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ADVISORY SUPPORT TO THE DEPUTYSHIP OF ELECTRICITY AFFAIRS AT MINISTRY OF ENERGY IN THE KINGDOM OF SAUDI ARABIA

TERMINAL EVALUATION REPORT

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December 2023

Project information table

Project title	Advisory Support to the Deputyship of Electricity Affairs at Ministry of Energy in the Kingdom of Saudi Arabia		
Quantum project number	SAU10/1118010		
Corporate outcome	Improved management of non-oil natural resources and preservation of culture and heritage		
Country	The Kingdom of Saudi Arabia		
Region	RBAS		
Date of PD signature	7 December 2019		
Project dates	Start date – 1 January 2020	Planned end date – 31 December 2023	
Total project budget	US\$ 16,000,000		
Expenditure at TE	US\$ 10,696,665		
Funding source	Government of the KSA		
Implementing partner	Deputyship of Electricity Affaires at the Ministry of Energy		

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Special thanks are extended to the project stakeholders including those from the Ministry of Energy and foreign experts who participated in the interviews and in the data collection phase for their open views and candid opinions on implementation of the project and achievement of the planned targets.

Acronyms and Abbreviations

APR	Annual Progress Report
CEM	Competitive Electricity Market
CO	Country Office
CPD	Country Programme Document
CTA	Chief Technical Advisor
DoEA	Deputyship of Electricity Affairs
ECRA	Saudi Arabia's Electricity Cogeneration Regulatory Authority
EIRP	Electricity Industry Restructuring Plan
GCCIA	Gulf Cooperation Council Interconnection Authority
GHG	Greenhouse Gas
KACARE	King Abdullah City for Atomic and Renewable Energy
KSA	Kingdom of Saudi Arabia
LVC	Low-Voltage Changeover
M&E	Monitoring and Evaluation
MoEn	Ministry of Energy
MOMRA	Ministry of Municipal and Rural Affairs
NDC	Nationally Determined Contribution
NPM	National Project Manager
PB	Project Board
REPDO	Renewable Energy Project Development Office
SBC	Saudi Building Code
SEC	Saudi Electricity Company
SEEC	Saudi Energy Efficiency Centre
SESP	Social and Environmental Screening Procedure
SGI	Saudi Green Initiative
SDG	Sustainable Development Goal
TE	Terminal Evaluation
TID	Technology and Innovation Department
ToR	Terms of Reference
UNCCSF	United Nations Common Country Strategic Framework
UNDP	United Nations Development Programme
UNEG	United Nations Evaluation Group

Table of Contents

Executiv	e Summary	i
1. Intro	oduction and overview	1
1.1.	Background of the evaluation	1
1.2.	Project context	1
1.3.	Evaluation purpose, objectives and scope	3
1.4.	Evaluation approach and methods used	5
1.5.	Limitations of the evaluation	6
2. Proj	ect description	8
2.1.	Short description of the project	8
2.2.	Project baseline situation	8
3. Find	lings – project design and formulation10	О
3.1.	Relevance to national priorities	C
3.2.	Project formulation	1
3.3.	Stakeholder analysis	4
3.4.	Gender responsiveness of the project design	5
3.5.	Planned management arrangements	5
3.6.	Sustainability and replicability	5
4. Find	lings – project implementation17	7
4.1.	Actual project management arrangements	7
4.2.	Monitoring and evaluation: design at entry	8
4.3.	Monitoring and evaluation: implementation	9
4.4.	UNDP and IP implementation / execution coordination, and operational issues 20	0
4.5.	Adaptive management	2
4.6.	Project finance	4
4.7.	Partnership arrangements	5
4.8.	Project reporting and knowledge management25	5
5. Find	lings – project results	8
5.1.	Attainment of results – original project outputs	8
5.2.	Project refresh	5
5.3.	Effectiveness	8
5.4.	Efficiency	9
5.5.	Country ownership	0
5.6.	Gender mainstreaming, environmental and social standards	С

5.7.	Sustainability	41
6. C	onclusions and recommendations	
6.1.	Overall conclusions	
6.2.	Specific conclusions and recommendations	
6.3.	Lessons learned and good /bad practices	
Annex	1: Evaluation Terms of Reference	A-1
Annex	2: Evaluation Matrix	A-2
Annex	3: Stakeholder Analysis (at project inception)	A-8
Annex	4: List of People Interviewed	A-9
Annex	5: List of Documents Consulted	A-10
Annex	6: Project Results Framework	A-11
Annex	7: Evaluation Report Outline	A-20
Annex	8: Evaluation Consultant Agreement Form	A-21

List of Tables

Table 3.1: Relation of energy to UN SDGs.	11
Table 3.2: Assessment of output indicators and their target values	12
Table 3.3: Risks identified at the project inception	13
Table 4.1: Actual expenditures by years of implementation (as of 17 October 2023)	24
Table 4.2: Implementation rates by years of the project	25
Table 5.1: Attainment of results – Output 1	29
Table 5.2: Attainment of results – Output 2	31
Table 5.3: Attainment of results – Output 3	32
Table 5.4: Attainment of results – Output 4	33
Table 5.5: Attainment of results – Output 5	34
Table 5.6: Attainment of results – Output 6	35
Table 5.7: Attainment of results - Workstream 1	36
Table 5.8: Attainment of results - Workstream 2	37
Table 6.1: Summary of ratings of various TE criteria	43

Glossary of Evaluation-related Terms

Term	Definition
Baseline data	Data that describe the situation to be addressed by an intervention and serve as the starting point for measuring the performance of the intervention
Beneficiaries	The specific individuals or organizations for whose benefit an intervention is undertaken
Capacity development	The process by which individuals, organizations, institutions and societies develop their abilities individually and collectively to perform functions, solve problems and set and achieve objectives
Conclusion	A reasoned judgement based on a synthesis of empirical findings or factual statements corresponding to a specific circumstance
Effect	Intended or unintended change due directly or indirectly to an intervention
Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results
Finding	A factual statement about the programme or project based on empirical evidence gathered through monitoring and evaluation activities
Impact	Positive and negative, intended and non-intended, directly and indirectly, long term effects produced by a development intervention
Indicator	Quantitative or qualitative factors that provide a means to measure the changes caused by an intervention
Lessons learned	Generalizations based on evaluation experiences that abstract from the specific circumstances to broader situations
Logframe (logical framework approach)	Management tool used to facilitate the planning, implementation and evaluation of an intervention. It involves identifying strategic elements (activities, outputs, outcome, impact) and their causal relationships, indicators, and assumptions that may affect success or failure. Based on RBM (results-based management) principles
Outcome	The likely or achieved (short-term and/or medium-term) effects of an intervention's outputs
Output	The product, capital goods and/or service which results from an intervention; may also include a change resulting from the intervention which is relevant to the achievement of an outcome
Rating	an instrument for forming and validating a judgement on the relevance, performance and success of a programme or project through the use of a scale with numeric, alphabetic and/or descriptive codes
Recommendation	A proposal for action to be taken in a specific circumstance, including the parties responsible for that action
Relevance	The extent to which the objectives of an intervention are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donor's policies
Risk	Factor, normally outside the scope of an intervention, which may affect the achievement of an intervention's objectives
Sustainability	The continuation of benefits from an intervention, after the development assistance has been completed
Stakeholders	The specific individuals or organizations that have a role and interest in the objectives and implementation of a programme or project
Theory of Change	A set of assumptions, risks and external factors that describes how and why an intervention is intended to work.

Executive Summary

This report summarizes the findings of the independent Terminal Evaluation (TE) of the UNDPsupported project "Advisory Support to the Deputyship of Electricity Affairs at the Ministry of Energy in the Kingdom of Saudi Arabia". The project was signed in December 2019 for a period of 3 years with a total budget of US\$ 16,000,000 provided by the Government of Saudi Arabia. The project was extended by one year and the revised closing date is 31 December 2023.

Purpose and objective of the evaluation

The UNDP CO in Riyadh commissioned this independent evaluation of the project to assess the project performance against expectations set out in the Project Results Framework according to the general evaluation criteria outlined in the UNDP Evaluation Guidelines. In this regard, the TE makes assessment of the following aspects of the project:

- Relevance in terms of alignment of the project to national policies and sustainable development plans;
- Effectiveness as regards to achievement of the planned outcomes through measurements of changes in the set project indicators;
- Efficiency in respect of timeliness of implementation and allocation of resources;
- Sustainability of the project results;
- Extent to which gender equality and the empowerment of women were addressed in the design, implementation, and monitoring of the project.

The TE examines how the direct project beneficiaries have benefited from the project interventions and what lessons could be learned that can both improve the sustainability of benefits from the project and inform the overall enhancement of UNDP programming. Apart from the learning purpose, the TE also serves an important accountability function in providing national stakeholders and partners in the KSA with an impartial assessment of the effective use of project resources. The TE makes recommendations to guide further interventions and preparation of a potential new project document with the Ministry of Energy.

The TE applied a participatory and consultative approach to inform and confer with key stakeholders associated with the project from relevant units of the Deputyship of Electricity Affairs, UNDP, and the project implementing team. The principal data collection tool was the evaluation field mission to KSA that was organised in order to conduct face-to-face consultations and individual/group discussions with selected project stakeholders. In parallel with the interviews, the evaluator performed a detailed review and analysis of the available project substantive and financial progress reports, minutes of the Project Board as well as documents from similar and complementary initiatives, as well as reports on the specific context of the project.

The time focus of the TE is the implementation period of the project from December 2019 through December 2023. The geographic focus of the TE is Saudi Arabia.

Project description

The Project was designed to provide technical and advisory support to the DoEA in order to improve efficiency in implementing its tasks, initiatives and plans and overseeing achievement of its future strategic objectives.

The Project Objective was to be achieved through the following six interlinked outputs:

Output 1: Policies, strategies and action plans related to the electricity sector, and monitoring and evaluation mechanisms for implementation;

Output 2: The technical studies and consultations related to the electricity sector;

Output 3: Advisory services to support the implementation of awareness campaigns on the Deputyship's functions;

Output 4: Administrative and technical support to the Deputyship's departments;

Output 5: Cooperation with national and international bodies and authorities;

Output 6: Strengthened capacity of the Deputyship;

Summary of findings

Relevance

The project strategy is aligned with the national priorities expressed in Vision 2030, with the commitments of the KSA to the UNFCCC, as well as with the priorities of the UNDP Country Programme Document and UN Common Country Strategic Framework for Saudi Arabia. Apart from direct contribution to the UN SDG 7, the project indirectly contributes to other SDGs (SDGs 8,9,11,12 and 13).

However, the Project Results Framework in the signed Project Document was found overly ambitious with vague formulation of concrete elements of the project design, in particular the output/activity indicators and related targets.

Project implementation

The project has been implemented according to the UNDP standard National Implementation Modality (NIM) with support of the UNDP CO in Riyadh. The project has a standard UNDP project governance structure directed by a National Project Coordinator at the level of the Deputy Minister who is also the Chair of the Project Board and the National Project Manager (NPM) for day-to-daymanagement of the project.

The UNDP CO provided support for recruitment of international and local consultants, oversight and management of the overall project budget, responsibility for monitoring of the project implementation, and for organising the terminal evaluation.

The actual project management arrangements did not exactly follow the planned arrangements stipulated in the Project Document and created some degree of ambiguity about reporting lines of the technical experts and responsibilities of the NPM for technical quality of the project deliverables. Instead of formation of permanent teams for each of the 6 project outputs, the project established *adhoc* teams for different tasks and this resulted in disconnection of the project monitoring from the project results framework. Consequently, the latter was not systematically used as a management and monitoring tool for tracking progress towards the planned results.

The first year of the project implementation was affected by the Covid-19 travel restrictions and social distancing. The project implementation period was extended by 12 months. The project had 3 different Chief Technical Advisors (CTA) but the CTA post was occupied only for about half of the implementation period. High turnover of CTAs and ambiguity about responsibility of the NPM contributed to insufficient monitoring and underreporting of progress towards the results planned in

the signed Project Document. Moreover, there were some issues related to procurement of equipment and software. Despite wider stakeholder consultations during the project formulation, none of the stakeholders outside MoEn were involved in the project implementation.

In 2022, a major case of adaptive management of the project resulted from discussions with the Electricity Sector Policies General Directorate (ESPGD) within the DoEA that highlighted the demand for support for operationalisation of the Technology and Innovation Department (TID). The rationale for the change was to re-focus the project on few key workstreams in the situation when a sizeable part of the project funds had already been programmed.

Effectiveness

The project supported implementation of the electricity part of the Saudi Building Code and assisted from start to completion in execution of the low-voltage changeover project. Furthermore, through acquisition of 3 software packages, the project delivered the required technical assistance for long-term forecasting of electricity demand/load and planning of electricity generation and transmission.

In addition to the above, the project produced a number of technical studies and reports in areas such as energy strategies and policy, technology and innovation, financial and economic assessments, or energy mix and transitions. However, neither of the studies were accessible by the NPM and the UNDP CO due to their presumptive confidentiality. As these technical products were not available, the TE was unable to make any conclusion about their technical quality and impact on capacity building and operations of the recipient ministry.

Upon request of the Implementing Partner, the project was subject to a major redesign that focuses on support to a relatively small unit in the DoEA that is considered critical for future technology innovation in the Deputyship. At the time of the TE, there was significant advance in implementation of the redesigned project with regard to articulation of the strategy and identification of best practices for the strategy implementation. However, there was no progress with regard to the part of the redesigned project on SDG mainstreaming that had been introduced upon request of the UNDP CO.

Efficiency

The total project implementation period until the TE is 48 months instead of the planned 36 months. Due to the 12-month extension required to offset the time lost in the initial phase of the project due to Covid-19 restrictions. The project budget allocated for 3 years was consumed to about 67% and the allocated cost of project management to about 61%.

One of the main issues of efficiency was the procedure for identification and recruitment of highly specialized international experts, required to be of the highest international standards and at the same time acquainted with the specificities of the national environment. Other issue affecting efficiency highlighted by the Implementing Partner included the tendering procedure for IT equipment.

On the other hand, efficiency of implementation was affected by the delays with regard to obtaining entry visa for work of international experts. Some activities and missions had to be postponed due to the cumbersome visa procedure.

Sustainability

The TE examined sustainability through assessment of risks to four aspects of sustainability, namely financial, institutional and governance, socio-economic and political, as well as environmental risks.

The TE concludes that the project results are likely to be sustained as it did not find any risks in the four sustainability aspects.

Gender mainstreaming

The project was assigned a gender marker 1 which means the project is expected to contribute in some way to gender equality and women's empowerment, but not significantly. There are no gender-related results at the level of outputs in the original PRF and the reformulated project does not have any focus on gender issues either. Consequently, gender mainstreaming was not addressed in the initial phase of the project.

Nevertheless, the evaluation acknowledged limited attention to gender issues in the second phase of the re-designed project implementation when one of the two technical staff of the TID directly benefiting from the capacity building activities is a female. By this token, the project support is fully aligned with the Saudi Vision 2030 and the National Transformation Programme 2020 that call for expanding women's access to education and the workforce as well as with the provisions of the articles of the Labor Law for employment of women. Given the fact that strengthening of TID is considered critical for positioning of the latter as the lead authority in technology innovation, this could also be an important pathway towards increased participation of qualified women in influential technical positions in the Government.

1.Monitoring & Evaluation (M&E)	TE Rating
M&E plan: design at entry	Satisfactory (S)
M&E plan: implementation	Moderately Satisfactory (MS)
Overall quality of M&E	Moderately Satisfactory (MS)
2.Implementing Agency Implementation & Executing Agency Execution	TE Rating
Quality of UNDP Implementation/Oversight	Moderately Satisfactory (MS)
Quality of Implementing Partner Execution	Moderately Satisfactory (MS)
Overall quality implementation / execution	Moderately Satisfactory (MS)
3.Assessment of Outcomes	TE Rating
Relevance	Relevant (R)
Effectiveness	Moderately Satisfactory (MS)
Efficiency	Moderately Satisfactory (MS)
Overall Project Outcome	Moderately Satisfactory (MS)
4.Sustainability	TE Rating
Institutional framework and governance	Likely (L)
Financial	Likely (L)
Socio-political	Likely (L)
Environmental	Likely (L)
Overall Likelihood of Sustainability	Likely (L)

Summary of TE ratings

Recommendations

No.	Recommendation	Entity Responsible	Time frame
1.	MoEn in cooperation with the UNDP CO should consider approval for a 6-month extension of the project that will allow for completion of planned activities and deliver more tangible results	MoEn, UNDP CO	Immediately
2.	MoEn should consider appointment of an in-person National Project Manager for the remaining period of the extended project	MoEn	Immediately
3.	The UNDP CO should ensure that for the remaining part of the project implementation the National Project Manager in entrusted with sufficient authority according to the ToR contained in the signed Project Document and in line with the quality standards of project management	UNDP CO	Immediately
4.	MoEn in cooperation with the UNDP CO should ensure thorough collection, maintenance, and traceability of the entire project- related documentation	MoEn, UNDP CO	Immediately
5.	In designing and implementing of future projects with MoEn, UNDP CO should invite a monitoring & evaluation expert to ensure the project results framework is realistic and its performance indicators and targets are in line with the SMART framework criteria. The CO should also ensure that the format of the project progress reports contains a tabular template for reporting progress with reference to PRF indicators and targets (similar to the template used for Annual Progress Reports in projects funded by GEF)	UNDP CO UNDP Regional Hub	Immediately
6.	For preparation of future projects, UNDP CO in cooperation with MoEn should find a suitable formal or semi-formal mechanism for wider participation and involvement of other state agencies, academia, and the private sector. Example of such mechanism could be establishment of a Technical Advisory Committee	MoEn, UNDP CO	Immediately
7.	For future projects with MoEn, UNDP should embark on a more pro-active approach in project formulation in order to strengthen responsiveness of the projects to UNDP priorities, in particular mainstreaming of SDGs and various cross-cutting issues	UNDP CO	Immediately
8.	UNDP CO should ensure strict adherence to governance and management arrangements specified at the inception of its projects with MoEn and make sure that agreed responsibilities, reporting lines and oversight duties are maintained for the entire duration of the projects	MoEn, UNDP CO	Immediately
9.	At inception of future projects, UNDP CO should agree about classification and ownership of all planned project outputs in order to enable systematic collection, storage, maintenance, and traceability of all project-related documentation and facilitate monitoring by the project team, quality assurance by the UNDP CO, and independent evaluation by external consultants	MoEn, UNDP CO	Immediately
10.	Based on experience from the current project, UNDP CO should thoroughly review the existing procedures for procurement of goods and expert services and identify factors that contributed to project implementation delays in order to optimise identification and recruitment of international technical expert services and procurement of equipment for MoEn projects	UNDP CO	Immediately
11.	For design of future projects with MoEn, UNDP CO should pay due attention to inclusion of awareness raising activities as an opportunity for promotion of wider participation of relevant stakeholders and general public	UNDP CO	Immediately
12.	In design and implementation of future projects with the Government, UNDP should support participation of qualified female technical experts in short term project assignments as well as ensure adequate representation of females in capacity building events	UNDP CO	Immediately

1. Introduction and overview

1.1. Background of the evaluation

The project "Advisory Support to the Deputyship of Electricity Affairs at the Ministry of Energy in the Kingdom of Saudi Arabia" is a UNDP-supported project that was signed in December 2019 for a period of 3 years with a total budget of US\$ 16,000,000. The project was extended by one year and the revised closing date is 31 December 2023.

