

Initiative for Climate Action Transparency

Development and Institutionalization of a Framework to Track NDC Action and Build Capacity in Relevant Areas

Report on NDC Tracking Indicators for the Electricity Generation and Transportation Subsectors

St. Kitts & Nevis

10th October 2024

Submitted to:

**The Government of St. Kitts and Nevis' Ministry of Sustainable Development,
Environment, Climate Action, and Constituency Empowerment**

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Acronyms

BUR	Biennial Update Report
CCMRVH	Caribbean Cooperative Measurement, Reporting and Verification Hub
COP	Conference of Parties
EV	Electric vehicle
GDP	Gross Domestic Product
GHG	Greenhouse gas
GHGMI	Greenhouse Gas Management Institute
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
ICAT	Initiative for Climate Action Transparency
LEAP	Low Emissions Analysis Platform
MPG	Modalities, Procedures and Guidelines
MRV	Measurement, reporting and verification
MW	Megawatt
MWh	Megawatt hours
NC	National Communication
NDC	Nationally Determined Contributions
NEVLEC	Nevis Electricity Company Limited
PV	Photovoltaic
SIDS	Small Island Developing State
SKELEC	St. Kitts Electricity Company Limited
SKN	St. Kitts and Nevis
UNFCCC	United Nations Framework Convention on Climate Change

1 Introduction

1.1 Background

St. Kitts and Nevis (SKN) is a twin-island Federation and small island developing state (SIDS) in the Eastern Caribbean with an estimated population of roughly 51,320¹ persons in 2022, based on its 2022 Population and Housing Census. The contributions of SKN to global warming and climate change are negligible, thus resulting in little impact globally, however it is extremely vulnerable to the detrimental effects which occur as a result of these phenomena.

At the 21st Conference of Parties (COP21), held in Paris in December 2015, 195 countries adopted an international climate treaty which was aimed at combating climate change. Within this treaty, Nationally Determined Contributions (NDCs) became legally binding commitments outlining their climate action plans to be updated every five years to reflect increasing ambition. As a party to the United Nations Framework Convention on Climate Change (UNFCCC), St. Kitts and Nevis was among the 195 countries that submitted their Nationally Determined Contribution (NDC) for reducing greenhouse gas emissions. NDCs play a crucial role in the global effort to limit the rising temperatures and mitigate against climate change. These documents provide unique insights into each country's emissions reduction targets, adaptation goals, and national circumstances.

Through Article 4 of the Paris Agreement, countries were provided general guidance on the preparation and communication of NDCs which reflect their highest possible ambition, and progress made over time. In addition, through CMP Decision 18/CMA.1, more detailed guidance is given on how NDCs should be formulated, communicated and monitored.

In keeping with its international commitments, SKN submitted its first Nationally Determined Contribution (NDC) in 2015, and its updated NDC in 2021.

1.2 St. Kitts and Nevis NDC

St. Kitts and Nevis is heavily dependent on fossil fuel imports to meet its energy demand, which continually increases with its population and continued economic growth. As a result of this, the federation has identified one overarching single-year NDC target: **An economy wide reduction of carbon dioxide emissions by 61% by 2030 relative to 2010 levels**, in its updated NDC (2021)². This is a conditional target, dependent on adequate international

¹ St. Kitts and Nevis Department of Statistics, 2024, "Population and Census Report".

² Federation of St. Kitts and Nevis, 2021, "Updated Nationally Determined Contribution".

https://unfccc.int/sites/default/files/NDC/2022-06/St.%20Kitts%20and%20Nevis%20Revised%20NDC_Updated.pdf

financial and capacity building support. The NDC also identified the following interventions to achieve this target:

- Transition to 100% renewable energy in power generation;
- Improve efficiency in transmission and distribution of electricity;
- Electrification of 2% of the total vehicles;
- Development of electric vehicle (EV) infrastructure.

In its most recent national greenhouse gas inventory, dated 2018, SKN identified the energy sector, particularly the electricity generation and transportation subsectors, as the largest contributors to national emissions, accounting for as much as 81.7%³ of the total. This is why the energy sector is the main focus in its updated NDC, and for interventions and projects related to its overall mitigation. As such, it is of critical importance that SKN tracks the implementation of its NDC, particularly for the electricity generation and transport subsectors.

