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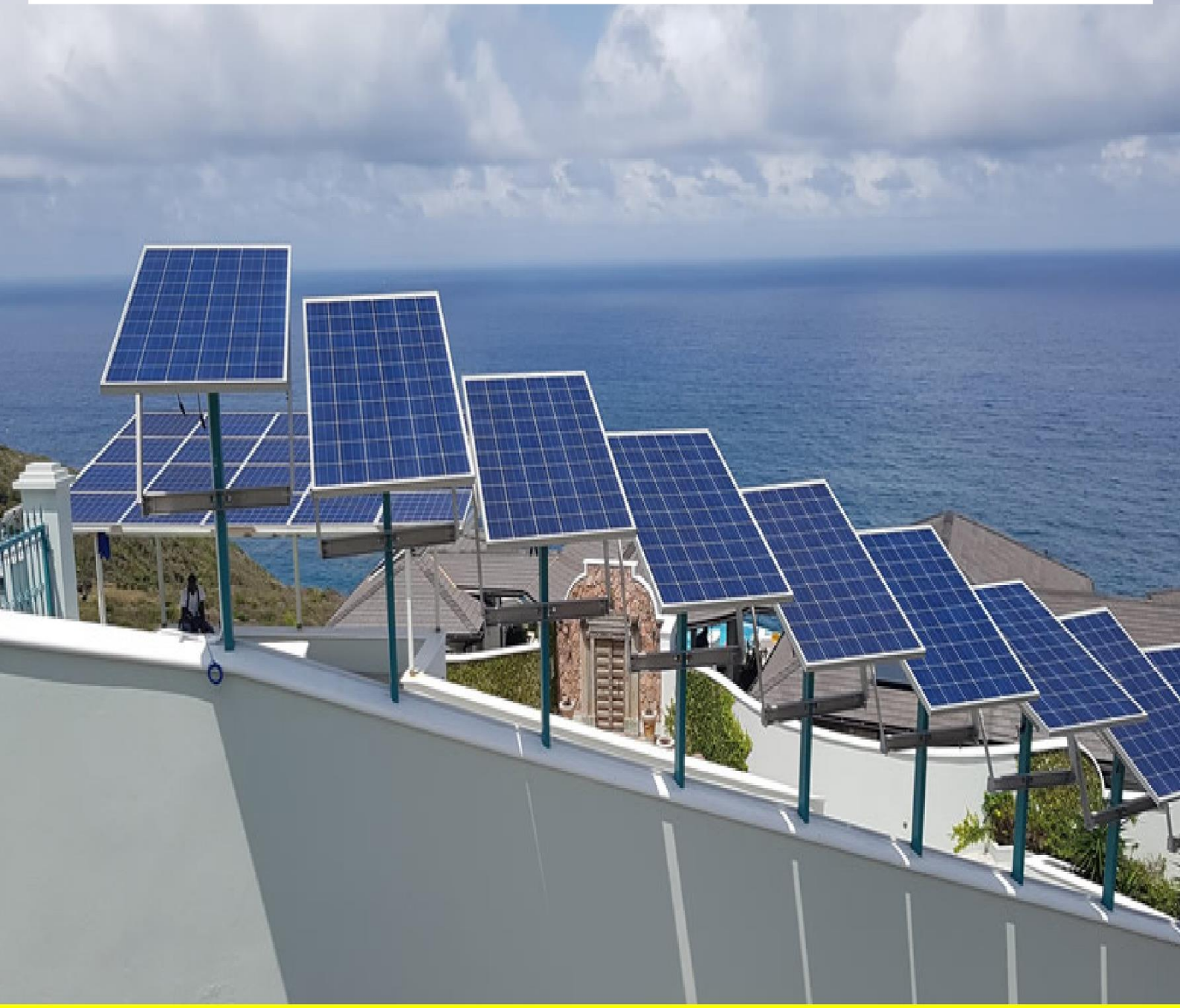
TAPSEC
TECHNICAL ASSISTANCE PROGRAMME FOR SUSTAINABLE ENERGY IN THE CARIBBEAN

CARICOM

MINISTERIO DE ENERGÍA Y MINAS
REPÚBLICA DOMINICANA



Dominica Independent Regulatory Commission (IRC)

Revision of Legislative and Regulatory Framework for the Energy Sector in Dominica

Inception Report

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ACRONYMS & ABREVIATIONS

CARICOM	Caribbean Community
CARIFORUM	The Caribbean Forum
CARILEC	Caribbean Electric Utility Services Corporation
DFID	Department for International Development (British Cooperation)
DOMLEC	Dominica Electricity Company
EDF	European Development Fund EIB European Investment Bank
EE	Energy Efficiency
FIT	Feed in Tariff
GIZ	*Deutsche Gesellschaft für Internationale Zusammenarbeit – German Agency for International Cooperation*
GWh	Gigawatt-hour
IPP	Independent Power Producers
IRC	Independent Regulatory Commission Dominica
IRP	Integrated Resource Planning
IRR	Internal Rate of Return
ISO	International Organization for Standardization
kWh	Kilowatt-Hour
MPWDE	Ministry of Public Works and Digital Economy
MW	Megawatt
MWh	Megawatt-hour
NEP	New Energy Policy
OPEX	Operating Expenditure
O&M	Operations & Maintenance
PPA	Power Purchase Agreement
PV	Photovoltaics

RE and RETs	Renewable Energy, Renewable Energy Technologies
TAPSEC	Technical Assistance Programme for Sustainable Energy in the Caribbean
WB	World Bank

1. BACKGROUND AND INTRODUCTION

The project consists, at the request of Independent Regulatory Commission (IRC), in realizing a study for the revision of Legislative and Regulatory Framework, for the Energy Sector in Dominica. The ultimate objective is to contribute to completing the National Energy Policy and support in the design of the framework for policy implementation.

The kick-off meeting with IRC and GIZ was held on March 29th.