UNDP commissions programme/project evaluations to capture and demonstrate evaluative evidence of its contributions to development results at the country level. These are evaluations carried out within the overall provisions contained in the UNDP Evaluation Policy¹.

The Terminal Evaluation (TE) of the project has been initiated by the UNDP Country Office (CO) in Riyadh. As outlined in the Terms of Reference, the TE is conducted by a single international consultant.

1.2. Project context

The Kingdom of Saudi Arabia (KSA) is the largest user of crude oil for power generation in the world due to its heavy reliance on hydrocarbons as feedstock for the electricity sector. In 2016, the Kingdom has embarked on Vision 2030 that recognises economic diversification as a key factor influencing the stability and sustainability of the Kingdom's economic growth and charts out the path for economic diversification and a prosperous future in all development areas.

KSA as Party to the Paris Agreement is required to establish a Nationally Determined Contribution (NDC) as a non-binding national plan highlighting climate change mitigation, including climate-related targets for greenhouse gas emission reductions. The 2021 updated NDC reaffirms Saudi Arabia's commitment to the Paris Agreement goals and achievement of mitigation co-benefits through economic diversification and adaptation. It outlines actions, projects, and plans that aim at reducing, avoiding, and removing GHG emissions by 278 million tons of CO_{2eq} annually by 2030, with the year 2019 designated as the base year. The updated NDC represents progression as its target is more than a two-fold increase compared to the target outlined in the Kingdom's previous submission - the Intended Nationally Determined Contribution - with 130 million tons of CO_{2eq}^2 .

Sharing the same environmental concerns as the rest of the world, Saudi Arabia recognizes the urgent need to flatten the global carbon emissions curve and speed the transition to a low-carbon economy. At the United Nations Climate Change Conference (COP26) in November 2021, the KSA pledged to reduce its carbon emissions to zero by 2060, allocating more than US\$ 180 billion to the effort. In addition, the Saudi Green Initiative (SGI) is an initiative whose details

 $^{^{\}rm 1}$ The revised UNDP Evaluation Policy, United Nations, DP/ 2019/29

 $^{^2}$ First NDC (3/11/2016) and Updated First NDC (23/10/2021)

were announced by HRH Crown Prince Mohammed bin Salman in October 2021 aims at promoting efforts to enhance quality of life and protect future generations in the Kingdom, through harmonizing all sustainability plans, maximizing renewable energy utilization, reducing emissions, and fighting climate change.

The ambitions set in the NDC are contingent on long-term economic growth and diversification with a robust contribution from hydrocarbon export revenues to the national economy. Through the Vision 2030, the Kingdom has already instigated a comprehensive set of unprecedented reforms in the public sector's operating model, the economy, and society as a whole. The new ambition is also premised on the assumption that the economic and social consequences of international climate change policies and measures will not pose a disproportionate or abnormal burden on the Kingdom's economy.

In order to meet the Vision 2030 goals and considering the Kingdom's goals in the Paris Agreement, the electricity sector policy is based on an ambitious diversification program of the energy mix towards alternative and renewable energy. The domestic power mix target includes using natural gas and renewable energy to meet 100% of domestic power demand by 2030, whereby the contribution of renewable energy to the overall energy mix will reach up to 50% with the other 50% provided by natural gas.

The Ministry of Energy (MoEn) is contributing to the implementation of national priority initiatives and programs to achieve the vision and objectives of the Integrated Energy Strategy (IES) within the KSA's Vision 2030 and the National Transformation Programme, by upgrading the electrical power services. As a result, the electricity sector in KSA is witnessing a major transformation involving several initiatives which aim to increase efficiency and effectiveness of the sector and the added value, at a time when the energy mix is being diversified.

It is the responsibility of the Deputyship of Electricity Affairs (DoEA) within MoEn to develop the electricity sector with its various sources (conventional, renewable, and nuclear), advance electricity services so that they are consumer-centric and protect consumer rights, strengthen the power grid to incorporate the various energy sources and provide reliable, efficient electricity, work on achieving financial sustainability for the sector, and monitor companies working in the sector in a way that ensures maximum utilization and integration between energy sectors.

Saudi Arabia is also committed in the development of a wider regional interconnection. The Kingdom is the host of the Gulf Cooperation Council Interconnection Authority (GCCIA), aimed at linking the GCC electrical power networks. It provides the necessary investments for the exchange of electrical power in emergency situations. The interconnection of GCC countries' grids is designed to allow the sharing of power on an emergency basis but can also enable market participants to ensure grid stability.

1.3. Evaluation purpose, objectives and scope

Purpose

The UNDP CO commissioned this independent evaluation of the project to capture evaluative evidence of its relevance, effectiveness, efficiency, sustainability, and incorporation of gender mainstreaming in an effort to assess the achievement of the planned results. TE will ascertain how the main Project beneficiaries have benefited from the interventions and what lessons could be learned that can both improve the sustainability of benefits from the Project and inform the overall enhancement of the UNDP CO programming. Apart from the learning purpose, the TE also serves an important accountability function, providing national stakeholders and partners in the KSA with an impartial assessment of the effective use of project resources. The TE recommendations will help to guide further interactions and preparation of a potential new project document with the Ministry of Energy.

Objectives

The evaluation assesses project performance against expectations set out in the project results framework according to the general evaluation criteria outlined in the UNDP Evaluation Guidelines³. In this regard, the TE examines the following aspects of the project:

- Relevance in terms of alignment of the project to national policies and sustainable development plans;
- Effectiveness as regards to achievement of the planned outcomes through measurements of changes in the set project indicators;
- Efficiency in respect of timeliness of implementation and allocation of resources;
- Sustainability of the project results;
- Extent to which gender equality and the empowerment of women were addressed in the design, implementation, and monitoring of the project.

More specifically, the TE also:

- Reviews the effectiveness of the advisory support provided to the Deputyship in terms of the development of policies, strategies, and plans;
- Examines the administrative and technical support provided to the Deputyship's departments;
- Identifies any synergetic effects resulting from the collaboration between the stakeholders;
- Determines if adequate human and financial resources were deployed to ensure the proper implementation of the project; and
- Assesses the extent to which gender equality and the empowerment of women were addressed in the design, implementation, and monitoring of the project.

³ UNDP Evaluation Guidelines, Revised Edition (June 2021), UNDP IEO

<u>Scope</u>

The evaluation assesses the extent to which the planned project results have been achieved since the beginning of the Project on 7 December 2019 and likelihood of their full achievement by the extended completion date on 31 December 2023, based on the approved Project Document and the results framework contained therein. The geographic focus of the TE is Saudi Arabia.

TE also looks into the project's processes, strategic partnerships, and linkages in the specific country's context critical for producing the planned outputs and the aspects that facilitated and/or hindered the progress in achieving the outputs, both in terms of external environment and risks, including impact of the Covid-19 pandemic, as well as internal factors, including weaknesses in programme design, management and implementation, human resource skills, and allocated resources.

The Terms of Reference (ToR) for the TE is provided as Annex 1.

Structure of the Final TE Report

The report starts with introduction which is followed by sections related to project description and findings. The last section of the report provides conclusions and recommendations. In order to discuss the findings in due details, the report elaborates three areas of findings: project formulation, project implementation, and project results.

Chapter 1: Introduction and context

Chapter 2: Project description

Chapter 3: Findings - project design and formulation

This chapter provides assessment of design aspects of the project forming the basis to determine a degree to which the design aspects have eventually impacted progress towards and achievement of the project results.

Chapter 4: Findings - project implementation

This chapter of the report provides information about planned provision like project implementation arrangements, planning and stakeholder participation, roles of implementing partners etc.

Chapter 5: Findings - project results

This chapter deliberates upon the achievement of results and objectives of the projects based on the result indicators and related targets contained in the Project Results Framework. If applicable, it also provides assessment of reasons for eventual shortfalls in the project performance.

Chapter 6: Conclusions, recommendations, and lessons learned.

This chapter provides conclusions and a set of conclusions and related recommendations for strengthening of sustainability of the achieved project results and improvement of formulation and implementation of similar future initiatives.

1.4. Evaluation approach and methods used

The Terminal Evaluation was conducted in line with the UNDP Evaluation Guidelines⁴. Prior to the start of the TE, an Inception Report was prepared and shared with the UNDP CO and the project team. The Inception Report outlined the approach and methodology that was followed while carrying out the evaluation.

The evaluation was conducted in the following three phases:

Preparation

The evaluator conducted an initial screening and limited desk review of documents covering the project design and implementation progress. The approved Project Document (ProDoc) was the starting point for the review in terms of understanding the basics on which the project was designed and funded. The study of the ProDoc was complemented by the review of some other essential information resources.

Results of the initial review provided grounds for formulation of evaluation questions related to the pre-determined set of evaluation criteria aiming at gathering information from project stakeholders and beneficiaries about their attitudes and preferences as well as collecting factual information from relevant sources linked to the performance indicators. The evaluation questions listed in the Terms of Reference were used for construction of the Evaluation Matrix that was used throughout the next phase.

Data collection

The principal data collection tool was the evaluation field mission to KSA that was organised in order to conduct face-to-face consultations and individual/group discussions with selected project stakeholders. The preparation of the evaluation field mission was done in close coordination with the UNDP Country Office. In particular, timing of the mission and schedule of meetings with key informants were discussed and agreed with the CO.

Interviews with selected project stakeholders served for collection of the first-hand information through soliciting responses to a set of predetermined open-ended questions aiming to obtain in-depth information about the key informants' experiences from the project implementation and their opinions on the degree of achievement of the planned results. The interviews were based on a semi-structured format, in order to allow the respondents to express their perception of the main issues related to the project implementation.

The evaluation criteria and questions were used as a check list to raise eventual additional and/or more specific questions on the issues mentioned. Triangulation of results, i.e. comparing information from different sources, such as documentation and interviews, or interviews on the same subject topic with different stakeholders, were used to corroborate or check the reliability of evidence. This approach helped to verify the information obtained in the initial document review phase, to fill in data and information gaps and to learn about the opinion of stakeholders

⁴ UNDP Evaluation Guidelines, IEO UNDP June 2021

and project participants for interpretation of the collected information. The interviews also helped the purpose of collecting some additional documents to support the evidence base of the evaluation. The list of people interviewed is provided as Annex 4.

In parallel with the interviews, the evaluator performed a detailed review and analysis of the available project substantive and financial progress reports, minutes of the Project Board as well as documents from similar and complementary initiatives, as well as reports on the specific context of the project. The list of documents consulted is provided as Annex 5.

The evaluator visited the Ministry of Energy as the main and only project site. The information gathered during the data collection phase was recorded in internal working documents used during the next phase.

Data analysis and assessment of evaluation findings

Data analysis followed as the final stage of the STE. The collected information was organized, classified, and summarized with the aim to extract essential information that responds to the evaluation questions and fulfils the purposes of the evaluation. Contextual information was gathered to assess the significance and relevance of the observed project performance and results.

In view of the nature of evaluation questions and use of predominantly qualitative assessment approach, the collected data was processed and translated into usable formats or units of analysis ensuring accuracy and relation to the evaluation questions.

The TE took perspectives of all relevant stakeholders into account and gathered information on project performance and results from multiple sources including the project documents, the project M&E system, stakeholder interviews, and other sources, in order to facilitate triangulation of the data.

Evaluation ethics

The TE was conducted in accordance with the principles outlined in the United Nations Evaluation Group (UNEG) Ethical Guidelines for Evaluations⁵. All providers of information were informed about the TE purpose and confidentiality about sources of information was strictly observed.

1.5. Limitations of the evaluation

Information availability and reliability have been the main limitations of the TE. For preparation of the TE Inception Report, only some of the documents requested by the evaluator were provided by the UNDP CO. At the initial phase of the TE, only few documents such as the 2021 annual progress report and the minutes of the Project Board, were provided to the evaluator. Reports of the UNDP Regional Technical Advisor and the project 2nd CTA were

⁵ UNEG Ethical Guidelines for Evaluations (revised), UNEG (2020)

obtained as additional information after the on-line interviews conducted shortly after submission of the Inception Report.

On grounds of the limited information available at the TE inception phase, the itinerary of the field mission was discussed and prepared in cooperation with the UNDP CO focal point. This included list of stakeholders from the Ministry of Energy (MoEn) suggested for interviews during the evaluator's mission to KSA. However, some of the interviews could not be completed as planned due to structural and personal changes at MoEn as well as the fact that the NPM and the Project Coordinators of the redesigned project were not present in the country during the evaluator's visit. Some of the unaccomplished interviews were conducted on-line after the mission.

The available project reports refer to a number of studies that resulted from work of international consulting companies that had been contracted in the initial year of the project implementation. Information on the recipients of the contracts and the list of deliverables were not available during the TE inception phase and therefore lack of this information hindered better planning of the interviews during the evaluator's mission to the Kingdom.

Although the evaluator was finally able to compile at least the list of deliverables from the major contracts after the interview of the project current CTA, the latter did not have any more detailed information about the initial year of the project implementation.

Moreover, MoEn considers all studies and other deliverables produced by the project consultants confidential and therefore not eligible for review. Consequently, the evaluator was not able to obtain more detailed information about the contents and use of all project deliverables by the recipient ministry. Lack of access to the technical studies and reports produced by the project thus hindered not only assessment of the project achievements against the performance indicators in the Project Results Framework but also evaluation of the usefulness of the project deliverables and their effect on capacity building of the project recipient Ministry.

The purpose of the project is to provide technical assistance to relatively small group of project direct beneficiaries. For this reason, the stakeholders involved in the evaluation were representatives of the DoEA departments that directly benefited from the project. Moreover, the project reformulation made the project focussed at an even smaller pool of direct beneficiaries. This together with formulation of the project results at the output level and the confidentiality restrictions described in the previous paragraph did not provide opportunity for engagement of tangential stakeholders in the evaluation.

2. Project description

2.1. Short description of the project

The Project was designed to provide technical and advisory support to the DoEA in order to improve efficiency in implementing its tasks, initiatives and plans and overseeing achievement of its future strategic objectives.

The Project Objective was to be achieved through six interlinked outputs and would complement and accelerate the efforts of Saudi Arabia to achieve its goals in Vision 2030, the Sustainable Development Goals (SDGs) and the Paris Agreement on Climate Change.

The signed Project Document contains the following specific results to be attained:

<u>Output 1:</u> Policies, strategies and action plans related to the electricity sector, and monitoring and evaluation mechanisms for implementation;

Output 2: The technical studies and consultations related to the electricity sector;

<u>Output 3:</u> Advisory services to support the implementation of awareness campaigns on the Deputyship's functions;

Output 4: Administrative and technical support to the Deputyship's departments;

Output 5: Cooperation with national and international bodies and authorities;

Output 6: Strengthened capacity of the Deputyship

The original Project Results Framework (PRF) from the signed Project Document is provided as Annex 6.

After a major revision in 2022, the Project targeted the operationalisation of the Technology and Innovation Department (TID) in DoEA.

Key assumptions for the project included continued commitment of the Government to strengthen the electricity sector, policy dialogue with relevant partners to coordinate and further align development cooperation with national electricity strategy and policy under the stewardship of the Ministry of Energy, as well as ability of the Deputyship to build its capacities, in particular, designate, retain, and recruit motivated and skilled staff to ensure the sustainability of interventions. There was no theory of change developed for the project.

The Project Document was signed by the KSA Government on 7 December 2019 with the total budget US\$ 16,000,000 financed entirely by the Government.

2.2. Project baseline situation

In order to reform the Kingdom's electricity sector, the Electricity and Cogeneration Regulatory Authority (ECRA) prepared the Electricity Industry Restructuring Plan (EIRP) in 2007. The essence of the EIRP was gradual transformation of the electricity industry from a vertically integrated utility structure to a more competitive electricity sector in three phases over eight years. In particular, the EIRP envisaged restructuring of the Saudi Electricity Company (SEC) into separate firms for unbundling electricity generation, transmission, and distribution and remove thus entry barriers for new producers, with the aim of achieving greater efficiency and reducing public capital spending in the electricity sector.

In 2014, ECRA revisited its reform blueprint and developed a new roadmap for the design and implementation of a national Competitive Electricity Market (CEM) for Saudi Arabia, based on the experiences gained during the first phase of the EIRP and stakeholder feedback. While some progress has been made in implementing the original EIRP, Saudi Arabia's electricity sector remained vertically integrated and operated by the SEC while unbundling the SEC into multiple generation or distribution companies could not be achieved as per the restructuring plan.

