A. COVER PAGE

1. Fund Name: Joint SDG Fund

2. MPTFO Project Reference Number

3. Joint programme title Innovative Finance for Clean Tech Solutions in Uruguay´s Renewable Energy Sector: The Renewable Energy Innovation Fund (REIF)

4. Short title The Renewable Energy Innovation Fund (REIF)

5. Country and region Uruguay

6. Resident Coordinator Mireia Villar Forner, mireia.villar.forner@one.un.org

7. RCO Joint Programme focal point Mireia Villar Forner, Resident Coordinator mireia.villar.forner@one.un.org

8. Lead agency Joint Programme focal point Manuel Albaladejo, UNIDO, M.Albaladejo@unido.org

9. Government Joint Programme focal point Guillermo Ferrer, Ministry of Industry, Energy and Mining, Guillermo.Ferrer@miem.gub.uy

10. Type of financial intervention Loans (via a Fund) as well as technical assistance

11. Short description:
This JP seeks to decarbonize the industry and transport sectors; secure universal access to renewable sources; and increase the innovation and competitiveness of the energy sector through decreased energy costs and increased participation of women in the clean energy economy. Beyond Uruguay, this program will have a strong demonstration effect on innovative financing for developing countries.

The JP proposes an innovative financial mechanism i.e. the Renewable Energy Innovation Fund (REIF) - and supporting actions to leverage public-private financing. Uruguay´s Renewable Energy Innovation Fund (REIF) will provide financing for a range of new and emerging renewable energy technologies, ventures and activities aligned with its funding scope.

12. Keywords: Investment, gender equality, innovative, renewable energy, blending, clean tech, 2ET

13. Overview of budget

Joint SDG Fund contribution	**USD 10,000,000**
Co-funding committed – PNUD/GEF MOVES Project	USD 1,000,000
Co-funding anticipated	
TOTAL	**USD 11,000,000**
Co-financing – Private Financial Institutions (anticipated)	USD 29,400,000

Co-financing – Government of Uruguay (REIF investment-related support - estimated)	USD 21,000,000
Co-financing – UTE (investment support in other JP areas - estimated)	USD 17,700,000
Co-financing ratio (1: Total/SDG Fund Contribution)	1:7

14. Timeframe:

Start date	**End date**	**Duration** (in months)
January 2021	December 2024	48 months

15. Gender Equality Marker: 2 (Please refer to Annex 3 for details)

16. Participating UN Organizations (PUNO) and Partners:

16.1 PUNO

- Convening agency:
  - UNIDO - Albaladejo, Manuel - Head of UNIDO´s Regional Office for Uruguay, Chile, Argentina and Paraguay - m.albaladejo@unido.org – Phone: +598 2604 6515
- Other PUNOs:
  - UNDP - Liller, Stefan - Resident Representative – stefan.liller@undp.org – Phone: +598 2909 3806
  - UNWOMEN – Furtado, Magdalena – Representative – magdalena.furtado@unwomen.org – Phone: +598 2917 1748

16.2 Partners

- National authorities:
  - The Ministry of Industry, Energy and Mining (MIEM) – Paganini, Omar – Minister – ministro@miem.gub.uy – Phone: +598 2917 2266
  - The Office of Planning and Budget in the Presidency (OPP) -Alfie, Isaac – Director – direccion@opp.gub.uy - Phone: +598 (2) 150 ext.: 31 to 33
  - National Administration of Power Plants and Electrical Transmissions (UTE) – Emaldi, Silvia – President / Mosto, Pablo – Manager of Supply Planning and Environment Division – pmosto@ute.com.uy - Phone: +598 2209 0051; +598 (2) 155 ext.: 1782

- Civil society organizations:
  - INACOOP – Fernandez, Martin - President /Gutierrez, Danilo - Executive Director Phone: +598 2916 5142

- Private sector (Commercial Banks):
  - BROU – Ferrer, Salvador – President – Phone: +598 2900 2900
  - HSBC – Fichte, Geoffrey – CEO/General Manager – Phone: +598 2915 1010
  - BBVA – Charro, Alberto - Country Manager – Phone: +598 2917 2500
  - ITAU – Martínez, Valentín – Deputy/General Manager of Companies – Phone: +598 29016 0127
  - SANTANDER – Trelles, Gustavo – Country Head – gtrelles@santander.com.uy – Phone: +598 2132 4888

- International Financial Institutions:
  - IDB LAB (IDB Group)- Bendersky, Matías – Country Office Representative – mbendersky@iadg.org – Phone: +598 29154330

- Other partners:
  - IRENA (Masdar City) – La Camera, Francesco – Director General – info@irena.org – Phone: +97124179000
  - COALITION FOR GREEN CAPITAL – Colnes, Andrea – Director of Global Green Bank Development – andi@coalitionforgreencapital.com – Phone: +802 522 4347 (mobile)

UN SIGNATURE PAGE

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Resident Coordinator *Mireia VILLAR FORNER* *30th November, 2020*
Participating UN Organization (lead/convening) *UNIDO* *Manuel ALBALADEJO* *Regional Representative* *30th November, 2020*
Participating UN Organization *UNDP* *Stefan LILLER* *Resident Representative* *30th November, 2020*
Participating UN Organization *UN WOMEN* *María-Noel VAEZA* Regional Director of UN Women for the Americas and the Caribbean *Date* 30/11/2020 

GOVERNMENT SIGNATURE PAGE

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National Coordinating Authority
MINISTRY OF INDUSTRY, ENERGY AND MINING - MIEM
Omar PAGANINI, Minister
30th November, 2020

Ing. Omar Paganini
Ministro de Industria, Energía y Minería

✓ **Official support letter attached**

B. STRATEGIC FRAMEWORK

1. Call for Joint Programmes: SDG Financing (2020) – Component 2

2. Programme Outcome [pre-selected]
Additional financing leveraged to accelerate SDG achievement (Joint SDG Fund Outcome 2)

3. UNDAF Outcomes and Outputs (with reference to UNDAF 2016-2020 Uruguay)
3.1 Outcomes
- Outcome 1: Sustainable development with innovation
- Outcome 2: Inclusive and egalitarian social development

3.2 Outputs
- Output 1.1) The country has strengthened its capacities and institutions to ensure the conservation and sustainable use of natural resources including water, ecosystem services, the prevention of pollution, and the generation and sustainable use of energy, promoting local development and the generation of sustainable livelihoods.
- Output 1.3) The country has strengthened its capacities for mitigation and adaptation to climate change and climate variability, as well as its resilience in the face of disasters.
- Output 2.1) Strengthen public policies, institutional capacities and social services, as well as how to adapt legal frameworks to overcome vulnerabilities and promote social inclusion of the most disadvantaged groups (…) as a contribution to eradication, in the medium term, of poverty in all its manifestations and the reduction of inequality gaps (in particular those based on gender, gender identity (…)).

4. SDG Targets directly addressed by the Joint Programme

4.1 List of goals and targets

SDG 5. Gender Equality
- Target 5.5. Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.

SDG 7. Ensure access to affordable, reliable, sustainable and modern energy for all.
- Target 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
- Target 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.

SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
- Target 9.3. Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets
- Target 9.4. By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.
- Target 9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.

4.2 Expected SDG impact

The Joint Program's (JP) main expected SDG impacts are in the following areas:

- Environmental sustainability (SDG 7, 11, 13), by helping deploy low carbon technologies and smart grids to capitalize on Uruguay's renewable energy surplus and decarbonize the industry and transport sectors.
- Enhanced private sector competitiveness (SDG 9, 17), as the efficiency of the power system improves and energy costs decline.
- Social/gender inclusiveness (SDG 5, 8), through increasing access to energy by vulnerable groups due to new or improved connections, and having a greater participation of women in the renewable energy economy and related financial ecosystem.
- Enhanced financial sector capabilities for SDG investment (SDG 17), through the implementation on impact investment framework and sustainable finance roundtable.

5. Relevant objective(s) from the national SDG framework

The policies and commitments in place most relevant to this program are:

- **National Energy Policy 2005-2030**, which provides a comprehensive, long-term energy plan to diversify the energy mix, reduce dependency on fossil fuels, improve efficiency, and increase the use of endogenous energy resources, mostly renewables.
- **National Climate Change Policy**, which, among other, seeks to:
    - Reduce GHG emissions in the transport system through increased efficiency and promotion of low-carbon technologies.
    - Deepen the diversification of the energy matrix in low GHG-emitting sectors.
- **National Determined Contribution (NDC)**, which establishes a conditional target of 29% in CO2 emissions intensity per GDP unit in the energy sector, including transport, and industrial processes, and penetration targets for different type of electric vehicles.

C. JOINT PROGRAMME DESCRIPTION

1. Baseline and Situation Analysis

1.1 Problem statement

During the last decade, Uruguay successfully conducted its first energy transition (1ET), achieving a remarkable transformation of its power matrix, which has resulted in a 98% share of renewable energy in 2019. One implication of this massive penetration of renewables is that Uruguay now has a significant structural energy surplus[1] (10-15% of power demand in average hydrological conditions; 18% in 2019), mainly derived from non-dispatchable renewable energy production outside peak consumption times. In addition, Uruguay still has relatively high energy costs[2], even when the transformation of its power matrix to locally produced renewable energy managed to reduce its dependency on costly fossil fuel imports.

In this new decade, the Government of Uruguay (GoU) aims at implementing a second energy transition (2ET), which is seen as an opportunity and driver to achieve further economic and social development goals. In other words, the 2ET is considered as a catalyst for enhancing competitiveness and improving living standards and a strategy to advancing the 2030 Development Agenda in four SDG clusters: i) competitiveness cluster (SDGs 9, 17); ii)

[1] By "energy surplus" throughout this proposal we refer to "energy available at zero variable cost".
[2] An important determinant of such higher costs is the standard of service achieved in Uruguay, which in various dimensions ranks at the top within Latin America.

inclusiveness/gender cluster (SDGs 5, 8), iii) environmental sustainability cluster (SDGs 7, 11, 13), and iv) partnership for action on sustainable development (SDG 17). In addition, a successful 2ET would critically support the achievement of Uruguay's NDC commitments, which establish ambitious mitigation objectives in the energy sector.