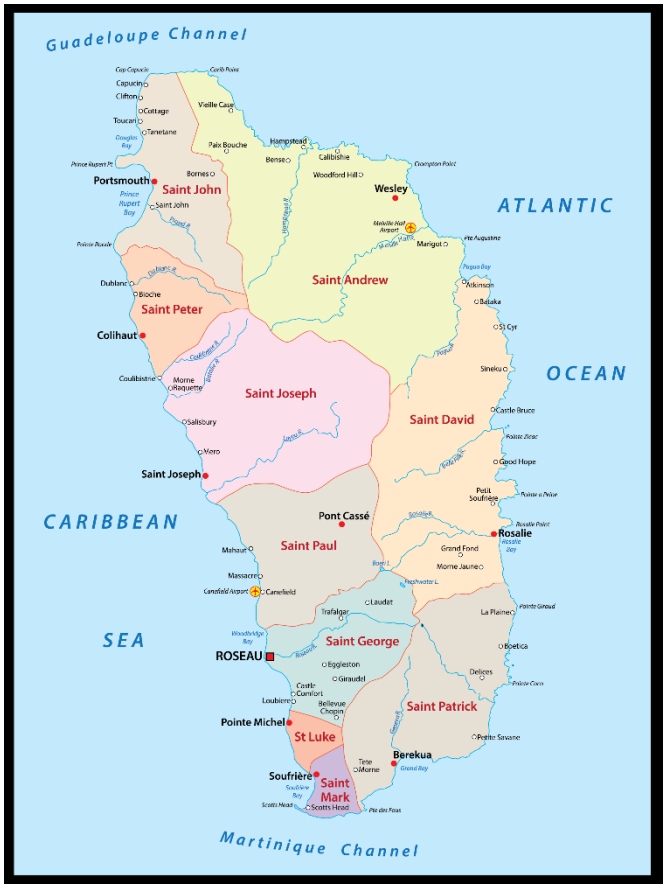
During the process of undertaking the tariff study, the consultant shall also engage in capacity building exercises to increase the skills of professionals who work in Dominica utilities sector, in particular IRC.

Like many other countries within the region, Dominica is currently undergoing an Energy Sector Transition which aims for greater penetration of renewable energy (RE) and increased energy efficiency (EE). The current objective is very ambitious, the Government having stated 100% Renewable Energy by 2030 as target.

The IRC wishes to engage the services of an independent consultant to review and design a regulatory framework for the electricity sector, consistent with the policy objectives, thereby ensuring the effective regulation of the sector. The review is intended to put in place measures to:

1. Protect the interests of consumers, investors, and the public, by the provision of services that are safe, reliable, and efficient, at reasonable prices.
2. Ensure and promote healthy and sustainable development of the industry and the economy.
3. Promote economic efficiency and cost effectiveness in the generation, transmission, distribution, and management of the electricity sector.
4. To promote energy efficiency and other demand side management initiatives consistent with government's policies.
5. Facilitate the promotion and introduction of renewable energy technologies consistent with government's policies.
6. Put in place effective measures for the implementation and monitoring of service level standards.

2. PRESENTATION OF DOMINICA ENERGY SECTOR



Dominica is an island country of the Lesser Antilles in the eastern Caribbean Sea. It lies between the French islands of Guadeloupe and Marie-Galante to the North and Martinique to the South. The country has been a member of the Commonwealth since independence in 1978. The island is 29 miles (47 km) long and has a maximum breadth of 16 miles (26 km). The capital and chief port is Roseau. The population was 71,808 (World Bank estimations, 2019). About a quarter of the population lives in the capital city of Roseau. In 2019, it recorded a national Gross Domestic Product (GDP) of US$ 582m, and its annual per capita GDP stood at US$ 8,111 (WB, 2021). Dominica's economy, similar to the economies of most of its Caribbean neighbours, is disproportionately service oriented and dominated by the tourism and financial sectors. However, the agricultural sector, especially the banana industry, continues to play an important role in Dominica economy. Like many island states, Dominica is highly reliant on imported fossil fuels to meet its energy needs.

The Ministry of Public Works and Digital Economy (MPWDE) is in Charge of the Energy Sector. It has, among its goals, to provide efficient and effective electrical service through improved regulatory oversight and enforcement provide green and affordable electricity. The other ministry related to energy is the Ministry of Blue and Green Economy, Agriculture, and National Food Security in its role of ensuring a sustainable use of natural resources (including energy).

The National Energy Policy (NEP) is intended to address the needs of the citizens of Dominica, help combat increasing energy costs, and reduce Dominica's greenhouse gas emissions in line with its title of The Nature Island of the Caribbean. The NEP affirms the vision and establishes the framework for an energy transition that will deliver national development outcomes for the environment, society and the economy in Dominica and which aligns with Government's stated target of 100% Renewable Energy by 2030. The transition to a more affordable, resilient and low-carbon energy system will require phasing out fossil of fuels in power generation and transport. Five policy objectives seek to deliver outcomes in terms of:

- Increasing access to modern energy services that are safe, affordable and reliable for all citizens.
- Provision of Energy Services for Stimulating Environmental, Social and Economic Development.
- Managing energy-related environmental, health and safety impacts.
- Enhancing Resilience in the Electricity Sector and existing and planned centralized infrastructure.
- Improving governance in the energy economy.

Electricity generation, transmission and distribution services in Dominica are provided by a monopolistic vertically integrated utility, the Dominica Electricity Services Limited (DOMLEC). The utility was established in 1949 and currently provides electricity services to approximately 35,300 customers. DOMLEC is presently the sole electricity utility in Dominica. The Company operates three run-of-the-river hydro plants on the Roseau River in the Roseau Valley, and two diesel plant. It has an installed electrical generating capacity of 23.8 megawatts (MW) and a peak demand of 17.2 MW. DOMLEC owns approximately 471 kilometres of transmission facilities and 700 kilometres of distribution facilities.

The service provider is regulated by the IRC in accordance with the Electricity Act, Act 10 of 2006, which was passed into Law in October 2006. The Commission's primary responsibilities and functions as contained in the Electricity Act include ensuring orderly development of a competitive power market, protecting consumers and the public interest and implement standards and codes that measure with international best practice. The Legal Support and Licence division of the Commission is charged with several responsibilities and out of all of these, the most challenging appears to be the establishment of an effective and transparent licensing framework that will attract potential investors, while also ensuring that best practices in industry standards and codes are enshrined to protect the interest of consumers and other stakeholders.