Additionally, in its Updated NDC, SKN identified a number of mitigation measures which, with sufficient financial resources, adequate infrastructure, knowledge, and a conducive policy framework, would be implemented to contribute to the achievement of its overall reduction target. These measures are as follows⁴:

1. 35.7 MW of utility-scale solar photovoltaic (PV) capacity for SKN
2. 6.6 MW of wind power capacity in SKN
3. 25 MW of geothermal power capacity (10 MW in Nevis and 15 MW in SKN)
4. Improvement in transmission and distribution lines to reduce losses on both islands
5. Two solar PV plants of 0.75 MW each to supply two desalination plants
6. 5% reduction in the power demand by introducing Solar Water Heaters
7. Penetration of EVs reaching 2% of the vehicle fleet

1.3 Report Objective

Noting the need for accurate tracking within the aforementioned sectors, the Government of SKN has sought project-level support under the Initiative for Climate Action Transparency (ICAT) to enable the analysis of its NDC and the accomplishment of its NDC goals.

³ The Government of St. Kitts and Nevis, 2023, "First Biennial Update Report of St. Kitts and Nevis communicated to the UNFCCC"

⁴ Federation of St. Kitts and Nevis, 2021, "Updated Nationally Determined Contribution".
https://unfccc.int/sites/default/files/NDC/2022-06/St.%20Kitts%20and%20Nevis%20Revised%20NDC_Updated.pdf

ICAT helps countries better assess the impacts of their climate policies and actions and fulfil their transparency commitments. It does this by increasing the overall transparency capacities of countries, including the capacity to assess the contribution of climate policies and actions on countries' development objectives, and providing appropriate methodological information and tools to support evidence-based policymaking.

The Government of SKN has undertaken this ICAT project to support the development of the NDC tracking framework and establishment of sustainable capacity to conduct projections of GHG emissions for the electricity generation and transport subsectors.

The main objectives of the project are as follows:

- To develop a Measurement, Reporting and Verification (MRV) framework for the electricity generation and transport subsectors with GHG emissions estimation, compilation and reporting
- To develop an NDC tracking framework that will manage and track the implementation of the NDC in the electricity generation and transport subsectors. Including data collection for emissions and assessment of policies in the identified subsectors
- To develop appropriate indicators for reporting on NDC progress achieved
- To strengthen the capacity of the St. Kitts and Nevis Government to maintain the two frameworks and improve modelling capabilities

Within the NDC tracking component of this project, one of the activities is to develop indicators which would help track SKN's overall progress toward the successful achievement/implementation of its NDCs under Article 4 which are aligned with the requirements of the CMP Decision 18/CMA.1. In addition, an assessment of the availability of data to update these indicators as well as existing institutional arrangements for data collection should be done. The draft indicators should then be presented to stakeholders for feedback.

This report as part of the SKN ICAT project contributes to the overall indicator selection and the achievement of the main project objectives outlined above. The other deliverable which contribute to the indicator selection include:

- Deliverable I - Documentation on the NDC tracking tool for the electricity generation and transport subsectors: This report provides guidance on the proposed tool for NDC tracking within SKN which would feed into the overall NDC Tracking framework developed (objective #2).
- Deliverable K - Report on NDC tracking indicators and data gaps: This report will take a deeper look at the specific data gaps and systems which exist in SKN for NDC

tracking and will tie into objective #3 and the overall indicator selection and compilation process.

- Deliverable M - Report on MRV Framework for the electricity and transport subsectors: This report will outline the proposed MRV Framework for SKN based on the activities under the overall project, thus achieving objective #1.

This report summarizes the selection and development of the proposed SKN NDC tracking indicators and contributes to the achievement of objective #3. Within the report, details on the proposed indicators will be presented in the following sections:

1. NDC Tracking Indicators: definition, selection and compilation process, proposed indicators in the electricity generation and transport subsectors
2. Data Collection Considerations: data sources and institutional arrangements, data availability, data needs
3. Challenges and recommendations for monitoring indicators

2 NDC Tracking Indicators

2.1 Indicators Definition

Indicators are quantitative or qualitative measures which convey information about the current state of a specific situation of interest. They demonstrate the overall achievement of an objective.⁵ In terms of NDC tracking, indicators allow us to track a country's overall progress toward achieving targets of its NDC. In doing so, they can also assist in future planning of actions which would contribute to meeting the overall NDC targets. The Modalities, Procedures and Guidelines (MPG) for the Enhanced Transparency Framework (ETF) of the Paris Agreement has no formal definition of an indicator, and only stipulate that it should be determined by the country and be relevant to the country's NDCs.