The GoU's expects the 2ET to achieve two main goals:

i) **Decarbonizing key economic sectors:** while the energy mix in the power matrix is now 98%[3] clean, the primary energy matrix is still about 37% fossil-based. The transport and industry sectors, which combined account for 70% of energy consumption, still rely extensively on fossil fuels and are major CO_2 emitters.

ii) **Improving the efficiency of the power system:** a better use of the energy surplus through the incorporation of storage, power-to-X, and demand management solutions enabled by smart grid technologies can lead to further socio-economic as well as environmental benefits. First, shifting power demand times can reduce peak power capacity (peak shaving), which in turn can allow to defer investments in additional transmission and distribution capacity (while also reducing thermal generation often times used for peaking). Second, a larger domestic use of the mentioned energy surplus, which currently has a low opportunity cost as it is mostly sold to neighbor countries at relatively low prices, or sometimes even wasted, would derive in additional economic gains.

In addition, while access to power is high in Uruguay (99.8%), the GoU has set a goal of reaching universal access by 2024, which pledges to the UN´s Leave No One Behind principle.

There are, however, various types of barriers that prevent or delay Uruguay´s 2ET, including:

- **Economic.** Most of the targeted 2ET technologies have significantly higher upfront costs than the alternatives they aim to substitute. While the lifecycle costs of the former is usually lower for cases with medium/high utilization factors, the lack of experience with them does not provide sufficient confidence over that. Most importantly, their higher upfront costs often times create a financial barrier, particularly in cases when such technologies are not part of the core business of companies and have to compete for limited capex budgets (or limited technical and managerial time for their evaluation) against alternative investments more directly critical to top line business results.
- **Regulatory.** Some of these technologies are at very early stages of penetration in the Uruguayan market (and in some cases at a global level), with a legal framework that has still not developed regulations and standards that support their introduction. Such regulatory gaps and resulting uncertainties affect both the supply (how much to invest in developing the market; what are the optimal models/specifications to promote) and the demand (uncertainty over payback and internal rate of return given potential future changes).
- **Technological.** Given the limited track record of some of these technologies, there are still significant perceived risks on their performance in real world conditions with parameters that are hard to model and largely variable from context to context. In addition, technologies that are essentially different from their traditional alternatives can lead to concerns over servicing capacity (time, cost) given the inadequacy of the existing support ecosystem. Finally, the current state of some technologies pose operational limits (e.g. electric vehicle battery capacity/autonomy) that render them inadequate for broader adoption.
- **Infrastructure.** Some 2ET technologies depend on the availability of basic infrastructure without which their deployment remains limited. This is the case, for example, of smart

[3] Share of renewables in 2019. Such share varies annually based on hydrological conditions.

grid technologies for energy demand management or a charging network for electric vehicles.

- **Resource.** Some of the energy surplus management models that can support the 2ET (e.g. allocation of significantly discounted preferential tariffs to technologies providing demand flexibility) are indirectly subject to resource risk, as such availability of energy surpluses depends mostly on hydrological factors. Such unpredictability may result in uncertainties regarding internal rate of returns and paybacks for 2ET technologies, which could hinder investment, if not somehow mitigated.
- **Market.** The unpredictability of certain market factors hinders development of technologies directly dependent on them. Technologies whose payback depend on market-based power prices (or peak-valley power price differentials, as in the case of some storage solutions) might have limited uptake if there is a high risk perception associated to them. Some market risks have been exacerbated by the COVID pandemic; for example, public transport revenue has seen reductions of 20-30% in some districts, which affect investment decisions or credit capacity of companies, challenging the incorporation of technologies more capital intensive and whose repayment might be longer than expected.

In the case of access to power, households in the lower income decile, which are often women-led and/or in remote rural areas, still depend on unsafe, unhealthy and polluting energy sources. While renewable energy solutions (e.g. solar PV autonomous systems) can offer a more cost-efficient option to reach and enhance service for rural households, they still have a significant upfront cost, beyond the reach of these segment of the population.

Beyond these economic and technology-related barriers, the banking sector in Uruguay (main actor in the country's financial sector and a key participant in the 1ET) has ever stronger corporate mandates to increase its support for sustainable investments, but requires additional tools and capacity building to strengthen its ability to identify SDG-aligned investments, assess their risks properly, structure financial solutions that can effectively support them, and subsequently monitor and report their impact.

Finally, there are still significant gaps for gender equality in the 2ET, including low participation of women in the energy and financial sectors (particularly in STEM and decision-making functions), limited availability of statistical gender-sensitive data to properly inform policy, and relatively limited access to finance by women in these sectors. Women face barriers to enter and advance in the energy sector due to persisting cultural and social norms and the absence of a gender perspective in the sector´s corporate policies and practices.

1.2 Related interventions

MOVES. UNDP/GEF MOVÉS project promotes an effective transition towards efficient, inclusive and low-emission mobility in Uruguay by focusing on: i) adjusting policy and regulatory frameworks favoring sustainable mobility, ii) technological demonstration of electromobility viability in urban public transport and urban freight transport, and iii) promoting cultural change towards sustainable mobility options. The MOVÉS project, executed by MIEM, will leave a more fertile ground for electromobility to take off in the country in the coming years. However, it critically lacks financing tools for electromobility, particularly considering the challenge of higher upfront costs. Additionally, the country lacks an estimate of the value of transport externalities, which are critical to compare real costs and benefits of alternative options. There is a need to decouple local governments revenues from the sale and registration of vehicles, rethinking tax and subsidies structures considering a more holistic approach towards mobility and urban development. Finally, there is a need to promote further

development of the supply of electric vehicles and competition to help drive down costs and enhance options for users.

BIOVALOR. UNIDO/GEF project entitled 'Towards a Green Economy in Uruguay: Stimulating Sustainable Production Practices and Low-Emission Technologies in Prioritized Sectors', and executed by GoU, promotes the development of low carbon sustainable production models through adequate, clean and innovative technologies. The project´s objectives include: i) policy and regulatory framework strengthening for sustainable productive practices; ii) knowledge base strengthening in waste to energy, waste valorization and low emission waste treatment technologies; iii) demonstration pilots of waste valorization technologies applications; and iv) capacity building, training and dissemination campaign for the adoption of low carbon waste valorization initiatives. The overall objective is to re-use, transform and valorize different kinds of waste from agro-industrial sectors into energy, compost and other byproducts. The project has supported country efforts for GHG mitigation with emphasis on the primary production sectors and agro industries. The project has demonstrated key aspects of some of these waste valorization opportunities (use of rumen as alternative fuel in the meat processing industry and of biogas for power generation and thermal uses), including having supported the first dairy farm in the country that produces biogas from residues, generates electricity and sells it to the power network (UTE). REIF financing capacities will provide a tool to move to the next stage of larger scale project development, implementation and financing.

GCIP. UNIDO/GEF project entitled "Promoting the transition to a circular economy in Uruguay through cleantech innovations" / Global Cleantech Innovation Programme (GCIP) is a forthcoming GEF-7 Uruguay Project. It i aligned with the GEF-7 Climate Change Focal Area seeking innovation and technology transfer for sustainable energy breakthroughs. The project aims at addressing existing barriers for cleantech solutions to fully commercialize and scale, leveraging untapped potential in reducing GHG emissions and strengthening partnerships with the private sector interested in investing in clean technologies. It will have lasting positive effects on the global environment and on the development of a vibrant local market for clean technologies.

Overall, the JP offers a meaningful opportunity to build from or synergize with these programs, taking on the gaps identified, through both investment and TA support.

1.3 SDGs and targets

The table below presents the SDG goals and targets this JP is mainly focused on, along with a set of program-adjusted SDG indicators defined to measure them (further detail in Annex 2). Baselines and targets will be determined during the JP's inception phase. SDGs 7 and 9 are closely connected in this JP, given that its investment and TA support to 2ET technologies will contribute to both them, since successful scale up of these technologies will jointly result in an increased share of renewables, enhanced infrastructure resilience and innovation.

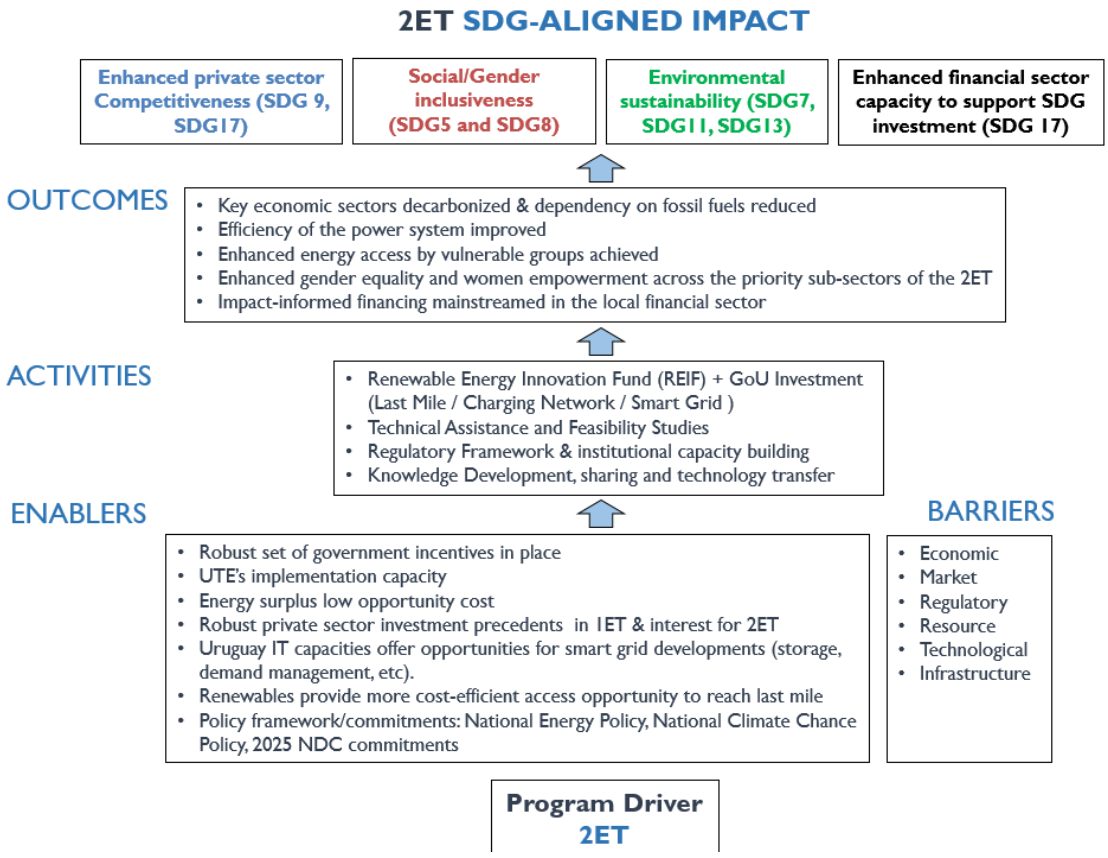
SDG 7. Ensure access to affordable, reliable, sustainable and modern energy for all		
Target 7.1	By 2030, ensure universal access to affordable, reliable and modern energy services	*Source:* UTE Annual Report
Target 7.2	*Indicator:* Renewable energy share in the total final energy consumption	*Source:* Annual Energy Balance
SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.		