Over the years, the cost of electricity has become a concern to the utility and consumers alike, and in 2011 (last updated in November 2020), the Government of Dominica drafted a National Energy Policy to address the energy concerns of the people of Dominica. The primary objective of the Policy is to pursue sustainable energy that is reliable, extends access to energy, and provides energy at the lowest possible cost. In 2014 the IRC granted two licences to DOMLEC. The first is a non-exclusive generation licence, and the second is an exclusive licence to transmit, distribute and supply electricity within Dominica. These licences came into effect on 1st January 2014, since then the company continues to operate under the 2006 Electricity Supply Act.

The Electricity Supply Act #10 of 2006 was ratified in 2006, however the IRC was not established until mid-2007. Consequently, key staff members were recruited in 2008, and with the assistance of a Regulatory Consultant, various decision documents were created to guide the regulatory activities of the Commission.

The list of documents that were created are as follows:

- Adding capacity to the Public Electricity Supply System – Decision reference no. 2008/002/D.

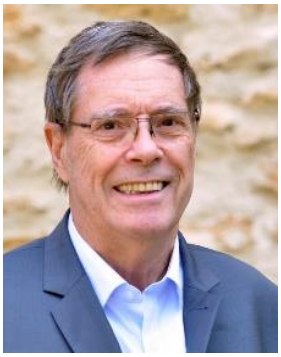
- Procedures for Handling Customer Complaints – 2008/003/D.
- Rules of Practice and Procedures 2008 – 2008/004/D.
- Licensing Procedures – 2009/001/D.
- Tariff Regime for Dominica Electricity Services Ltd. – 2009/004/D.
- Electricity Supply Act #10 of 2006.

These documents are over ten years old and the IRC has identified the need to have them reviewed and/or updated to keep up with changing technology, regulatory practices and other pertinent developments in the industry as well as the local marketplace. Failure to keep the regulation decisions up-to-date with the changing times can compromise the ability to regulate the electricity sector effectively and efficiently.

Within this context, the IRC wishes to review the regulatory documents. This will help the Commission keep abreast with technological and other developments in the industry. This exercise will help the Commission achieve its objectives to enhance a sustainable energy environment and to support the Government's policy on the supply of electricity for national development.

3. PRESENTATION OF THE TEAM OF EXPERTS CONSULTANTS

Henri Boyé: Team leader and utility expert



Consultant in energy. Ecole Polytechnique X 67, ENPC 1972, spent his career in energy, first at the French Ministry of Energy, then at EDF Electricité in France International Division, Director for Western Africa, then for all Africa. Delegate in Morocco. Africa and Middle East Director. Then at French Ministry at CGEDD (General Council for Environment and Sustainable Development), Coordinator for Energy and Climate and RE specialist.

Working since 2015 as an Independent Consultant for Technical Assistance projects in the energy sector, funded by USAID, USEA, United Nations-ESCWA, MCC (MCA Benin 2), AFD, DFID, GIZ, EU European Union. Senior International Expert in Energy Planning and Policy, knowledgeable in the fields of Utilities, Regulation Authorities, Sustainable Energy, including RE & EE Technologies & Energy Access, Smart grids, IPPs and other private sector financing approaches, desalination. Mr Boyé has managed contractual relationships for many large and complex projects as well as participated in several teams of Managers and Experts providing high-level advice, technical assistance, and policy support. Experience in more than 40 countries.

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Alejandro Parodi Debat: Regulatory expert

Alejandro Parodi Debat has over 20 years' experience in the energy sector, working in more than 30 countries worldwide. His training in public governance includes his position as Regulation Manager in the power, water and sanitation, liquid fuel, and gas sectors.

He has led and participated in projects related to regulation, cost and tariffs in the power, water, liquid fuel, and water sectors. He has advised companies on energy efficiency and environmental studies, renewable energy, econometric studies, and benchmarking. He has directed projects in several countries (Uruguay, Venezuela, Peru, Brazil, Panama, Nicaragua, Mauritius, etc.) related to renewable energy and energy efficiency in all its aspects: impact studies, regulation & tariffs, analysis and recommendation of incentives. He served as Regulation Manager at URSEA (Agency Regulating Power and Water Services) and as a researcher

at the Economy Institute and the CSIC (Sectorial Commission for Scientific Research) in Uruguay.

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Alejo Loira: Tariff Specialist

Alejo is alumnus of the Universidad Politécnica de Madrid and Instituto de Estudios Bursátiles in Spain, of the École Supérieure d'Électricité and the Université Paris XI in France. MSc in Energy Engineering, Master in Economics and MSc in Finance.

Director Energy Infrastructure at MRC Consultants & Transaction Advisers Experience in over 30 countries worldwide, including several island countries (Dominican Rep., Maldives, Mauritius, Cape Verde, Sao Tome, Philippines, Tonga). Advised over 15 countries on their renewable generation tariffs and cost of service and tariff studies (including FiT, renewable energy auctions, PPAs, and all elements of the power sector value chain).Supported private investors in developing countries, and developed multiple business plans for power sector companies: generation, transmission, distribution & retail. Areas of expertise: infrastructure transactions, due diligences, energy sector planning, tariff design, technical and economic regulation for the power sector.

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Jorge Bircher: Power grids expert

Jorge Bircher is an electrical and industrial engineer by training, with more than 30 years of experience in the energy sector managing power sector projects in more than 40 developing and developed countries. He specialises in renewable energies, power sector regulation, feasibility analysis and investment project structuring, technical evaluations and capacity building.

He has in depth experience in power system planning and operation under a wide range of regulatory schemes and structures, covering all generation, transmission and distribution aspects. His experience includes also power system analysis and optimisation, reliability and security of supply issues.

Jorge has conducted grid integration studies and designed rules for interconnection of RE generation in multiple countries, including several islands: Philippines, Maldives, Mauritius, Jamaica, Tonga.

He is an expert in the use and development of power system modeling and analysis tools

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Alberto Pincherle: Energy Efficiency Specialist and Backstopping Manager

Alberto has a full university degree obtained in Chemical Engineering (5 years) / II-level post-graduate Master on Management of Energy and Environment / Certificate of Excellence qualification as Expert in Regulation of the Power Sector by the Florence School of Regulation.

