



Energy and NDCs



ABOUT INSIGHT BRIEFS

Insight Briefs are informal analyses developed by the NDC Partnership's Support Unit, members or its partner institutions to share insights into thematic issues based on requests received by countries and the support provided by the Partnership. The following Insight Brief, developed by the Rocky Mountain Institute, or RMI, based on NDC Partnership data, addresses requests related to activities in the energy sector and provides recommendations on how support given to energy-related initiatives can be strengthened.

KEY MESSAGES

- **Of all requests for support the NDC Partnership receives from countries,** energy-related initiatives and projects are among the most frequent.
- **There are gaps between requests and support,** particularly for requests related to developing financial instruments for the energy sector and long-term data support.
- **The NDC Partnership can better anticipate energy requests focused on several key topics by,** among other things, exploring knowledge and learning activities to deepen understanding of cross-sector requests, deepening cooperation and coordination among key stakeholders in-country and expanding cooperation to reach new stakeholders, strengthening long-term data collection and improving request collection systems.

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INTRODUCTION

Energy is one of the most popular sectors in which the NDC Partnership receives support requests from countries. For example, of the support requests received through the Climate Action Enhancement Package, or CAEP, 209 (17%) are in the energy category, whereas only 150 (12%) and 79 (6.5%) requests are categorized as agriculture and transport, respectively. A more thorough understanding of the nature of energy-related requests will strengthen the NDC Partnership's support for countries with energy-based needs.

This report is based on an analysis of the CAEP requests to the Partnership and provides an overview of:

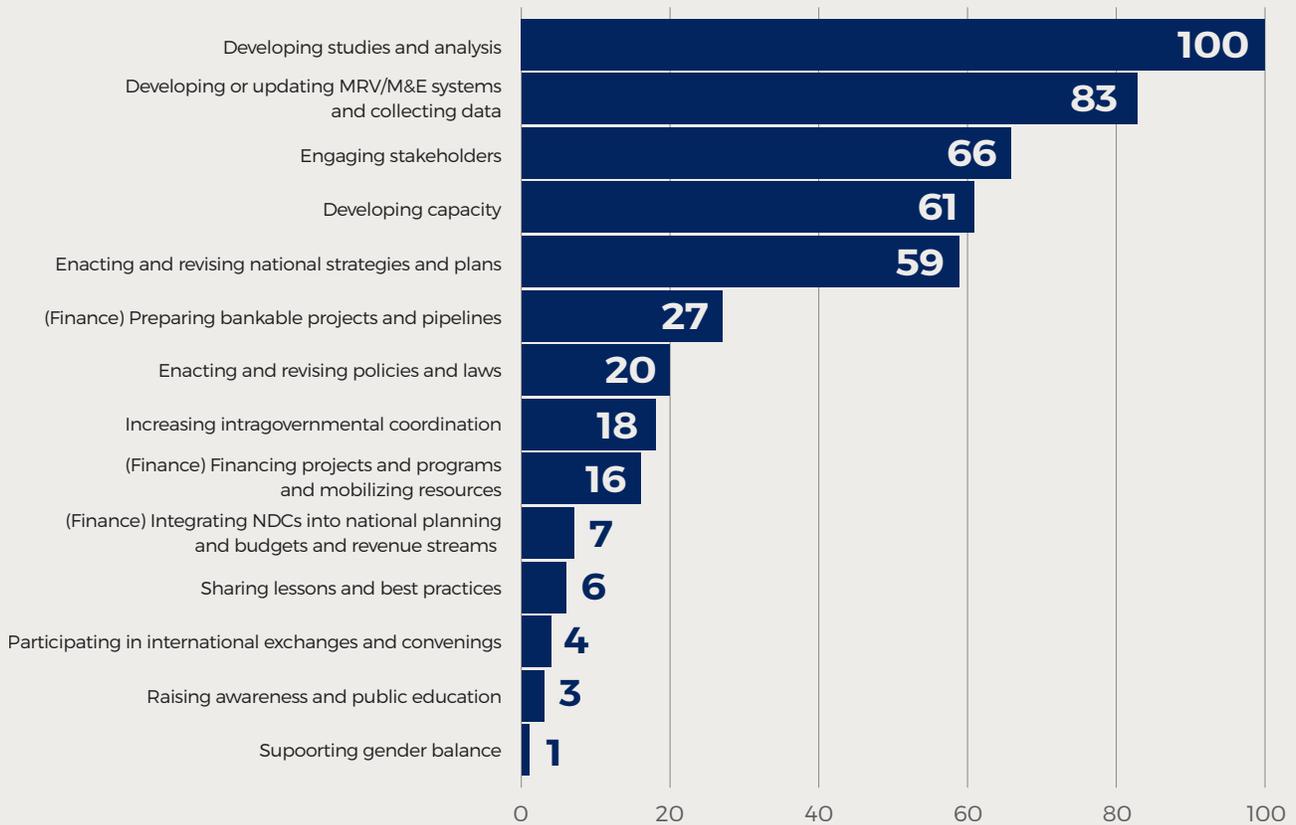
1. The types of technical assistance countries are requesting from support initiatives within the energy sector.
2. The types of activities and key topics featured in energy requests, including cross-sectoral requests, e.g., buildings, transport, industry, waste, water and tourism.
3. Trends, gaps and their drivers.
4. Recommendations for the NDC Partnership to better anticipate and respond to energy-related requests.