Target 9.4	*Indicator:* Number of companies supported by JP in the incorporation of 2ET technologies	*Source:* REIF Annual Report
Target 9.4	*Indicator:* Number of innovative 2ET technologies demonstrated by JP	*Source:* REIF Annual Report
Target 9.3	*Indicator:* Increase of SME access to finance for 2ET	*Source:*TBD
SDG 5. Achieve gender equality and empower all women and girls		
Target 5.5	*Indicator:* Increase in number of women in managerial positions in REIF investee companies	*Source:* REIF Annual Report

2. Programme Strategy

2.1 Theory of Change

The figure below presents this JP´s theory of change:



The situation analysis in section 1.1 described the set of barriers for Uruguay to achieve the 2ET. Without interventions, as those proposed under this JP, Uruguay 2ET will most likely progress inadequately slow vis-a-vis its global SDG agenda and related national development objectives and commitments (e.g. NDC).

However, there are a number of enabling conditions that, if properly leveraged, can be critical to overcome the previously mentioned barriers. Such enablers include:

1. **Government priority.** The 2ET is a priority in the Government's development agenda. Uruguay´s National Determined Contributions (NDC) propose a reduction of 24% (unconditional) and 29% (conditional[4]) in CO_2 emissions intensity by GDP unit in the energy sector, including transport and industry.
2. **Government support.** The Government has put in place a robust set of economic incentives that support the 2ET, ranging from investment subsidies (for electric buses), investment tax credits (ranging from 30% to over 100% of the value of investments in sustainable technologies), preferential tariffs (for technologies capable of offering demand flexibility), tariff subsidies (for electromobility), and import duty waivers, among others.
3. **UTE.** UTE's involvement, as the state-owned and only power utility in the country, is a fundamental enabler, given the implementation capabilities it provides, and its 2ET-relevant investment plans, including CAPEX for rural electrification (USD 12M)[5], the electric charging network (USD 5.7M), and additional expected investment in smart grids.
4. **Renewable Energy Surplus.** As previously described, the 1ET put Uruguay at the forefront of the renewable energy league and resulted in a structural renewable energy surplus. The extent of such surplus varies from year to year, depending mainly on hydrological conditions. In 2019 it reached a total of approximately 2,000 GWh, or about 18% of Uruguay´s energy demand. Such energy surpluses are not currently used at their fullest, which offers significant opportunities for domestic economic gains.
5. **Financial sector involvement.** Uruguay´s 1ET was financed by the public/private sectors (US$7.8 billion between 2010 and 2016) with a strong participation of foreign investors and local banks. Experience in public-private financing is an asset for the 2ET. The global drive in the financial sector to green pipelines and portfolios has also reached local commercial banks, increasing their mandates to support SDG-aligned investments.
6. **ICT capabilities.** Uruguay´s growing ICT sector has found a niche in the renewable energy sector. Thus, the 2ET can strengthen the country´s ICT innovation capabilities through the development and application of smart grid technologies and industry 4.0 solutions (i.e. internet of things, big data, blockchain).

Drawing on these enablers, the JP proposes four components to overcome the aforementioned challenges, unlock the financing potential, and accelerate SDG achievement:

Component 1. The Renewable Energy Innovation Fund (REIF): an innovative, risk-tolerant fund that will pursue a blended finance approach to help companies overcome the economic and financial challenges stemming from the barriers described in section 1.1. In doing so the REIF will support participating financial entities implement tools that will allow them to mainstream impact-informed financing practices and enhance their capacity to finance sustainable investments. Supported projects will provide critical demonstration value in terms of i) technology performance and ii) financial products that can properly support them.

Component 2. Technical Assistance and Feasibility Studies: to support companies´ access to the REIF, validate 2ET technologies and innovative business models, considering the differentiated impact on women-led/owned businesses and challenges they face to access capital.[6]

[4] This higher target is, as stated in Uruguay's NDC, "conditional to additional specific means of implementation the country may receive, through funding, technology development and transfer and capacity building".
[5] Details of outputs related to these investments are presented in the Results Framework.
[6] In addition, on rural electrification, for example, the JP will support studies of the effects on rural networks of incorporating PV generation systems working on-grid, with and without batteries, to evaluate the improvement that

Component 3. Regulatory Framework Adjustment and Institutional Capacity Building: to help overcome any capacity and regulatory barriers to the deployment of 2ET technologies.
Component 4. Knowledge Development, Sharing and Technology Transfer: through PPPs for knowledge generation, south-south and triangular cooperation, in collaboration with the International Renewable Energy Agency (IRENA), which will be a partner in this JP.

Each of these interventions will be designed and implemented with an eye on maximizing their contribution towards SDG-aligned **transformation** (see examples provided in section 2.2), by means of the five outcomes targeted by this program, namely:

1. Decarbonizing key economic sectors, primarily industry and transport, reducing dependency on fossil fuels.
2. Improving the efficiency of the power system, primarily through the improved use and benefits derived from the renewable energy surplus, through the implementation of storage, demand management and other measures enabled by smart grid technologies.
3. Enhancing vulnerable groups' access to clean and affordable energy, by supporting the GoU reach those still lacking access to power (and in doing so championing the LNOB principle) and by implementing tariff and smart grid-enabled strategies to enhance access to those who currently have it but face limitations.
4. Enhanced gender equality and women empowerment across the priority sub-sectors of the 2ET, by increasing the opportunity for women to lead, participate in and benefit from enhanced access to finance and technology.
5. Mainstreaming impact-informed financing in the local financial sector, and through its capacity to identify and further support SDG-aligned projects.

The type of SDG impact stemming from these outcomes include:

- Environmental sustainability (SDG 7, 11, 13). The enhanced use of its renewable energy surplus and clean tech innovation will decarbonize industry and transport thus reducing GHG emissions. The adoption of waste management and treatment technologies and legislation will decrease pollution derived from hazardous waste (e.g. from batteries).
- Enhanced private sector competitiveness (SDG 9, 17). The improvement in the efficiency of the power system will reduce energy costs and improve the competitiveness of the private sector. Enhanced smart grid capacities and a stronger innovation ecosystem will result in more business opportunities and demand for STEM professionals;
- Social/gender inclusiveness (SDG 5, 8), through increased access to energy for vulnerable groups due to new connections or reduced residential energy costs[7]; socio-economic opportunities created by the growth of the renewable energy sector (in terms of job-creation, skill development, entrepreneurship and investment); and greater participation of women in the renewable energy economy, its labor market (in particular STEM occupations) and financial ecosystem.
- Enhanced financial sector capabilities and drive towards SDG investment (SDG 17). The implementation of the impact framework and the Sustainable Finance Roundtable will set financial institutions in a path towards further investment in SDG areas. REIF's demonstration on the effective use of blended finance to address investment barriers for new technologies will set a model for subsequent replication to other SDG areas.

Key assumptions underlying this theory of change include:

- Projects financed by REIF will provide robust demonstration on the strong technical and financial performance of these projects that will support further market uptake.

the renewable installation would imply in terms of environmental resilience and improvement of service quality in cases of very extensive lines subject to environmental impacts that affect the service.

[7] In line with those defined by the Government as objectives for the period.

- Blended finance support is only required for this initial market development stage. Subsequent normal market dynamics (more suppliers and competition, economies of scale, cost reductions) and regulation enhancement will boost its further development.
- Efficiencies derived from demand management and enhanced use of energy surpluses will result in overall domestic energy cost reductions, by improving utilization of energy already produced and displacing the use of more expensive fossil fuels.

2.2. Proposed intervention

I) Strategic approach and design

As mentioned in section 1.1, 2ET technologies and business models face a number of barriers of different nature that hinder either investment decisions by companies or the extent or adequacy of financing by banks. This latter element has to do with perceived bankability conundrums or regulatory restrictions, which this JP, and particularly the REIF, tries to address following key strategic elements:

-Blended Finance approach. Many of the barriers identified, on a technology-specific basis, are suitable of being overcome through a combination of:

i) project-specific TA to help companies and banks properly assess expected financial performance of the investments (REIF's TA facility can provide this support).
ii) certain level of de-risking (when needed to help banks expand the extent of the financing they can offer) or differentiated terms that make the blended product terms (particularly tenor, amortization profile and required collateral) suitable to the needs and performance (repayment profile, internal rate of return) of a given technology.

On this second element, REIF's capacity to provide risk-tolerant capital will, when blended with banks commercial capital, allow it to deliver that. The mentioned de-risking (and enhanced adequacy of financing terms) will, in most cases, be provided through structural subordination of REIF's capital relative to the commercial tranche of loans. For example:

- When the tenor required by a project is beyond what a bank can offer, a longer-tenor blended product can be offered by having REIF's tranche provide a longer tenor, combined with a back-ended amortization profile. This is relevant, for example, for loans to medium and small size bus operators whose financial capacity to incorporate significantly more expensive (2-3x) electric buses will be increased by longer tenors[8].
- When the expected internal repayment and cash flows of a certain technology is variable or subject to external factors it does not control (which may result in significantly different repayment scenarios), a back-ended amortization profile and/or longer grace period will help offer clients suitable financing to support positive investment decisions. This applies, for example, for demand flexible technologies whose financial viability is based on UTE's discounted, yet economically sound, tariffs that compensate for the flexibility they offer. As availability of such discounts is variable and subject to hydrological conditions, resulting cash flows are hence variable too, requiring larger grace periods and/or longer durations to ensure loan repayment obligations can be covered with those project cash flows.

