# Regional Investment Framework (RIF) 2022 Monitoring and Progress

RPTCC-25 Bangkok, Thailand 21 March 2019



Pinsuda Alexander Asian Development Bank



# Outline

- 1. Background
- 2. Overview of the RIF 2022: First Progress Report and Update
- 3. RIF 2022 Updating and Progress Reporting Process
- 4. RIF 2022, Changes and Updated Composition
- 5. Next Steps





# BACKGROUND





## 6<sup>th</sup> GMS Leaders' Summit

"We hereby adopt and give full support to the HAP and RIF, which will guide the GMS Program in the medium term. The RIF is a "living pipeline" of projects that will be reviewed and updated regularly to adapt to changing conditions and priorities." – GMS Leaders Joint Summit Declaration

#### Ha Noi Action Plan (HAP) 2018-2022

sets refined strategic directions and operational priorities in the remaining 5 years of the GMS Strategic Framework 2012-2022

#### Regional Investment Framework (RIF) 2022

A "living" pipeline of 247 projects worth \$81 billion to support the HAP



#### http://greatermekong.org/ha-noiaction-plan-2018-2022

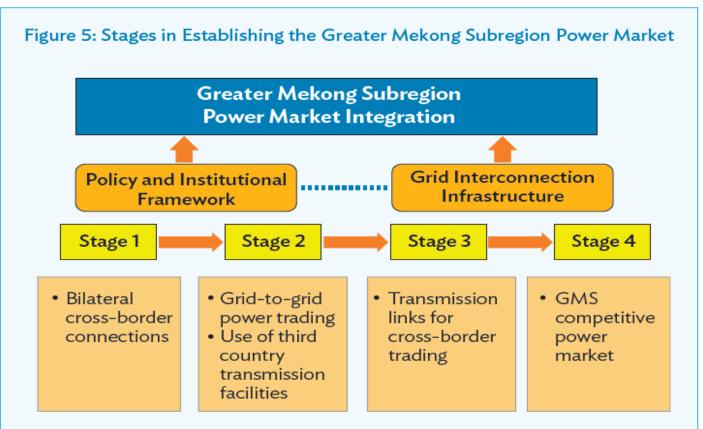
https://greatermekong.org/gmsregional-investment-framework-2022





#### Ha Noi Action Plan:

#### **Energy Sector Strategies and Priorities**



GMS = Greater Mekong Subregion.

Sources: Based on ADB. 2002. Energy Sector Strategy, GMS Strategic Framework 2012–2022. Manila; and ADB. 2004. Regional Power Trade Operating Agreement Report. Manila.





#### **Sector Operational Priorities: Energy Sector**

	Sector Operational Priorities	Key Actions <sup>1</sup>
•	Continue developing the regional power market by developing the grid interconnection infrastructure and providing the policy and institutional framework for power trading:	<ul> <li>Continue power purchase agreements</li> <li>Use transmission facilities of a third regional country; develop third party access principles</li> <li>Develop transmission links dedicated to cross-border trading;</li> </ul>
•	Stage 1: Bilateral cross-border Connections	<ul> <li>prepare a regional transmission masterplan</li> <li>Harmonize GMS performance standards and transmission</li> </ul>
•	Stage 2: Grid-to-grid power trading between any pair of GMS countries	<ul><li>regulations</li><li>Develop regional grid codes</li></ul>
•	Stage 3: Transmission links for cross-border trading Stage 4: Fully integrated GMS regional	<ul> <li>Develop multiple seller-buyer regulatory frameworks</li> <li>Develop favorable regulatory environment to support higher regional power trade</li> </ul>
	competitive power market	<ul> <li>Conduct studies on potential cross-border interconnections</li> <li>Increase private sector participation in cross-border regional power trade projects</li> <li>Update regional system planning to incorporate higher share of renewable energy</li> </ul>
		<ul> <li>Conduct capacity building for effective environmental management in the planning and implementation of power projects</li> <li>Finalize the establishment of Regional Power Coordination Center</li> </ul>

2022. Manila; ADB. 2002. Inter-Governmental agreement on Regional Power Trade in the GMS. Phnom Penh, Cambodia; ADB. 2004. *Regional Power Trade Operation Agreement*. Manila; focus group discussion for Energy Information Note and Discussion Highlights, 11 May 2017 (videoconference); ADB. 2017. *Summary of Proceedings*. 22nd Meeting of the Regional Power Trade Coordination Committee. 20–21 June 2017. Chengdu, Sichuan Province, People's Republic of China (PRC); and relevant documents



