li>• Model in place that more accurately represents the RE potential and regional distribution in Mexico.</li> <li>• SENER/UNAM integrate RE data with sufficient spatial refinement into the energy model.</li> <li>• SENER/UNAM run the model</li> <li>• REO is updated by SENER and published.</li> </ul>

Output 2		<b>MEMLAB established</b> Coordination between institutions enhanced and a common centre for data and model maintenance Mexican Energy Modelling Laboratory (MEMLAB) established	
Output indicator 2		Platform for MEMLAB developed and in use	
Baseline	Year	2017	No platform exists, coordination fragmented
Target	Year 1.5	2018	Plan for MEMLAB, including aim, mandate, and plan for execution, developed
Target	Year 3	2020	MEMLAB established

Output 3		<b>Biomass resources identified and assessed</b> SENER has sufficient capacity to map, plan and deploy biomass resources and technologies for energy usage, within technologies where Denmark has distinctive competences.	
Output indicator 3		Consolidated Mexican biomass roadmap exists, that includes an implementation action plan and feasibility studies as well as a proposal for	

		additional incentives to promote the increase of biomass in the energy mix.	
Baseline	Year	2017	No plan for deployment of biomass usage exists, neither for agricultural residues, such as straw, stalks and manure, nor for mixed organic residues from industries and waste water treatment plants.
Target	Year 1.5	2018	1-2 feasibility studies completed for the most promising selected technologies and biomass resources and an indication of possible, realistic incentives for further deployment is prepared together with SENER.
Target	Year 3	2020	Output indicator 3.1 achieved

Output 4		<b>Reliability and security of supply with variable RE in the power system improved.</b> CENACE uses best practices developed on transmission grid planning and operation, and are able to effectively integrate variable RE in the electricity system.	
Output indicator 4		CENACE capable to ensure effective integration	
Baseline	Year	2017	CENACE has some capacity for RE integration.
Target	Year 1.5	2018	CENACE has improved its capacity for RE integration.
Target	Year 3	2020	<ul style="list-style-type: none"> <li>• The installed RE capacity is being exploited (very limited curtailment)</li> <li>• Security of supply at least at same level as situation in 2017 but now with more RE integrated</li> <li>• CENACE has capacity for handling RE integration.</li> </ul>

## 8 RISK MANAGEMENT

The major risk related to successful implementation of the DE is that:

*Following the election in 2018 a government will not retain its commitment to low carbon development and clean energy development.* The mid 2018 election the government may change to a government that will put other priorities on the agenda. This could lead to priorities that will not include renewable energy. This risk is minor since almost all large parties in the current parliament support the climate change policies and the energy transition laws.

*High staff turnovers as a consequence of the next election will constrain resource with the partner institution* Following any election in Mexico will cause major shift in top management of the institutions that the Partnership Programme will cooperate with and it will take time to fully take ownership and understand the modality of the cooperation including the type of assistance offered. This risk is minor because the support is largely aimed at technical staff that does not change and these people are well acquainted with the modus operandi of the Partnership Programme and supports it. This risk will be mitigated by the programme management and DEA taking steps to ensure timely completion of activities exposed to the risk of delays.

*Lack of ownership to the cooperation from key partner institutions.* The Danish support is in high demand and all direct partners demonstrate a genuine ownership to the cooperation as it

has also been confirmed by the high-level participation in the meetings organised during the formulation. The risk is minor.

*Change in energy prices.* If energy prices change, it will change the business case for investing in the energy system and in specific energy sources as well as efficiency. A decrease in energy prices will discourage investment in the grid and renewables or adoption of energy efficiency measures.

There are no other major risks identified that have not been mitigated as part of the design, but risks will be monitored closely throughout implementation and measures will be carried out accordingly.