[8] Another related example is that of the existing financial trust funds that finance capex investments of public bus operators, through which pension funds provide financing with variable tenors, getting repaid from a fix percentage of revenues collected by such operators that is pledged in their favor. In the current COVID environment where such revenues have significantly dropped and become very unpredictable in the short and mid-term, a REIF tranche subordinated in the payments waterfall would mitigate risks -for such pension funds- of getting significantly longer resulting tenors (something that could significantly hinder their continued willingness to finance, or substantially increase the cost associated with it).

These are just two examples of how REIF's flexibility on instruments, terms and risk-bearing capacity will help overcome such barriers, by providing the **missing piece** that makes the whole (suppliers push, companies needs, GoU incentives, and financial sector liquidity) work.

-Impact maximization. REIF resources are limited (USD 10M, between investment and TA resources) compared to the vast scope of technologies relevant for the 2ET. Thus, REIF will focus on projects that can achieve the highest impact and leverage. This will require a case by case analysis (of required support –size, type-, **additionality** and **leverage potential**) as projects are originated. While there are general assessments that can be done at the outset for each technology, the mentioned factors can be highly contextual for each project (specific risks, basic financing terms a company can access from banks, availability of guarantees/ collateral, etc.) and thus such project level analysis is fundamental[9]. What can be anticipated though is that projects most likely to be supported are those that have otherwise (except for the specific challenge REIF is addressing) strong enabling conditions. This is paramount because it is highly correlated with the subsequent chances for replication without broader or future blended finance support.

-Demonstration and initial market push. Another aspect that will be considered in selecting projects is their capacity to provide meaningful demonstration that can help overcome knowledge and risk perception barriers. The JP's knowledge sharing activities (component 4) will seek to extract for that purpose maximum demonstration value from the results emerging from REIF-funded projects. Successful demonstration is one of the pillars of the additionality the JP can have and of its theory of change, since a critical phase of any transformation process (as the 2ET is) is the demonstration of some of its key elements.

-Temporary nature. Another key consideration in selecting projects will be the prospects for subsequent sustainable development of technologies, after REIF's initial support. Such prospects will be determined by the nature of the current barriers and if/how they are suitable of being overcome in the mid-term. REIF will support when a temporary gap needs to be filled while markets evolve (suppliers' competition, product options), costs go down (relevant for technologies such as batteries, with promising prospects for meaningful reductions in the mid-term) and regulatory frameworks develop for adequate support to new technologies.

-Flexibility. An important strength of the REIF is its flexibility in terms of product offering and technologies of focus. International experience with similar funds shows that when a certain program has too narrow a focus (on a certain technology, market segment, etc.) when market conditions evolve its original design and focus might become irrelevant. REIF's flexibility will keep it useful as market and technology conditions inevitably change over the coming years, and with continued capacity of focusing on evolving gaps and opportunities of greatest additionality. This does not compromise its capacity for impact given that its overall objectives (decarbonization and power system efficiency enhancement) can be achieved through financing of a broad range of technologies, as presented in Annex 7.

-Partnering with and leveraging banking sector capacities. A key design element of REIF is to partner with local financial institutions, which achieves the following objectives:

- **Capitalize their existing capacities** (most importantly, origination/pipeline creation and credit assessments) in order to maintain operational costs down and focus its resources in covering gaps instead of duplicating capacities.

[9] Such analysis will be carried out by the Investment Committee, which –as described in section 3.1- will be staffed with proper energy, finance, risk, gender and impact skills to ensure a sound assessment on this.

- **Crowd banks in:** REIF's impact potential relies on its ability to mobilize additional financing. With the Uruguayan financial system being strongly dominated by the banking sector, the best chance to achieve leverage is by working with, and in support of, banks. This is the best mitigant to the risk of crowding them out.
- **Help banks develop their capacities for impact financing.** The exercise of co-financing with banks represents the most pragmatic, hands-on opportunity to promote the incorporation of tools and practices that will enhance their capacities to identify, finance, monitor and report SDG-aligned projects.

One such tool, an **impact framework,** is an impact management system based on SDG Impact Standards for private equity funds[10]. UNDP will lead the ongoing development of the REIF's Impact Framework, which will be fully aligned to the SDG Impact Standards through a gap analysis and further undergo a certification process during the inception phase. The Impact Framework allows for identification of SDG-aligned investments, through proper analysis, categorization and sizing of expected and potential impacts of projects, while providing a system for monitoring and reporting. It encompasses the provision of the impact framework tool itself and the training and capacity building in financial institutions to properly incorporate and systematize it in the lending operations project cycle. **The JP's support to local banks to mainstream an impact management system is one of the cornerstone contributions of this program** and a pillar of its expected, long-lasting impact in enhancing the local financial sector capacities (and attitudes) for SDG financing.

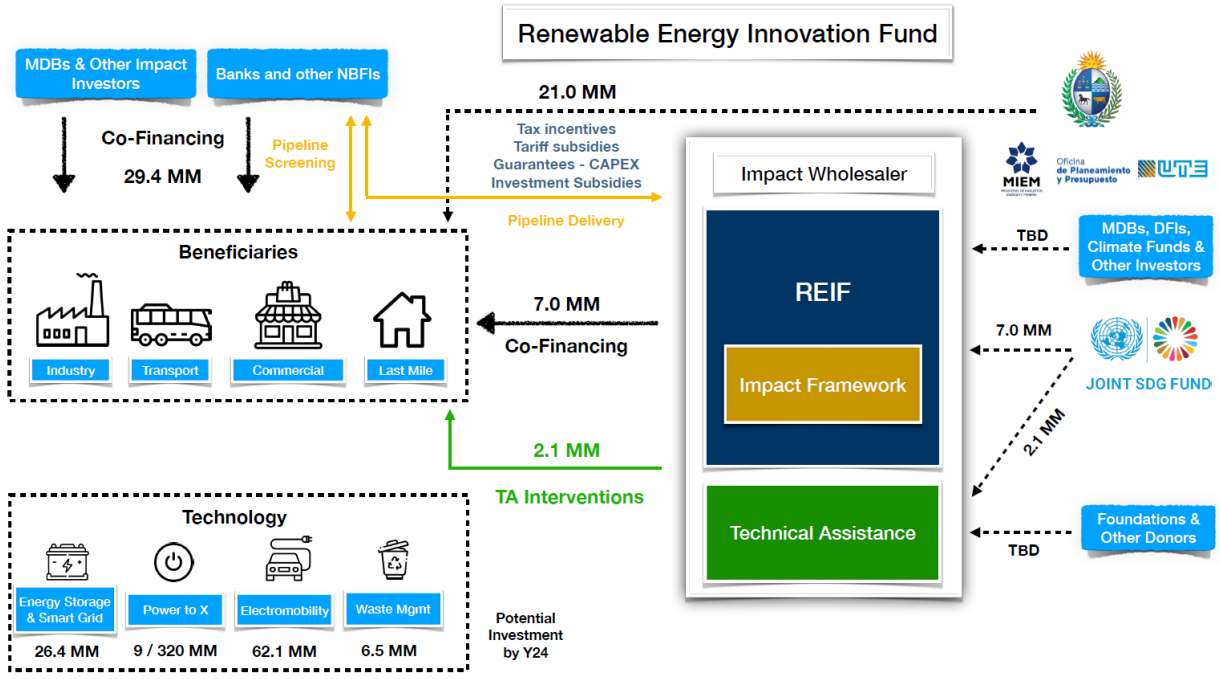
-Blended Finance best practice. The REIF will adopt the "Enhanced Blended Concessional Finance Principles for DFI Private Sector Operations", which will ensure that the best industry practices are applied, in order to enhance additionality, properly manage concessionality, and avoid market distortions and crowding out of private sector, among other.

II) Legal structure, financial instruments, business model and pipeline

The development and implementation of the REIF requires the **creation of a private Investment Fund** to manage its debt instruments. Such Fund will adopt the legal form of a Financial Trust. The lack of more suitable specific vehicles, such as European SICAVs, imposes the need of adapting to existing instruments available in the local context[11]. The diagram below shows the REIF, a Financial Trust managed by a professional trustee, registered with the Central Bank of Uruguay (BCU). The trustee will manage the Trust's assets, constituted by the investors' contributions (in the form of investments or grants), using that capital to fund the loans to be provided by the REIF. The selection of the Trustee will be made from a short list of 5 firms (2 public and 3 private agents) from which proposals will be requested. The decision will be made following a careful expert analysis of track record managing similar instruments, led by UN officers in consultation with GoU.

[10] More information on the SDG Impact Standards for Private Equity Funds: https://sdgimpact.undp.org/private-equity.html

[11] Uruguayan jurisprudence has some funds of the proposed type, such as the Financial Trust Fund for Infrastructure Debt in Uruguay CAF - AM.



The REIF will receive its initial capital contributions from the SDG Joint Fund, in the form of a USD 7M investment grant, supplemented by an additional grant of USD 2.1 MM for technical assistance[12]. The REIF will be open -and at a more advanced stage actively seek- additional capital contributions from Climate Funds, DFIs and potentially other investors (additional info in section 2.3 – leverage). In addition, other entities more prone to contribute TA resources (e.g. bilateral development agencies, foundations) will be approached to expand the availability of these resources upon JP's approval.

The REIF will provide co-financing along with other financial institutions, in the form of co-loans (in either senior or subordinated positions) or A/B loans. The co-financings will combine concessional/risk-tolerant capital from the REIF with commercially-termed finance from other financial institutions. Main expected co-lenders will be local commercial banks[13]. The Uruguayan financial system is mainly a banking system. There is no developed capital market. The role of the banks is thus crucial since they are the ones that can originate projects relevant for REIF's co-financing. Most projects are expected from companies that already operate with local banks, and will thus count with a first credit analysis from them. This will be supplemented at REIF with an impact analysis and management framework based on SDG metrics, to ensure project eligibility. The REIF will also seek co-lending opportunities with other local financial institutions (e.g. pension funds), impact investors and DFIs. Impact investors will have in REIF a vehicle that will allow them to access SDG co-lending opportunities through A/B loans. REIF will also consider projects originated by DFIs that are aligned with REIF's 2ET focus. Given Uruguay's income status it is often times not eligible for other blended finance funds that DFIs have access to, so the REIF can cover a gap for them when they consider a 2ET investment that requires de-risking support.