Quantitative indicators consist of a “unit of measurement and the value” whilst qualitative indicators are “descriptive and non-numerical”.

2.2 Indicators Selection and Compilation

In alignment with Paris Agreement stipulations, countries are required to select a comprehensive set of indicators to track overall NDC progress. When identifying and compiling the relevant indicators, it is recommended that the following steps be done (*Figure 1*):

STEP 1: Identify and assess NDC Targets

This involves first finding all relevant mitigation and adaptation targets within the most recent NDC of the country. For consistency and transparency in reporting, targets can be listed in tabular format and include the following information: Target or effort, target value (if quantitative) or description (if qualitative), scope of target or effort (sectors, gases, etc.), unit of target value (if quantitative), target timeframe, baseline value (if available).

STEP 2: Make targets SMART

This involves the overall assessment and clarification of the overall scope covered by the NDC target. For example, when doing this, targets should have clearly defined units and reference/baseline levels. Targets are considered “SMART” once they adhere to the following principles highlighted in *Figure 2*:

⁵ GIZ, 2023, *NDC Progress Indicators: A Guidance for Practitioners*. https://climate-transparency-platform.org/sites/default/files/knowledge_centre_files/GIZ_NDC-Indicators-Paper_231031.pdf

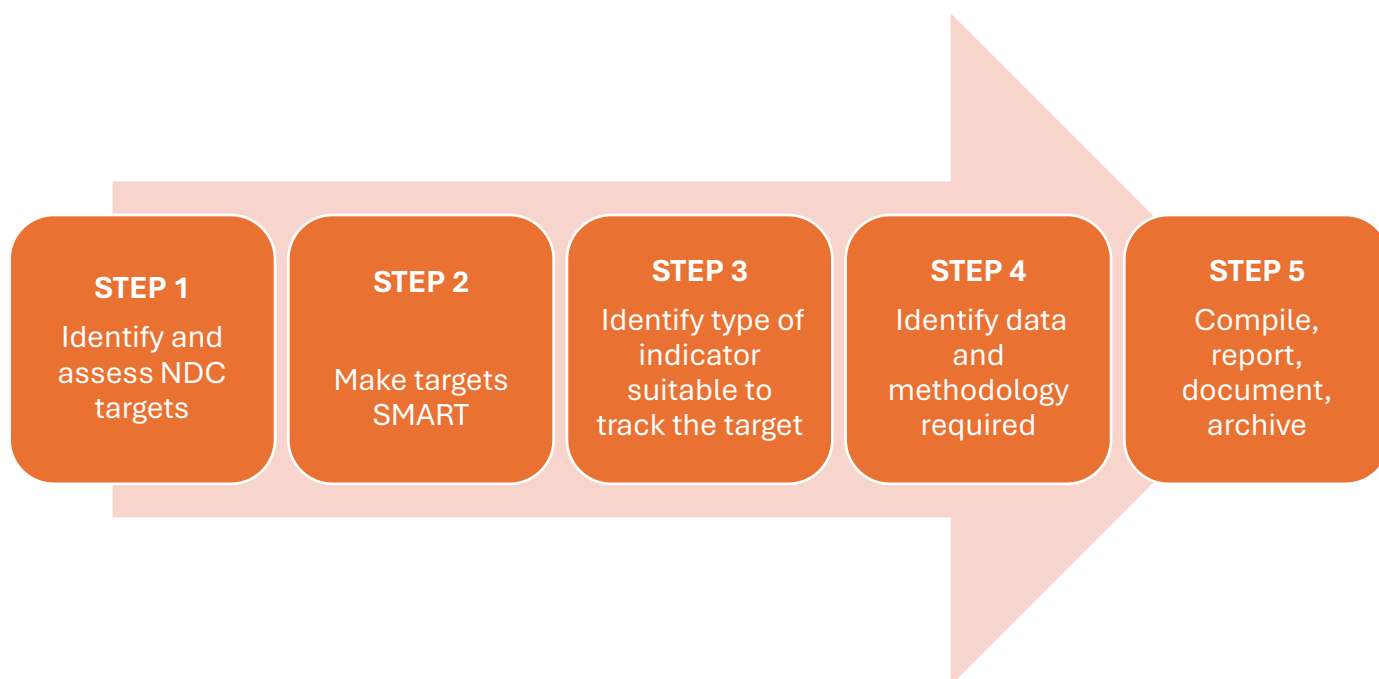


Figure 1: Indicator Selection and Compilation Process Stages

S	M	A	R	T
Specific	Measurable	Ambitious	Relevant	Time-bound
The indicator is clearly defined, so there cannot be different interpretations on what it is about or whether a target has been achieved or not.	The indicator value can be measured either quantitatively or qualitatively.	Achieving the target requires ambitious action.	The indicator relates to a relevant impact of a climate action.	The indicator relates to a point in time or timeframe when or during which the target value must be reached.

Figure 2: The Smart Concept⁶

STEP 3: Identify type of indicator suitable to track the target

⁶ GIZ, 2023, *NDC Progress Indicators: A Guidance for Practitioners*. https://climate-transparency-platform.org/sites/default/files/knowledge_centre_files/GIZ_NDC-Indicators-Paper_231031.pdf

When considering appropriate indicators, it is important to determine whether qualitative or quantitative indicators would best highlight whether the NDC targets have been met. When selecting the ideal indicators, the following considerations should be given:

- Indicators should align with the goals and targets outlined in the country's NDC
- Indicators should be measurable
- Indicators should be relevant to national circumstances
- Indicators should measure progress across the key climate-related thematic areas: mitigation, adaptation and finance.