His experience on EE includes a full review of the EE market mechanism (White Certificates (Wh.C) for the Italian Ministry of Economic Development, leading to a new Decree increasing the deployment of Wh.C. He has led a project for EE deployment in the leading Italian supermarket chain, conducting EE Audits and trainings to the technical personnel; a project the EE assessment of 400 public buildings of the Province of Rome; the evaluation of the certification ISO 50001 Energy Management Systems (EMS) for INAIL (Italian public entity for work health and safety) and the development of an ESCo specialized in EE revamping for residential and commercial buildings.

Alberto has published several articles and papers on environmental and energy policies, energy governance, renewable energy and energy efficiency. On the same topics, he held several presentations at national and international congresses, both at a national and EU level and taught the major on Energy Efficiency in China for the EU-China Institute for Clean and Renewable Energy at Huazhong University of Science & Technology. He lectured in several Universities and TVET courses on EE, RE, SEE, Energy

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4. LIST OF TASKS

The assignment will be organized in eleven tasks, presented hereafter.

	Task	Days
0	Kick-Off	1.5
1	Review all the documents relevant to the regulation of the electricity sector in Dominica including but not limited to the following: (Time Frame: Week 2 and Week 3) – 10 expert days.	9
2	Hold consultations with stakeholders; IRC as well as with the management of DOMLEC to get perspectives on the elements within the framework identified for review.	4
3	Provide advice on the rate and tariff review period and to comment and make recommendations on the proposed changes to the process from the rate application submission to the appeals process phase.	12
4	Establish mechanisms, arrangements, and evidence that the Commissioners could utilize to: a. Review the utility's capital expansion plans or integrated resource plans as well as their operational expenses. Review rates and tariff submissions from the utility every three years and to decide for/against variation with justifications. b. b. Any other duty deemed to improve and control costs and oversight of the sector.	8.5
5	Establish Rules and Requirements based on international benchmarking for the effective introduction and interconnection of renewable energy generation into the electricity grid and generation energy mix. The Rules and Requirements would be in line with the energy policy objectives, principles, actions and relevant documents and adapted to the local context. Rules and Requirements will be developed for inclusion in general/subsidiary regulations to support RE interconnection, with recommendations outlined for tailoring subsequent interconnection agreements.	12
6	Develop and establish Energy Efficiency mechanisms based on standardized EE mechanisms, adapted to the local context. The EE mechanisms developed are for inclusion in the amendments to subsidiary regulations for the promotion of energy efficiency projects and programmes.	9
7	Comprehensive revision of the Electricity Act, Act 10 of 2006, to ensure its relevance and that it takes account of the objectives and changes proposed for effective regulation.	8

	Task	Days
8	Draft Rules and Procedures the Commission can use to monitor the service providers' operations and performance.	11
9	Participate in the consultation process with the management of DOMLEC and strategic stakeholders.	5
10	Provide any other recommendations as necessary that would improve the legislative and regulatory framework of the electricity sector in Dominica.	12
11	Task ADDITIONAL: Present plan for capacity building and conduct 4 short training workshops (remote, interactive) to improve skill set of staff of the IRC and DOMLEC and her key stakeholders. A Week 9 (Task 4, Rates, Tariff), B Week 12 (Task 5, Rules and Requirements FIN), C Week 15 (Task 6, 7, 8 Legislation), D Week 18 (Task 9 Rules & Procedures for monitoring performance).	8

To achieve the objectives of the study, 11 tasks have been defined. Each of them, its objectives, necessary inputs for its realization and expected outputs are defined below.

Task 1: Review all the documents relevant to the regulation of the electricity sector in Dominica including but not limited to the following: Review existing and proposed legislation, regulations and government policy.

Objective: Good knowledge and understanding of the Dominica situation, Oversight of the sector and the legal framework.

The objective is to know in depth the current situation of the electricity system: technical aspects (e.g., penetration potential), regulatory aspects (e.g. tariff structure) and energy policy aspects (e.g. incentives) related to distributed generation and renewable energy.

Necessary inputs: Legislation in force and under study. Current sector plan and under study.

Output: Literature Review and Inception Report detailing findings of Literature Review and Proposed Methodology for revision of legal and regulatory framework.

Task 2: Hold consultations with stakeholders; IRC as well as with the management of DOMLEC to get perspectives on the elements within the framework identified for review.

Objective: understand the needs and requests of the different stakeholders, and achieve a good oversight of the sector.

Hold consultations with stakeholders; IRC as well as with the management of DOMLEC to get perspectives on the elements within the framework identified for review.

Remote interviews with identified stakeholders, Q&A, Example in Saint Lucia, Successful consultation of stakeholders, Ministry, Utility, RE Developers and PV Installers, Different classes of Customers.

Input: Good selection of stakeholders

Output: Report of Interviews

Task 3: Provide advice on the rate and tariff review period and to comment and make recommendations on the proposed changes to the process from the rate application submission to the appeals process phase.

Objective: Critically analyse the current legislation regarding rates and, eventually, make recommendations for their modification based on:

1. Problems detected in your application.

2. Adaptation to a new scenario with greater penetration of RETs.

Input: Tariff Regime for Dominica Electricity Services Ltd. – 2009/004/D / DOMLEC´s Tariff Reviews / National Energy Policy (2011)

Output: Draft recommendations for modification to rate variation and tariff review procedures, (incl. formula for tariff calculation during review process).

Task 4: Establish mechanisms, arrangements, and evidence that the Commissioners could utilize to:

a. Review the utility's capital expansion plans or integrated resource plans as well as their operational expenses. Review rates and tariff submissions from the utility every three years and to decide for/against variation with justifications.

b. Any other duty deemed to improve and control costs and oversight of the sector.

Approach Describe cost control and performance monitoring practices implemented internationally: revenue and tariff setting, key performance indicators, benchmarking and performance contracts. Review the current economic and performance monitoring framework applicable to DOMLEC to identify gaps or areas for improvement. Issue recommendations to improve the cost and performance monitoring processes in Dominica to promote efficient costs ex-ante and ex-post.

Input: Existing economic regulation and performance monitoring practices. Historical statistics **and forward-looking CAPEX/OPEX plans.**

Output: Recommendations on cost control and performance monitoring improvements.

Task 5: Rules and Requirements for RE interconnection.