Regarding the JP's **TA resources**, the REIF will have access to them for various uses, including technical studies needed to properly appraise expected technical and financial

[12] The remainder of the USD 10M SDG Fund contribution will cover program structuring and management costs.
[13] The REIF was presented to the key local banks (BROU, HSBC, BBVA, Itaú), which expressed –as indicated in their endorsement letters- interest in working with it.

performance of 2ET projects seeking financing, thus addressing any knowledge barriers preventing access to finance. In addition, the REIF could request the use of TA resources to assess pre-feasibility aspects at a broader level of a certain technology or industry (e.g. green hydrogen) with a longer term view and to support industry players working in setting the ground for subsequent project development, off-take agreements negotiations, etc., which will contribute to mid-term pipeline creation and the bankability of related projects.

The lower left section of the diagram shows **beneficiary sectors** (industrial, commercial, transport and last mile[14]) and 2ET-relevant technologies (energy storage and demand management solutions, power-to-X, electromobility, waste-to-energy, etc.) eligible for REIF financing. Annex 7 provides detailed descriptions of them and demand estimates for the short and mid-term, which validate **pipeline expectations**. In aggregate, such demand is projected to reach over **USD 100M for 2021-2024** and almost **USD 300 M for 2025-2030**, respectively, excluding large-scale green hydrogen projects in both cases[15].

As shown in the upper section and explained in section 2.1, **GoU plays a fundamental role in creating demand for 2ET technologies** based on the robust support it provides, including investment subsidies and tax credits, electricity tariff subsidies and guarantees (through instruments such as SIGA, the National System of Guarantees for companies, or with more specific funds such as FOGALE, the Dairy Guarantee Fund), among others. As a result, many 2ET technologies currently have attractive internal rate of returns and paybacks for companies that can access such incentives, which has led to some initial, very incipient generally though, investments. Pipeline development is currently aided by specific government interventions, such as the electric buses subsidy rounds ("convocatorias") organized by the Government. Pipeline for other technologies is incentivized by the temporary nature of some of the incentives (e.g. investment tax credit), prompting interested companies to move ahead with projects in the short term. Technology suppliers are conducting aggressive market development strategies to leverage these support schemes. Finally, as mentioned before, pipeline origination for REIF will be directly supported through its partnership and co-lending approach with banks.

In terms of **REIF's governance and management structure** (including role, staffing and skills requirements of its **Investment Committee**) details are provided in section 3.1.

Transformation potential. Examples to illustrate the JP's transformative potential include:

-Green Hydrogen: Production and related applications of this technology pose tremendous promise at a global scale for cleaning both the transportation and power sectors. Uruguay has enabling conditions to become a cost-competitive provider and for developing related products and market opportunities, with vast potential for quality employment and improvement of its foreign trade account (i.e. double impact from exporting green hydrogen and reducing imports of fossil fuels). There are a few public pilots and private projects under analysis; **technical cooperation from the JP has been requested by GoU** for the development of a government strategy for this sector, the related regulation, the identification of most suitable product, supply chain and market development opportunities, and for feasibility studies. In addition, REIF's concessional/risk-mitigation support will be critical in

[14] Last mile refers to projects aiming to improve the provision of energy services to households with limited access. While JP's base case targets are based on related investment to be made by UTE, we maintain this category as eligible for REIF financing based on the possibility that–as part as the collaboration with IDB LAB, and as has occurred in other countries- private companies with business models focused on providing additional energy services to such segments were to emerge.

[15] If green hydrogen projects are considered these values are likely to increase by USD 300M at least.

some of these early hydrogen projects, which will face the typical technology, market and regulatory risks and higher costs of first movers. REIF's most effective support will likely be in the form of mezzanine debt that cost-effectively enhances the equity profile of projects to increase their senior debt capacity (limited at such point by market and technology risks). Such subordinated tranche will provide some protection to senior creditors from eventual revenue shortages (e.g. if attainable off-take agreements still presented some market risk). Since at this early stage of development and high cost of hydrogen, internal rate of return may suffer in the short run, mezzanine debt (which partially replaces equity –from a senior creditor perspective- but at a cost much lower than it) can help bridge the risk/return gap for initial projects. The JP will thus be able to provide a catalytic combination of TA and investment support to help GoU develop an industry with transformational capacity for its whole economy.

-Sustainable Finance Roundtable (SFR). This will be the meeting place for the main national players in the financial market, including the Uruguayan banking system and other financial and development entities[16]. This roundtable will be created around the REIF but its scope of action will exceed it, aiming to develop the sustainable finance market in Uruguay. It will be a market creator, a space for exchange, training and updating in the area of impact investments, necessary regulatory adjustments, among other possible functions. It will also serve, through the interaction it will facilitate between stakeholders involved in sustainable finance, to identify financing opportunities and initiatives relevant to REIF, further contributing to pipeline creation. Through the SFR, and the support to financial institutions to incorporate tools such as Impact Frameworks, the REIF expects to help drive systemic, transformational change in the Uruguayan financial system in favor of more SDG-aligned financing.

III) Contributions, financial flows, returns, and concessionality

Table 1 below presents the anticipated financial contributions for projects supported by the REIF, including those of the Joint SDG Fund (in the form of its grant capital contribution), the private sector (local financial sector as expected main co-/B-lender, but potentially also from DFIs and impact investors) in the form of project-level co-financing, and the Government (in the form of investment subsidies and tax credits to projects financed by REIF).

Table 1

REIF-linked financial investment resources	USD M	%
(a) SDG Fund - Investment Grant (REIF Capital)	7.0	12%
(b) Private co-financing (project level)	29.4	51%
(c) GoU - Investment Subsidies / Tax Credits	21.0	37%
Total for REIF-financed projects	**57.4**	**100%**

Anticipated private co-financing from local banks will occur on a project by project basis as each of them is originated. This expectation is based on discussions held with local banks during preparation and their endorsement letters confirming their interest in REIF's support. Government support values have been calculated based on current investment promotion regimes, as applicable for these technologies, and will materialize as REIF projects are originated (we are only considering the value of GoU support to REIF-funded projects; this is conservative as additional support will be provided to other 2ET projects not funded by REIF).

Table 2 presents the additional JP resources, including TA and project structuring and management support funded with the remainder of the Joint SDG Fund grant contribution, as

[16] Participants will include commercial banks, institutional investors (e.g. pension funds), asset managers, cooperatives, the Central Bank of Uruguay (and other relevant regulators and policy-makers), DFIs, think tanks and academy.

well as other TA resources contributed or mobilized by PUNOs, and additional public investment (through UTE) in infrastructure critical for achievement of the JP targets (charging network for electric vehicles and rural electrification, as detailed in previous sections).

Table 2

Additional JP financial support	USD M	%
(d) Joint SDG Fund – Technical Assistance & Program Management	3.0	14%
(e) Additional TA resources contributed/mobilized by PUNOs	1.0	1%
(f) UTE - Investment in JP-related infrastructure	17.7	85%
Additional JP resources	**21.7**	**100%**

In terms of **financial flows**, table 3 below presents expected financial flows related to the Joint SDG Fund contribution to the REIF. Based on REIF's investment projections, such capital is expected to be fully demanded and disbursed (along with partners' co-financing at project level) within the first two years of establishment of the REIF. Any reflows to the REIF from such initial investments during the JP implementation period will be reinvested (thus increasing leverage capacity of the initial JP capital contribution); that explains why there are no net repayments out of the REIF and back to the JP during years 3 and 4 when such reinvestments of reflows take place. Following the end of the investment period (determined for year six) any reflows back to the REIF are shown[17].

Table 3. Net REIF financial flows (in USD M)

Years	1	2	3	4	5-10	11-20
Loan Disbursements	4.19	3.91	2.05	2.44	-	-
Contracted Revenue	-	1.20	2.11	2.51	6.73	1.58
Loan Portfolio Loss Provision	-	-	-	-	0.06	0.08
Operating Costs	0.03	0.06	0.06	0.06	0.20	0.04
Net Cash Flows	(4.22)	(2.77)	0.00	0.00	6.48	1.45

In terms of **returns**, the REIF expected IRR resulting from the projected financial cash flows is estimated at 3%. In terms of **concessionality**, REIF is expected to provide financial additionality mainly by helping mitigate some risks for B-/co-lenders that pose obstacles for their financing or can allow them to increase their financing to a given 2ET project. This will in most cases be achieved by having REIF structured in a way that takes on an incremental level of risk. In spite of that, REIF's general pricing approach will be to match its co-lenders pricing, to avoid increasing financial costs to borrowers (in the context of the target 2ET technologies having already upfront costs significantly higher than traditional ones, and to avoid any further financial restrictions or stress that this could cause). REIF will retain flexibility, however, to offer different pricing than co-lenders, if required (i.e. lower price) or allowed (i.e. higher price) by each individual transaction. In any case, REIF will follow best practice available on the use of concessionality in blended finance, by following the principles of the "Enhanced Blended Concessional Finance Principles for DFI Private Sector Operations".

One special case in the use of concessionality will be to promote gender equality objectives. Following a model pioneered by IDB Invest in the region, REIF will offer result-based interest rate reductions to projects that implement contractually predefined activities that enhance gender equality at the corporate level (e.g. implementation of Women's Empowerment Principles –WEP-, increased share of women in managerial or STEM-related positions, etc.).

[17] In order to increase impact of the JP, and as its legacy financial contribution, such reflows will be utilized to replicate this model for another SDG area with suitable conditions or, if so defined by the Strategic Committee, to provide initial funding for the development of an Impact Wholesaler.

2.3 Leverage potential

Tables 1 and 2 in Section 2.2 presented expected private and public co-financing. Based on these figures and the premises below, the following leverage factors are calculated:

- **Private co-financing ratio: 1:3** (calculated as b / (a+d))
- **Total co-financing leverage ratio: 1:7** (calculated as (b+c+e+f) / (a+d))

Private co-financing is mainly the co-financing expected from local financial institutions as a result of the JP's strategy of working with local banks, based on the following assumptions:

- Local financial institutions, who have increasing mandates and KPIs to support SDG investments, will seek: i) de-risking support from REIF to overcome credit barriers and offer clients terms adequate to the technical and financial profile of 2ET technologies; and ii) support to implement an impact framework to enhance their capacity for identification and proper management of SDG investments.
- Average co-financing ratio at project level is assumed at 30% REIF / 70% co-lenders[18].
- Based on this ratio, REIF's initial capital of USD 7M, and the reinvestment of reflows to REIF during its investment period, projected private co-financing leveraged is $29.4M (as indicated in table 1). This is the result obtained from modelling REIF's initial investments, reflows and reinvestments, making assumptions on disbursement rates and financial profile of such investments (informed by the market assessment in Annex 7), interest rates (4.5-5%) and amortization schedules. REIF's USD 7M capital and the USD 29.4M leveraged imply a **REIF-level private co-finance ratio of 1:4**[19].
- Estimated government support is based on assumption of an average investment tax credit of 50% across the projected REIF investment portfolio of USD 42M (which results from the same assumptions and final model mentioned in the previous point).[20]

Besides local banks, REIF will explore the feasibility of enhancing mobilization of Uruguayan pension funds, in the context of existing structured finance schemes through which they are currently financing public bus operators. REIF will explore de-risking opportunities to increase volume of financing under such structures allocated for electric buses.