MoEn is the government body responsible for formulating and implementing national policies concerning electricity, oil, and gas. Its mandate also includes developing overall long-term energy plans. Some of its policy priorities for the electricity sector that aligns with Vision 2030/NTP 2020 include:

- (i) improving the efficiency of the electricity sector's fuel utilization,
- (ii) enhancing the primary sources and security of the electricity supply,
- (iii)improving the quality of services and coverage area,
- (iv)working toward full privatization of electricity generation through strategic partners, and
- (v) enhancing the contribution of renewable energy in the future energy mix through increased private sector participation from renewable energy generation to local manufacturing.

In order to fulfil its pivotal role in developing the electricity sector, MoEn has started its mission, in close coordination with the relevant bodies, to modernize the electricity system in compliance with the requirements of the next phase to improve services and increase the efficiency of resources utilization, (including fuel efficiency), as well as move forward in the privatization of services to promote the contributions of the private sector and enrich competition. Moreover, the Ministry has extended efforts to localize industries, spare parts, and services relevant to the electricity sector; in addition to focusing on security and safety requirements and conducting and funding studies and research related to this sector.

3. Findings – project design and formulation

3.1. <u>Relevance to national priorities</u>

The objective of the project is consistent with the commitments of the Government of KSA as expressed in the 3rd and 4th National Communications to the UNFCCC, submitted in 2016, and 2022, respectively, as well as with the Nationally Determined Contribution (NDC), submitted in 2021.

It is also in line with the Vision 2030 through which Saudi Arabia aims at enhancing the capacity of its power sector (electricity generation, transmission, distribution, and smart grid) to meet increasing demand efficiently from residential and commercial consumers for electricity, and to support the diversification of its domestic energy mix.

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In relation to the UN Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development, energy is being recognized as a key enabler for development through establishment of SDG Goal 7: *Ensure access to affordable, reliable, sustainable and modern energy for all.* Universal access to energy, a higher share of renewable energy and massive improvements in energy efficiency are now part of the top global priorities for sustainable development. In addition to direct relation to SDG7, energy is indirectly related to other SDGs as summarized in Table 3.1 below.

Table 3.1: Relation of energy to UN SDGs⁶.

SDG 7: Ensure access to affordable, relia	able, sustainable and modern energy for all			
Targets relevant for KSA				
7.1. By 2030, ensure universal access to aff	Fordable, reliable, and modern energy services;			
7.2. By 2030, increase substantially the sha	re of renewable energy in the global energy mix;			
7.3 Double the global rate of improvement	t in energy efficiency;			
7.a. Enhance international cooperation to fa energy efficiency, and advanced and cleane energy technologies;	acilitate access to clean energy research and technologies, including renewable energy, er fossil fuel technologies, and promote investment in energy infrastructure and clean			
Other Sustainable Development Goals	Linkage with energy			
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Energy efficiency and conservation influence the country's energy intensity and carbon content of economic growth			
 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation 	Resilient infrastructure and public-private partnerships are required to ensure access to energy for all and to maximise energy efficiency			
11. Make cities and human settlements inclusive, safe, resilient and sustainable	Municipalities require careful electricity planning and efficient power distribution			
12. Ensure sustainable consumption and production patterns	The residential and buildings sector is a key part of a future in which there is sustainable consumption of energy and products			
13. Take urgent action to combat climate change and its impacts	The carbon-intensive energy sector (based on fossil fuels) is a key driver of climate change.			

In the KSA context, the project is aligned with the United Nations Common Country Strategic Framework (UNCCSF) Outcome 2.4 "Improved Management of Non-Oil Natural Resources and Preservation of Culture and Heritage"⁷ as well as with the UNDP Country Programme Output 3.1 National Capacities Developed for Better Management of Non-Oil Natural Resources⁸.

Based on the above, the relevance of the project for the recipient country and the implementing agency is rated **Relevant**.

3.2. Project formulation

Detailed description of the project background, goal, its six interlinked outputs, and planned activities are presented in the Project Document. Reportedly, extensive consultations with various stakeholders were held at the project formulation stage. However, there is no documentation summarizing these consultations.

Analysis of the project results framework

The Project Results Framework (PRF) presented in the Project Document defines 44 planned activities, indicators including their baseline value, as well as related target values specifically for each of the planned 3 years of the project. The complete PRF is provided as Annex 2.

⁶ Compiled from Transforming our World: the 2030 Agenda for Sustainable Development (UN, 2015), Indicators and a Monitoring Framework for the Sustainable Development Goals, Sustainable Development Solutions Network (SDSN)

⁷ United Nations Common Country Strategic Framework 2017-2021

⁸ UNDP Country Programme Document for Saudi Arabia (2017-2021)

Detailed analysis of the PRF with the aim to appraise to what extent the indicators enable assessment of the project performance showed that a majority of the project indicators are not in line with the SMART⁹ framework for quality indicators.

The PRF contains two types of indicators and related target values as shown in Table 3.2.

Table 3.2: Assessment of output indicators and their target values

Output/Activity Indicator type and example description	Target value	Assessment
Type 1: Number of deliverables (e.g. policy documents, technical studies, etc)	Number	Indicator SMART as it clearly defines the deliverable and its target values
Type 2: Progress in different processes (e.g. review and implementation of plans, strategies, etc.)	Percentage	Indicator not SMART as the description of the processes is too complex and it is not clear how the progress in the processes could be measured

A vast majority (40 out of the total 44) of the indicators are Type 2 based on a progress in different processes. There are three main insufficiencies of this indicator definition. Firstly, in many cases the description of the process is too complex and ambiguous, as can be shown on the following examples:

Indicator 1.4: Progress in the review of the electricity sector restructuring plan, its modification and development it in the light of approved policies, and in the follow up the implementation of the tasks pertaining to Deputyship;

Indicator 1.7: Progress in preparation of a long-term programme in coordination with the relevant authorities for support of the national supporting industries in the electricity sector, localization of modern technology, increase local content and ensure its implementation;

Indicator 3.4: Progress in support to awareness raising through design of country-wide campaigns to enhance knowledge on demand-side energy management including public behaviour change and energy conservation in industry, transport, and residential sectors and particularly in high growth energy-intensive industries;

Indicator 5.1: Progress in proposal for areas of cooperation, memorandums of understanding and joint agreements with national and international Parties and institutions, follow up on their implementation, evaluate them and propose new areas and initiatives for cooperation;

Secondly, such ambiguous definition does not clearly indicate what exactly is to be measured. Thirdly, neither does it contain information about the end of the process and how to determine the target values defined in terms of percentages of the process implementation in individual project years.

The above insufficiencies obviously hinder not only evaluations of the achievement of the midterm and end-of-project targets but for the same reason also impede use of the PRF, its indicators and their target values as a tool for monitoring progress in the project implementation by the project management team.

⁹ The SMART framework for quality indicators stands for Specific, Measurable, Achievable, Relevant and Time-bound.

Last but not least, the TE observes that the project results were formulated at the level of outputs. While it is understood that this has been a current practice for preparation of projects with the KSA Government, this approach deviates from the international standards on results-based management that focus on outcomes. Sole focus on outputs does not guarantee the desired change effect as outputs s(e..g. reports and studies) are simply a means to an end and may not lead to improved capacities for analysis and decision-making as the desired behavioural change effect of a project.

Assumptions and risks

Identification of risks enables the project implementing partners to recognize and address challenges that may limit the ability of the project to achieve the planned performance outcomes.

Section V of the Project Document contains a project risk log that contains 14 risks of different types with risk rating in terms of probability and impact that allows for identification of critical risks (high in both probability and impact) for the purpose of further monitoring during the project implementation as presented in Table 3.3 below.

No.	Description of risk	Probability	Impact	Mitigation plan	Responsible
1.	Lack of governance and capacity gaps to implement and monitor the strategy of the National Transformation Program in the electricity sector	Low	Medium	Policy dialogue and capacity building	Deputyship UNDP
2	Unavailability of funds to take the project for the full three years	Medium	High	Follow up on budget with clear reporting to show progress	Deputyship
3.	Lack of cooperation on the part of Deputyship or any of the stakeholders	Low	High	Implementation of an efficient project management structure and management processes	Deputyship UNDP
4.	Ineffective communication channels between UNDP/project team and Deputyship	Low	Medium	Pre-defined and approved communication channels	UNDP
5.	Changes to the project requirements during the project	Low	Medium	Implementation of adequate project change management and controlling processes	UNDP
6.	Retention of qualified staff and low commitment of the staff to the implementation of the project	Medium	Medium	Taking measures to assure the availability as well as the requested quantity and quality of human resources The requirements are clearly defined during the Inception phase by UNDP	Deputyship UNDP
7.	Change or fluctuation in the composition of stakeholders	Low	Low	Continuous and overall stakeholder management during the project	Deputyship UNDP
8.	Changes in the organizational structure of the Ministry of Energy	Low	Low	Providing timely and clear information on relevant changes in the organizational structure	Deputyship
9.	Recruitment of specialized experts fails	Low	High	Advertise ToRs Expedite issuance of letter of appointment	UNDP
10.	Lack of UNDP reporting	Medium	Medium	Follow up with participating sectors, and link payment to status reporting	UNDP
11.	Change of Deputyship national project manager / coordinator	Low	High	Document and share project documentation with project team, ensure proper handover	Deputyship
12.	Unavailability of subject matter experts in certain scientific areas	Low	Medium	DEPUTYSHIP to post expert ToR ahead of time to avoid any delay	Deputyship UNDP
13.	Major changes to project scope	Low	Medium	Follow a change management process with signed budget revision	Deputyship UNDP
14.	Language barrier	Low	Medium	Careful selection of experts Effective translation/interpreter service ensured by UNDP if needed	Deputyship UNDP

The TE found the assumptions and identification of risks at the project inception wellarticulated and sufficiently detailed. However, for some risks their probability was seriously underrated, in particular for risk No. 6, 9, 11, 12 and 13.

In line with standard UNDP requirements, risks with high rating of probability or combined higher rating of probability and impact are considered as critical risks and should be further monitored throughout project implementation and reported in annual progress reports.

The TE concludes that despite there was a very limited effort on reporting of the already identified risks, the overall management of project risks was not conducted in a systematic manner that would ensure more effective monitoring and mitigation of the risks.

Lessons from other relevant projects incorporated into project design

The Project Document does not mention any lessons learned from relevant interventions in the country that were incorporated into the project design despite the fact, that UNDP has a record of several implemented projects on capacity building of agencies of the Government.

3.3. Stakeholder analysis

The Project Document lists the following main stakeholders in the KSA electricity sector:

Electricity and Cogeneration Regulatory Authority (ECRA) - regulates the electricity and water desalination sector in Saudi Arabia.

Renewable Energy Project Development Office (REPDO) - operates under MoEn and works with other stakeholders to lead Saudi Arabia's capabilities in renewable energy research, measurement, data acquisition, regulation, predevelopment, and tendering.

King Abdullah City for Atomic and Renewable Energy (KACARE) - operates under MoEn with a mandate to develop a substantial alternative energy capacity fully supported by local industries. It is overseeing the development of the Saudi National Atomic Energy Project.

Saudi Electricity Company (SEC) - has a monopoly on the generation, transmission, and distribution of electric power in Saudi Arabia through operation of power generation plants.

Saudi Energy Efficiency Centre (SEEC) - is mandated to improve efficiency in the demand and supply of energy in order to conserve the natural resources of the Kingdom while enhancing the economic and social well-being.

Ministry of Municipal and Rural Affairs (MOMRA) - is responsible for the supervision and regulation of municipalities in the country and works on enhancing integration of municipal services and housing products for Saudi cities.

The above institutions were consulted in the project formulation phase. A list of the main stakeholders with their expected interest in the project from the stakeholder analysis at project inception is provided as Annex 3.

Despite the wider stakeholder consultations during the project formulation, none of the stakeholders outside MoEn were actively involved in the project implementation.

3.4. Gender responsiveness of the project design

The project does not contain any specific provisions for addressing gender issues as its objective does not differentiate between genders and serves the population at large. Consequently, no specific gender analysis was conducted at the project design stage. Environmental and Social Safeguards

At the formulation stage, the project was subject to the environmental and social screening procedure (ESSP) that is mandatory for all UNDP projects. However, the results of the ESSP, provided in Annex [1] of the Project Document, do not indicate ranking of the social and environmental risks based on the SESP.

3.5. Planned management arrangements

The project was designed for the standard national implementation modality (NIM) with UNDP CO support according to the valid UNDP policy¹⁰ with the Deputyship at Ministry of Energy ("Implementing Partner") assuming implementation responsibilities and the UNDP CO providing support for recruitment of international and local consultants, oversight and management of the overall project budget, responsibility for monitoring of the project implementation, and for organising the TE¹¹.

The approved project management arrangements are based on the standard organisation structure for UNDP-supported projects with a Project Board (PB) responsible for overall coordination and oversight and a National Project Manager (NPM), appointed by the Implementing Partner, with the authority to run the project on a day-to-day basis within the constraints laid down by the PB.

The PB serves as a steering committee between the DoEA and the UNDP CO to ensure coherence of all activities and management decisions for the project when guidance is required by the NPM, including recommendation and approval of project revisions. The PB also provides guidance to the DoEA and the UNDP Technical Assistance Team for timely conduct of the planned activities and tasks and achievement of the results as set out in the Project Document.

The planned management arrangements envisaged appointment of a Chief Technical Advisor (CTA) to oversee the planning and coordination of all technical assistance requirements for the Project, monitor progress in implementation and periodically report to UNDP on a quarterly and annual basis. Furthermore, establishment of separate teams was envisaged for implementation of each of the 6 outputs of the Project.

The planned organisation structure of the project is on Figure 1.

¹⁰ UNDP Programme and Operations Policies and Procedures: UNDP Support Services to National Implementation (NIM), 2015

¹¹ Agreement Between UNDP and the Government for the Provision of Support Services, Annex 2 of the Project Document

Figure 1: Planned project organisational structure

Project Board											
Senior Beneficiary Deputyship Project Assurance [UNDP]		Exec Depu	utive tyship	Senior Supplier UNDP							
		Project Manager / Chief Technical Advisor CTA		Project Assistant							
Team A OUTPUT 1	Team B OUTPUT 2	Team C OUTPUT 3	Team D OUTPUT 4	Team E OUTPUT 5	Team F OUTPUT 6						

3.6. Sustainability and replicability

Sustainability of the project is affected by at least three factors, namely institutions, funding, and innovation. From the institutional perspective, sustainability requires strong governance and leadership of an authority responsible for maintaining the achieved outcomes beyond the Project's completion. The project design is beneficiary-driven with expected strong DoEA ownership of the project activities. In addition to necessary capacity building, another factor is active DoEA participation in preparation of policies and supervision of their implementation for improved quality and service of the electrical system in the Kingdom. The leadership is required both at the technical and governance levels.

From the funding perspective, the principal factor is identification of additional funding sources and their allocation. In order for this to be realised, strengthened coordination with potential funding sources is essential as well as multi-sector collaboration. Additional factor is the analysis of cost-effectiveness and efficiency of implementation of the Project.

The third factor is the ability of the project to promote innovation, including development of IT systems and data management. Sustainability requires institutional capacity building and additional staff with the needed skills and accompanying technology acquisition.

4. Findings – project implementation

The official approval and signature of the Project Document by the KSA Government in December 2019 marks the official start of the project implementation. The preparatory work for implementation was disrupted by the start of the Covid-19 outbreak in March 2020. In the following months, the KSA held the highest number of confirmed cases in the Arab states of the Persian Gulf¹². As a consequence of curfews and lockdowns placed by the Government at several administrative levels, the start of the project implementation was postponed until January 2021. The Covid-19 outbreak also caused that an Inception Meeting was not organised for the Project.

The Deputy Minister of Energy was appointed as the National Project Coordinator and an initiation plan for the Project was prepared. In February 2020, the National Project Manager was hired and the Project Management Unit (PMU) was established at the DoEA.

4.1. Actual project management arrangements

The project has been implemented by the DoEA according to the UNDP standard National Implementation Modality (NIM) with support of the UNDP CO in Riyadh. The project has a standard UNDP project governance structure directed by a National Project Coordinator (NPC) at the level of the Deputy Minister in the implementing Ministry. In February 2020, the Project Management Unit (PMU) was established and staffed with a Project Assistant that was later promoted to be the National Project Manager (NPM).

The Deputyship provided premises and necessary office equipment for hosting the PMU. In addition to the support services defined in Annes 2 of the Project Document¹³, UNDP rendered services of a Regional Technical Advisor (RTA), based in the UNDP Regional Hub in Amman, for technical oversight and backstopping of the project implementation.

The NPC and NPM above constituted core elements of the project management in line with the project organisation structure described in the approved Project Document. However, the rest of the actual management arrangements deviate from the plan. Instead of establishment of 6 permanent teams under the supervision of the NPM for each project output, *ad-hoc* teams were established for separate project tasks. In practice this meant that all technical matters, including identification and appointment of technical consultants in the project, were primarily addressed by the task teams without involvement of the NPM. Normally, all technical experts should report to the NPM since the NPC is on a level too high for effective management of the technical experts. In some cases, technical experts were assigned by other departments than the department hosting the PMU. Under these arrangements, the task teams assessed the work of all consultants including endorsement of deliverables (technical reports and studies) without

¹² Covid-19 Dashboard: Saudi Arabia

¹³ the Agreement between UNDP and the Government, signed on 7 December 2019

any participation of the NPM. The role of the NPM was restricted to processing the payments to consultants upon receipt of approval of deliverables from the task teams. Only in one case of a dispute between a task team and a contractor, the former referred the matter to the NPM who subsequently elevated it to the level of the NPC for resolution.

From the very start of the project implementation, the actual management arrangements created some degree of ambiguity about reporting lines of the technical experts and responsibilities of the NPM for technical quality of the project deliverables. The factual exclusion of the NPM from the project technical matters meant the latter did not have sufficient authority for exercising effective management and oversight of technical consultants appointed to work in the project. Consequently, the role of the NPM was restricted only to administrative tasks and communication with the UNDP CO.