### Refinements in Sector Strategies and Priorities ENERGY SECTOR

## Power market integration will remain the priority agenda in GMS energy cooperation.

 The GMS power market development adopts a "building block approach" to develop the essential grid interconnection infrastructure to physically facilitate the cross-border dispatch of power

#### In the next 5 years, advancing regional power trade (RPT) will be pursued through:

- harmonization of GMS regional technical performance standards and the development of grid codes,
- creation of a favorable regulatory environment to support higher RPT,
- in-depth studies of potential cross-border interconnections,
- private sector participation in cross-border RPT projects, and
- targeting a higher share of renewable energy in planning for regional power systems.
- Power market development will mainstream environmental considerations in the design of power expansion plans.
- Strategic environmental assessment will be used in power sector planning and hydropower development.
- Capacity development for promoting effective environmental management in the implementation in power projects will continue.

## In early June 2019, GMS SOM Retreat will be held to discuss preparation of GMS Long Term Directions Beyond 2022



# RIF 2022 UPDATING AND PROGRESS REPORTING

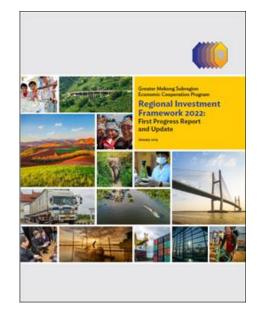




#### RIF 2022 Updating and Progress Reporting Process

Q1	The Asian Development Bank (ADB) Greater Mekong Subregion (GMS) secretariat initiates report preparation by advising ADB sector divisions and GMS national coordinators to communicate with country sector agency focal points. The Regional Investment Framework (RIF) publication is disseminated for use and reference during the budget and development programming cycle.	<ul> <li>RIF progress report is revised to become the annual report.</li> <li>GMS national coordinators play a key role in collaborating with line ministries and in project investment pipelines.</li> <li>RIF 2022 report discussions</li> </ul>
Q2-Q3	ADB's sector divisions interact with country sector agency focal points through GMS working groups and forums to • receive and compile the completed and agreed sector reports, and • submit the sector reports to the ADB GMS secretariat for collation. GMS national coordinators collaborate with line ministries for progress and proposed projects.	<ul> <li>are to better align with GMS working groups and forums.</li> <li>Final RIF 2022 reports are to be disseminated as reference for development and budget planning cycles.</li> </ul>
Q3 Annual GMS Ministerial, Q3 or Q4	<ul> <li>The ADB GMS secretariat</li> <li>assembles reports for each country and sector into the consolidated Revised Regional Investment Framework status report;</li> <li>distributes the status report to the countries' GMS national coordinators, sector agencies, and ADB's sector divisions;</li> <li>distributes the status report to interested development partners;</li> <li>uploads the status report to the ADB GMS website; and</li> <li>includes the status report in the documentation for a subsequent</li> </ul>	
	GMS event—senior officials meeting, ministerial meeting, or summit.	









# RIF 2022: First Progress Report and Update

- Presents updates to the RIF 2022 during the 2018 monitoring cycle (February to November 2018)
- Updated RIF 2022;
- To date, Updated RIF 2022 endorsed by Myanmar, PRC, and Lao PDR)

Туре	No. of projects	Cost Estimate (\$million)
Investment	147	80,570.3
TAs	100	350.4
TOTAL	247	80,920.7
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# RIF 2022: CHANGES AND UPDATED COMPOSITION





#### Updated Regional Investment Framework 2022 Summary by Sector

	Νι	Imber of Proje	cts	Cost Estimate (\$ million)				
Sector	Investment	TA	Total	Investment	TA	Total		
Transport	85	14	99	70,311.6	10.3	70,321.9		
Energy	11	9	20	2,327.7	16.2	2,343.9		
Agriculture	10	10	20	1,745.2	80.3	1,825.5		
Environment	6	6	12	653.0	15.8	668.8		
Health and Other HRD	5	11	16	795.4	95.7	891.1		
Urban Development	7	6	13	1,121.2	9.7	1,130.9		
Others/BEZ	6	9	15	2,102.7	18.0	2,120.7		
Tourism	12	18	30	1,435.2	79.9	1,515.1		
TTF	3	9	12	55.3	20.2	75.5		
ICT	2	8	10	23.0	4.3	27.3		
Total	147	100	247	80,570.3	350.4	80,920.7		