Objective: Establish Rules and Requirements based on international benchmarking for the effective introduction and interconnection of renewable energy generation into the electricity grid and generation energy mix. The Rules and Requirements would be in line with the energy policy objectives, principles, actions and relevant documents and adapted to the local context. Rules and Requirements will be developed for inclusion in general/subsidiary regulations to support RE interconnection, with recommendations outlined for tailoring subsequent interconnection agreements.

Approach: Present the most typical issues encountered when interconnecting RE generation worldwide, focusing on small countries and island-states, including best practices in solutions given internationally.

Review existing interconnection rules or agreements, as well as connection/operation-related requirements that may exist and apply to RE generation.

Include consideration related to technical aspects of the interconnection, as well as minimum requirements for the operation phase (frequency and voltage regulation, dispatch-related rules).

Input: Existing rules and requirements for RE interconnection. RE development targets by technology. Characteristics of the existing and planned power generation and network infrastructure.

Output: Recommendations on rules and requirements for RE generation interconnection.

Task 6: Draft Recommendations for Energy Efficiency Regulations.

Objective: Develop and establish Energy Efficiency mechanisms based on standardized EE mechanisms, adapted to the local context. The EE mechanisms developed are for inclusion in the amendments to subsidiary regulations for the promotion of energy efficiency projects and programmes.

Approach: Literature study of the existing legal and regulatory framework existing in Dominica concerning Energy Efficiency; study of the National objectives concerning EE.

Analysis of the final usages of electricity in Dominica and related potential for energy saving;

Analysis of the current measures concerning EE promotion;

Proposal of strategies to promote EE tailored to Dominica's needs. Evaluation of the selected strategies: implementation strategies, costs and benefits, speed of deployment, durability of measures.

Interviews with selected stakeholders, including EE Auditors, or people responsible for the technical management of buildings.

Issues: Availability of data for energy end uses: are EE audits in residential, public, industrial sector been made? Are they available? Is metering infrastructure or global consumption profile enabling understanding how energy in consumed? Is there a data base of EE Audits? Is there an Energy Efficiency Agency?

Input: Any data on EE usages: EE Audits, list of EE auditors, consumption patterns of residential/industrial, commercial, public and transport sector (if any electric transport vehicle is used (e.g., tramways).

Output: Draft Recommendations for Energy Efficiency Regulations.

Final Report with Final document Section 4. Final Energy Efficiency Mechanisms for Regulations to promote EE.

Task 7. Comprehensive revision of the Electricity Act, Act 10 of 2006, to ensure its relevance and that it takes account of the objectives and changes proposed for effective regulation.

Objective: Good relevance of the new updated Electricity Act for Dominica, well adapted to the Dominica situation, taking into account all the objectives and changes in the power sector.

Approach: Work on the existing Electricity Act, Act 10 of 2006, to ensure its relevance and that it takes account of the objectives and changes proposed for effective regulation, with the return of experience and the requests of the different stakeholders.

Issues: Recommendation for efficient improvement of the Electricity Act. Good knowledge and understanding of the Dominica situation that it is possible to give recommendations adapted to be implemented in the short/medium term.

Input: Information and Requirements from IFC, Return of experience, Benchmarking.

Output: Draft Amendments to Electricity Act.

Task 8: Draft Rules and Procedures the Commission can use to monitor the service providers' operations and performance.

Objective: Establish a procedure (e.g., control panel) that allows the Regulator to have information in real time (as adjusted as possible to the real situation in the sector).

Approach: Analysis of available information, Comparative regulation (which is done in other countries), Recommendation of procedures and rules (indicators) adapted to the needs of Dominica and efficient in terms of information costs (e.g., survey).

Input: Service quality indicators, DOMLEC financial statements.

Output: Draft Rules & Procedures to monitor service providers operations and performance.

Task 9: Participate in the consultation process with the management of DOMLEC and strategic stakeholders.

Objective: Good information and awareness of all the stakeholders in Dominica, Facilitate the consensus on the recommendations of the Consultants, in a participative way.

Approach: Written Consultation for preparation;

Web meeting consultation with the stakeholders.

Example in Saint Lucia, Successful consultation of stakeholders (Ministry, Utility, NURC, RE Developers and PV Installers, Different classes of Customers).

Input: Selection of the stakeholders and preparation.

Output: Consultation sessions with DOMLEC and selected stakeholders.

Task 10: Provide any other recommendations as necessary that would improve the legislative and regulatory framework of the electricity sector in Dominica.

Objective: Improve the legislative and regulatory framework of the electricity sector.

Facilitate the consensus on the recommendations of the Consultants, in a participative way.

Approach: Example in Saint Lucia, Successful Report with several recommendations taking into account Stakeholders, Ministry, Utility, RE Developers and PV Installers, different classes of Customers.

Issues: Good communication with all the stakeholders in Dominica, Facilitate the consensus on the recommendations of the Consultants, in a participative way.

Input: All Information obtained in the study.

Output: 1. Final Recommendation for modifications to rate variation and tariff review procedures (incl. formula for tariff calculation during review process).

2. Final Rules and Requirements for IRP, CAPEX/OPEX Utility filings and criteria for Regulatory review of filings.

3. Final Rules and Requirements for Interconnection Regulations and Final Recommendations for Interconnection Agreements.

4. Final Energy Efficiency Mechanisms for Regulations to promote EE.

5. Proposed Draft Amendments to Electricity Act.

6. Final Rules & Procedures to monitor service providers operations and performance.

Task 11: Task ADDITIONAL: Present plan for capacity building and conduct 4 short training workshops (remote, interactive) to improve skill set of staff of the IRC and DOMLEC and their key stakeholders.

Objective: Improve the general awareness and knowledge of all the stakeholders, in the electricity sector, Facilitate the consensus on the recommendations of the Consultants, in a participative way.

Approach: A Week 9 (Task 4, Rates, Tariff),

B Week 12 (Task 5, Rules and Requirements FIN),

C Week 15 (Task 6, 7, 8 Legislation),

D Week 18 (Task 9 Rules & Procedures for monitoring performance).

Taking the recent example of the advisory provided in Saint Lucia, 6 successful interactive training sessions were conducted. They were well appreciated by attendees, with participation of a high number of stakeholders, the Ministry, the Utility LUCELEC, RE Developers and PV Installers, and different classes of Customers.