## 9 INPUTS/BUDGET

Outputs	Contribution with Danish funds	Partner Contribution in-kind
<b>1.Methodologies are established for renewable energy planning and planning capacity is strengthened.</b>	3.151	
TA travel costs etc. in DKK '000	200	
Delegations to Denmark in DKK '000	50	
Other costs in DKK '000	100	
TA from DEA, in hours	2000	2000
TA from other international experts, in hours	1200	1200
TA from local consultants, in hours	500	500
<b>2. MEMLAB established</b>	780	
TA travel costs etc. in DKK '000	100	
Delegations to Denmark ,in DKK '000	-	
Other costs, in DKK '000	-	
TA from DEA, in hours	1000	1000
TA from other international experts, in hours	-	
TA from local consultants, in hours	500	500
<b>3. Bioenergy resources identified and assessed</b>	3.816	
TA travel costs etc., in DKK '000	200	
Delegations to Denmark, in DKK '000	100	
Other costs, in DKK '000	200	
TA from DEA, in hours	2500	2500
TA from other international experts, in hours	1200	1200
TA from local consultants, in hours	2000	2000
<b>4. Reliability and security of supply with variable RE in the power system.</b>	2.949	

TA travel costs etc., in DKK '000	50	
Delegations to Denmark, in DKK '000	-	
Other costs, in DKK '000	100	
TA from DEA, in hours	300	300
TA from other international experts, in hours	2500	2500
TA from local consultants, in hours	400	400
International Long-Term Adviser (DKK)	1950	
GRAND TOTAL DKK '000	12.646	

Partner contribution in terms of hours is intended to at least be equivalent to the input from Denmark.

## 10 MANAGEMENT ARRANGEMENT

The parties have agreed to the following management arrangement with the aim to ensure adequate dialogue and timely decisions regarding this development engagement.

The development engagement is anchored in the SENER that has the overall responsibility for implementation of the engagement. The daily implementation is the responsibility of SENER's Director General for Clean Energy in cooperation with the director for General Planning.

A Development Engagement Implementation Group, hereafter called the Implementation Group, managing daily implementation of the development engagement will be headed by a director from SENER and consist of directors from CONUEE and SENER (to be decided) the Long Term Adviser, the DEA focal point/DEA expert and partner specialists as required. The Implementation Group will guide daily implementation and meet on a needs basis, and will: i) develop annual and detailed half-yearly work plans for the DE, matching priorities in the partners work plans; ii) associated with the detailed half-yearly work plan determine need for Technical Assistance (TA) inputs from DEA experts and from national and international TA through development of a TA provision plan; iii) develop half-yearly progress reports; iv) endorse inputs based on TOR prepared at output level; v) monitor day-to-day progress of DE implementation. The head of the Implementation Group reports on DE outputs to the Management Group.

A Management Group will be established to coordinate and manage the entire partnership programme in Mexico. The Management Group will be led by the heads of departments for the development engagement partner institutions and will have participation of the DEA focal point, the LTA and partner specialists as relevant. The Management Group will meet at least twice per year and have the responsibility to: i) consolidate and check annual and detailed half-yearly work-plans and budgets against DE partners work-plans and TA provision plan; ii) monitor programme progress at output level, using the "traffic light" system; iii) ensure cross fertilisation between engagements. The Management Group reports on programme development to the Steering Committee and acts as Secretary to the Steering Committee.

The Steering Committee is established and co-chaired by a Vice Minister of SENER, Vice Minister of SEMARNAT and DEA Director General/Deputy Director General. The

Danish Ambassador participates at in the Steering Committee as representative of Danish Ministry of Foreign Affairs.

DE partners are all represented in the Steering Committee at senior management level. The Steering Committee should meet one to two times per year to approve annual work plans and progress reports; discuss and resolve issues related to programme progress, and; decide on any reallocation of resources between DEs, e.g. based on recommendations from the Management Group and from the mid-term review.

### **Implementation arrangements**

At implementation level the DE partners are responsible for implementation of the DE with DEA being responsible for providing the necessary and timely resources to deliver the outputs, according to the output-based budget and the requests for TA from the DEs. Each DE partner has, at output level, dedicated partner specialists, assisted by DEA that provide inputs to the annual and half—yearly work-plans, and proposed needs for provision of TA. This includes formulating detailed Terms of Reference and specific TA profiles and time-input required to deliver the outputs. Provision of TA should be based on the principles of a) DEA/Energinet.dk experts where peer advice is required; b) national TA where relevant; and; c) international specialists where dedicated specialist tasks will be needed.

DEA is also responsible for coordination of inputs from Denmark and for advising on implementation, and approving deliverables from external service providers.