## Updated RIF 2022, Financing Status Breakdown by Sector

	With Fi	nancing	Without	Financing
Sector	Number of Projects	Cost Estimate (\$ million)	Number of Projects	Cost Estimate (\$ million)
Transport	50	46,972.5	49	23,349.5
Energy	11	1,281.8	9	1,062.0
Agriculture	11	969.9	9	855.6
Environment	3	121.0	9	547.8
Health and Other HRD	14	860.9	2	30.2
Urban Development	12	955.5	1	175.3
Other Multisector/BEZs	7	1,424.5	8	696.2
Tourism	14	519.1	16	995.8
Transport and Trade Facilitation	6	46.5	6	29.0
ICT	1	2.1	9	25.2
Total	129	53,153.8	118	27,766.6



## List of Energy Projects Investments (1)

										$\frown$	$\frown$	$\frown$
		Country		Year		stimale Illion)	Potential Source and (Smill	Amount		Key Locations and GMS Economic Corridor	Expected/ Planned Measurable	$\left( \right)$
No.	ProjectTitle	Coverage	Description	of Approval	Original	Updated	Original	Updates	Status Updates	Alignment	Outputs	Project Contact
Pro	jects in RIF 2	022								$\sim$	$\sim$	$\smile$
1	Lao PDR-Viet Nam Power Transmission Inforconnection II	Lao People's Democratic Republic (Lao PDR, Viet Nam	This project will (I) construct a 59-kilomotor (km), 500-kilowoti (kV) transmission line and a 230 kW500 W5 substation in Hatxan, Lao PDR; and (II) will construct a 94 km, 500 kW transmission line and expand the existing 220 kW500 W7 substation in Pielku, Viet Nam. The project will enable the transmission of 3, 157 gligawatt-hours/ year of electricity, to be produced by eight small hydropower plants (with atotal capacity of 1,013 megawatts (MW1) in southern Lao PDR, to be developed by independent power producers.	2019	120.0	120.0	World Bank—40.D Cofinancing (TBD)—80.0	World Bank— 40.0 Cofinancing (TBD)—80.0	Proposed	Hatxan, Lao PDR Ploiku, Viet Nam SEC	See description	Mr. Charthaly Charsomphong Office of the GMS National Coordinator, Lao PDR charsomphonge yahoo.com Mr DUONG Hung Cuong Office of the GMS National Coordinator, Viet Nam cuongmpilegmail. com
2	Lao PDR- Thailand Nabong 500 KV Substation Transmission Facility	Lao PDR, Thailand	The project alms to construct a 500 kV line from Udon Thani (Thaliand) to Nabong (Lao POR) to transfer power from three hydropower projects in the Central-1 area of the Lao POR to Thaliand. The hydropower projects are Nam Ngum 2, Nam Theun 1, and Nam Ngiep 1, which have a total capacity of over 1,500 MW (largely/tor export to Thaliand.	2014	106.0	106.0	Nam Ngum 2 Powor Company—106.0	Nam Ngum 2 Powor Company—106.0	Ongoing	Nabong, Lao PDR Udon Thani, Thailand	See description	Mr. Chanthaly Chansompheng Office of the GMS National Coordinator, Lao PDR chansomphenge yahoo.com Generation and Transmission System Planning Division, Electricity Generating Authority of Thaliand Tal.462 4363 593 Fax.462 4363 593 Eraal: sawapopte egal.co.th





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## List of Energy Projects Investments (2)

		Country		Year		stimate (llion)	Potential F Source and (\$ mill	Amount		Ray Locations and GMS Economic Comido	Expected/ Planned Vezsurable	$\bigcirc$
3	Project Title Continued Projects in Rural Electrification and Off-Grid Powor Development in Northern Part of Lao PDR	Coverage Lao PDR	Description The project involves grid extension based on sound selection principles and the implementation of off-gridprojects wheregrid extensions are not feasible. The new Greater Mekong Subregion (SMS) strategy calls for enhancing energy access, particularly to poor and remote areas, through the promotion of best practices in the GMS. Costs and scheduling are aligned with the completion report for the Lao PDR: Northern Area Rural Power Distribution Project, with some increases reflecting inflation. That project installed 368 km of a 115 kV lina, along with distribution facilities, which connected over 30,000 households. (The scope of this project may have overlapped with that of the Northern Cross-Border Power Tizede and Distribution Project.)	of Approval 2019	Original 58.0	Updated	TBD	Updates	Status Updates Proposed	North and conital part of Lao POR Phongsaly, Huaphanh and Xiong Khuang provinces NSEC	See description	Respect Contact Mr. Chanthaly Chansomphong Office of the GMS National Coordinator, Lao PDR chansomphonge yahoo.com