Issues: Good communication with all the stakeholders in Dominica, Facilitate the consensus on the recommendations of the Consultants, in a participative way.

Input: Expectations of the Stakeholders in capacity building.

Output: Capacity building worskshops,

Four remote interactive training sessions.

A Week 9 (Task 4, Rates, Tariff),

B Week 12 (Task 5, Rules and Requirements FIN),

C Week 15 (Task 6, 7, 8 Legislation),

D Week 18 (Task 9 Rules & Procedures for monitoring performance).

5. LIST OF DELIVERABLES

Milestones incl. Deliverables	Responsible Person (lead expert)
1. Project Kickoff.	Henri Boyé
2. Literature Review and Inception Report detailing findings of Literature Review and Proposed Methodology for revision of framework.	Henri Boyé
3. Consultation Sessions with select stakeholders.	All experts in the team
4. Draft recommendations for modification to rate variation and tariff review procedures, (incl. formula for tariff calculation during review process).	Alejandro Parodi
5. Draft Rules and Requirements for IRP, CAPEX/OPEX Utility filings and criterio for regulatory review of filings.	Jorge Bircher and Alejo Loira
6. Draft Rules and Requirements for Interconnection/Renewable Energy Regulations and Recommendations for Interconnection Agreements.	Jorge Bircher and Alejo Loira
7. Draft Recommendations for Energy Efficiency Regulations.	Alberto Pincherle
8. Draft Amendments to Electricity Act.	Henri Boyé
9. Draft Rules & Procedures to monitor service providers operations and performance.	Alejandro Parodi
10. Consultation sessions with DOMLEC and select stakeholders.	Henri Boyé, support from all experts in the team.
11. Final Report with Final document: 1. Final Recommendation for modifications to rate variation and tariff review procedures (incl. formula for tariff calculation during review process). 2. Final Rules and Requirements for IRP, CAPEX/OPEX Utility filings and criteria for Regulatory review of filings. 3. Final Rules and Requirements for Interconnection Regulations and Final Recommenations for Interconnection Agreements. 4. Final Energy Efficiency Mechanisms for Regulations to promote EE. 5. Proposed Draft Amendments to Electricity Act.	Coordinated by Henri Boyé, each expert responsible for the final version of the deliverable it leads.

6. Final Rules & Procedures to monitor service providers operations and performance.	

6. INFORMATION REQUESTED FOR THE STUDY

The Consultant sent IRC, together with a first request for information, a questionnaire to inquire about the general situation of the regulation of the sector. This information is presented below.

No	Area	Question	Clarification
1	RE	In Dominica, do you have RES tariffs (for small-scale)?	Yes. The tariff for small scale renewables is denoted as the avoided cost of fuel and calculated using an algorithm utilizing changing parameters per month.
2	RE	In Dominica, do you have tariffs for utility-scale plants?	Yes. Decision document Tariff Regime for DOMLEC. Tariffs for utility scale plants are calculated per plant per project based utilizing financial and economic models that are specific to the projects undertaken at the time.
3	General	Which elements are in place so that the DER (Distributed Energy Resources) can be scale up:	
3.1		• Final consumer prices	No DERs at this point and therefore no consideration is given to the same.
3.2		Technical codes	None at this time for DER
3.3		DER tariffs (as feed-in tariffs)?	None at this time for DER
3.4		Connection procedures for access to network	Intermittent Distributed RE interconnection Policy
3.5		Utility tariff, for solar	None
3.6		Do you utilize some model?	None. Models are project specific and is usually done by the developer guided by pertinent parameters as denoted in the RFP.
3.7		Can you define the requirements?	Yes. These are stated in the Intermittent Distributed RE con-

No	Area	Question	Clarification
		(in case all these instruments were not in place)	nection policy. A draft RFP document has been developed with the guiding parameters stated therein
4	Training	In Order to improve the skill set of staff of IRC and other key stakeholders, could you indicate who would be the assistance for the two final training workshops? And their expectations?	This has been defined as per your email of April 9th, 2021. And is under discussion with the staff as indicated in the response to you
5	RE	Are there other projects in Dominica for solar, for wind, projects for geothermal, etc.	One 3.5 MW solar PV and 10 MW Solar Plant are currently being pursued. A 10MW Geothermal Project carded for the end of 2022 at Laudat.
6	EE	Has any relevant EE program being developed in Dominica yet (even as pilot)?	Not many, if Any. Information on this will have to be obtained from the Dominica Bureau of Standards. The Bureau of Standards would have to be consulted on this.
7	Tariff setting regulation	Description of the regulatory revenue / tariff setting regulation and processes currently in place.	
7.1.		Please provide description of the regulatory revenue / tariff setting regulation and processes currently in place.	This has been included in the folder within Teams called the Tariff Regime for the Dominica Electricity Services Ltd (DOMLEC).
7.2.		The current rates were estimated based on Tariff Regime (2009)? If so, attach main supporting documentation, especially observations and responses to stakeholders. If not, establish the main reasons why it was not applied and the form that is currently estimated (including annual adjustment for price and fuel evolution)	No, the current rates are those from 2007 and has been included in a folder under Teams. No tariff review was performed in 2009. A Tariff review was undertaken in 2013/14 but the utility did not agree with certain determinations by the IRC and took the matter to the Court. The Court matter was withdrawn by DOMLEC in early 2020 to make provisions for the new tariff review to start later this year. The documents that are related to the case will be uploaded to teams but can also be

No	Area	Question	Clarification
			downloaded from our website www.ircdominica.org.
7.3.		We understand that Dominica has a geothermal energy project. How are the costs of this project transferred to rates?	Your understanding is correct. It is a 10MW geothermal plant with a 5MW battery energy storage unit that will accompany the same for spinning reserve. The costs are transferred to the rates via a mechanism that is stated in the tariff regime stated in the document that has been made available in Teams in the appropriate folder.
8	Monitor the service providers' operations and performance	Description of any performance monitoring activity currently applied to DOMLEC.	
8.1.		Please describe any performance monitoring activity currently applied to DOMLEC.	Reporting on performance targets that are set via the licenses and an Admin order 1/2011 are required to be done by the utility each month.
8.2.		How are the Quality of Service Standards mentioned in the Tariff Regime Document Ref: 2009/004 / CD-01 controlled? What are these standards? established goals and their evolution.	The QSS are mentioned in a separate document that has been shared with you in Teams for your perusal. You have been hired to advise on its evolution.
8.3.		• How are the Performance Targets determined in the Tariff Regime Document Ref: 2009/004 / CD-01: (Line losses, and Plant efficiency) controlled? Goals set for after the year 2011?	These are new performance targets that have been developed for introduction at the upcoming tariff review that should serve to enhance the efficiency of operations by the utility. It is a bonus/malus system that will be introduced. A copy of these proposed performance targets