Annex 3 to the Project Document provides Terms of Reference for the PB. The latter is defined as the principal entity in the project governance structure responsible for project oversight, for risk and change management, for assurance and quality control, as well as for effective communication with relevant ministries and other institutions. Specifically, the PB responsibility also includes approval of project substantive and budget revisions. The same ToR stipulated that the PB meetings should be organised every 6 months, if not required and agreed otherwise.

The Project Board convened six times for the 3-year duration of the project (until the TE), including the first meeting at the inception of the project. Minutes from the PB meetings were available only from 4 meetings. The Minutes are relatively short and do not contain sufficient information about discussion of project implementation issues and record only some decisions made by the PB. For example, the evaluator could not find any written reference in the Minutes to the PB decision on the 2022 major project reprogramming. According to the NPM, meetings between the project team and the focal points at MoEn were held frequently with the purpose of quick decision making for solving implementation challenges. However, no written minutes of these *ad-hoc* meetings were compiled and there is no evidence in the available project documentation about presentation of the essence or at least summary of such decisions to the Project Board.

4.2. Monitoring and evaluation: design at entry

Section VI of the Project Document presents the monitoring and evaluation plans developed at the time of the Project inception in line with the relevant UNDP programming policies and procedures¹⁴. There was a provision for adaptation of the plans as a response to eventual changes in the project context.

The Monitoring Plan envisaged the progress in implementation to be reviewed through periodic (quarterly and annual) progress reports with collection of progress data against the results

¹⁴ <u>https://popp.undp.org/SitePages/POPPSubject.aspx?SBJID=457&Menu=BusinessUnit&Beta=0</u>

indicators in the PRF. The same plan envisaged monitoring of specific risks that had been identified at the project formulation stage and eventual identification of new risks threatening the achievement of intended results. In addition, standard Annual Project Quality Assurance was to be provided by the UNDP.

The Evaluation Plan is composed of two items, namely the independent Mid-Term Review (MTR) and the Terminal Evaluation. The results of the monitoring and evaluation activities were to be provided to the Project Board.

The M&E plans at the design stage were well conceived in principle. However, the Monitoring Plan contained sufficient information on purpose of different monitoring activities, but it was less concrete on format of the monitoring tools and reports required for tracking and reporting progress towards the planned results. While the Monitoring Plan was to be implemented by the project staff with no cost implications to the project, the Evaluation Plan contained adequate budget provisions for conduct of both MTR and TE through external evaluation consultants.

4.3. Monitoring and evaluation: implementation

The Monitoring Plan for the project envisaged collection and analysis of data against the results indicators in the PRF for measurement of progress towards delivery of the agreed outputs, quarterly, or in the frequency required for each indicator. As a matter of fact, no quarterly reports were produced under the project. Implementation progress was assessed in the Annual Project Reports (APRs) produced for calendar years 2021 and 2022 (but the latter report is not available). The APRs provide only description of deliverables produced for planned activities in the reporting period without reference to the individual output indicators and their respective targets listed in the PRF.

It is observed that the project results monitoring did not exactly follow the Monitoring Plan in terms of conduct of the monitoring activities reporting thereon. Establishment of 6 permanent output teams according to the planned management structure would facilitate systematic monitoring of progress towards each of the 6 project outputs. In reality though, formation of *ad-hoc* task teams resulted in disconnection of the project monitoring from the PRF. Consequently, the latter was not systematically used as a management and monitoring tool. Ambiguous formulation of the performance indicators and their target values in the original PRF as well as exclusion of the NPM from the technical matters of the project further exacerbated the weaknesses in the actual project monitoring efforts.

The substantive project revision in late 2022 further contributed to the already weak project monitoring. The Project Refresh document as a product of the revision exercise defines new project outputs without any performance indicators and their target values that would serve as a gauge for tracking progress in implementation of the redesigned project.

In addition to the above, notable lack of evidence of detailed discussion about the produced progress reports in the Project Board meetings raises doubts about effectiveness of the entire project monitoring process. Adaptive management of the project was thus not based on project monitoring but rather on ad-hoc decisions of senior officials in the beneficiary ministry.

Although the Evaluation Plan envisaged a Mid-Term Review (MTR), the latter was not conducted because of the initial project implementation delays related to the Covid-19 outbreak. The TE was initiated in April 2023. The TE consultant was recruited in May 2023, but the implementation of the TE was protracted due to uncertainty about the application process for entry visa for the evaluation mission and lack of documentation delayed preparation of the field mission that was finally conducted on 13-20 October 2023.

4.4. UNDP and IP implementation / execution coordination, and operational issues

One of the principal activities for the project management was recruitment of a full-time Chief Technical Advisor (CTA) as the head of the technical assistance team to oversee all technical activities, in particular ensure mobilisation, supervision and coordination of all experts taken on by the Project. As a matter of fact, three different CTAs were recruited during the implementation of the project.

The recruitment process proved to be rather complicated due to strict conditions imposed on the candidates upon request of the implementing ministry (MoE), including required origin from an OECD country and classification of the CTA position at the D-1 level¹⁵ that required involvement of the UNDP CO as well as the UNDP Regional Hub for the Arab States in Amman, Jordan.

As a result of the still on-going Covid-19 pandemic in early 2021, the pool of applicants for the CTA position was reduced as many of candidates fulfilling the qualification requirements were not prepared for the full-time job placement in the KSA. Relevant UNDP policies and procedures required approval of the CTA classification at the D-1 level by the UNDP Headquarters as well as convening of a high-level interview panel for the selection process. Therefore, the two conditions were the main reasons for a rather protracted recruitment procedure.

The recruitment process started in April 2021 and the selected candidate was awarded with the contract as of 1 July 2021. However, it came out that the incumbent was not prepared to accept the full-time placement in the KSA, and it was therefore decided that he works remotely. This arrangement lasted only 4 months and the 1st CTA's contract was terminated in October 2021 for unsatisfactory performance.

The 2nd CTA was appointed in February 2022 and resigned from the post in November 2022. The 3rd CTA was appointed as of 1 June 2023 with expected duration of the contract until the end of 2023. The above brief recap shows that the project had a CTA physically present in the country for only about half (17 out of 36 months) of the project implementation period from January 2021 till December 2023.

In addition to the high turnover of the CTAs, there was also relatively long temporary absence of the NPM due to the incumbent's departure for a master's study in the UK. As no replacement was done, the NPM has been working remotely from the UK since January 2023, therefore was

 $^{^{15}}$ D-1 and D-2 are the highest possible levels in the job level structure at the United Nations.

not in the country during the TE mission, and the second phase of his studies is expected to last until mid-2024.

Apart from the above challenges to the day-to-day project management, there was also a major procurement issue related to supply of memory chips for hardware expansion at MoEn computer server. The expanded memory was necessary for implementation of several key MoEn projects that require significant storage space, such as technical calculations for electricity demand load forecast and transfer of technical drawings for several thousand proposed building projects under the Saudi Building Code project.

The Request for Quotation (RFQ) on 288 units of hardware memory chips Hewlett Packard (HP) brand was posted on the UNDP Procurement Portal on 8 June 2021¹⁶. A contract for the supply of the memory chips was awarded to a local trading company that sourced the required number of RAM units from several sub-contractors in different locations.

Although the RAM units were delivered in required quantity in late 2021, they remained unused due to issues of linking the new RAM units to the existing server warranties. The producer of the hardware (Hewlett Packard) agreed to provide warranty only for the installation of the chips through its local branch in the KSA. Although the UNDP CO and the IT Department of the Ministry had made continued effort to settle this matter, it remained unresolved until April 2022 when a decision was made to initiate a new procurement case for replacing the unused RAM units.

A new tender was published on 20 April 2022 while efforts to resolve the warranty issue for the already procured continued in parallel. Reportedly, the MoE rejected to authorise the 300,000 US\$ contract with the local trading company. The issue was finally resolved through efforts of the project 2nd CTA and extensive discussion with the global and local HP offices and the RAM chips were successfully installed in mid-2022. Resolution of this protracted procurement case unblocked way for installation of critical software for energy planning SAS and the Saudi Building Code transfer of documents.

With regard to reporting on the project, the TE observed that UNDP did not sufficiently exercise its function on administration of the project documentation. This can be clearly demonstrated by the fact that the UNDP CO does not have all project-related documentation (such as progress reports, PB meeting minutes, information on deliverables from contracted experts and companies etc.) on their records and was thus unable to share these documents with the TE consultant throughout the entire duration of the TE. Lack of access to documentation was one of the reasons for delays in organising the mission of the TE consultant to the KSA.

A case in point is the project extension. There was insufficient reporting of results from the initial years of the project that would justify the already given extension of the project. Also, the available PB meeting minutes do not contain any records of discussion on this subject and approval of the extension.

¹⁶ RFQ-SAU-21-009

Under the normal NIM implementation with UNDP support, the UNDP CO assists the Government with identification and recruitment of experts for a project. There were consultants appointed by the implementing ministry and thus bypassing the UNDP CO. Lack of transparency on the appointment of consultants and on their reporting did not ensure efficient and accountable administration of the consultants' contracts and reporting by the UNDP CO.

4.5. Adaptive management

This section describes significant changes to the design of the Project during implementation and analyses adoption of the changes as well as their implications on the original project results.

As already mentioned above, there were virtually no substantive activities in the Project in 2020 due to Covid-19 outbreak and implementation factually started in early 2021 with procurement of RAM chips required for implementation of the Saudi Building Code (details described above) and recruitment of international consulting companies for various tasks.

A major case of adaptive management resulted from discussions with the Electricity Sector Policies General Directorate (ESPGD) within the DoEA that highlighted the demand for support for operationalisation of the Technology and Innovation Department (TID). The rationale for the change was to re-focus the project on few key workstreams in the situation when a sizeable part of the project funds had already been programmed.

The work started with preparation of a Project Refresh document that was designed to deliver 8 Work Packages (WP) linked to the original project outputs and aimed at bolstering the project with a more proactive support to implementation of the Deputyship's initiatives and plans and to oversight of future strategic objectives of the DoEA.

The relation of the newly designed WPs to the original project outputs is presented on Figure 2 below.

Figure 2: Project Refresh - links of the original outputs to the new workstreams



Following further discussions of the Project Refresh Approach with the DoEA that included visit of the UNDP RTA in March 2023, the number of workstreams was further reduced as follows:

- 1. Development of the Technology and Innovation Department (TID);
- 2. Development of an internal benchmarking capability;
- 3. Mainstreaming of the UN SDGs within the DoEA activities; and
- 4. Development of training and capacity building

The redesigned project prepared in early 2023 focuses on the first two points, namely on definition of areas for improving the TID performance on grounds of benchmarking against international best practices with the aim to help the TID to identify opportunities for pursuing existing and new technologies and innovative practices.

The SDG mainstreaming component was included on request of the UNDP CO. The training and capacity building workstream was finally left out of the revamped project as this topic had been taken for implementation under a parallel project implemented by MoEn.

As a matter of fact, there was no substantive revision of the original PRF and there are no written records of discussion and approval of the Project Refresh by the Project Board.

4.6. Project finance

Analysis of the financial aspects of the project is based on the information sourced from the annual UNDP Combined Delivery Reports (CDRs) for the years 2020 - 2022 and the 2023 CDR up to 17 October 2023. This analysis aims at assessment of project financial delivery by years and by products, as well as of the share of the project management expenditures in the total budget and expenditures.

Due to the fact that expenditures in the UNDP CDRs were recorded cumulatively for all outputs in given calendar year, the evaluator was not able to correlate actual expenditures to individual project outputs. Distinction was possible only for programme management costs incurred during the total period of project implementation

The total budget approved for this project was US\$ 16,000,000. Table 4.1 below displays the breakdown of expenditures by the years of the project implementation period.

	Budget (US\$)	Expenditures (US\$)					%
Project Component		2020	2021	2022	2023	2020-2023	
Outputs 1-6	14,900,280	1,344,643.94	2,908,703.76	2,830,178.55	2,945,405.02	10,028,931.27	67.31
Project Management ¹⁷	1,099,720	53,785.76	345,299.15	105,735.11	162,913.69	667,733.71	60.72
Grand Total	16,000,000	1,398,429.70	3,254,002.91	2,935,913.66	3,108,318.71	10,696,664.98	66.85

Table 4.1: Actual expenditures by years of implementation (as of 17 October 2023)

¹⁷ Project Management includes direct project costs, management support, as well as audit and evaluation.
Data in Table 4.1 shows that at the TE the total realised programmatic expenditure was 10,028,931.27 US\$, that is 67.31% of the total budget for programmatic expenditures, while the cumulative realised expenditures for project management reached 667,733.71 US\$ (60.72%). The total realised expenditures for the project reached US\$ 10,696,664.98 (66.85%).

Table 4.2 shows dynamics of implementation over the years as ratios of the expenditures for the programmatic and management components against the total budgeted amounts.

	2020-2023	2020	2021	2022	2023
All Outputs	14,900,280	1,344,643.94	2,908,703.76	2,830,178.55	2,945,405.02
Implementation rate	67.31%	9.02%	19.52%	18.99%	19.77%
Project Management	1,099,720.00	53,785.76	345,299.15	105,735.11	162,913.69
Implementation rate	60.72%	4.89%	31.40%	9.61%	14.81%

Table 4.2: Implementation rates by years of the project

Data in Table 4.2 shows that after the year 2020 affected by Covid-19 restrictions, the implementation rates in the following years reached relatively even levels of implementation of the programmatic component. The total implementation rate of the programmatic component as of October 2023 reached 67,31%. The total implementation rate of the project management component reached 60,72%.

The financing of the activities in the first year of implementation was almost entirely directed for major contracts with international consulting companies.

4.7. Partnership arrangements

Section IV of the Project Document under sub-heading "Partnerships" provides analysis of the project stakeholders at the project design. Although the analysis contains the expected roles and interests of individual stakeholders in the project, the signed ProDoc does not provide any indication to what extent consultations were held with the listed stakeholders at the project inception and does not provide any more concrete details of the envisaged partnership arrangements.

The principal partnership established through this project is the partnership between the UNDP and the DoEA/MoEn. However, the main substance of this partnership in the current project was support for provision of technical assistance through identification of technical experts. Therefore, the UNDP's role as the partner was almost exclusively reactive to the requests from the implementing ministry that at the same time provides 100% funding for the project. Lack of access to external funding limits ability of UNDP to pursue its own agendas, particularly in cross-cutting areas related to the UNDP programmatic mandate.

4.8. Project reporting and knowledge management

The UNDP CO provided overall programmatic, administrative, and financial oversight of the project progress in line with the common UNDP procedures and the Agreement between UNDP and the Government on provision of project support services.

As described in the section on monitoring & evaluation, there was insufficient focus on achievement of the results defined in the signed Project Document. Apart from the challenges experienced by the NPM and the CTAs for effective oversight of consultants engaged in the project, the UNDP CO also did not thoroughly exercised its own oversight function for management of consultants recruited through the UNDP system. Information on contracts with consulting companies and expert individuals and on deliverables from the contracts was not readily available for the TE, neither from the NPM nor from the UNDP CO.

Unsatisfactory maintenance of project documentation, in particular technical studies and reports, translated into insufficient reporting on completed project activities and achieved results. This can be illustrated by the missing 2022 APR that could not be located by the NPM and UNDP CO and was therefore not available for the TE. Weak reporting on the project achievements is directly related to deficiencies in the project governance and oversight.

Poor management of the project deliverables is to a great extent caused by confidentiality of technical reports and studies produced by the project. It is claimed that some reports from the completed studies may contain sensitive and/or confidential data and for that reason the Ministry prefers not to share them even with outside parties. However, no studies at all are accessible to the NPM, the CTAs and the UNDP CO and the latter thus does not have any project deliverables on their files despite the fact that there is no specification which studies are considered confidential.

According to the information from the interviews, the evaluator established that no special confidentiality or non-disclosure agreement had been signed between UNDP and the Implementing Partner. Consequently, there appears to be no reason why access to the technical studies and reports from the project could not be provided to selected project stakeholders in the implementing ministry, such as the PMU, as well as outside, such as the UNDP CO and evaluation consultants.

Absence of more detailed information on deliverables from various consulting assignments together with vague formulation of the PRF output indicators and related targets hindered proper assessment of the implementation effectiveness and progress towards impact.

In general, UNDP's ability to find and recruit quality international expertise is regarded as its strong comparative advantage for the beneficiary governments. However, interviews showed that quality and timeliness of the expert recruitment process was not satisfactory and up to the expectations of the Implementing Partner. Several interviewed officials of MoEn claimed that search for technical experts in UNDP databases provided insufficient and inconclusive information and the length of the expert identification and effectiveness of the recruitment process was below par. Similar claims were made regarding UNDP-led procurement of equipment and goods with reference to the protracted procurement of the RAM chips discussed elsewhere.

At the start of the project, delays in international expertise recruitment were partially caused by the Covid-19 restrictions when some experts identified in the UNDP databases were not ready for even short-term placements in the country. Another factor that hindered recruitment of foreign experts was the current rigid and complicated procedure for obtaining entry visa for

work of foreign nationals in the KSA that calls for statements from health authorities and police in the applicant's home countries as well as for a certified and notarized copy of the applicant's university degree/diplomas to be authenticated by the KSA Cultural Mission. The current policy on entry visa for work causes delays in recruitment of international expertise for UNDP projects.

Apart from the above issues, implementation of the project was to some extent affected also by changes in the UNDP team and institutional transformation in the implementing ministry. The latter also negatively affected collection of data for the TE from the first two years of the project implementation.

5. Findings – project results

This section presents a summary of the achievement of results against the end-of-project target values of the PRF indicators for individual outputs in the original PRF considering the adaptive management changes during the implementation. Wherever relevant, the reasons for non-attainment of the target values of the indicators have also been provided. In addition, assessment of progress in implementation of the redesigned project is provided at the end of the section.

5.1. Attainment of results - original project outputs

This section provides summary of the project achievements in relation to the Project Results Framework in the signed Project Document. Due to the combined effect of vague formulation of the project outputs, indicators and targets, lack of information on technical studies and report produced, as well as lack of use of the PRF as a tool for monitoring the progress towards results, the TE faced challenges in attribution of the actual project deliverables to the planned project outputs.