2 RESULTS

Due to its mitigation potential and its importance for development, energy plays a critical role in countries' NDCs.

The prevalence of energy-related requests through the CAEP reflects the importance of energy to countries seeking technical assistance with the update of their NDCs. Overall, 209 out of 1,219 CAEP requests (~17%) were categorized as Energy sector, with 104 of those activities including the word Energy explicitly in the government request. Nearly all (99.3%) requests were categorized as technical assistance. Additionally, energy-related requests were primarily considered either cross-cutting, meaning focused on both mitigation and adaptation (49.3%), or mitigation-focused (47.8%), with only 2.9% of requests categorized as solely adaptation focused.

FIGURE 1. REQUESTS BY CATEGORY



TYPES OF ACTIVITIES AND KEY TOPICS OF REQUESTS

Partners mainly provided technical assistance related to developing data systems (e.g., MRV: measurement, reporting and verification), developing capacity, stakeholder engagement and consultation and a focus on national strategies and plans. A total of 26 partners provided support for requests in the energy sector, with the International Renewable Energy Agency responding to the most requests overall (45 requests). Other partners providing energy-related support included Climate Analytics (11), GIZ (11), the United Nations Development Programme (13) and the World Bank (16).

The two most requested energy-related activities are developing studies and analysis and developing or updating MRV systems (**see Figure 1**). These results indicate that countries remain in need of adequate data and analysis, e.g., locally relevant emissions data and analysis of priority sectors, to properly update their NDCs as well as identify appropriate activities to meet and implement the new NDC targets.

In contrast, activity types with fewer than three requests included raising awareness and public education and supporting gender balance. The lack of focus on gender could suggest more work is needed to ensure social indicators are being properly incorporated into and prioritized within energy-related activities, and that countries and partners are properly equipped to handle these requests. The topic of equity within clean energy transitions is coming to the forefront, with countries recognizing that a clean, resilient energy system can also be an equitable one if equity is considered during all stages of planning for and implementing the energy transition process. Thus, in the future, the Partnership may see more requests connecting social inclusion targets, such as gender balance, within energy activities.

All key topics involved activities to develop capacity and engage stakeholders. Capacity-building mainly referred to training to use data systems, as well as consulting with stakeholders across sectors on the most relevant data to collect, and which adaptation and mitigation actions to prioritize. Given that countries sought the NDC Partnership to support these requests, it is likely that there remain internal needs to manage activities and coordinate with stakeholders on the ground.

In addition, across the key topics, requests emphasized collecting and managing energy data, developing relevant studies and analysis and updating and implementing national strategies and plans (see Annex). Fifty-four requests from 27 countries involved raising ambition of NDC targets. In addition to updating their targets for the 2020 NDCs, requests also focused on conducting gap analyses of achievements and challenges in the energy sector.