No	Area	Question	Clarification
			have been shared with you in Teams.
8.4.		How are DOMLEC costs monitored? Does IRP apply regulatory accounting? In particular, how fuel costs and costs caused by unpredictable events (natural disasters) are monitored/ controlled.	DOMLEC's costs are monitored each month through the monthly reporting of pertinent financial information. The IRC is working with DOMLEC to introduce the Regulatory Uniform System of Accounts. This is a work in progress.
8.5.		Satisfaction survey/s of users of the system have been carried out? If so, attach questionnaire/s and results of it (them).	These surveys have not been undertaken but should be implemented in the near future.
8.6		Information requested from DOMLEC in accordance with Schedule 1 - Reporting Requirements of LICENSE DOCUMENT TRANSMISSION, DISTRIBUTION & SUPPLY LICENSE for DOMLEC (Document Reference #: 2012/003 / D)	DOMLEC has thus far been adhering to all reporting requirements as per the schedule within their licenses. If any of this information is required by you, please make a request to the Commission as required.

List of requested documents

No	Area	Information from (indicative)	Document	Available Yes/No
3	General	IRC	Sector law	Yes. ESA #10 of 2006.
4	RE	IRC	Economic conditions for RE	Partial. IRC Decision January 14, 2010 approves basing RE tariff on avoided fuel cost of generation.
5	General	IRC	Interconnection standards for power generators (conventional or RE)	Yes for small non-utility scale intermittent distributed RE (DOMLEC's Distributed Renewable Energy Generation Policy 2016/002/D). Also, IRC Decision 2008/002/D (addition of generation capacity).
6	General	IRC	Grid Code/Operations Code (generation dispatch rules and process, coordination of maintenance actions, etc.)/other technical regulation	Yes. Grid Code approved by IRC Decision 2016/003/D. Also Generation Code approved by IRC Decision 2016/001/D.
7	EE	IRC	Energy efficiency standards and policies	No.
8	General	IRC	National Strategy Policy 2011 / National policy targets for the energy sector (RE, energy efficiency)	CCI Report (S-REP) of 2019
9	General	IRC or DOMLEC	Statistics on power generation (installed capacity, energy output, by plant) for the last 3 years.	Yes.
10	General	IRC or DOMLEC	Load profiles.	No.
11	General	IRC or DOMLEC	Financial Statements DOMLEC	Yes.
12	General	IRC or DOMLEC	Network data: map with HV/MV lines and power plants, single line diagram.	Yes.

No	Area	Information from (indicative)	Document	Available Yes/No
13	General	IRC or DOMLEC	Info on committed or candidate power generation projects and network expansion plans	CCI Reports of 2019
14	EE	IRC or DOMLEC	Contacts with any association or training centres for EE Auditors; access, if existing, to EE Audits databases;	Information will have to be sought from the DBOS.
15	EE	IRC or DOMLEC	Any available data on the category of imported appliances (refrigerators, air conditioning systems,); If not available, is it possible to have some information from the main retailers in Dominica on their sales per type of EE label apparels?	Information will have to be sought from the DBOS.
14	EE	IRC or DOMLEC or Ministry	End-use energy consumption by sector for electricity (and if available other energy vectors).	We can only provide information specific to the electricity sector which we regulate.
15	EE	IRC or DOMLEC or Ministry	Has any evaluation of the potential for EE savings been developed in Dominica?	Information will have to be sought from the DBOS.
16	Revenue Framework	IRC	Please provide description of the regulatory revenue / tariff setting regulation and processes currently in place.	Yes. The Decision document on Tariff Regime for DOMLEC (IRC Decision 2009/004/D). Tariff Structure document (September 1, 2007) available. Depreciation Policy (IRC Decision 2014/001/D).
17	Revenue Framework	IRC	Please describe any performance monitoring activity currently applied to DOMLEC. Are there performance targets in place?	These now exist as Quality-of-Service Standards (IRC Decision 2009/002/D)) and other performance targets as cited in DOMLEC's licenses. New proposed performance targets are being considered for application when the new tariff is implemented next year (draft document with preliminary analysis of performance targets has been facilitated). Also, data on generation and network losses provided.