- Baseline data for each indicator should be established. This involves the collection of historical data and establishing a starting point which will provide a reference for monitoring progress.

STEP 4: Identify data and methodology required

Once indicators are defined, the data and methodology required to compile these indicators can be identified. This involves the establishment of a suitable data collection plan, which provides a comprehensive overview of all relevant indicator-related data such as the indicator baseline, targets, data sources and methods. Specifics such as who is responsible for collecting the relevant data as well as the expected frequency for collection and reporting plan should be established.

STEP 5: Compiling, reporting, documenting, archiving

Upon identification of key data sources, and the establishment of a data collection process for the indicators, they can then be compiled for reporting, documentation and archiving. It should be noted that the data collected for the indicators may align with data collected for country reports such as the National Communications (NCs). Timing of when data is collected in other processes would need to be analysed, and indicator data collection can be done in conjunction with other data collection processes. Data should be adequately assessed using similar quality control and quality assurance processes as would be done for national GHG inventory compilation. Reporting on indicators should be done consistently over time, and indicators should be recalculated when changes are made. For example, if there are changes to the methodology used to analyse the data collected for one of the indicators, an entire recalculation of the time series using the new methodology would need to be done to ensure consistency once this data is reported. Once the NDC indicator data is reported, all relevant information should be documented. This includes information such as sources of data, methodologies used, and assumptions made. Material should then be archived in a central location, and include features, such as a clear folder and document nomenclature, to promote easy identification of relevant information.

2.3 St. Kitts and Nevis Proposed NDC Tracking Indicators

As mentioned in **Section 1.2**, St. Kitts and Nevis identified one (1) single-year economy-wide target in its updated NDC and outlined several specific measures/projects which would be used for NDC implementation. This mitigation target is referenced against the 2010 greenhouse gas emissions. The measures identified for achievement of this target, were also highlighted in SKN's first BUR (BUR1), communicated in 2023.

Based on the specific measures identified within SKN's Updated NDC, a total of ten (10) key quantitative mitigation indicators have been identified to track the overall NDC progress. These indicators are representative of the key emitting subsectors of SKN: Electricity generation and transport. **Table 1** below summarizes the key data relevant to the chosen indicators.