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The most requested key topic is data collection, analysis and modeling. Most requests in this area focused on developing GHG inventories, conducting sectoral energy audits, developing sectoral baseline emissions, tracking and monitoring NDC data, developing and improving energy data management systems (e.g., Measurement, Reporting and Verification – MRV – and Monitoring and Evaluation – M&E) and revising national greenhouse gas targets. Requests typically indicated that data would be used to predict emissions, as well as prioritize adaptation and mitigation projects within the energy sector (**see Annex**).

Furthermore, requests that were listed under multiple sectors often focused on creating detailed emissions baselines or collecting detailed emissions data. This likely indicates that data are used to support cross-sectoral issues and activities. In addition, this key topic included requests to develop studies and analysis of priority sectors, assessments of how much current and future mitigation actions contributed toward NDC goals and GHG targets and cost-benefit analyses of energy projects to include in the NDC.

Unsurprisingly, key topics with a high number of requests also include energy efficiency and renewable energy – the pillars of the energy transition. Some requests focus on technical assistance for developing projects or initiatives relevant to these topic areas, e.g., design and implementation of low-carbon cooking in Benin and lowering the risks of energy projects in Sudan, respectively. Others similarly aim at developing baselines and developing local emissions factors (see Annex). Requests in these key topics also focus on developing bankable projects; although IPs only provide technical assistance, this could suggest a future opportunity to shift more toward energy efficiency and renewable energy projects or provide technical assistance related to implementation.

Climate Analytics, which worked with a mix of sub-Saharan and Central Asian countries as well as island states in the Latin America and Caribbean and Pacific regions, observed that CAEP requests in 2020 focused mostly on renewables, while the first round of NDCs put an important emphasis on energy efficiency. This is likely due to a broader question of grid stability caused by high renewable penetration, a particular concern for small island states, including in the Caribbean region, which is overrepresented in the requests.



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Energy policy support mainly focused on defining and updating the NDC targets, as well as developing sectoral mitigation plans based on the developing or implemented national policies. For example, Papua New Guinea's request was based on its Climate Change Management Act. In addition, several requests sought support in ensuring that energy sector activities aligned with national policies, such as the NDCs and other sectoral policies, e.g., in Honduras (**see Annex**).

Similarly, requests related to energy planning also focused on elements of national policy but included an emphasis on long-term strategy development to support the overall energy transition. Energy planning requests also focus on developing programs or roadmaps for specific energy measures or targets, e.g., Uruguay (see Annex). While there are few requests categorized solely as long-term strategies (LTSs), IPs indicated that countries were looking toward long-term climate and development goals, which resonates with countries being interested in exploring different potential pathways and fully analyzing options over a longer time horizon.

Technical assistance related to energy project finance is a very common request topic, as elements of project finance emerged in different key topic areas, e.g., energy efficiency, renewable energy, developing studies and analysis. Requests related to finance mainly focus on exploratory activities to identify private finance opportunities. These requests often involved leading consultation and validation workshops with financial stakeholders, including private financiers. This topic also included many requests to build capacity, such as developing project pipelines, creating favorable regulatory and financial environments for the private sector and training people on the ground to write proposals and monitor/access finance opportunities. Project finance was a trend within cross-sector requests as well, particularly aspects to develop bankable projects and investment portfolios.

Climate Analytics noted that, despite not making these requests initially, countries expressed emerging interest in long-term planning, including the development of implementation plans for energy projects, financing strategies, long-term energy and decarbonization pathways. The absence of these CAEP requests, explored further in the "Gaps in Requests" section, is likely due to a focus on updating and implementing the 2020 NDCs.

Overall, an assessment of the trends in types of support activities and key topics of energy-related requests reveals that energy requests prioritize developing capacity, engaging stakeholders and developing data systems to support key energy topics, such as energy project finance, collecting and managing energy data and establishing emissions baselines. The analysis also reveals future opportunities for countries and partners to focus on long-term energy planning and development as well as opportunities for the Partnership to build capacity through knowledge and learning activities.



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GAPS IN REQUESTS

Only two requests were categorized as projects. This could be due to the fact that the primary focus is on updating and revising their NDC targets. Furthermore, developing energy projects requires both high levels of data and human resource capacity; given the overwhelming requests for capacity building, it is likely some countries are not yet well-equipped to identify appropriate and achievable energy projects that align with NDC targets or other development priorities.