Table 5.1 provides summary of achievements under Output 1.

Indicator	EOP Target	Status at TE
1.1: Number of policies and strategies of the electricity sector in the KSA	9	Study "Power Sector Policy Landscape" Document "Technology & Innovation Strategy in Power Sector"
1.2: Progress to development of the long-term plan of electricity sector	100%	No deliverables
1.3: Progress in follow up to the implementation of the long-term plan of electricity sector	100%	No deliverables
1.4: Progress in the review of the electricity sector restructuring plan, its modification and development it in the light of approved policies, and in the follow up the implementation of the tasks pertaining to Deputyship	100%	No deliverables
1.5: Progress in the determination of the optimal energy mix for electricity production in the KSA from an economic perspective	100%	Updated the energy mix model using the latest programs specialized in simulating the expansion of the generation system 6 technical studies of generation projects and their impact on the future energy mix
1.6: Progress in evaluation of the current status of the electricity sector, and in analysis technical and financial data, and extraction of conclusions and recommendations	100% Conclusions and recommendations	 6 studies regarding the impact of renewable energy and energy storage technologies 2 studies regarding international connectivity 3 studies regarding the impact of transportation projects on the energy mix 2 studies regarding the impact of liquid fuel displacement
1.7: Progress in preparation of a long-term programme in coordination with the relevant authorities for support of the national supporting industries in the electricity sector, localization of modern technology, increase local content and ensure its implementation	100%	No deliverables
1.8: Progress in preparation of integrated work plans and the required mechanisms to oversee the implementation of approved policies and strategies by licensees	100% Integrated workplans and mechanisms	No deliverables
1.9: Progress in support through preparing, documenting, developing databases, statistical data and technical information relevant to the electricity sector, and in conducting the necessary surveys	100% Databases and surveys	No deliverables
1.10: Number of developed and updated key performance indicators (KPIs) and standards for measuring the performance of the electricity sector	5	No deliverables
1.11: Progress in provision of advisory services to the Deputyship to revise, develop and amend the electricity sector restructure plan based on approved policies to achieve intended objectives, and oversee plan's implementation after its adoption with regard to the ministry's tasks	100%	No deliverables
1.12: Progress in provision of support for supervision of licensed entities on the application of policies and action plans for companies engaged in the electricity sector	100%	No deliverables
1.13: Progress in provision of advisory services for technical and financial data analysis and suggested recommendations	100%	Battery Charging Tool Battery Storage Sizing Tool_Manual Scenario Assessment Tool + User Manual Levelised Cost of Electricity (LCOE) Calculator

Table 5.1: Attainment of results – Output 1

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In the 1st quarter of 2022 UNDP conducted a procurement event to engage consultants for the provision of advisory support on technical and policy matters related to power sector policies, strategies, initiatives, and trends for the Ministry of Energy. The tender was published on 10

January 2022. At the closure date 27 January 2022, UNDP received proposals from 4 companies. Following detailed technical and economic evaluation, a 12-month contract was awarded to the KSA branch of the international consulting company Strategy& in April 2022.

Reportedly, the contract with Strategy& produced a number of technical studies in the following technical areas:

- Power Sector Policy Landscape
- Power Sector Security and Resilience
- Technology and innovation strategy
- Transitions in the power sector
- Economic & Financial Assessment
- Reporting of Planning Scenarios and Studies
- Long-term planning report
- Energy Mix in neighbouring countries
- Technical support to PSI team on assigned tasks

The data on status at TE in Table 5.1 is based on self-reporting by the National Project Manager and presentation of achievements by the UNDP RTA. However, due to the confidentiality of the deliverables from the consultancy contract, neither the NPM or UNDP CO had access to the documents produced and therefore the TE consultant could not review even the executive summaries of the documents and get thus some information on the contents of the studies.

As a result of the Project Refresh, the scope of the revised project has focused on few key activities and therefore has not achieved all original targets under Output 1.

Table 5.2 provides summary of achievements under Output 2.

Output 2: The technical studies and consultations related to the electricity sector prepared and conducted			
Indicator	EOP Target	Status at TE	
2.1: Progress in support through revising and evaluating the existing policies and legislation related to electricity sector	100%	Power Sector Policy Landscape Report Power Sector Policy Development Approach Power Sector Policy Development Example	
2.2 Progress in support to formulation and development of policies, legislation and regulations that reduce the barriers and enhance potential opportunities for investments and engagement in the electricity sub-sector	100%	Power Sector Policy Review Approach Power Sector Policy Development Templates Power Sector Policy Landscape Use Cases Power Sector Policy Impact Assessment Tools Power Sector Policy Landscape Key Enablers	
2.3: Progress in development of mechanism and methodology of research and development	100%	No deliverables	
2.4: Progress in identification of priorities and objectives of national transformation initiatives for the electricity sector, proposal of new initiatives, follow up and implementation	100% new initiatives and implementation	No deliverables	
2.5: Number of studies, preparation of scope of works, and evaluation of studies related to the electricity sector	6	2 technical studies on the Kingdom's electrical transmission grid 28 technical/economic studies to deliver electrical service to remote villages areas in the most efficient and environmentally friendly	
2.6: Number of technical advice and of studies related to the electricity sector	6	 manner 4 technical/economic studies linking the non-electrified border crossings Participation in 2 studies of the impact of integrating electrical capacities produced from renewable sources into the Kingdom's grid Participation in the study of demand management for loads Operational plan of the Deputyship of Electricity Affairs for 2022 Participation in the updates of the Saudi Grid Code Participation in 2 feasibility studies for international electrical interconnection projects for KSA Participation in the preparation of international cooperation plans for the Kingdom 3 linkage studies for the major subscribers to the electrical transmission grid 	
2.7: Progress in support to the application of the Saudi Building Code in the field of electrical works which fall within the jurisdiction of the Ministry of Energy	100%	Electrical diagram/Plan Review Record (PRR) Electrical Inspection Checklist Engagement of a consulting company for support the implementation of the Saudi Building Code	
2.8: Progress in support to the implementation of the project of changing electricity distribution voltage from (127/220) volts to the international voltage (230/400) volts	100%	Executive plan based on the project's work outputs Scope of the internal grid inspection works and the field inspection list Scope of communication with subscribers Global benchmarking study Framework for the project costs Workshops on the global studies and the cost analysis model	

Table 5.2: Attainment of results – Output 2

As above, the data on status at TE in Table 5.2 is based on self-reporting by the National Project Manager and presentation of achievements by the UNDP RTA. Due to the confidentiality of the deliverables, the TE consultant could not review any of the reported studies and get thus some information on the contents of the studies.

In January 2021, a contract was signed for delivery of consulting services for implementation support to the Saudi Building Codes by conducting an audit of energy efficiency schemes and electrical plans to ensure their compliance with the requirements of the Energy Efficiency Codes (SBC 601-602) and the Electrical Code (SBC 401). Transfer of the expertise and knowledge was ensured through participation of MoEn experts in the work of the international consultants.

The Saudi Building Code (SBC) was enacted as of 1 July 2022 by the Ministry of Municipal, Rural Affairs and Housing and relevant entities to achieve the set of standards and requirements and related executive regulations related to building and construction. SBC is a set of legal, administrative, and technical regulations and requirements that specify the minimum standards of construction for building in order to ensure public safety and health. The Code applies to all construction works in both public and private sectors, whether new buildings, including design, execution, operation, maintenance, and changes, or existing ones, including renovation and expansion works.

Another contract was signed with the international management consulting company DNV-GL¹⁸ that was required to independently verify implementation of the recommendations from an investigation report on interruptions in electricity delivery that had been completed shortly before the start of the current project. The same company was also awarded with a contract for implementation of the pilot Low-Voltage (LV) Changeover project (signed in March 2021) through technical and administrative support to MoEn and the Saudi Electricity Company (SEC) for execution and supervision of the pilot project to change the electricity distribution infrastructure from 220/127 V to the international level 400/230 V. The services also included identification of potential challenges during the execution period, finding solutions and proposal of a follow-up mechanism on the project implementation.

Table 5.3 provides summary of achievements under Output 3.

Output 3: Provide advisory services to support the implementation of awareness campaigns on the Deputyship's functions			
Indicator EOP Targe		Status at TE	
3.1: Progress in support to the implementation of awareness campaign to rationalize the consumption of electricity, in coordination with the Saudi Energy Efficiency Centre (SEEC)	100% Implementation of campaign and realize their targets	No deliverables	
3.2: Progress in support to the implementation of an awareness campaign for the project changing the voltage of the electricity distribution from (127/220) volts to the international voltage (230/400) volts, in coordination with the Saudi Electricity Company (SEC)	100% Implementation of campaign and realize their targets	Plan for awareness campaign for the low-voltage changeover project in cooperation with the Saudi Electricity Company	
3.3: Progress in support to the implementation of an awareness campaign to implement the electrical requirements of the Saudi Building Code, in coordination with the relevant authorities for implementing the code	100% Implementation of campaign and realize its targets	No deliverables	
3.4 Progress in support to awareness raising through design of country-wide campaigns to enhance knowledge on demand-side energy management including public behaviour change and energy conservation in industry, transport, and residential sectors and particularly in high growth energy-intensive industries	100% Implementation of campaign and realize its targets	No deliverables	

Table 5.3: Attainment of results – Output 3

¹⁸ Later in the year changed the name to DNV.

Support the launch of the awareness campaign for the project on low-voltage changeover project was included in the annual work plan for 2022. This activity was planned in cooperation with the Saudi Electricity Company. As the Annual Progress Report for 2022 was not made available, the TE could not establish to what extent the activity was completed and the related target achieved.

Table 5.4 provides summary of achievements under Output 4.

Output 4: Administrative and technical support to the Deputyship's departments			
Indicator	EOP Target	Status at TE	
4.1: Progress in support to preparing and developing regulatory policies, rules, instructions, procedures and time programs related to the works of the Deputyship	100%		
4.2: Progress in support to preparing and developing the guideline of work procedures of the Deputyship's activities and functions, and prepare a job description manual for jobs	100%	Technical and implementation protocols including internal grid inspection, benchmarks, communication with subscribers, and determination of frameworks for costs	
4.3: Progress in support to preparing and developing standards to measure the performance of the Deputyship's activities	100%	No result	
4.4: Progress in support to preparing a plan for the organization and preservation of records, data and statistics relating to the Deputyship's activities, and to take advantage of the technical possibilities to deal with them	100%	No result	
4.5: Progress in support to organize conferences, seminars and workshops organized by the Deputyship	100%		
4.6: Progress in development of tools for enabling the Deputyship respond adequately to electricity sector challenges, and identifying opportunities for joint partner projects and activities	100% Tools developed	 3 software engineering packages Demand/load forecasting software Power generation expansion planning software High-performance transmission planning and analysis software 	
4.7: Progress in administrative and technical support to the Deputyship through developing management of policies and procedures, timeframes, terms of reference, performance management standards, job description guide and record keeping system	100% Management programmes	No result	

Table 5.4: Attainment of results - Output 4

The Project supported the DoEA for development of the necessary technical and implementation protocols including internal grid inspection, benchmarks, communication with subscribers, and determination of frameworks for costs.

The technical capacities of the DoAE has been strengthened through procurement of three software engineering packages as follows:

<u>Demand/load forecasting software (by SAS)</u> helps to develop a future electric load forecast based on assessment of the availability of future energy resources for electricity generation and foreseeable trends in technical and economic development.

<u>Power generation expansion planning software</u> (PLEXOS) helps to evaluate key economic and technical characteristics of the existing system of generating units that are considered for system expansion and determine an optimal pattern of power generation system expansion to meet the future electricity requirements.

<u>High-performance transmission planning and analysis software</u> (PSSE software package by Siemens) includes a set of analytical tools that allow for simulation, prediction, design and planning of transmission system behaviour.

In all cases, the project supported obtaining of software licenses, installation, on-the-job training, and technical support.

The new workstream of the redesigned project on benchmarking/best practices addresses several original activities under this output (see section 5.2 below).

Table 5.5 provides summary of achievements under Output 5.

Output 5: Cooperation with national and international bodies and authorities			
Indicator EOP Target		Status at TE	
5.1: Progress in proposal for areas of cooperation, memorandums of understanding and joint agreements with national and international Parties and institutions, follow up on their implementation, evaluate them and propose new areas and initiatives for cooperation	100% Areas of cooperation, MoU and joint agreements with implementation	Proposals for Benchmarking study tour to an OECD country Visit of IEA World Energy Outlook (WEO) offices in Paris Regional benchmarking consultation in energy data management	
5.2: Progress in development of mechanism and methodology of communication between the Deputyship and related parties and companies operating in the electricity sector	100% mechanism and methodology of communication	No deliverable	
5.3: Progress in support to innovations and knowledge sharing through cooperation, exchange visits, technology transfer, joint actions, conferences, newsletters, white papers and websites between Governments and local and international industry	100% innovations	Benchmarking study tour to an OECD country (under preparation) Visit of IEA World Energy Outlook (WEO) offices in Paris (under preparation)	
5.4: Progress in strengthening capacity of the Deputyship for forging effective partnerships, and develop local and global cooperation with industry	100% effective partnerships and cooperation	Regional benchmarking consultation in energy data management with the Kuwait Institute of Science and Research	
5.5: Progress in formalization of partnership with selected local, regional and international centre	100%	No deliverable	
5.6: Progress in support to establish an innovative awareness and partnership framework aims to enhance the knowledge, expertise, technology, and investments in electricity sector	100% innovative awareness and partnership framework	No deliverable	

Table 5.5: Attainment of results – Output 5

The new workstream of the redesigned project on benchmarking/best practices addresses several original activities under this output (see section 5.2 below).

Table 5.6 provides summary of achievements under Output 6.

Output 6: Capacity of the Deputyship strengthened			
Indicator	EOP Target	Status at TE	
6.1: Progress in identification of human resources existing capacity gaps and institutional capacity within the Deputyship (staffing and operations) and assessment of capacity needs	100% provision of competencies and expertise	See section 5.2	
6.2: Progress in provision to the Deputyship with needed competencies and expertise (experts / consultants - engineers - administrative employees) to implement programs and training courses, and identify appropriate devices and tools	100% Identification and assessment of capacity needs	See section 5.2	
6.3: Progress in provision of technical assistance to build national capacities and competencies by organizing study tours and training programs for the Deputyship's staff, including leadership and executive courses, and specialized technical and administrative courses	100%	See section 5.2	
6.4: Progress in upport to raise productivity the Deputyship's employees, and enhance the capacity of the Deputyship to optimize collective outputs	100% Realized productivity targets	See section 5.2	
6.5: Progress in technical support for the development of the Deputyship's departments/functions	100% Development of Deputyship's departments	See section 5.2	
6.6: Progress in strengthening the capacity of the Deputyship and its partners in implement initiatives, action plans and work programs related to electricity sector through building effective leadership	100% Realize target of building effective leadership	See section 5.2	

Table 5.6: Attainment of	of results – Output 6
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This output has been addressed under the workstreams 1 and 2 of the redesigned project (see section 5.2 below.

The signed Project Document expects the project to contribute to the CPD Outcome 3.1 "Improved management of non-oil natural resources and preservation of culture and heritage". The cited outcome was to be achieved by collective contribution of all UNDP projects from the environment and energy portfolio.

Formulation of the above CPD outcome statement is vague and does not allow for measurement of the collective contribution of the UNDP project portfolio and therefore it is not possible to establish specific contribution of the current project to the CPD outcome.

5.2. Project refresh

The purpose of the redesigned Project is to support the operationalisation of the Technology and Innovation Department (TID) in DoEA. The project, based on the document "TID Strategy Report" that was prepared by Strategy& in the initial phase of the project, focuses on support for development of an implementation plan for a 3-year TID strategy backed by findings from an international benchmarking exercise and complemented by an organisational development plan. Additionally, mainstreaming the Sustainable Development Goals (SDGs) into the TID and DoEA can be programmed for the final quarter of 2023 upon specific approval by the General Manager of the Planning, Strategy and Policies General Directorate (PSPGD).

The Inception Report for the redesigned project contains a simplified results framework that comprises activities, outputs and outcomes but does not specify performance indicators and their target values for measurement of progress towards their achievement.

Table 5.7 below summarizes information on achievements under the Workstream 1 of the redesigned project.

Workstream 1: TID strategy preparation and implementation			
Activity	Deliverable	Status at TE	
Assessment of current state and	TID strategic issues and mandate	Inception report	
development of implementation		Stakeholder map	
methodology		Readiness assessment	
Formulation of 3-year TID strategic	Vision of successful TID in 2026	TID strategy map	
objectives		Stakeholder workshop 1	
		TID Vision Statement for 2026	
Prioritisation and definition of	Short- and mid-term objectives and	Results chain map	
strategic initiatives	outcomes	Stakeholder workshop 2 (priority goals, activities	
	12-18- month priority initiatives	and outcomes	
Development of TID strategy	Risks, assumptions, issues, and	Stakeholder workshop 3 (strategic initiatives,	
management system	dependencies	outcomes, KPI reference sheets)	
	KPIs, baselines, targets, and		
	measurement methods		
Preparation for implementation	Reporting and performance management	Delivery action and performance management	
	tools	plans, scorecards	
Implementation of adaptive strategy Tools for measurement, evaluation of		Stakeholder workshop 5 (transition plan, agendas	
success and learning		for periodic progress meetings)	
		Implementation Plan for TID strategy	

Table 5.7: Attainment of results - Workstream 1

Between May and August 2023, a series of 5 TID stakeholder workshops was organised for implementation of a five-step process methodology that involved the TID staff and their key stakeholder at the PSPGD.

Under the guidance of the UNDP advisor, the TID produced a roadmap for three years (2024-2026) and defined operational processes for planning, coordination, and risk management. A graphic representation of the causal links among the strategic initiatives and outcomes was prepared for demonstration of TID's hierarchy of priority issues and their interdependencies. The TID team also agreed on sharing responsibilities for data collection, tracking and reporting and developed a plan for monitoring implementation of the strategy. The plan comprises periodical progress reviews with mutual accountabilities and collective decision making.