In regards to the private sector arms of DFIs, two opportunities are identified:

- In the context of the 2ET technologies of focus, the most suitable co-financing opportunities will be for large infrastructure projects, such as green hydrogen plants or large-scale grid-connected batteries. Those types of projects have not yet developed in Uruguay, but are expected do so in the next few years, still on time for REIF's support.

[18] This assumed 30/70 co-financing ratio is based on initial discussions with banks. Conceptually, and given the de-risking value expected from REIF, it seems sensible looking -for example- at a few parameters in the financing of electric buses: i) the average proportion of electric buses investment cost that cannot be collateralized from government subsidy cash flows is ~37% (proportion that might then be relevant for REIF's de-risking support); ii) the order of magnitude of COVID's impact on public buses revenues (20-30%), a revenue risk that –given outstanding the uncertainty of how COVID will continue to impact public bus operators' revenues- might need to be mitigated (for example with subordination from REIF of about the same proportion); iii) the need -as expressed by a bus operator interviewed- to extend tenors from banks from 7 to 9-10 years in order to improve bus operators financial capacity to incorporate more electric buses (if REIF was to provide a 10-year tenor with a back loaded amortization profile for this purpose, a participation of around 25% would be required).

[19] This 1:4 private co-financing ratio at the REIF portfolio level differs from the JP-level private co-financing ratio of 1:3 previously indicated as the former considers -in its denominator- the REIF capital of USD 7M while the latter the whole SDG Fund contribution of USD 10M.

[20] This assumption is conservative, based on the range of 30% to over 100% of the investment tax credit applicable to sustainable technologies (as all those eligible for this JP are), and the current level of investment subsidy available for electric buses (it cover the price differential between electric and diesel buses, which is currently over 60% of the cost of electric buses). This assumption does not include either tariff subsidies / preferred tariff in place to promote these technologies, thus making this estimate even more conservative.

- IDB Lab confirmed its interest in working with REIF in the identification and co-financing of private sector last mile, access-to-energy projects that provide significant innovation, in terms of technological solutions or business models.

In terms of mobilization of co-investments at the REIF fund level (i.e. as opposed to co-financing at projects level), none are assumed in the base case projections of leverage hereby indicated. The following possibilities, however, are considered or under exploration:

- DFIs: the REIF was presented to IDB Invest's investment funds team, who provided feedback on parameters required for their investments. A subsequent discussion will be held once the JP is approved and some of the key participants and structures (e.g. trustee, investment committee) are in place, to allow them a more complete evaluation.
- Climate funds: preparation of proposals to the GEF (NGI window, which is expected to carry a new call for proposals in early 2021) and the GCF will be decided upon in consultation with the Government following approval of the JP.
- More generally, one of the benefits of bringing in the Coalition for Green Capital in the inception phase will be to benefit from their extensive experience and track record in successful launches of climate finance facilities and the fund mobilization thereof.

2.4 Value added

Overall there are a number of initiatives run by the government, the private sector, the DFIs and the UN in Uruguay. Section 1.3 lists some of them. This UN-led JP offers a platform to synergize them all, making the UN´s main and overarching value added to "connect the dots", change collaboration practices and unleash untapped financing, and ensure that the transition accelerates the achievement of the SDGs beyond the energy sector. It can also demonstrate in Uruguay and beyond how a 2ET designed following broader SDG considerations and supported with adequate investment and TA tools can be a powerful driver of inclusive, sustainable economic growth and overall SDG acceleration.

Beyond this general key value added, the UN's main specific contributions include:

- Leading the development of UN SDG Fund JP proposal and secure initial funding, cornerstone for the proposed strategy and theory of change.
- Convening public, multilateral, private and civil society partners to collaborate and strengthen impact prospects of the program.
- Leading, through its participating agencies, the implementation of technical cooperation activities within the scope of JP components 2, 3 and 4.
- Supporting the development and implementation by financial institutions of SDG-aligned impact frameworks. In doing so it will provide its unique validation (as lead global developer and sponsor of the SDGs) and "seal of approval".
- Championing the creation of the sustainable finance roundtable, which will act as a catalyst to build a green capital market in Uruguay and could serve as a demonstration for greening other capital markets in developing countries.

2.5 Innovative nature

The most innovative features of the JP are described below:

i) The link between the achievement of the SDGs with the specific theme of Uruguay´s 2ET showcasing how to pursue the 2030 Development Agenda in a country that has already transitioned to a green power matrix. This is innovative as it will set Uruguay aside as one of the few countries to have completed two energy transitions in two decades.

ii) The REIF would be the first dedicated blended finance instrument in Uruguay capable of providing concessional, risk-tolerant financing solutions to help overcome investment and financing challenges resulting from the set of barriers described in previous sections.
iii) The REIF will be the first financial trust fund (*fideicomiso*) in Uruguay to finance projects with a SDG-focused impact logic as its main and exclusive objective. It will also be the only one able to provide results-based incentives against contractually-defined (i.e. in the loan agreements) gender equality milestones.
iv) The Impact Framework the program will offer to local financial institutions is the first of its kind in Uruguay, and will provide a powerful tool to help such institutions deliver on their growing mandates towards financing of sustainable projects.
v) The Sustainable Finance Roundtable will create in Uruguay a space for the local financial community (including regulators) to share knowledge, debate and develop approaches to promote a shift towards SDG-aligned financing.
vi) The projects to be financed by REIF (either with investment resources or technical assistance) will be, in some cases, among the first of their kind in terms of the technologies supported. Such innovation will allow for testing, learning, regulatory adaptation/enhancement and subsequent replication in and beyond Uruguay.

2.6 Results

Outcome 1 - Decarbonization of key economic sectors, primarily industry and transport, reducing dependency on fossil fuels.

- Output 1.1 - Investment mobilized by REIF to GHG reducing assets
- Output 1.2 - Increased penetration of electric buses
- Output 1.3 - Expanded charging network
- Output 1.4 - Enhanced regulation, capacities and knowledge for 2ET technologies reducing GHG emissions

Main indicators of short term outputs/outcomes will be: i) GHG emissions reduced by REIF-funded assets; ii) % of achievement of NDC conditional commitments, and iii) the achievement of milestones in the development of the green hydrogen industry (roadmap, pilot plant, regulation, etc.). The main mid- and long-term outcome will be a decrease (moderate in the mid-term; substantial in the long-term) in the share of fossil fuels in the primary energy matrix, and of the GHG intensity of the energy, transport and industry sectors.

Outcome 2 - Improved efficiency of the power system, primarily through technological innovation and the improved use and benefits derived from the renewable energy surplus.

- Output 2.1 - Increased storage capacity
- Output 2.2 - Increased penetration of technologies offering demand flexiblity capabilities
- Output 2.3 – Enhanced companies innovation, access to finance and employment

Main indicators of short term outputs/outcomes will be: i) MWh of Surplus Renewable Energy incrementally utilized; ii) Total average energy costs reductions achieved by REIF supported companies, and iii) the number of 2ET technologies and solutions (including demand management and smart grid applications) demonstrated. The main mid- and long-term outcome will be the decrease (moderate in the mid term; substantial in the long term) in the average cost of energy for businesses, which in turn will improve their competitiveness.

Outcome 3 - Enhanced vulnerable groups access to clean and affordable energy

- Output 3.1 - New connections

The main short term output/outcome will be the increase in connections to reach a level of access of about 100% (99.9%) and improved power services for some rural schools. The main mid- and long-term outcome will be the enhanced social inclusion and standards of living of vulnerable, rural communities, as the level of energy services continue to increase based on

the continued development of suitable technologies and business models to serve these communities.

Outcome 4 - Enhanced gender equality and women empowerment across the priority sub-sectors of the second energy transition

- Output 4.1 - Strengthen capacities and knowledge of companies in the priority sectors to develop and implement gender equality practices and increase the job prospects of women
- Output 4.2 - Collection of gender-specific data and development and implementation of action plan to increase women's ability to access finance in the priority sub-sectors

The main short term output/outcome will be: i) women trained to advance their careers (management, STEM positions), ii) management of companies trained in gender bias and gender equality, iii) companies signed and implemented WEPs. The main mid- and long-term outcome will be a significantly increased participation of women in the energy sector and enhanced women access to finance.

Outcome 5 - Impact-informed financing mainstreamed in the local financial sector, and through it its capacity to identify and further support SDG-aligned projects.

- Output 5.1 - Co-financing with REIF
- Output 5.2 - Replication of REIF model in other SDG areas

The main short term output/outcome will be: i) co-financing leveraged from local financial institutions to support 2ET technologies; ii) banks incorporating SDG-aligned impact frameworks and reporting on SDG investments; and the iii) creation of the Sustainable Finance Roundtable. An important mid-term outcome will be the replication of the REIF for other SDG areas. Another mid and long-term outcome will be a local financial sector with mainstreamed impact investment capacities and practices, with more sustainable portfolios and significantly contributing to achievement of the SDGs.

The Results Framework in Annex 2 provides details on specific indicators, baselines, targets, means of verification and partners responsible for each of the short term outputs and outcomes. Contribution to SDGs acceleration will be measured by the combination of: i) some SDG-specific indicators thereby listed, and ii) some supplementary outcome-level indicators, such as the % of achievement of the NDC conditional targets for electromobility.

Main JP beneficiaries will be:

- Companies receiving enhanced financial products and GEWE support.
- Financial institutions receiving de-risking, TA and impact investment support.
- Women receiving training in 2ET/financial areas and enhanced financial access.
- Rural households and communities benefitting from enhanced energy access.
- Suppliers of 2ET technologies benefiting from increased sales.
- GoU and the Uruguayan society in general through the achievement of JP-related development objectives (improved environment, competitiveness and living standards).