Only six requests are categorized under adaptation. These activities include requests to integrate adaptation into the energy sector, e.g., the use of energy in climate resilient agriculture, prioritization of key energy climate vulnerabilities and identifying financing to implement under energy portions of National Adaptation Plans), and more generalized adaptation activities across sectors, including energy, e.g., develop a pipeline of adaptation projects, establish baselines across sectors and develop adaptation priorities. Clean energy implementation has positive implications not just for mitigation targets, e.g., emissions reductions, but also for adaptation targets, e.g., local and distributed energy resources contributing to increased resilience. Given the increasing importance of building climate resilience and the CAEP's whole-of-society approach, it may be necessary to anticipate and ensure energy requests and resulting activities adequately incorporate resilience considerations and recognize the value of both mitigation and adaptation.

Meanwhile, carbon markets and taxes are only mentioned in eight requests, national adaptation plans in six and rural development in two. While 15 requests were categorized as energy access and affordability, few of these focused on rural development. This suggests that energy access measures within countries are not currently targeting rural communities or countries are not utilizing the CAEP to support rural electrification or energy access activities.

However, given a focus on Sustainable Development Goal 7 – ensure access to affordable, reliable, sustainable and modern energy for all – this could create opportunities to encourage more rural electrification schemes or to study the barriers toward rural electrification.

Although engaging stakeholders was the third most popular type of activity, partners expressed the desire for more interaction and coordination with government stakeholders other than the Ministry of Environment, including the Ministry of Energy or Finance, to ensure that other ministries were adequately consulted on energy activities. Furthermore, partners felt that engagement with other ministries ensured CAEP energy requests did not duplicate existing activities. There are opportunities for the NDC Partnership to play a vital role in enhancing and expanding engagement with core government stakeholders throughout the duration of activities, including identifying relevant stakeholders in ministries and facilitating discussions between the two.

GAPS IN SUPPORT

This section summarizes and analyzes gaps between requests made to the Partnership and the support received from partners, with the intent of highlighting areas where the Partnership can better support countries and partners to fulfill requests.

Twenty-nine requests (13.8% of the total energy requests) were identified as not receiving support. Ten of them are categorized under various finance activities, e.g., preparing bankable projects and pipelines, financing projects and programs and mobilizing resources and integrating NDCs into national planning and budgets and revenue streams. Requests included the design of risk-sharing instruments for energy technologies (e.g., solar, biomass and energy efficiency), assessments of climate finance mechanisms to implement the NDCs, assessments of finance structures related to fossil fuels (e.g., tax structure or subsidy reform) and engaging financial institutions in NDC implementation. Whereas supported finance-related requests primarily focused on engaging the private sector and developing adequate project finance pipelines, these unsupported requests centered on climate finance instruments and institutions.

Four of the unsupported requests included gender considerations, such as consulting with stakeholders in relation to gender and preparing projects to implement relevant climate-gender plans, e.g., that of the Dominican Republic. It is possible countries are either struggling to identify how gender relates to energy or feel it is irrelevant to the energy sector.

Lastly, the high volume of data-related requests suggests countries are struggling to identify data needs, particularly in the long term, while simultaneously navigating existing constraints in data collection and management. Countries would benefit, then, from longer-lasting support structures for energy data collection and management. These could include recurrent country-tailored training modules focused on best practices for different types of energy and emissions data collection and management, development of data training platforms and identification of a contractor to maintain MRV systems.

The NDC Partnership is well positioned to support countries with data in a number of ways. For one, the Partnership can encourage partners to go beyond developing data systems to work with countries to identify and leverage data collection and management platforms. Second, the Partnership can explore knowledge sharing or learning opportunities regionally to increase countries' understanding and awareness of the different types of long-term data needs related to energy and resulting in lasting support structure. Such activities may signal opportunities to strengthen data-related requests and spark ideas on how to tackle long-term data constraints. The Partnership can also work with countries and partners to standardize energy data across countries, including types of data collected and the methods with which it is collected and managed.