The work under the Workstream 1 is going to be replicated as another department in the Ministry, namely the Renewable Energy Technology Department, has requested similar assistance from the project.

Table 5.8 below summarizes information on achievements under the Workstream 2 of the redesigned project.

Workstream 2: Best practices for technology innovation ¹⁹			
Activity	Deliverable	Status at TE	
Assessment of current state and		Inception report	
development of implementation		Stakeholder workshop	
methodology		Readiness assessment	
Formulation of benchmarking	Scope and methodology	Concept note on scope and methodology	
approach, technical priorities, and key		Proposal for a study tour to OECD countries and	
partnerships		IEA	
Application of targeted set of research	Organisational design and plan for the	Interim status report	
questions and templates for data	benchmarking exercise	Agreed priorities od T&I	
collection		Final report on the BM development plan	
Getting information on the practices of	Multi-country study visit	2-week study visit to UK, France and Spain	
best-in-class countries		Study visit report	

The work under this component aims to establish in-house capability in the TID establish TID capability to carry out international benchmarking exercises on any subject of interest through observing the practices in best-in-class countries. In line with the UNDP's strategy focusing on national capacity building, the project provides short term UNDP advisor for work along the TID staff through mentoring, training, and on-the-job guidance.

A study tour to visit relevant organisations in the UK, France and Spain was organized on 15-28 October 2023 for TID staff accompanied by the project CTA and the UNDP short-term advisor to through observing the practices of best-in-class countries as well as prioritization processes for technology and innovation.

Following the 2-week study visit, a report on best practices is expected to be compiled as the final deliverable. The report will be informed by the results of study visit. Using a specific methodology for prioritization of technologies to be assessed, the report will develop few international case studies for demonstration of the ways of deployment of the highest-impact technologies and their impact.

The redesigned project has provided vital assistance to TID as a relatively new department with a fresh mandate derived from the Electricity Law 2020 and associated regulations. Through implementation of this component, the project helps to develop TID technical and organisational capabilities and assists explicit translation of the TID mandate into specific measurable goals with clearly defined outcomes and deliverables. Clear definition of the mandate is essential to ensure that TID can assume responsibilities and accountability in the DoEA for promoting new technology utilisation and guide the implementation of related research and development according to the Authority's priorities.

Significance of the redesigned project is obvious in line with recognition of the envisaged TID role for advancing innovation and promotion of new technologies in the power sector. It is expected that as a result of the strategy implementation, the TID will assume a lead role on technological innovation in the KSA power sector through enhanced compliance and effective alignment with relevant MoEn strategies and partners.

¹⁹ The original title of the Workstream 2 was Technology and Innovation Benchmarking

At the inception of the redesigned project, the third workstream of the redesigned project, according to some reports dedicated to SDG mainstreaming, was postponed until the final quarter of 2023 upon specific approval by the General Manager of the DoEA Electricity Sector Policies General Directorate (ESPGD. As of November 2023, there was no information available on the contents of this workstream (i.e. planned activities and deliverables) and no evidence of any concrete steps towards elaboration of a workplan for start of implementation.

5.3. Effectiveness

According to the signed Project Document, the goal of the project is to provide technical and advisory support to the DoEA to improve its efficiency in implementing its tasks, initiatives, and plans, and overseeing achievement of its future strategic objectives through a six-pronged strategy comprising the following 6 outputs:

- Output 1: Prepare and develop policies, strategies, and plans related to electricity sector, and supervise their implementation after the adoption;
- Output 2: Prepare and conduct the technical studies and consultations related to the electricity sector;
- Output 3: Provide advisory services to support the implementation of awareness campaigns on the Deputyship's functions;
- Output 4: Provide the administrative and technical support to the Deputyship's departments;
- Output 5: Support the cooperation with national and international entities and authorities;
- Output 6: Strengthen the capacity of the Deputyship.

As already discussed in the section on relevance, the project design was too ambitious with regard to the number of themes and areas addressed by the project strategy and its expected accomplishments. The high number of project outputs and their relatively wide focus constitute a sort of a wish list of the Ministry and appears impressive in concept. However, the initial two years of the project implementation proved that taking on such a wide focus in one go was not possible.

With regard to the original project outputs, the biggest achievement of the project appears to be preparation of studies and consultations related to the electricity sector (Output 2). Incredible number (almost 60) studies were reportedly completed on topics relevant for the electricity sector, such as renewable energy technology mix, energy storage, interconnectivity, impact on transportation, liquid fuel displacement, as well as impact of existing generation projects and their impacts on future energy mix. As discussed in section 5.1 above, however, the TE could not get any detailed information on the contents of the studies and their usefulness for technical capacity building.

The moist tangible results were achieved under Output 1 and include a detailed execution plan for implementation of the project on changing the voltage of electricity distribution from 127/220 to international standard voltage of 220/400, support for development of energy audit plans and assurance of their compliance with the Saudi Building Code, as well as development of the TID strategy and the related implementation plan under the redesigned project.

No results were reported under Output 3 on awareness raising. The project contributed under Output 4 through provision of technical support for demand and transmission planning hardware and software installation, training, and personnel recruitment. With regard to Output 5, the project made limited contribution under the international benchmarking/best practices component of the redesigned project. Output 6 has been addressed under the redesigned project.

Further to the confidentiality issue discussed in the section on UNDP/Implementing Partner execution, the Evaluator was unable to get any of the project technical and economic studies for review and even the list of all studies funded by the project was not available for the TE. When asked about the project achievements, the interviewed officials of MoEn did not explicitly mention any of the numerous studies with the exception of the report on the TID strategy. As a consequence of the above, it was not possible to assess the quality and usefulness of the studies with regard to the original project outputs and establish to what extent these studies contributed to strengthening the capacity of the Ministry.

Based on the above summary, the overall effectiveness of the project implementation is rated as Moderately Satisfactory. It has to be reemphasized that this rating is a result of the combined effect of various issues in the project formulation, implementation and coordination between UNDP CO and the Implementing Partner.

5.4. Efficiency

Assessment of efficiency focuses on timeliness of the project implementation and operational efficiency such as allocation of human resources and procurement of equipment. The total project implementation period until the TE is 48 months instead of the planned 36 months. Due to the 12-month extension required to offset the time lost in the initial phase of the project due to Covid-19 restrictions. The project budget allocated for 3 years was consumed to about 67% and the allocated cost of project management to about 61%.

One of the main issues of efficiency was raised in the interviews with MoEn officials that expressed concerns with regard to identification and recruitment of highly specialized international experts, required to be of the highest international standards and at the same time acquainted with the specificities of the national environment. In particular, it was mentioned that the current UNDP information resources did not supply sufficient information for facilitation of timely and effective identification and recruitment of foreign expertise. Other issue affecting efficiency highlighted by the Implementing Partner included the tendering procedure for IT equipment.

On the other hand, UNDP stressed that efficiency of implementation was affected by the delays with regard to obtaining entry visa for work of international experts. Some activities and missions had to be postponed due to the cumbersome visa procedure that includes obtaining certificates from local police and health authorities in experts' home countries and certification of education certificates by KSA cultural authorities. In case of the two advisors on the TID strategy and best practices, delays were also caused by the UNDP contract modality that did not allow simple extension of contracts.

Strained communication between the UNDP CO and MoEn was also reported as contribution to the delays, particularly in the case of procurement of RAM chips for extension of the computer servers at the Ministry.

Last but not least, efficiency was also affected by disruptions of continuity. On the side of the project team, the main issues were disruptions in the position of the project CTA, without functional CTA presence in the country for about half of the total project implementation period, and the NPM out of the country for the last 11 months (since January 2023). On the side of MoEn, there were several changes in the structure of the Ministry during the project implementation that affected communication between UNDP and MoEn. Moreover, arrival of the new Deputy Minister in 2022 brought about changes in the style of leadership that impacted elaboration of the redesigned project.

Based on the above, efficiency of the project implementation is rated Moderately Satisfactory.

5.5. Country ownership

There is enough evidence of a strong commitment to and ownership of the project by the Government, represented by the DoEA. The project was formulated in close coordination and consultation with several government agencies. Saudi Arabia is the Net Contribution Country to UNDP and therefore the national ownership of the project is considered very strong.

5.6. Gender mainstreaming, environmental and social standards

The project was assigned a gender marker 1²⁰ which means the project is expected to contribute in some way to gender equality and women's empowerment, but not significantly. There are no gender-related results at the level of outputs in the original PRF and the reformulated project does not have any focus on gender issues either. Consequently, gender mainstreaming was not addressed in the initial phase of the project.

Nevertheless, the evaluation acknowledged limited attention to gender issues in the second phase of the re-designed project implementation when one of the two technical staff of the TID directly benefiting from the capacity building activities is a female. By this token, the project support is fully aligned with the Saudi Vision 2030 and the National Transformation Programme 2020 that call for expanding women's access to education and the workforce. Given the fact that strengthening of TID is considered critical for positioning of the latter as the lead authority on technology innovation, this could also be an important pathway towards increased participation of qualified women in influential technical positions in the Government.

At the design phase, the project was subject to the standard Social and Environmental Screening Procedure (SESP) in line with the UNDP Social and Environmental Standards. According to Annex [1] of the Project Document that contains summary of the SESP with the attached Social and Environmental Screening Checklist, no social and environmental risks were identified.

²⁰ Coding Definitions for Gender Equality Markers: Guidance Note, UN CEB, 2018

Consequently, no management plans to mitigate social and environmental risks were required to be developed during the project implementation.

5.7. Sustainability

Financial

Financial support to the project has been driven by the strong commitment of the KSA Government to strengthen the DoEA and more recently its Technology Innovation Department. There are good prospects of financial sustainability as the project triggers new initiatives and more resources from the Government. At the time of the TE, work was ongoing on preparation of a project proposal for a multi-year initiative on with MoEn as the key partner. The new project will address 7 different energy sectors in a 6-year period (2024-2030) with tentative budget about 100 million US\$. Therefore, there is no risk to financial sustainability of the current project's results.

Institutional framework and governance

The technical support from the project strengthened the existing institutional and human resource capacities and helped to increase synergies among different units of the DoEA. The approach of the re-designed project on TID strategy articulation and implementation as well as recent request to replicate this work for the New and Emerging Technology Department (NET) proves the strong commitment of the Government for creation of a culture of innovation including investment in research and development and establishment of supportive policies.

In particular, the fact that the project stakeholders emphasize more efficient planning, coordination, and risk management as key elements of the TID strategy reflects the commitment to achieve a sustainable technical capacity of TID and its future positioning as the lead authority on technology innovation, strategies, and policies in the national power sector. Therefore, the legal frameworks, policies, and governance structures and processes within which the project operates do not pose any risk to sustainability of the project achievements.

Socio-economic and political

The socio-economic and political stability of the KSA is one of the external conditions required for support to the implementation of the project. Therefore, there are no socio-economic risks to continuity of the project achievements.

Environmental

Guided by the Vision 2030, the energy transition in the KSA has gained significant momentum. Through capacity building for better planning of electricity demand and load forecasting, more effective power generation expansion planning, improved electricity transmission, as well as through support to measures to increase efficiency in the building sector, this project has contributed to the commitment of the KSA Government towards environmental sustainability of the energy transition process.

6. Conclusions and recommendations

This section contains conclusions as judgements based on the findings provided in the previous section. A short summary of relevant finding precedes each conclusion that is followed by a recommendation as a corrective action proposed to be taken by relevant project stakeholders to address the deficiencies identified in the findings and conclusions.

6.1. Overall conclusions

The TE concludes that the project design and strategy are aligned with the national priorities expressed in Vision 2030, with the commitments of the KSA to the UNFCCC, as well as with the priorities of the UNDP CPD and UN Common Country Strategic Framework (UNCCSF). Apart from direct contribution to the SDG 7, the project indirectly contributes to several SDGs (SDGs 8,9,11,12 and 13).

The TE concludes that the project formulation focussed exclusively on outputs. As a result of this approach, it is doubtful to what extent some outputs (e.g. numerous technical studies and reports produced) lead to the desired behavioural and policy changes such as improved capacities for analysis and decision-making of the project beneficiaries. At the same time, the narrow focus on outputs promoted organisational silo-type mentality as an inward-looking and self-contained attitude without encouraging wider participation in the project.

Moreover, the Project Results Framework was found overly ambitious with vague formulation of concrete elements of the project design, in particular the output/activity indicators and related targets. Such ambiguity impeded effective monitoring of progress towards planned results and hindered evaluation of project achievements.

From the start of implementation, the project faced challenges in alignment with the planned management arrangements. High turnover of CTAs and ambiguity about responsibility of the NPM contributed to insufficient monitoring and underreporting of progress towards the results planned in the signed Project Document. Moreover, there were some issues related to procurement of equipment and software. Despite wider stakeholder consultations during the project formulation, none of the stakeholders outside MoEn were involved in the project implementation.

With regard to effectiveness, the project supported implementation of the electricity part of the Saudi Building Code and assisted from start to completion execution of the low-voltage changeover project. Furthermore, through acquisition of 3 software packages, the project delivered the required technical assistance for long-term forecasting of electricity demand/load and planning of electricity generation and transmission.

In addition to the above, the project produced a number of technical studies and reports in areas such as energy strategies and policy, technology and innovation, financial and economic assessments, or energy mix and transitions. However, neither of the studies were accessible by the NPM and the UNDP CO due to their confidentiality. As these technical products were not available, the TE was unable to make any conclusion about their technical quality and impact on capacity building and operations of the recipient ministry.

Upon request of the Implementing Partner, the project was subject to a major redesign that focuses on support to a relatively small unit in the DoEA that is considered critical for future technology innovation in the Deputyship. At the time of the TE, there was significant advance in implementation of the redesigned project with regard to articulation of the strategy and identification of best practices for the strategy implementation. However, there was no progress with regard to the part of the redesigned project on SDG mainstreaming that had been introduced upon request of the UNDP CO.

As the project was assigned gender marker 1, gender mainstreaming was not addressed in the initial phase of the project. In the redesign phase, the project provided support to a female staff of the MoEn in the department that is deemed critical for future technology innovations. Such support is vital for further promotion of gender equality in the search for work opportunities and in related capacity building programmes.

The TE concludes that the project results are likely to be sustainable as it did not find any risks in the four aspects of sustainability.

Table 6.1 provides summary of the TE ratings of various aspects of the project.

1.Monitoring & Evaluation (M&E)	TE Rating
M&E plan: design at entry	Satisfactory (S)
M&E plan: implementation	Moderately Satisfactory (MS)
Overall quality of M&E	Moderately Satisfactory (MS)
2.Implementing Agency Implementation & Executing Agency Execution	TE Rating
Quality of UNDP Implementation/Oversight	Moderately Satisfactory (MS)
Quality of Implementing Partner Execution	Moderately Satisfactory (MS)
Overall quality implementation / execution	Moderately Satisfactory (MS)
3.Assessment of Outcomes	TE Rating
Relevance	Relevant (R)
Effectiveness	Moderately Satisfactory (MS)
Efficiency	Satisfactory (S)
Overall Project Outcome	Moderately Satisfactory (MS)
4.Sustainability	TE Rating
Institutional framework and governance	Likely (L)
Financial	Likely (L)
Socio-political	Likely (L)
Environmental	Likely (L)
Overall Likelihood of Sustainability	Likely (L)

Table 6.1: Summary of ratings of various TE criteria

6.2. Specific conclusions and recommendations

Recommendations to follow-up and/or reinforce the achieved project results

The approved closure date of the redesigned project is 31 December 2023. There is an on-going work on a new request to replicate the elaboration of a strategy for another MoEn department and implementation of the workstream on SDG mainstreaming has not started at all. Substantive part of the original project budget remains unprogrammed. A 6-month extension of the project will enable further assistance from the project to be directed at supervision for

start of implementation of the TID strategy under workstream 1 and facilitate comencent of the entire workstream on SDG mainstreaming.

Recommendation 1: MoEn in cooperation with the UNDP CO should consider approval for a 6-month extension of the project that will allow for completion of planned activities and deliver more tangible results.

Since January 2023, the current project National Project Manager has been out of the KSA and conducts his duties in an on-line modality. This is not a healthy situation for the day-to-day management of the project that should keep the project on track and ensure delivery of products of appropriate quality within agreed deadlines. As the NPM absence from the country is expected to further extend deep into 2024, it is highly desirable to have an in-person project manager for close following of the remaining project implementation and final reporting.

Recommendation 2: MoEn should consider appointment of an in-person National Project Manager for the remaining period of the extended project.

Since the beginning of the project, the NPM has not been entrusted with sufficient authority to exercise effective management of the project and ensure technical quality of the project deliverables. This is not in line with the quality standards of project management. Insufficient authority of the NPM caused ambiguity about reporting lines of technical experts and contributed to deficiencies in collection and maintenance of project-related documentation.

Recommendation 3: The UNDP CO should ensure that for the remaining part of the project implementation the National Project Manager in entrusted with sufficient authority according to the ToR contained in the signed Project Document and in line with the quality standards of project management.

Neither the NPM not the UNDP CO have the technical reports and studies delivered by the project. Moreover, some project progress reports are also missing. Good maintenance of project-related documentation is a necessary foundation for quality, traceability, and transparency of both individual reports and studies as well as of the complete project documentation.

Recommendation 4: MoEn in cooperation with the UNDP CO should ensure thorough collection, maintenance, and traceability of the entire project-related documentation.

Recommendations for improved design and monitoring of projects with MoEn

The Project Results Framework of the current project is composed of 6 outputs and total 44 indicators and related targets. Several activities (e.g. on preparation of policies and long-term plans for the sector) are overambitious for a project of this size. A vast majority (about 90%) of PRF indicators and related targets are vaguely formulated and do not comply with the SMART framework for quality indicators. Lack of reference of the progress reports to the PRF is a hindrance to effective monitoring of progress while inadequate formulation of the project outputs, targets and indicators impedes thorough evaluation of the project success.

The project progress reporting does not include systematic reference to the PRF indicators and targets and hence does not serve as a monitoring tool for the project implementing team.