In addition to national and international short term TA the partnership programme in Mexico will finance two Long Term Advisers (LTA), one with focus on RE and EE, the other with focus on climate. This is to ensure proper advice and specific TA for the two partners SENER and SEMARNAT. While the LTA serves as adviser to the entire programme, the LTA in SENER will primarily focus on DE1 and DE2. As program advisor, the LTA would use any opportunity to encourage partners (as duty bearers) to ensure consultation of relevant DE outputs with right holders – CSO's, private sector investors and other relevant stakeholders, and coordinate with other international donors and development partners. The LTA will also support integrated policy dialogues. The LTA will be able to draw on local TA from the programme, when required.

## **11 PROCUREMENT AND FINANCIAL MANAGEMENT**

This development engagement will have no cash transferred or disbursed directly to the development engagement partner. Hence, there are no requirements for accounting of funds and financial reporting at development engagement level. However, based on the agreed annual work plan the international and national adviser inputs will be budgeted and agreed in terms of days delivered, including in country. The bi-annual progress reports will include the actual time spent for each TA input to monitor the use against agreed TA budget.

Procurement of agreed TA (in any form) will be carried out by DEA and follow Danish procurement rules or drawn from a pool of experts. Final selection of procured TA will be done in close cooperation with partners based on no objection from the Implementation Groups.

Recruitment of the Long Term Adviser (LTA) follows procedures of the Danish Ministry of Foreign Affairs (MFA). Representatives from SENER will be part of the recruitment panel together with representatives from DEA and MFA.

Study tours by DE partners will be paid for by the partnership program with Mexico. This includes airfares, accommodation and daily allowances. Daily allowances for the entire trip will be paid out in cash upon departure following MFA procedures for appropriate documentation. Workshops and seminars in country will be paid for by the partnership program, based on appropriate quotations based on approval and documented expenses. Sitting allowance for any workshop or meetings will be paid for out of partners own budgets.

## **12 MONITORING AND EVALUATION**

Daily progress will be followed by the Implementation Groups who will report progress towards outputs and outcomes of this engagement through bi-annual progress reporting to the Management Group that consolidate reports across the programme and report this to the Steering Committee at annual or bi-annual Steering Committee meetings. The Management Group will also provide an Annual Progress Report to be approved by the Steering Committee. All reporting should, to the extent possible and when relevant, be disaggregated by gender, area, sector, etc. forwarded to the DEPP Advisory Group in Copenhagen.

Detailed indicators for each specific development engagement output will be revisited and potentially refined as part of the inception, where annual targets, in line with already defined targets will be adjusted with reference to the guidelines for monitoring of the Danish Climate Envelope. Monitoring towards these targets will be reported through the bi-annual progress reporting using a “traffic-light” system, where:

- “green” is on-track – implementation progresses as scheduled;
- “yellow” is partly on-track which needs an explanation by the Implementation Group to the Management Group, including actions taken to get back on-track and closer monitoring of progress by the Management Group;
- “red” is off-track, which needs a detailed explanation by the Management Group to the Steering Committee with recommendations of changes to the implementation to get the engagement back on-track. If “red” in two consecutive reporting periods, the Steering Committee may consider reallocation between outputs within or between the development engagements as deemed relevant.

Monitoring of actual time spent by international and national advisers will be reported in the bi-annual progress reports, which will include an updated work plan and a projection of TA input for the following six months. Similar reporting will be done for workshops and study-tours.

The Danish Ministry of Foreign Affairs shall have the right to carry out any technical mission that is considered necessary to monitor the implementation of the programme, which may include a mid-term review.

After the termination of the programme support the Danish Ministry of Foreign Affairs reserves the right to carry out evaluation in accordance with this article.

**Anti-corruption**

No offer, payment, consideration or benefit of any kind, which could be regarded as an illegal or corrupt practice, shall be made, promised, sought or accepted - neither directly nor indirectly - as an inducement or reward in relation to activities funded under this agreement, incl. tendering, award, or execution of contracts. Any such practice will be grounds for the immediate cancellation of this agreement or parts of it, and for such additional action, civil and/or criminal, as may be appropriate. At the discretion of the Danish Government, a further consequence of any such practice can be the definite exclusion from any projects funded by the Government of Denmark.

**Prerequisites**

This Development Engagement is in accord with Specific Agreement.  
There are no additional prerequisites.

**Signatures**

Partner/DEA