Lastly, as implementation becomes countries' primary focus related to their NDCs, it remains important for the NDC Partnership to identify how to manage implementation with a lack of data and data-based capacity. Within this, the Partnership can identify opportunities to leverage IP expertise to better support countries in identifying and utilizing data, data needs and paths forward to collect data and

helping countries transition through project identification, prioritization and implementation. Overall, the Partnership can take steps to encourage partners and countries to work together to identify and develop activities that build strong data foundations to ensure countries are well equipped to implement their ambitious NDC energy targets.

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RECOMMENDATIONS

Based on the key trends identified in this analysis, the NDC Partnership can better anticipate energy requests focused on several key topics, including:

- **Implementation-related support.** It is likely that future requests will focus more on implementing the updated targets. Countries are likely to request more data-related support, particularly in terms of long-term capacity building around data management. There is also potential for countries to request more project-related assistance to support implementation.
- **Long-term strategic planning.** Although there were few requests to develop LTSs, partners stated that countries were interested in longer-term strategic planning within the energy sector, particularly regarding renewable energy pathways, energy roadmaps and decarbonization pathways.
- **Preparing an Integrated Resource Plan,** a common type of LTS, is a crucial step to aligning stakeholders and providing a fact base for decision making in the energy sector.
- **Finance strategies and investment portfolios.** Elements of finance appeared across many requests, with specific interest in developing bankable projects, establishing project-finance pipelines and building private-sector investment capacity in countries. Furthermore, as countries look toward implementation, it's likely that they will be primarily interested in pursuing or identifying finance opportunities and developing stronger investment portfolios to support future implementation.
- **For these requests, it's important for NDC Partnership to encourage relevant partners' response** or to do more knowledge outreach on country needs on access to climate finance.

In addition, the gap analyses identified opportunities for NDC Partnership to deepen energy action and its links to NDCs, long-term climate goals and sustainable development:

- **Cross-sector projects,** particularly in buildings, tourism and industry. Projects could focus on increasing energy efficiency in these sectors and reducing emissions. In addition, these projects can incorporate broader goals of stakeholder engagement, cross-sector planning and building more sustainable urban areas, which could provide co-benefits as well as positive implications for achieving SDG 11 – *make cities and human settlements inclusive, safe, resilient and sustainable.*

- **Working with partners to anticipate expected requests in the future, typically on:**
 - **Project finance.** The number of technical assistance requests has been supported, but they are to be followed by needs in terms of project finance that the Partnership can address.
 - **Energy access and affordability,** particularly for rural electrification in regions other than sub-Saharan Africa. Given the earlier analysis on public engagement and awareness building, we can expect more requests on rural electrification and communities to come forward in the near future. Such requests could have positive implications for SDG 7 – *ensure access to affordable, reliable, sustainable and modern energy for all*. In that sense, the Partnership may want to engage in discussions on energy access with stakeholders, such as Sustainable Energy for All, the U.N. Foundation or the Alliance for Rural Electrification.
 - **Equity and clean energy transition.** countries recognize the need to consider equity at all the planning and implementation stages of energy transitions.
- **Developing further capacity,** particularly technical, to fulfill activities and build institutional capacity to collect and manage data and avoid future data bottlenecks. One IP noted the importance of ensuring both requests and activities prioritize developing long-term programs, training modules or other human resource development activities that will continue to build capacity on the ground to better support future NDC enhancement and implementation.
- **Further encouraging and expanding stakeholder consultation within all requests.** One partner suggests a specific technical assistance budget to be allocated to support stakeholder outreach.

Overall, the assessment of requests and informal interviews with the IPs indicate that the NDC Partnership can better anticipate and respond to energy requests by:

- **Exploring more regional coordination mechanisms for smaller regions that are underrepresented,** such as the Pacific Islands.
- **Increasing knowledge-sharing efforts within regions among IPs and between IPs and in-country and regional partners** to promote collaboration and support IPs in identifying opportunities to enhance their services.
- **Exploring knowledge and learning activities** to deepen understanding of cross-sector requests as well as encourage partners to explore or consider cross-sector approaches to requests.