Recommendation 5: In designing and implementing of future projects with MoEn, UNDP CO should invite a monitoring & evaluation expert to ensure the project results framework is realistic and its performance indicators and targets are in line with the SMART framework criteria. The CO should also ensure that the format of the project progress reports contains a tabular template for reporting progress with reference to PRF indicators and targets (similar to the template used for Annual Progress Reports in projects funded by GEF).

For the current project, UNDP has established partnership with the Directorate of Electricity Affairs at the Ministry of Energy. Although there were consultations in the formulation phase of the current project with an array of organisations and their respective expected roles were outlined in the signed Project Document, no agency outside MoEn was involved in the project implementation. Lack of wider participation in the project encourages a "silo-type" implementation model as the latter does not encourage horizontal coordination between various governmental agencies and does not promote internal coordination between individual departments in the project recipient Ministry. The "silo" model should be avoided as it constitutes a lost opportunity for establishment of inter- and intra-agency partnerships and prevents appropriate information sharing.

Recommendation 6: For preparation of future projects, UNDP CO in cooperation with MoEn should find a suitable formal or semi-formal mechanism for wider participation and involvement of other state agencies, academia, and the private sector. Example of such mechanism could be establishment of a Technical Advisory Committee.

Due to Saudi Arabia status as the Net Contributor Country to the UNDP, projects funded by the Government are dependent on a specific business model of project preparation in which UNDP mostly only reacts to the requirements expressed by the Government. Such approach leads to unrealistic project design and overreliance on priorities of the Government.

Recommendation 7: For future projects with MoEn, UNDP should embark on a more proactive approach in project formulation in order to strengthen responsiveness of the projects to UNDP priorities, in particular mainstreaming of SDGs and various cross-cutting issues.

Governance, management arrangements and quality assurance for implementation of the current project were not fully aligned with quality standards in project management. This compromised the ability of the National Project Manager to effectively execute his duties, created uncertainty with regard to reporting lines of short-term experts, and hindered efforts for consolidation of achieved results for proper monitoring and reporting on the project achievements.

Recommendation 8: UNDP CO should ensure strict adherence to governance and management arrangements specified at the inception of its projects with MoEn and make sure that agreed responsibilities, reporting lines and oversight duties are maintained for the entire duration of the projects.

Although no special non-disclosure agreement was signed between UNDP and MoEn for the current project, all technical deliverables were kept in the domain of the Ministry. Access to the documents was not provided to the NPM, the UNDP CO and the independent evaluator for the reason that reports and studies can contain confidential and/or sensitive data and information. This practice impedes proper assessment of technical quality and integrity of results by the project manager and is not conducive to independent evaluation of the project.

Recommendation 9: At inception of future projects, UNDP CO should agree about classification and ownership of all planned project outputs in order to enable systematic collection, storage, maintenance, and traceability of all project-related documentation and facilitate monitoring by the project team, quality assurance by the UNDP CO, and independent evaluation by external consultants.

Identification and recruitment of international technical experts, procurement of equipment caused delays in the project implementation and will require improvement for implementation of future projects with MoEn.

Recommendation 10: Based on experience from the current project, UNDP CO should thoroughly review the existing procedures for procurement of goods and expert services and identify factors that contributed to project implementation delays in order to optimise identification and recruitment of international technical expert services and procurement of equipment for MoEn projects.

Output 3 of the current project was designed to support the capacity building efforts through awareness raining activities planned in cooperation with organisations outside the main beneficiary ministry (e.g. Saudi Energy Efficiency Centre and Saudi Electrical Company). No such activities were reportedly conducted and thus a good opportunity was lost for wider participatory approach and for overcoming the "silo" modality of the project implementation.

Recommendation 11: For design of future projects with MoEn, UNDP CO should pay due attention to inclusion of awareness raising activities as an opportunity for promotion of wider participation of relevant stakeholders and general public.

Saudi women are important to the sustainable development of the country's human capital, and their empowerment is vital for the further progress of the country's transformation. The current project has provided support to a female staff in a department deemed critical for future technology innovations. UNDP should continue support to the Government in its efforts to increase female participation in the workforce.

Recommendation 12: In design and implementation of future projects with the Government, UNDP should support participation of qualified female technical experts in short term project assignments as well as ensure adequate representation of females in capacity building events.

6.3. Lessons learned and good /bad practices

Formulation of output indicators and their related targets in line with the SMART criteria is essential for use of the results framework as a project management tool for monitoring of implementation progress and paves way for a smooth evaluation of the project effectiveness.

Overly ambitious design and broad focus of the project resulted in production of a relatively high number of technical studies and reports with questionable usefulness. This approach raised expectations much higher than the actual ability to deliver. Adaptive management approach taken in the third year of the project and subsequent narrower focus of the project resulted in more tangible results with their usefulness confirmed by a request for replication of the intervention. This can be seen as a proof that realistic project design is key to success as it allows to start small and later expand the work through replication.

At the project design, several external project stakeholders were identified with their expected roles outlined in the signed Project Document. In reality of the project implementation, none of the identified external stakeholders were involved in the project. This fact suggests that mere identification of external stakeholders without a plan for their management throughout the project implementation does not guarantee external stakeholders' participation and involvement in the project.

Lack of access to project deliverables on grounds of presumptive confidentiality created challenges for management of the project in line with relevant international standards and posed as hindrance to evaluation of the project effectiveness. It is desirable to agree on confidentiality issues upfront at the project inception. This would allow for establishment of an appropriate regime for management of the project results that is responsive to the confidentiality requirements but at the same time facilitate result-based monitoring and does not compromise on the learning and accountability functions of independent project evaluation.

Annex 1: Evaluation Terms of Reference

https://procurement-notices.undp.org/view_notice.cfm?notice_id=97625

Annex 2: Evaluation Matrix

Evaluative Criteria Questions	Indicators	Sources	Methodology	
Relevance: How does the project relate to the development prior	ities at the local, regional and national levels?			
• To what extent has the project been responsive to political, legal, economic, institutional, etc., changes in the country?	• Continued alignment of the project objectives with the country development and sectoral priorities and plans	 Government's national planning documents SDG progress reports 	 Desk reviews of secondary data Interviews with government partners 	
• To what extent was the project aligned with the Paris Agreement and Vision 2030?	• The project makes explicit links with the Paris Agreement and Vision 2030	 Project Document Paris Agreement Vision 2030	 Desk Review of Documents 	
• Is the project aligned to strengthening of national consultative and management structures and mechanisms?	• The project design includes explicit links (indicators, outputs, outcomes) to the national development policies and action plans	 Project Document National development strategies and action plans, etc. 	 Desk Review of Documents Interviews of the project stakeholders 	
• Is the project's Theory of Change relevant to addressing the development challenge(s) identified?	• The Theory of Change clearly indicates how project interventions and projected results will contribute to the reduction of the major barriers identified at the project inception	 Project Document 	• Desk Review of Documents	
• Have the relevant stakeholders been adequately identified and have their views, needs and rights been considered during design and implementation?	 The stakeholder mapping and associated engagement plan includes all relevant stakeholders and appropriate modalities for engagement. Planning and implementation have been participatory and inclusive 	 Project Document Inception report Stakeholder mapping/engagement plan and reporting Annual Reports (APR) 	 Desk Review of Documents Stakeholder Interviews 	

Evaluative Criteria Questions		Indicators S	Sources	Methodology		
	• Does the project directly and adequately address the perspectives and needs of men and women who could affect the outcomes, and those who could contribute information or other resources to the attainment of stated results	• The Theory of Change clearly identifies beneficiary groups and defines how their contribution will affect attainment of the planned results	 Project Document 	 Desk Review of Documents Interviews of the project stakeholders 		
	• Is the project's results framework relevant to the development challenges have the planned results been achieved?	 The project indicators are SMART Indicator baselines are clearly defined and populated and milestones and targets are defined The results framework is comprehensive and demonstrates systematic links to the ToC 	Project DocumentPIF	 Desk Review of Documents Interviews of the project stakeholders 		
	• Have the interventions of the project been adequately considered in the context of other development activities being undertaken in the same or related thematic area?	 A partnership framework has been developed that incorporates parallel initiatives, key partners and identifies complementarities 	 Project Document Annual Reports (APR) Stakeholder mapping/engagement plan and reporting 	 Desk Review of Documents Stakeholder Interviews 		
	• Did the project design adequately identify, assess, and design appropriate mitigation actions for the potential social and environmental risks posed by its interventions?	• The SES checklist was completed appropriately and all reasonable risks were identified with appropriate impact and probability ratings and risk mitigation measures specified	 Project Document SES Annex	• Desk Review of Documents		
Ef	ffectiveness: To what extent have the expected outcomes and o	objectives of the project been achieved?				
	• In which areas does the project have the greatest/lowest achievements? What have been the supporting/limiting factors? How can the supporting factors be expanded and the constraining factors overcome?		Annual Reports (APR)Site visit/field reports	 Desk Review of Documents Interviews with project staff, stakeholders and beneficiaries 		

Evaluative Criteria Questions	Indicators	Sources	Methodology	
• Has the project achieved its output and outcome level targets considering men, women, and vulnerable group What, alternative strategies would have been more effective in achieving the project objectives?	• The project has met or exceeded the output and outcome indicator end-of-project targets	 Annual Reports (APR) Site visit/field reports 	 Desk Review of Documents Interviews with project staff, stakeholders and beneficiaries 	
• Has the M&E plan been well-formulated, and has served as an effective tool to support projet implementation?	 The M&E plan has an adequate budget and was adequately funded The logical framework was used during implementation as a management and M&E tool Compliance with the financial and narrative reporting requirements (timeliness and quality) Monitoring and reporting at the activity and results levels 	 Project Document M&E Plan AWPs Site visit reports 	 Desk Review of Documents Interviews with project staff and government stakeholders 	
• Were relevant counterparts from the Government at civil society involved in project implementation including as part of the Project Board?	d representatives from key project stakeholders	• PB meeting Minutes	• Interviews with project staff, stakeholders and beneficiaries	
• Have lessons learned been captured and integrated in project planning and implementation?	• Lessons learned have been captured periodically and/or at project end	• PB meeting Minutes Annual Reports (APR)	 Desk Review of Documents Interviews with project staff, stakeholders and beneficiaries 	
• How effective were the partnership arrangements und the project and to what extend did they contribute achievements of the project results?	• A partnership framework has been developed that ensured coordination of parallel initiatives, involvement of key partners and identification of complementarities	 Annual Reports (APR) 	 Desk Review of Documents Interviews with project staff, stakeholders and other donors 	

E	Evaluative Criteria Questions		Indicators		Sources		Methodology	
	• How well were risks (including those identified in the Social and Environmental Screening (SES) Checklist), assumptions and impact drivers being managed?	•	A clearly defined risk identification, categorization and mitigation strategy (updated risk log in ATLAS)	•	UNDP ATLAS Risk Log M&E Reports	•	Desk Review of Documents Interviews with project staff, stakeholders and beneficiaries	
•	Efficiency: Was the project implemented efficiently, in-line	e with	n international and national norms and standards?					
	 Did the project adjust dynamically to reflect changing national priorities/external conditions during implementation to ensure it remained relevant? To what extent have project funds and activities been delivered in a timely manner 	•	The project demonstrated adaptive management and changes were integrated into project planning and implementation through adjustments to annual work plans, budgets and activities Changes to AWP/Budget were made based on mid-term or other external evaluation Any changes to the project's planned activities were approved by the PB Any substantive changes (outcome-level changes) approved by the PB and donor, as required	•	Annual Work Plans Annual Reports (APR) PB meeting minutes	•	Desk Review of Documents Interviews with project staff, stakeholders and beneficiaries	
	• Was the process of achieving results efficient? Did the actual or expected results (outputs and outcomes) justify the costs incurred? Were the resources properly allocated and utilized?	•	The project achieved the planned results in an efficient manner Funds used for project implementation were utilized affectively and contributed to achievement of project results	•	Annual Workplans Quarterly Reports Project document	•	Desk Review of Documents Interviews with project staff, stakeholders, beneficiaries	
	• To what extent was the project management structure as outlined in the project document efficient in generating the expected results in accordance with the Paris Agreement and Vision 2030? What were the strengths and weaknesses of the implementation modality?		The project implementation followed the division of responsibilities between the project implementing partners in an efficient manner	•	Annual Reports	•	Desk Review of Documents Interviews with project staff, stakeholders, beneficiaries	

Evaluative Criteria Questions		Indicators S	Sources	Methodology
	• Was the M&E system and implementation support provided by UNDP adequate and in keeping with the implementation modality and any related agreements?	 Technical support to the Executing Agency and project team were timely and of acceptable quality. Management inputs and processes, including budgeting and procurement, were adequate 	 UNDP project support documents Annual Reports (APR) 	 Desk Review of Documents Interviews with project staff, UNDP personnel
	• Were financial audit/spot check findings adequately addressed and relevant changes made to improve financial management?	 Appropriate management responses and associated actions were taken in response to audit/spot check findings. Successive audits demonstrated improvements in financial management practices 	 Project Audit Reports 	• Desk Review of Documents
•	Sustainability: To what extent are there financial, institution	onal, social-economic, and/or environmental risks to sustain	ning long-term project result	s?
	• Are there political, social or financial risks that may jeopardize the sustainability of project benefits?	• The exit strategy identifies potential risk factors •	Program FrameworkDocumentRisk Log	• Desk Review of Documents
	• What are the factors that will require attention in order to improve prospects of sustainability and potential for replication?	• The exit strategy includes explicit interventions to ensure sustainability of relevant activities and identifies relevant factors requiring attention in the future	 Program Framework Document 	• Desk Review of Documents
	• Do the legal frameworks, policies, and governance structures and processes within which the project operates pose risks that may jeopardize sustainability of project benefits?	• The exit strategy identifies relevant socio-political risks and includes explicit interventions to mitigate same	 Program Framework Document Risk Log 	• Desk Review of Documents
	• Have key stakeholders identified their interest in project benefits beyond project-end and accepted responsibility for ensuring that project benefits continue to flow?	 Key stakeholders are assigned specific, agreed roles and responsibilities outlined in the exit strategy 	 Program Framework Document Risk Log 	• Desk Review of Documents

Evaluative Criteria Questions I	Indicators	Sources	Methodology	
• To what extent will financial and economic resources be available to sustain the benefits achieved by the project in the electricity sector?	• The exit strategy identifies relevant environmental risks and includes explicit interventions to mitigate same	 Program Framework Document Risk Log 	• Desk Review of Documents	
Cross-cutting issues: Are there indications that the project has con	ntributed to, or enabled progress towards gender mainstr	reaming, human rights and po	overty alleviation?	
 To what extent have gender equality and the empowerment of women been addressed in the design, implementation, and monitoring of the project? Is the gender marker assigned to this project representative of reality? 	• Level of monitoring of gender-elated issues	 Project documents Evaluation reports UNDP staff Government partners Beneficiaries 	 Desk review of secondary data Interviews with UNDP staff and government partners 	
• To what extent have people living in poverty or marginalized groups benefited from the project?	 Level of monitoring of social inclusion related issues 	 Project documents Evaluation reports UNDP staff Government partners Beneficiaries 	 Desk review of secondary data Interviews with UNDP staff and government partners 	

Annex 3: Stakeholder Analysis (at project inception)

Stakeholder	Role	Potential	Priorities/Interest
Electricity & Cogeneration Regulatory Authority (ECRA)	Regulation and supervision / Awareness	High	High
Saudi Energy Efficiency Centre (SEEC)	Regulation and supervision / Awareness	High	High
Renewable Energy Project Development Office (REPDO)	Regulation and supervision	High	High
Ministry of Municipal and Rural Affairs (MOMRA)	Implementation of policies	Medium	Medium
King Abdullah City for Atomic and Renewable Energy (KACARE)	Regulation and supervision / Awareness	High	High
Saudi Electricity Company (SEC)	Service provider	High	High

Annex 4: List of People Interviewed

Organization	Representative	Function/Position			
Ministry of Energy	Yasir Al-Turki	Assistant Deputy Minister of Electricity Affairs National Project Coordinator			
Muayyad Al-Hilali	Director				
Mahmoud Ismail Suliman	Technical Expert				
Mayed Shawi	Senior Finance Analyst				
Abdallah Al-Fadda	Head				
Mohammad Al-Quahtani	National Project Manage remotely (2 meetings)	er –			
Nick Gardner	Chief Technical Advisor (02- 11/2022) - remotely				
Jeffrey Beyer	Chief Technical Advisor (06/2023) - remotely	since			
Greg Wilson	Coordinator TID Best Pract remotely	ices -			
Haider Shakiry	Coordinator TID Str Planning - remotely	ategy			
UNDP CO Riyadh	Margaret Jones Williams	Deputy Resident Representative			
	Asim Salah	Team Leader – Environment and Energy			
	Nada Alotaishan	M&E Officer			
	Hossam Alqudaihi	Operations Manager			
	Manaf Rashid	Project Focal Point			
	Norah Aldawood	Financial Assistant			
UNDP Regional Hub Amman	Steven Gitonga	Regional Technical Advisor - remotely			

Annex 5: List of Documents Consulted

- 1. Advisory Support to the Deputyship of Electricity Affairs at Ministry of Energy, Project Document, UNDP, 2019
- 2. Vision 2030, Government of KSA (2016)
- 3. National Transformation Program Delivery Plan 2021-2025, Government of KSA
- 4. United Nations Common Country Strategic Framework 2017-2021
- 5. UNDP Country Programme Document for Saudi Arabia (2017-2021)
- 6. The Saudi Electricity Sector: Pressing Issues and Challenges, IFRI (22015)
- 7. Saudi Arabia's Unfolding Power Sector Reform: Features, Challenges and Opportunities for Market Integration, KAPSARC (2020)
- 8. 2022 Action Plan, Ministry of Energy (2022)
- 9. Updated First Nationally Determined Contribution Submission to UNFCCC, KSA Government (2021)
- 10. KSA Third National Communication to UNFCCC (2016)
- 11. KSA Fourth National Communication to UNFCCC (2022)
- 12. Annual Project Progress Report (APR), KSA Advisory Project PMU, (2021)
- 13. Annual Project Workplans (AWPs), KSA Advisory Project PMU (2021 and 2022)
- 14. Minutes of the Project Board, PMU (4 minutes from 2020, 2021, 2022 and 2023)
- 15. Project Refresh, KSA Advisory Project PMU (2023)
- 16. UNDP Revised Evaluation Policy, UNDP (2019)
- 17. UNDP Evaluation Guidelines, Independent Evaluation Office of UNDP (2021)
- 18. Outcome-Level Evaluations, A Companion Guide, UNDP (2011)
- 19. Glossary of Key Terms in Evaluation and Results Based Management, OECD (2010)
- 20. UNEG Ethical Guidelines for Evaluations (revised), UNEG (2020)