Outcomes 1 and 2 are closely connected to UNDAF outputs 1.1 and 1.3, as well as to the objectives of National Energy Policy, the Climate Change National Policy and NDC commitments. Outcomes 3 and 4, in turn, with UNDAF output 2.1.

2.7 Gender and human rights plan

List of marginalized and vulnerable groups	Dedicated Outcome	Dedicated Output
Women and girls	4	4.1, 4.2
Rural population without access to power	3	3.1

The energy sector is among the worst performing sectors of the economy in Uruguay in terms of gender balance, with varying degrees of participation of women across sub-sectors. Women account for around one in every four jobs in the energy sector in Uruguay, with a slight increase in the last decade (from 24% in 2009 to 26% in 2019), and face a wage gap of 12%. A root cause is the fact that women and girls are underrepresented in STEM-related paths across the stages of formal education in Uruguay. This imbalance is then reproduced in the labour market, where men represent 55% of the total occupied population, compared to 76% in STEM-related sectors, limiting women's opportunities and hindering the full development of their capacities. Yet, most companies in Uruguay do not have diversity policies or gender action measures, trainings or other activities in place to tackle gender inequalities.

Similar to energy, the finance sector is also a male-dominated sector. Plus, despite the entrepreneurial nature of Latin American women, they have a hard time getting the right support and enough capital for their businesses. The credit gap in the region amounts to almost USD 100 billion for women in micro, small and medium size businesses. Only, one in every 10 dollars invested by impact investing in the region has gone to women-led businesses.

All in all, the key barriers identified to increased gender equality and women empowerment (GEWE) in the energy and finance space are: (1) the low level of women participating in the energy workforce (especially in high-skilled jobs and senior or management positions); (2) the low number of firms incorporating policies and measures to increase gender equality; (3) the low level of gender-sensitive data and statistics (critical to inform energy policies and financial instruments); and (4) the need for an improved financial ecosystem that internalizes the existing gender differences in access finance and follows a gender-responsive approach. **Annex 6** provides a detailed analysis of these barriers.

The JP presents a unique opportunity to help attract capital to the priority sectors of the 2ET while also promoting GEWE. To do so, the JP incorporates a program outcome, along with two tailored outputs, through a programmatic approach to address the barriers above:

1. An output focused on strengthening women's capacities and skills, to increase their job prospects (as well as their possibility to access better skilled, well-paid jobs) by also improving capacities and knowledge of private-sector companies to implement GEWE practices and incorporate them into their corporate policies.
2. An output focused on increasing the availability of gender-sensitive data, including a diagnostic to increase women's ability to access finance. The JP also aims to allocate at least 45% of its funds to finance projects with contractual provisions for GEWE actions.

Two entities that have helped design this proposal will be key implementing and coordinating partners: UN Women Uruguay and the Gender Unit in the MIEM—both with extensive experience promoting GEWE across projects and firms. UNIDO will also support this work. CSOs and other government agencies were also consulted and confirmed the relevance of the barriers defined in the gender analysis and proposed GEWE considerations[21].

2.8 Progress

The following preparatory work has been completed:

- **Investment vehicle design.** Its business model, legal form, governance structure and staffing requirements have been determined. (See details in sections 2.2 and 3.1)

[21] A more in-depth gender analysis will be conducted during the inception phase. The gender analysis will also include the identification of the differentiated needs and roles of women and men with respect to the capacity building interventions. Indicators, targets and specific activities may also be revised at this stage.

- **Impact framework.** An advanced draft version is presented in Annex 10. A Gap Analysis against SDG Impact Standards, and a Certification Process will take place during the inception phase of the JP. Implementation of it will require trainings of participating banks, which will occur upon legal establishment of the REIF.
- **Demand assessment.** A detailed market analysis of 2ET technologies was completed to inform the design and validate relevant pipelines for the REIF (see summary in Annex 7).
- **Gender and communication plans.** Comprehensive plans have been prepared.

2.9 Sustainability

The Program is expected to have sustained, long-lasting effects, beyond its completion, by means of the following factors:

i) **Enhancement of regulatory framework.** Component 3 of this Program will support this type of work to further development of new industries and technologies (hydrogen, demand management, storage) or enhance prospects for continued development of other ones (electromobility). Some of the risks that REIF can mitigate in the short term should be solved in the mid-term by further developing regulation. Thus, this work is fundamental for sustaining and increasing mid and long term investment in 2ET technologies.

ii) **Technology knowledge and capacity development.** Some of the proposed technologies present knowledge barriers (e.g. performance of batteries) that reduce demand in the short term. The push the program will have on demand (through REIF's investment support, technical assistance and knowledge sharing) will accelerate the learning curve (for companies, banks and Government agencies involved with them) and a track record of performance that will enhance capacity to appraise and manage them for optimal results. This will contribute to eliminating the perceived technological risk barrier that will support continued investment in the mid-term.

iii) **Increased capacities for SDG-aligned financing.** A key design consideration of the business model selected for the REIF is to capitalize co-financing opportunities with local financial institutions to help develop their capacities to originate and properly manage SDG-aligned investments. At each banks' individual level, the JP will achieve this by helping them mainstream in their operations an impact framework. At the sectorial level, the Sustainable Finance Roundtable will provide a long-lasting forum for engagement of financial institutions, regulators and civil society to develop an increasingly supportive ecosystem for increased shifting of financial resources to SDG-aligned investments.

2.10 Replicability

This JP's design could be of immediate relevance and applicability to other countries aiming for an energy transition, and where the government is seeking to implement a sustainable approach by addressing market failures, combining regulation enhancement and economic incentives for investments. The need and/or commitments around decarbonization (e.g. NDC commitments) and power system efficiency (e.g. as a result of constraints in transmission and distribution networks) are relevant in many countries, and politically and economically sensitive issues (e.g. impact on pollution, power sector performance –blackouts, cost of power-, current account). Thus, from that standpoint, it is likely that other countries facing these challenges will be interested in considering a similar approach.

The JP's approach can also be replicated in other SDG areas, as long as some of the core elements behind this approach are present[22]. Suitability for such replication will be explored

[22] Those elements are: i) a core transformation driver (like the 2ET); ii) the existence of actionable barriers that can be tackled through a combination of investment/de-risking support, TA, capacity development and regulation;

at the end of the JP implementation period. Any area determined as suitable will be considered for financial and technical support funded with financial reflows to the REIF received after closing of its investment period (as the legacy application of JP resources). An alternative – yet aligned- use of such reflows, to be defined by the Strategic Committee, would be for the initial funding of an **Impact Wholesaler**, which in turn would finance (on a first and/or second floor basis) projects in those other SDG areas.

An Impact Investment Wholesaler is an entity that seeks to develop the Impact Investment market; it helps bridge the gap between social enterprises seeking capital and investors seeking impact. It performs its functions mainly through: i) direct or indirect investment in funds, intermediaries and social enterprises aimed at producing measurable positive impact on people and the planet; ii) mobilization of investments: it promotes forms of investment designed to catalyze capital from public and private investors; iii) the measurement, management and reporting of social and environmental impact information as well as financial performance of the investments made or promoted; and iv) additional mechanisms such as capacity building, promotion of policy/regulatory changes, design of investment vehicles, and promotion of integrity. There are successful initiatives like this already operating around the world like Big Society Capital in the U.K. and the European Investment Fund's Social Impact Accelerator. Developing a wholesaler in Uruguay (which would be the first in a developing country) can be a decisive move in the right direction toward sustainable finance in the country, and a vehicle to support other SDG areas replicating REIF principles.

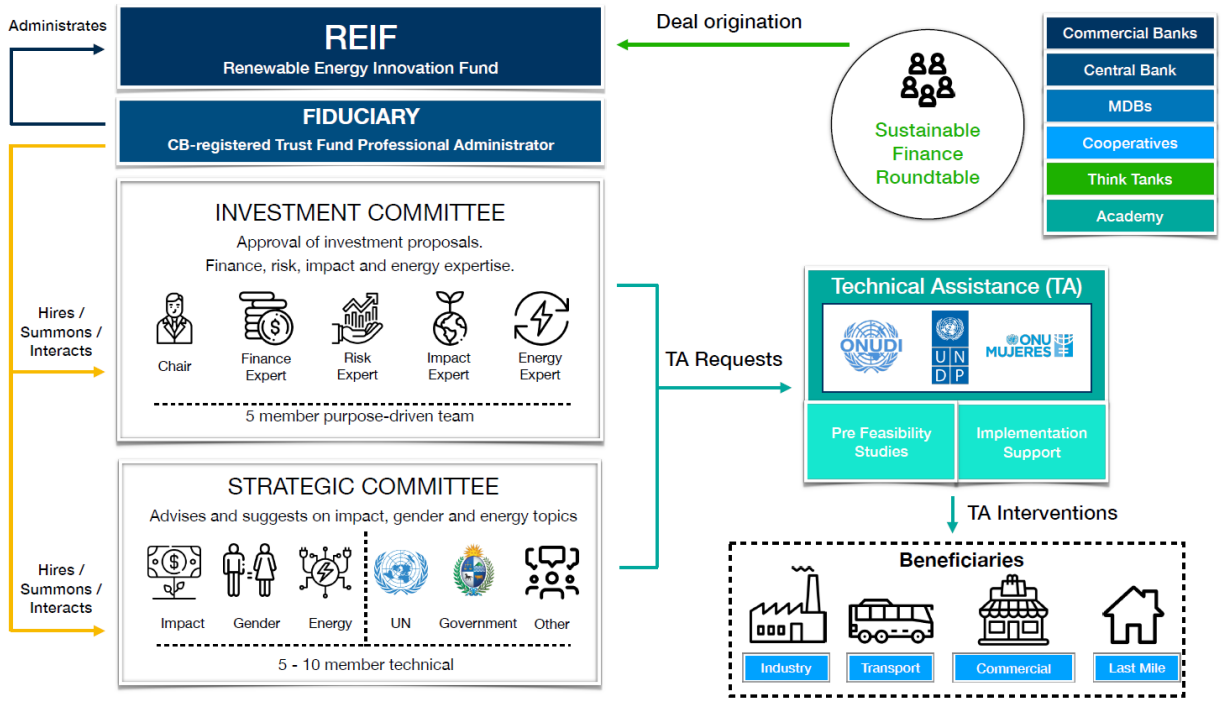
3. Programme implementation

3.1 Governance and implementation arrangements

The diagram below presents the main aspects of the JP's higher level governance, which will be based on the collaboration of the following GoU and UN agencies:

- MIEM, who will lead the JP and act as the main Government counterpart for it defines and leads the implementation of the National Energy Policy;
- OPP, in charge of SDGs and PPPs, will bring other sectorial ministries to bear and ensure policy coherence between public and private efforts;
- UTE, who will have a key role in establishing the market conditions, economic incentives and develop infrastructure and technology systems allowing energy surplus usage, the charging grid for electromobility, and last mile electrification.
- UNIDO will lead the implementation of the JP, seconded by UNDP. UNWomen will ensure the mainstreaming of the gender dimension throughout the JP. The RCO will coordinate among implementing UN agencies and between the UN system and the Government.

and iii) the availability of certain core sponsors (most often government and development institutions) that can provide leadership as well as some non-market resources to address the related market failures.