ANNEX. KEY TOPICS MATCHED TO RELEVANT KEY SEARCH TOPIC AND TYPE OF ACTIVITY

Key topic	Relevant key search topic	Relevant type of activity	Supported country request examples
Energy Policy Support	Enacting and revising national strategies and plans Subnational government	<ul style="list-style-type: none"> ● Developing capacity ● Enacting and revising policies and laws ● Engaging stakeholders ● Developing studies and analysis 	Honduras B062: Strengthen climate governance that allows the energy sector to comply with the NDC
Energy Planning	Long-term strategies National Adaptation Plans Enacting and revising national strategies and plans	<ul style="list-style-type: none"> ● Developing capacity ● Engaging stakeholders ● Developing studies and analysis ● Developing or updating MRV/M&E systems 	Uruguay A815: Based on the technical and economic analyses developed, elaboration of the roadmap for biomass gasification for production of hydrogen and/or methanol
Renewable Energy	Renewable energy	<ul style="list-style-type: none"> ● Developing capacity ● Developing studies and analysis ● Preparing bankable projects and pipelines 	Sudan D053: Support the implementation of Sudan's NDC by providing capacity building for lowering the risks of renewable energy projects, specifically, capacity building on open solar contracts
Energy Efficiency	Energy efficiency	<ul style="list-style-type: none"> ● Developing capacity ● Developing studies and analysis ● Engaging stakeholders ● Enacting and revising national strategies and plans 	Nigeria A577: Reinforce resilience of communities and ecosystems by promoting energy efficiency through the use of biogas, solar energy and improved cookstoves as well as improve energy efficiency in industries and households, transportation and electricity distribution (reduce losses from 12% to less than 10% in 2020 horizon)

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Energy Efficiency	Energy efficiency	<ul style="list-style-type: none"> ● Developing capacity ● Developing studies and analysis ● Engaging stakeholders ● Enacting and revising national strategies and plans 	Mexico A457: Energy efficiency in municipal water pumping and water treatment infrastructure; determine where and how much energy is used and identify energy efficiency measures
Data Collection, Analysis and Modelling	Developing or updating MRV/M&E systems	<ul style="list-style-type: none"> ● Developing capacity ● Developing studies and analysis ● Developing or updating MRV/M&E systems 	<p>Belize A080: Design an MRV system to support tracking of GHG, the impact of mitigation and adaptation actions and climate finance flows that collectively contribute to communicated NDC targets</p> <p>Dominican Republic A252: Development of local emissions factors. Coordinate at facility level to determine efficiency, fuel consumption and other factors for localized, accurate reporting of GHG in the energy sector.</p>
Raising Ambition of NDC Targets	NDC revision and enhancement	<ul style="list-style-type: none"> ● Developing capacity ● Developing studies and analysis ● Engaging stakeholders ● Developing or updating MRV/M&E systems 	<p>Burkina Faso A166: Analyze by sector the costs and benefits of the actions selected to be included in the new NDC</p> <p>Nigeria A608: Based on new data, modelling and analysis, update the mitigation target for the electricity sector building on new 2030 scenarios that align government goals for climate action, energy access and renewable energy targets</p>

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Key topic	Relevant key search topic	Relevant type of activity	Supported country request examples
Energy Project Finance	Finance and investment	<ul style="list-style-type: none"> ● Developing capacity ● Engaging stakeholders ● Financing projects and programs and mobilizing resources ● Developing or updating MRV/M&E systems 	<p>Liberia A444: Capacity building for NDC-sector ministries and agencies, as well as commercial banks and relevant parts of the private sector on routes to access climate financing</p> <p>Namibia A520: Engage private-sector players to solicit their participation in mitigation- and adaptation-related data collection</p>
Energy Access	<p>Energy access and affordability</p> <p>Rural development</p>	<ul style="list-style-type: none"> ● Developing capacity ● Developing or updating MRV/M&E systems ● Engaging stakeholders ● Financing projects and programs and mobilizing resources 	<p>Vanuatu A827: Nationally Appropriate Mitigation Actions designed/strengthened in context to scaling up rural electrification initiatives through use of new technology</p>



CREDITS

This Insight Brief was developed by RMI and the NDC Partnership Support Unit.



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