Table 1: Mitigation Indicators for NDC Tracking

NDC Target	Sector/ Subsector	Proposed Indicator	Unit	Description	Base year values (2010)	2030 Target Values
61% Economy-wide reduction of CO ₂ emissions		1.Total Annual GHG Emissions	Gg CO ₂ e	This describes the total estimated greenhouse gas (GHG) emissions in carbon dioxide equivalents.	253 Gg CO ₂ e	124 GgCO ₂ e
	Electricity Generation	2. Annual generation of renewable energy from various sources	GWh	The total amount of electricity produced from renewable energy sources.	0	225 GWh
		3.Total Installed Capacity of solar PV	MW	This described the total installed MW of power contained in the installation of solar PV systems	0	36.20 MW
		4.Total Installed Capacity of wind power	MW	This describes the total installed MW of power contained in the installation of wind power systems.	0	8.53 MW
		5.Total Installed Capacity of geothermal power	MW	This describes the maximum amount of power that each geothermal installation can produce under specified conditions.	0	70.14 MW
		6. Total Installed Capacity from renewable sources	MW	This describes the amount of power that all renewable installations can produce under specified conditions.	0	161.28 MW
		7. Annual % transmission & distribution losses	%	This describes the proportion of electricity that is lost in the transmission and distribution	8.5% - Nevis; 12.5% - St. Kitts; Average - 11.3%	3.5% Nevis 7.5% - St. Kitts

			stages of the electricity supply chain over a year.		6.3% Average
Transport	8.Number of electric vehicles sold annually	# of vehicles	This describes the total number of electric vehicles sold annually.	0	248
	9. Annual % share of total vehicle sales representing electric vehicles	%	This describes the proportion or percentage of the total vehicle fleet sales which comprise electric vehicles.	0	2%
	10. Annual number of operational public and private charging stations	# of charging stations	This describes the total number of charging infrastructure available for use in SKN within a given year.	0	Not specified

3 Data Collection Considerations

3.1 Data Sources and Institutional Arrangements

Data within the energy sector in SKN is largely collected and managed by a few key entities:

- St. Kitts Electricity Company Limited (SKELEC)
- Nevis Electricity Company Limited (NEVLEC)
- Ministry with responsibility for energy and transport (Currently: Ministry of Public Infrastructure, Energy and Utilities; Domestic Transport; Information, Communication and Technology; and Posts)
- Department of Statistics
- Customs and Excise Department
- Inland Revenue Department
- Traffic Department
- Fuel Importers
- Ministry with responsibility for the environment (Currently: Ministry of Sustainable Development, Environment; Climate Action and Constituency Empowerment)

SKN is currently in the process of establishing a consistent data collection and management process with relevant data-sharing arrangements between organizations. It is important during the NDC tracking process that there is clear understanding of the data sources, as well as the data sharing arrangements that exist among the different institutions involved in data collection. It is also useful to understand the frequency with which data is collected, the purpose and the granularity of data.

For the NDC tracking indicators identified, ***Table 2*** below summarizes the key data sources based on SKN's current processes, as well as the main entities responsible for the collection and/or collation of the data. SKN currently does not have an annual energy balance report and therefore electricity generation data can be obtained directly from the energy utilities and the Energy Unit. Emissions data can be calculated or obtained from the National Communications (NC), Biennial Update Reports (BUR) or the Biennial Transparency Reports (BTR) Transport data can be obtained directly from the different entities responsible for vehicle imports and sales such as the Customs and Excise Department, and various local car dealers.

Table 2: Data Sources for SKN NDC Tracking Indicators

Subsector	Proposed Indicator	Main Data Sources	Lead Responsible Entity
All Sectors	Total Annual GHG Emissions	GHG Inventory, First Biennial Update Report (BUR1), National Energy Balances	Ministry with responsibility for the Environment (Currently: Ministry of Sustainable Development, Environment, Climate Action and Constituency Empowerment)
Electricity Generation	Annual generation of renewable energy from various sources	Utility company annual reports, National Energy Balances, Energy Unit	Ministry of Public Infrastructure, Energy and Utilities; Domestic Transport; Information, Communication and Technology; and Posts SKELEC and NEVLEC
	Total Installed Capacity of solar PV	First Biennial Update Report (BUR1), Utility company annual reports	
	Total Installed Capacity of wind power		
	Total Installed Capacity of geothermal power		
	Total Installed Capacity from renewable sources		
	Annual % transmission & distribution losses	Utility company annual reports or data	SKELEC and NEVLEC
Transport	Number of electric vehicles sold annually	Datasheets from Customs, Car dealers, Traffic Department and Inland Revenue Department	Ministry of Public Infrastructure, Energy and Utilities; Domestic Transport; Information, Communication and Technology; and Posts Customs and Excise Department Traffic Department Inland Revenue Department
	Annual % share of total vehicle sales representing electric vehicles	Datasheets from Customs, Car dealers, traffic department and inland revenue department	Energy Unit Ministry of the Environment Department of Transport Inland Revenue Department
	Annual number of public and private charging stations	Datasheets or reports from utility companies	SKELEC and NEVLEC