Annex 6: Project Results Framework

Intended Outcome as stated in the Programme Results and Resource Framework: Improved management of non-oil natural resources and preservation of culture and heritage

Outcome indicators as stated in the Country Programme: per-capita energy consumption

Applicable Output(s) from the UNDP Strategic Plan: Access to clean and affordable energy and close energy gaps

Project title and Atlas Project Number: SAU10/122410

EXPECTED OUTPUTS / ACTIVITIES	OUTPUT / ACTIVITY	DATA SOURCE	BASEL	INE	TARGETS	(by frequency	y of data collection)	DATA COLLECTION	
	INDICATORS		Value	Year	Year 1	Year 2	Year 3	METHODS & RISKS	
OUTPUT 1: Policies, strategies and action plans related to the electricity sector, and monitoring and evaluation mechanisms for implementation in place, were prepared.									
Activity 1.1 Review and develop the policies and strategies of the electricity sector in the KSA	Number of strategies	ME, Project monitoring report	9	2019	3	6	9	Data from ME and Project monitoring	
Activity 1.2 Prepare, review and develop the long-term plan of electricity sector	% of progress of each task (review old long term plan-develop, prepare, results)	ME,Project monitoring report	0	2019	30%	100% Develop		Data from ME and Project monitoring	
Activity 1.3 Follow up the implementation of the long-term plan of electricity sector.	% of progress of implementation	ME, SEC, ECRA Project monitoring report	1	2021	0	60%	100%	Data from ME and Project monitoring Risk: The implementation of a long term program may need more than 3 years	
Activity 1.4 Review, the electricity sector restructuring plan, modify and develop it in the light of approved policies, and follow up the implementation of the tasks pertaining to Deputyship	% of progress of restructuring of electricity sector	ME, SEC, ECRA Project monitoring report	0	2019	0%	0%	100%	Data from ME and Project monitoring Risk: The implementation may need more years	
Activity 1.5 Determine the optimal energy mix for electricity production in the KSA from an economic perspective	Activity completion ratio (%)	ME, SEC, ECRA Project monitoring report	0	2019	30%	60%	100% the optimal energy mix Determined	Data collection: from ME SEC and ECRA Risk: discrepancy between ECRA and SEC data	
Activity 1.6 Evaluate the current status of electricity sector, and analyse technical and financial data, and extraction conclusions and recommendations	Activity completion ratio (%)	ME, ECRA, SEC	tbc	2019	20%	70%	100% conclusion and recommendations	Data from ME, ECRA and SECand Project monitoring	
Activity 1.7 Prepare a long-term program in coordination with the relevant authorities to support the national supporting industries in the electricity sector, localization of modern technology, increase local content and ensure its implementation	Activity completion ratio (%)	ME, SEC Project monitoring report	0	2019	30%	60%	100% Activity completion	Data from ME and Project monitoring Risk: The implementation of a long term program may need more than 3 years	
Activity 1.8 Prepare integrated work plans and the required mechanisms to oversee the implementation of approved policies and strategies by licensees	Activity completion ratio (%)	ME, ECRA SEC	0	2019	30%	60%	100% Prepare integrated work plans and mechanisms	Data from ME and Project monitoring Risk: activity 1.8 is linked to activity 1.1	

Activity 1.9 Provide support in preparing, documenting, developing databases, statistical data and technical information relevant to the electricity sector, and conducting the necessary surveys	% of progress of developing databases	ME SEC, ECRA Project monitoring report	0	2019	20%	60%	100% Databases and surveys	Data from ME, ECRA and SEC and Project monitoring		
Activity 1.10 Develop and update key performance indicators (KPIs) and standards for measuring the performance of the electricity sector	30	ME, SEC, ECRA Project monitoring report	19	2019	19 update	6 Develop	5 Develop	Data from ME, SEC and Project monitoring		
Activity 1.11 Provide advisory services to the Deputyship to revise, develop and amend the electricity sector restructure plan based on approved policies to achieve intended objectives, and oversee plan's implementation after its adoption with regard to the ministry's tasks	Activity completion ratio (%)	ME Project monitoring report	0	2021	0	60%	100% Activity completion	Data from ME and Project monitoring Risk :Activity 1.11 is linked to activity 1.4		
Activity 1.12 Provide support for supervision of licensed entities on the application of policies and action plans for companies engaged in the electricity sector.	Activity completion ratio (%)	ME ECRA Project monitoring report	0	2019	30%	60%	100%	Data from ME ,ECRA and Project monitoring Risk: activity 1.12 is linked to activity 1.8		
Activity 1.13 Provide advisory services for technical and financial data analysis and suggest recommendations	Activity completion ratio (%)	ME, SEC, ECRA Project monitoring report	0	2019	30%	60%	100%	Data from ME and Project monitoring		
EXPECTED OUTPUTS / ACTIVITIES	OUTPUT / ACTIVITY INDICATORS	DATA SOURCE	SOURCE BASELINE		ELINE TARGETS (by frequency of data collection)			DATA COLLECTION METHODS & RISKS		
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			Value	Year	Year 1	Year 2	Year 3			
OUTPUT 2: The technical studies and consultations related to the electricity sector were prepared and conducted.										
Activity 2.1 Provide support in revising and evaluating the existing policies and legislation related to electricity sector	% of progress of review policies and legislations revised	ME, ECRA Project monitoring report	0	2019	30%	60%	100%	Data from ME and Project monitoring, ECRA Risk: activity 2.1 is linked to activity 1.1		
Activity 2.2 Provide support in formulating and developing policies, legislation and regulations that reduce the barriers and enhance potential opportunities for investments and engagement in the electricity sub-sector	% of progress	ME, ECRA SEC Project monitoring report	0	2019	40%	70%	100%	Data collection: from ME, ECRA, SEC		
Activity 2.3 Improve and develop mechanism and methodology of research and development	% of development and improvement progress	ME, SEC Universities Project monitoring report	0	2019	20%	50%	100% develop mechanism and methodology	Data collection: From research center manager Risk: lack of interest from research center		
Activity 2.4 Identify priorities and objectives of national transformation initiatives for the electricity sector, propose new initiatives, follow up and implement them	-% of implementation	ME Project monitoring report	0	2019	20%	50%	100% new initiatives and implementation	Data from ME and Project monitoring Risk: implementation time may need more than 3 years		
Activity 2.5 Propose studies, prepare scope of works, and evaluate studies related to the electricity sector and their Activities.	Number of studies proposed and evaluated	ME	6	2019	2	4	6	Data from ME		
Activity 2.6 Provide technical advice and conduct studies related to the electricity sector	Number of studies conducted	ME	6	2019	2	4	6	Collect all data for previous studies conducted in ME		
Activity 2.7 Support the application of the Saudi Building Code in the field of electrical works which fall within the jurisdiction of the Ministry of Energy	Activity completion ratio (%)	ME, MOMRA Project monitoring report	0	2019	20%	80%	100% support application of SBC related to electrical works.	Data from ME and Project monitoring		
Activity 2.8 Support the implementation of the project of changing electricity distribution voltage from (127/220) volts to the international voltage (230/400) volts	Activity completion ratio (%)	ME SEC, MOMRA Project monitoring report	0	2019	20%	80%	100% support implementation of the project	Data from ME and Project monitoring Note: The executive stage of the project duration is 15 years		

EXPECTED OUTPUTS / ACTIVITIES	OUTPUT / ACTIVITY INDICATORS	DATA SOURCE	BASELINE		TARGET collection	CS (by fr 1)	equency of data	DATA COLLECTION METHODS & RISKS
			Value	Year	Year 1	Year 2	Year 3	
OUTPUT 3: Provide advisory services to support the im	plementation of awarenes	s campaigns on the I	Deputyshij	o's functio	ons.			
Activity 3.1 Support the implementation of awareness campaign to rationalize the consumption of electricity, in coordination with the Saudi Energy Efficiency Center (SEEC)	% of progress in the campaign implementation	ME, SEEC Project monitoring report	0	2019	20%	50%	100% Implementation of campaign and realize their targets	Data from ME SEEC Project monitoring
Activity 3.2 Support the implementation of an awareness campaign for the project changing the voltage of the electricity di stribution from (127/220) volts to the international voltage (230/400) volts, in coordination with the Saudi Electricity Company (SEC)	% of progress in the campaign implementation	ME, SEC Project monitoring report	0	2019	20%	50%	100% Implementation of campaign and realize its targets	Data from ME and SEC Project monitoring
Activity 3.3 Support the implementation of an awareness campaign to implement the electrical requirements of the Saudi Building Code, in coordination with the relevant authorities for implementing the code	% of progress in the campaign implementation	ME, MOMRA MOI	0	2019	20%	50%	100% Implementation of campaign and realize its targets	Data from ME and relevant authorities Data collection: from MOI concerning accident statistics for electrical installation failures. Risk: no data available
Activity 3.4 Provide support to raise awareness through design of country-wide campaigns to enhance knowledge on demand-side energy management including public behaviour change and energy conservation in industry, transport, and residential sectors and particularly in high growth energy-intensive industries	% of progress in the campaigns implementation	ME, Project monitoring reports	0	2019	20%	50%	100% Implementation of campaigns and realize their targets	Data from ME Project monitoring

EXPECTED OUTPUTS / ACTIVITIES	OUTPUT / ACTIVITY	DATA SOURCE	BASEL	BASELINE		S (by free	quency of data	DATA
	INDICATORS		Value	Year	Year 1	Year 2	Year 3	METHODS & RISKS
OUTPUT 4: Administrative and technical support to the Dep	utyship's departments							
Activity 4.1 Provide support in preparing and developing regulatory policies, rules, instructions, procedures and time programs related to the works of the Deputyship	Activity completion ratio (%)	ME, Project monitoring reports	0	2019	20%	60%	100% Activity completion	Data from ME Project monitoring
Activity 4.2 Provide support in preparing and developing the guideline of work procedures of the Deputyship's activities and functions, and prepare a job description manual for jobs	Activity completion ratio (%)	ME Project monitoring reports	0	2019	20%	60%	100% Activity completion	Data from ME Project monitoring
Activity 4.3 Provide support in preparing and developing standards to measure the performance of the Deputyship's activities	Activity completion ratio (%)	ME Project monitoring reports	0	2019	20%	60%	100% Activity completion	Data from ME Project monitoring
Activity 4.4 Provide support in preparing a plan for the organization and preservation of records, data and statistics relating to the Deputyship's activities, and to take advantage of the technical possibilities to deal with them	Activity completion ratio (%)	ME, Project monitoring reports	0	2019	20%	60%	100% Activity completion	Data from ME Project monitoring
Activity 4.5 Provide support to organize conferences, seminars and workshops organized by the Deputyship	Activity completion ratio (%)	ME, Project monitoring reports	0	2019	20%	60%	100% Activity completion	Data from ME Project monitoring
Activity 4.6 Develop tools for enabling the Deputyship respond adequately to electricity sector challenges, and identifying opportunities for joint partner projects and activities	Activity completion ratio (%)	ME, Project monitoring reports	0	2019	20%	60%	100% Develop tools	Data from ME Project monitoring
Activity 4.7 Provide administrative and technical support to the Deputyship through developing management of policies and	Activity completion ratio (%)	ME, Project monitoring reports	0	2019	20%	60%	100%	Data from ME

procedures, timeframes, terms of reference, performance				developing	Project
management standards, job description guide and record keeping				management	monitoring
system				programs	ε

EXPECTED OUTPUTS / ACTIVITIES	OUTPUT / DATA SOURCE B ACTIVITY		BASELINE		TARGETS (by frequency of dat collection)			DATA COLLECTION METHODS & RISKS	
	INDICATORS			Year	Year 1	Year 2	Year 3		
OUTPUT 5: Cooperation with national and international bodies and authorities.									
Activity 5.1 Review and propose areas of cooperation, memorandums of understanding and joint agreements with national and international Parties and institutions, follow up on their implementation, evaluate them and propose new areas and initiatives for cooperation	Activity completion ratio (%)	ME, Project monitoring reports	0	2019	20%	60%	100% Areas of cooperation, MoU and joint agreements with implementation	Data from ME Project monitoring	
Activity 5.2 Prepare and develop mechanism and methodology of communication between the Deputyship and related parties and companies operating in the electricity sector	Activity completion ratio (%)	ME Project monitoring reports	0	2019	20%	60%	100% develop mechanism and methodology of communication	Data from ME Project monitoring	
Activity 5.3 Support innovations and knowledge sharing through cooperation, exchange visits, technology transfer, joint actions, conferences, newsletters, white papers and websites between Governments and local and international industry	Activity completion ratio (%)	ME, Project monitoring reports	0	2019	20%	60%	100% Support innovations	Data from ME Project monitoring and Government /Ministry industry reviews	
Activity 5.4 Strengthen capacity of the Deputyship for forging effective partnerships, and develop local and global cooperation with industry	Activity completion ratio (%)	ME, Project monitoring reports	0	2019	20%	60%	100% forging effective partnerships and cooperation	Data from ME Project monitoring	
Activity 5.5 Formalization of partnership with selected local, regional ,and international centres	Activity completion ratio (%)	ME Project monitoring reports	0	2019	20%	60%	100% Target completed	Data from ME Project monitoring	
Activity 5.6 Provide support to establish an innovative awareness and partnership framework aims to enhance the knowledge, expertise, technology, and investments in electricity sector	Activity completion ratio (%)	ME Project monitoring reports ECRA, SEC	0	2019	20%	60%	100% innovative awareness and partnership framework	Data from ME Project monitoring	

EXPECTED OUTPUTS / ACTIVITIES	OUTPUT / ACTIVITY	OUTPUT / DATA ACTIVITY SOURCE		BASELINE		S (by fi	requency of data	DATA COLLECTION
	INDICATORS			Year	Year 1	Year 2	Year 3	METHODS & RISKS
OUTPUT 6: Capacity of the Deputyship strengthened.								
Activity 6.1 Identification of human resources existing capacity gaps and institutional capacity within the Deputyship (staffing and operations) and assessment of capacity needs	Activity completion ratio (%)	ME, Project monitoring reports	20%	2019	60%	80%	100% provision of competencies and expertise	Data from ME Project monitoring
Activity 6.2 Provide the Deputyship with needed competencies and expertise (experts / consultants - engineers - administrative employees) to implement programs and training courses, and identify appropriate devices and tools	Activity completion ratio (%)	ME, Project monitoring reports	0	2019	60%	80%	100% Identification and assessment of capacity needs	Data from ME Project monitoring
Activity 6.3 Provide technical assistance to build national capacities and competencies by organizing study tours and training programs for the Deputyship's staff, including leadership and executive courses, and specialized technical and administrative courses	Activity completion ratio (%)	ME, Project monitoring reports	0	2019	30%	80%	100% Completed target	Data from ME Project monitoring
Activity 6.4 Provide support to raise productivity the Deputyship's employees, and enhance the capacity of the Deputyship to optimize collective outputs	Activity completion ratio (%)	ME, Project monitoring reports	0	2019	60%	80%	100% Realize productivity target	Data from ME Project monitoring
Activity 6.5 Provide technical support for the development of the Deputyship's departments/functions	% of progress of working development	ME, Project monitoring reports	0	2019	20%	60%	100% Development of Deputyship's departments	Data from ME Project monitoring
Activity 6.6 Strengthen the capacity of the Deputyship and its partners in implement initiatives, action plans and work programs related to electricity sector through building effective leadership	Activity completion ratio (%)	ME, Project monitoring reports	0	2019	60%	80%	100% Realize target of building effective leadership	Data from ME Project monitoring

Annex 7: Evaluation Report Outline

1. Title and opening pages (with details of the project/ programme/ outcome being evaluated and the evaluation team)

2. Project and evaluation details (including the project title, Atlas number, budgets and project dates and other key information)

3. Table of contents

4. List of acronyms and abbreviations

5. Executive summary (a stand-alone section of maximum four pages including the quality standards and assurance ratings)

6. Introduction and overview (explaining what is being evaluated and why)

7. Description of the intervention being evaluated (providing the basis for readers to understand the design, general logic, results framework and other relevant information of the initiative being evaluated)

8. Evaluation scope and objectives (providing a clear explanation of the evaluation scope, primary objectives and main evaluation questions)

9. Evaluation approach and methods (describing in detail the selected methodological approaches and methods)

10. Data analysis (describing the procedures used to analyse the data collected to answer the evaluation questions)

11. Findings and conclusions (setting out the evaluation findings, based on analysis of the data collected, and the conclusions drawn from these findings)

12. Recommendations (providing a reasonable number of practical, feasible recommendations directed to the intended users of the report about what actions to take or decisions to make)

13. Lessons learned (providing discussion of lessons learned from implementation of the intervention)

14. Annexes (at a minimum these include)

- a. TOR for the evaluation
- b. Evaluation matrix and data collection instruments
- c. List of individuals or groups interviewed or consulted, and sites visited
- d. List of supporting documents reviewed

Annex 8: Evaluation Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System

Evaluators:

- 1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
- 2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
- 3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals and must balance an evaluation of management functions with this general principle.
- 4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
- 5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
- 6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations.
- 7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

Name of Consultant: Dalibor Kysela

Name of Consultancy Organization (where relevant): <u>N.A.</u>

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at Vienna 11 May 2023

limb

Signature: ____