Such governance will be conducted through the **Strategic Committee,** to be created to provide strategic guidance and priorities to the implementation of the REIF, and where a subset of the mentioned agencies will be directly represented (with the others being represented indirectly). This committee will have 5-10 members, with expertise –among other- in energy, gender and impact, and it will also count with representation from DFIs (e.g. IDB Lab) and other potential partners. Beyond providing input on evolving strategic and investment priorities and policy matters of the REIF, the Strategic Committee will also be able to provide guidance on priorities for the use of TA resources across any of the JP areas.

The REIF will also have an **Investment Committee,** which will have the responsibility to technically and financially assess and approve operations presented to it. It will be staffed with 5 people, including a chair or president, along with experts in each of the core areas of the project: energy, finance, risk, and impact (this last one, with deep expertise in gender). The committee will leverage the due diligence and risk analysis provided conducted by the originators of the financing operations (local banks and other financial institutions), and will particularly focus on the impact assessment of the projects. The committee will monitor and report on impact performance of the projects, and will gradually train and transfer capacities to conduct these activities to the relevant units in co-lender local banks. The committee may also submit requests for TA to support companies and projects financed by the REIF, to contribute to the bankability and success of said projects.

In addition to these two committees, as explained in section 2.2, the REIF will have a professional **Trustee** registered with the Central Bank of Uruguay who will be in charge of managing its assets, according to the terms and conditions detailed in the financial trust agreement. The aforementioned committees will function in coordination with the Trustee.[23]

[23] The operational costs of the Trustee and the committees will be covered by the JP. Identification, due diligence assessment and selection of the Financial Trustee shall be undertaken in line with UNIDO procurement regulations.

3.2 Partnerships and stakeholder engagement[24]

Stakeholder	Role of stakeholder in structure	Level of engagement to date
MIEM	Lead the JP and act as the main Government counterpart for it	Very high; leading role
UTE	UTE has a key role in establishing the market conditions, economic incentives and develop infrastructure and technology systems allowing energy surplus usage, the charging grid and rural electrification.	Very high; provided sector analysis and inputs for proposal, and confirmed planned investments in support infrastructure.
IRENA	Support Uruguay on S-S cooperation matters; disseminate this experience in the working group of countries with high-share of Renewables in Energy Systems.	Committed to support implementation of the program in the areas of S-S cooperation and knowledge transfer
IDB LAB/ IDB Group	Will seek to provide pipeline and co-financing for last mile projects and business models with high innovation features.	Significant; contributed to discussing structure, opportunities for collaboration and synergies in the implementation of the program.
BROU, HSBC, BBVA, Itau	Originators, Co-financiers	Clear intention to participate
INACOOP	Lead provider	Clear intention to participate
INMUJERES, FLACSO, CIEDUR, OMEU	Provided input to gender assessment, as part of consultations	Clear intention to collaborate.
Coalition for Green Capital	Provided input on investment structure as part of consultations	Clear intention to participate in the inception phase

3.3 Monitoring, reporting, and evaluation

Reporting on the Joint SDG Fund will be results-oriented, and evidence based. Each PUNO will provide the Convening/Lead Agent with the following narrative reports prepared in accordance with instructions and templates developed by the Joint SDG Fund Secretariat:

- *Annual narrative progress reports*, to be provided no later than. one (1) month (31 January) after the end of the calendar year, and must include the result matrix, updated risk log, and anticipated expenditures and results for the next 12-month funding period;
- *Mid-term progress review report* to be submitted halfway through the implementation of Joint Programme[25]; and
- *Final consolidated narrative report*, after the completion of the joint programme, to be provided no later than two (2) months after the operational closure of the activities of the joint programme.

The Convening/Lead Agent will compile the narrative reports of PUNOs and submit a consolidated report to the Joint SDG Fund Secretariat, through the Resident Coordinator. The Resident Coordinator will be required to monitor the implementation of the joint programme, with the involvement of Joint SDG Fund Secretariat to which it must submit data and information when requested. As a minimum, joint programmes will prepare, and submit to

[24] Potential business sector partnerships will be subject to UNIDO Policy on Business Sector Partnerships (DGB/2017/17), including requirements for Due Diligence screening and definitions and the key partnerships principles: ownership, additionality, neutrality, transparency, integrity, compliance and environmental, social and governance standards, as well as equality and respect.
[25] This will be the basis for release of funding for the second year of implementation.

the Joint SDG Fund Secretariat, 6-month monitoring updates. Additional insights (such as policy papers, value for money analysis, case studies, infographics, blogs) might need to be provided, per request of the Joint SDG Fund Secretariat. Joint programme will allocate resources for monitoring and evaluation in the budget. Data for all indicators of the results framework which will be shared with the Fund Secretariat on a regular basis, in order to allow the Fund Secretariat to aggregate results at the global level and integrate findings into reporting on progress of the Joint SDG Fund. PUNOs will be required to include information on complementary funding received from other sources (both UN cost sharing, and external sources of funding) for the activities supported by the Fund, including in kind contributions and/or South-South Cooperation initiatives, in the reporting done throughout the year. PUNOs at Headquarters level shall provide the Administrative Agent with the following statements and reports prepared in accordance with its accounting and reporting procedures, consolidate the financial reports, as follows:

- Annual financial reports as of 31st December each year with respect to the funds disbursed to it from the Joint SDG Fund Account, to be provided no later than four months after the end of the applicable reporting period; and
- A final financial report, after the completion of the activities financed by the Joint SDG Fund and including the final year of the activities, to be provided no later than 30 April of the year following the operational closing of the project activities.

In addition, regular updates on financial delivery might need to be provided, per request of the Fund Secretariat. After competition of a joint programmes, a final, *independent and gender-responsive*[26] *evaluation* will be organized by the Resident Coordinator. The cost needs to be budgeted, and in case there are no remaining funds at the end of the joint programme, it will be the responsibility of PUNOs to pay for the final, independent evaluation from their own resources. The joint programme will be subjected to a joint final independent evaluation. It will be managed jointly by PUNOs as per established process for independent evaluations, including the use of a joint evaluation steering group and dedicated evaluation managers not involved in the implementation of the joint programme. The evaluations will follow the United Nations Evaluation Group's (UNEG) Norms and Standards for Evaluation in the UN System, using the guidance on Joint Evaluation and relevant UNDG guidance on evaluations. The management and implementation of the joint evaluation will have due regard to the evaluation policies of PUNOs to ensure the requirements of those policies are met and the evaluation is conducted with use of appropriate guidance from PUNOs on joint evaluation. The evaluation process will be participative and will involve all relevant programme's stakeholders and partners. Evaluation results will be disseminated amongst government, development partners, civil society, and other stakeholders. A joint management response will be produced upon completion of the evaluation process and made publicly available on the evaluation platforms or similar of PUNOs.

3.4 Accountability, financial management, and public disclosure

The Joint Programme will be using a pass-through fund management modality where UNDP Multi-Partner Trust Fund Office will act as the Administrative Agent (AA) under which the funds will be channeled for the Joint Programme through the AA. Each Participating UN Organization receiving funds through the pass-through has signed a standard Memorandum of Understanding with the AA. Each Participating UN Organization (PUNO) shall assume full programmatic and financial accountability for the funds disbursed to it by the Administrative Agent of the Joint SDG Fund (Multi-Partner Trust Fund Office). Such funds will be administered by each UN Agency, Fund, and Programme in accordance with its own regulations, rules,

[26] How to manage a gender responsive evaluation, Evaluation handbook, UN Women, 2015

directives and procedures. Each PUNO shall establish a separate ledger account for the receipt and administration of the funds disbursed to it by the Administrative Agent. Indirect costs of the Participating Organizations recovered through programme support costs will be 7%. All other costs incurred by each PUNO in carrying out the activities for which it is responsible under the Fund will be recovered as direct costs. Funding by the Joint SDG Fund will be provided on annual basis, upon successful performance of the joint programme. Procedures on financial transfers, extensions, financial and operational closure, and related administrative issues are stipulated in the Operational Guidance of the Joint SDG Fund. PUNOs and partners must comply with Joint SDG Fund brand guidelines, which includes information on donor visibility requirements. Each PUNO will take appropriate measures to publicize the Joint SDG Fund and give due credit to the other PUNOs. All related publicity material, official notices, reports and publications, provided to the press or Fund beneficiaries, will acknowledge the role of the host Government, donors, PUNOs, the Administrative Agent, and any other relevant entities. In particular, the Administrative Agent will include and ensure due recognition of the role of each Participating Organization and partners in all external communications related to the Joint SDG Fund.

3.5 Legal context

Agency name: UNIDO
Agreement title: The provisions of the Standard Basic Assistance Agreement between the United Nations Development Programme and the Government of Uruguay, shall be applied, mutatis mutandis.
Agreement date: Signed on 12 December 1985 and entered into force on 20 September 1988

Agency name: UNDP
Agreement title: Standard Basic Assistance Agreement (SBAA) between the Government of Uruguay and UNDP
Agreement date: December 12th, 1985

Agency name: UNWomen
Agreement title: N/A
Agreement date: N/A

D. ANNEXES OF THE JOINT PROGRAMME TEMPLATE

Annex 1. List of related initiatives

Annex 2. Results Framework

Annex 3. Gender Marker

Annex 4. Budget and Work Plan

Annex 5. Risk Management Plan

Annex 6. Technical Report – Gender Analysis and Recommendations

Annex 7. Market Assessment of 2ET Technologies

Annex 8. Communication plan

Annex 9. Learning and Sharing Plan

Annex 10. Impact Framework