3.2 Data Availability

Most of the data needed for the proposed indicators are readily available within various entities in SKN. Emissions data is typically collected on a project-by-project basis, during processes such as national GHG inventory preparation, BUR reporting and through NCs. Electricity sector data in SKN is generally available through utility companies, however, may require specific requests for access and great detail is not publicly available. There are no formal data-sharing arrangements currently established, but rather, the relevant organizations and ministries share data based on informal understandings and good working relationships. Within the transportation sector, the specific data required is not necessarily collected and stored in the form suited for emission estimation and tracking the proposed indicators, however through assumptions and further analysis of the raw data collected, the indicator-specific data can be inferred or extracted. ***Table 3*** below is a summary of the indicator data availability within SKN.

Table 3: Indicator Data Availability

Subsector	Proposed Indicator	Availability Status	Notes
All Sectors	Total Annual GHG Emissions	Yes	Currently collected during National GHG Inventory Reporting processes as well as Biennial Update Reporting processes. The most recently compiled data is available for 2018.
Electricity Generation	Annual generation of renewable energy from various sources	Yes	Currently collected by utility companies and collated within Energy Unit – Ministry of Infrastructure et al.
	Total Installed Capacity of solar PV	Yes	Currently collected by utility companies and collated within Energy Unit – Ministry of Infrastructure et al. However, there is insufficient data on the potential and performance of renewable energy sources.
	Total Installed Capacity of wind power	Yes	
	Total Installed Capacity of geothermal power	Yes	
	Total Installed Capacity from renewable sources	Yes	
	Annual % transmission & distribution losses	Yes	Currently collected by utility companies.
Transport	Number of electric vehicles sold annually	Partially	Data imports are easily accessible but sales data from car dealers are not collected.

Subsector	Proposed Indicator	Availability Status	Notes
	Annual % share of total vehicle sales representing electric vehicles	No	This data is not directly collected. However, data can be inferred based on details embedded within raw vehicle import data.
	Annual number of public and private charging stations	No	This data is not currently available. However, this will likely be collected by utility companies.

3.3 Data Needs

At present, the main data needs for accurate NDC tracking are within two main areas:

- **Emissions Data:** SKN needs a more streamlined process which consistently collects activity data to assess total emissions. The nation currently lacks recent emissions data due to the frequency with which the national GHG inventory is produced, thus resulting in current data gaps. The most recent inventory data available covers the years 2008 – 2018.
- **Transport Data:** SKN currently doesn't collect and/or store the level of detail needed for transportation data needed to track NDC progress within this subsector. More clearly defined roles within organizations, in terms of who collects specific information related to the data as well as who is responsible for storing the data, should be established. This combined with limited storage options make it difficult for the data to be easily accessed.

As reported in the data gap assessment for the energy sector (Deliverable E) which was done under this project, the main energy sector related gaps include:

- Lack of Granularity
 - o Transport-related data: There is a current limitation on the level of detail of the data collected within the transport sector. Vehicles undergo annual inspection and registration in SKN, however this process only collects certain vehicle data such as the manufacture year, engine size, etc. Storage options are limited for the vehicle data collected. In addition, data such as vehicle mileage isn't readily collected. Without this level of granularity in transport data, it would be hard to assess the annual percent share of vehicles within the SKN fleet. In addition, it would be challenging to accurately estimate the emissions which arise from the transportation sector.

- Incomplete Data
 - Renewable Energy Data: There is insufficient data on the renewable energy potential and the overall performance of the RE resources within SKN. This directly impacts the ability to accurately track the annual generation from RE sources as well as monitor the actual installed capacity of renewables??.
 - Emissions Data: No data after 2018 is currently available. This directly hinders SKN's ability to monitor the annual GHG emissions, given the inconsistent analysis of activity data used to assess overall emissions.
- Lack of recent energy balance
 - The most recent energy balance was conducted for the years 2010 – 2012. The lack of this data will also hinder SKN's ability to adequately track annual GHG emissions and annual generation from RE sources.