2. Revision of Legislative and Regulatory Framework for the Energy Sector i	April 2021					May 2021				June 2021				July 2021				August 2021				September 2021								
TASKS	**Week 13**	**Week 14**	**Week 15**	**Week 16**	**Week 17**	**Week 18**	**Week 19**	**Week 20**	**Week 21**	**Week 22**	**Week 23**	**Week 24**	**Week 25**	**Week 26 (amid June-July)**	**Week 27**	**Week 28**	**Week 29**	**Week 30**	**Week 31**	**Week 32**	**Week 33**	**Week 34**	**Week 35 (amid August-September 2021)**	**Week 36**		**Week 37**	**Week 38**	**Week 39**		
Kick-Off	1																													
1. Review all the documents relevant to the regulation of the electricity sector in Dominica including but not limited to the following: (Time Frame: Week 2 and Week 3) – 10 expert days.		2	3	Inception Report																										
2. Hold consultations with stakeholders; IRC as well as with the management of DOMLEC to get perspectives on the elements within the framework identified for review.					5																									
3. Provide advice on the rate and tariff review period and to comment and make recommendations on the proposed changes to the process from the rate application submission to the appeals process phase.						6	7	8	9																					
4. Establish mechanisms, arrangements, and evidence that the Commissioners could utilize to: a. Review the utility's capital expansion plans or integrated resource plans as well as their operational expenses. Review rates and tariff submissions from the utility every three years and to decide for/against variation with justifications. b. Any other duty deemed to improve and control costs and oversight of the sector.										10	11	12																		
5. Establish Rules and Requirements based on international benchmarking for the effective introduction and interconnection of renewable energy generation into the electricity grid and generation energy mix. The Rules and Requirements would be in line with the energy policy objectives, principles, actions and relevant documents and adapted to the local context. Rules and Requirements will be developed for inclusion in general/subsidiary regulations to support RE interconnection, with recommendations outlined for tailoring subsequent interconnection agreements.												12	13																	
6. Develop and establish Energy Efficiency mechanisms based on standardized EE mechanisms, adapted to the local context. The EE mechanisms developed are for inclusion in the amendments to subsidiary regulations for the promotion of energy efficiency projects and programmes.														14	15															
7. Comprehensive revision of the Electricity Act, Act 10 of 2006, to ensure its relevance and that it takes account of the objectives and changes proposed for effective regulation.																16	17	18												
8. Draft Rules and Procedures the Commission can use to monitor the service providers' operations and performance.																			19	20										
9. Participate in the consultation process with the management of DOMLEC and strategic stakeholders.																					21									
10. Provide any other recommendations as necessary that would improve the legislative and regulatory framework of the electricity sector in Dominica.																						1		2	3	4	5	6		
Task ADDITIONAL: Present plan for **capacity building** and conduct **4 short training workshops** (remote, interactive) to improve skill set of staff of the IRC and DOMLEC and her key stakeholders. **A** Week 9 (Task 4, Rates, Tariff), **B** Week 12 (Task 5, Rules and Requirements FIN), **C** Week 15 (Tas 6, 7, 8 Legislation), **D** Week 18 (Task 9 Rules&Procedures for monitoring performance).									A Task 4, Rates, Tariff			**B** Task 5, Rules and Requirements FIN			**C** Tasks 6, 7, 8 Legislation			**D** Task 9 Rules& Procedures for monito												

Tasks	Deliverables
0. Kick-Off	1. Project Kickoff.
1. Review all the documents relevant to the regulation of the electricity sector in Dominica including but not limited to the following: (Time Frame: Week 2 and Week 3) – 10 expert days.	2. Literature Review and Inception Report detailing findings of Literature Review and Proposed Methodology for revision of framework.
2. Hold consultations with stakeholders; IRC as well as with the management of DOMLEC to get perspectives on the elements within the framework identified for review.	3. Consultation Sessions with select stakeholders.
3. Provide advice on the rate and tariff review period and to comment and make recommendations on the proposed changes to the process from the rate application submission to the appeals process phase.	4. Draft recommendations for modification to rate variation and tariff review procedures, (incl. formula for tariff calculation during review process).
4. Establish mechanisms, arrangements, and evidence that the Commissioners could utilize to: a. Review the utility's capital expansion plans or integrated resource plans as well as their operational expenses. Review rates and tariff submissions from the utility every three years and to decide for/against variation with justifications. b. Any other duty deemed to improve and control costs and oversight of the sector.	5. Draft Rules and Requirements for IRP, CAPEX/OPEX Utility filings and criteria for regulatory review of filings.
5. Establish Rules and Requirements based on international benchmarking for the effective introduction and interconnection of renewable energy generation into the electricity grid and generation energy mix. The Rules and Requirements would be in line with the energy policy objectives, principles, actions and relevant documents and adapted to the local context. Rules and Requirements will be developed for inclusion in general/subsidiary regulations to support RE interconnection, with	6. Draft Rules and Requirements for Interconnection/Renewable Energy Regulations and Recommendations for Interconnection Agreements.

recommendations outlined for tailoring subsequent interconnection agreements.	
6. Develop and establish Energy Efficiency mechanisms based on standardized EE mechanisms, adapted to the local context. The EE mechanisms developed are for inclusion in the amendments to subsidiary regulations for the promotion of energy efficiency projects and programmes.	7. Draft Recommendations for Energy Efficiency Regulations.
7. Comprehensive revision of the Electricity Act, Act 10 of 2006, to ensure its relevance and that it takes account of the objectives and changes proposed for effective regulation.	8. Draft Amendments to Electricity Act.
8. Draft Rules and Procedures the Commission can use to monitor the service providers' operations and performance.	9. Draft Rules & Procedures to monitor service providers operations and performance.
9. Participate in the consultation process with the management of DOMLEC and strategic stakeholders.	10. Consultation sessions with DOMLEC and select stakeholders.
10. Provide any other recommendations as necessary that would improve the legislative and regulatory framework of the electricity sector in Dominica.	11. Final Report with Final document: 1. Final Recommendation for modifications to rate variation and tariff review procedures (incl. formula for tariff calculation during review process). 2. Final Rules and Requirements for IRP, CAPEX/OPEX Utility filings and criteria for Regulatory review of filings. 3. Final Rules and Requirements for Interconnection Regulations and Final Recommendations for Interconnection Agreements. 4. Final Energy Efficiency Mechanisms for Regulations to promote EE. 5. Proposed Draft Amendments to Electricity Act. 6. Final Rules & Procedures to monitor service providers operations and performance.
Task ADDITIONAL: Present plan for capacity building and conduct 4 short training workshops (remote, interactive) to improve skill set of staff of the IRC and DOMLEC	Training.

and her key stakeholders. A Week 9 (Task 4, Rates, Tariff), B Week 12 (Task 5, Rules and Requirements FIN), C Week 15 (Tas 6, 7, 8 Legislation), D Week 18 (Task 9 Rules & Procedures for monitoring performance).	

7. Learning & Exchange

The capacity building will be organized in a step-by-step learning process, adapted to the expectations of IRC and the Stakeholders in Dominica.

Because of the sanitary situation, which does not allow to travel to Dominica for the time being, several training workshops will be organized with IRC and the stakeholders, to improve the skill set of staff of IRC and other key stakeholders, adapted to their expectations.

These workshops consist in about 1 hour of course and 1 hour of open-discussions (including e.g. questions, discussions, examples, best practices, class exercises with the models).

We propose them to be weekly, but consider that it could be better to have 2 of these in the same week, even in consecutive days. The advantage being in more concentration on the topics and anticipating knowledge to better get hold of the project results.

Courses will be on-line, real-time and interactive.