4 Challenges and Recommendations

Monitoring NDC progress through the use of indicators requires a great deal of data and technical capacity. Several challenges exist which may hinder this process. These challenges directly align with the challenges identified in other data collection and reporting processes such as national GHG inventory development. It is anticipated that as a SIDS, and based on current circumstances, SKN may also encounter some of these challenges which include:

1. Data Availability and Quality

- Limited data: Due to lack of well-established data collection frameworks within organizations, data may not be readily available or may be incomplete.
- Accuracy and consistency: The overall reliability of data may be challenging to maintain due to variations in data collection techniques and reporting standards which may arise over time.

2. Capacity & Resources

- Technical expertise: It is crucial to ensure there is sufficient human resource capacity with the technical skillset to adequately record, track and report indicator data. Capacity constraints are not new to islands like SKN.
- Financial constraints: Effective monitoring is contingent on sufficient financial resources to enable regular and accurate collection, as well as analysis and reporting of data.

3. Technical Data Challenges

- Standardization of methodologies: Consistency within the data collected and reported is contingent on the comparable use of standards and methodologies. The differences which exist in the measuring and reporting of different kinds of data can create complications when conducting comparisons or assessments of data.
- Model complexity: It may be difficult to regularly update some indicators given the level of complexity required from their models or methodologies.

4. Institutional and Administrative Issues

- The level of coordination among relevant stakeholders can affect the effectiveness of monitoring. In addition, there may be barriers to data sharing between institutions, which would affect the overall comprehensiveness of the data reported.

Similar to the recommendations made in the gap assessment for this project, the aforementioned challenges can be addressed by doing the following:

1. Improve Data Availability and Quality

- This can be done through the enhancement of data collection activities to improve data granularity, and frequency of data collection. In addition, more attention should be paid to enhancing data collection and management practices. This can be done by initiating a data management system which ensures accessibility, and security of energy sector data. This can be a collaborative effort executed through the Department of Statistics, and the Ministries with responsibility for energy, the environment and climate action. Pre-existing critical gap areas can also be identified and filled through the use of studies and assessments.

2. Enhance Technical Expertise and Resources

- It is crucial that dedicated personnel are well-equipped to meet the monitoring demands for the proposed indicators. To ensure this, continuous training and capacity-building programs should be made available to technical staff and persons directly involved in the indicator monitoring and reporting activities. This can be done in collaboration with regional and international experts.
- In addition, it is important to establish a secure source of funding for monitoring programs, infrastructure and personnel, to ensure practices are sustained over time. This can include additional financial support from international organizations and partnerships.

3. Address Technical Data Challenges

- The practices and methodologies used across different sectors should be streamlined to ensure comparability and improve overall consistency over time. In addition, models and methodologies should be regularly updated to reflect changes in technology and new scientific knowledge.

4. Strengthen Institutional Coordination and Data Sharing

- Efforts should be made to foster a more collaborative environment among relevant stakeholder groups. This along with the development of clear data sharing frameworks and guidelines for data sharing among the different entities, would enhance the overall monitoring process. It should be noted that it may be necessary to include some legislation to promote data collection, sharing, security and privacy. This would support data access and transparency for use by researchers, policy makers, and data compilers.

More specific data gaps, challenges and recommendations will be presented in Deliverable K: Report on NDC tracking indicators and data gaps, which will further analyze the specific circumstances within SKN.

5 Conclusion

In alignment with the Paris Agreement, countries, including SKN, have submitted their NDC which contains mitigation and adaptation targets. It is pertinent that the progress toward achieving these targets is tracked, as it allows for any necessary adjustments to be made as countries move toward achieving their overall climate goals. This tracking can be done using progress indicators which can be both quantitative or qualitative in nature and provide a comprehensive analysis of the progress. This NDC indicator data should be recorded, reported, documented, and archived consistently over time. This data includes data sources, input data, methodologies, assumptions, calculation sheets and the compiled indicator data. Given SKN's heavy focus on its energy sector for mitigation and noting the measures which were identified within the NDC to achieve its overall mitigation target, a total of 10 quantitative indicators within the electricity generation and transport subsectors have been identified to track SKN's NDC progress. Given the data demands for the indicators, an efficient data collection and management system must be established to ensure accuracy, consistency and transparency throughout the NDC tracking process.