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## List of Energy Projects Investments (3)

		Country		Year	Cost E (\$ mi	likat)	Potential i Source and (\$ mill	Amount		Key Locations and GMS conomic Corridor	Expected Planned Measurable	$\bigcirc$
<u>No.</u> 4	Project Title Northern Cross-Border Power Trade and Distribution	Coverage Lao PDR	Description This project will expand the power distribution natwork innorthern Lao POR near border-crossing points. Componentsofthe project Include, among others. (I) atransmission Infarconnection/fromthe Lao PDR (Lang Namtha) to Myanmar (Shan State, with a possible extension), and (II) a transmission infarconnection from the Lao PDR (Ton Pheung) to Thailand (Mae Chan).	of Approval 2020	Original 37.4	0.2EF	Original ADB—27.4 Government of the Lao PDR—10.0	ADB-800 Government of the Lao PDB-50 Indicative cofinancing: Worki Bank and AIB -50.0	Status Updates Proposed	Lignment Luang Namtha, Lao PDR Shan State, Myanmar Ton Pheun, Lao PDR Mae Chan, Thailand NSEC	Dutputs The project will help address Lao PDR's need to: (i) expand access to low-cost, reliable power in rural areas and (ii) develop pflorthy power interconnections between Lao PDR and its heighbors to increase power trade. The project will also support the rational electric utility to (i) expand distribution lines and provide off-grid afternatives in the select provinces.	Mr. Charthaly Charsompheng Office of the GMS National Coordinator, Lao PDR charsomphenge yahoo.com
2	500 KV Line from Mawlamyine to the Main Grid	Myanmar	This will connect the isolated grid at Mawkamythe to the main grid, thereby bringing the 500 kV Myanmar system closer to the Thail grid for future interconnection. This will result in lower costs and improved relia bility of the power supply in the Mawkamythe area, which will be the western terminus of the GMS East- West Economic Corridor (EWEC). The costs are estimated based on 360 km of a single-circuit	2020	6410	640.0	TBD	TBD	Proposed	Mawlamyino, Myanmar EWEC	See description	FERD, MPI Myanmar fardsectionegmail. com





## List of Energy Projects Investments (4)

		Country		Tear	Cost Estimate (\$ million)		Source and	Potential Funcing Source and Amount (\$ million)		Key Locations and GMS Economic Comidor	Expected/ Planned Measurable	
No.	<b>Project Title</b>	Coverage	Description	of Approval	Original	Updated	Original	Updates	Status Updates	Alignment	Outputs	Project Contact
			500 KV line at \$1.5 million/ km and two 500 KV substations at \$50 million each. (Tentative routing: Mawlamyine-Thaton- Bago)									
6	Demonstration of Second Generation Botuel Technologies and Associated Biomass Value Chains	All GMS countries	This project will build pilot plants under a public- private partnership (999) that will alm to meet financial targets, successfully demonstrate feasible tachnologies, and create value chains. Upgrading biotuel tachnology will reduce conflicts over food security and will increase rural incomes through biomaus value chains. The schedule will take into account the need for a careful consideration of technological issues and for the selection of private partners. Estimated cost is \$13.3 million per GMS member country.	2019	800	82.0	TBD	TED	Proposed		See description	





### List of Energy Projects Investments (5)

		Country		Year		stimate Mortj	Potential F Source and (\$ mill	Amount		Kay Locations and GMS Economic Corridor	Expected/ Planned Measurable	
No.	Project Title	Coverage	Description	of Approval	Original	Updated	Original	Updates	Status Updates	Alignment	Outputs	Project Contact
7	Extension of Energy Access In Myanmar from Nodes In Thailand and In the Roopiets Republic of China (PRC)	Myanmar	This project involves a grid extension from Wharmar's borders with the PRC and Thailand using generation plants in those two countries, based on the regional experience in grid extension in Cambodia, the Lao PDR, and WatNam. Ideally, such a project would build on the successful build-operate-transfer (80T) model of the transmission project in Cambodia. The costs will depend on the number of distribution facilities and household connections in the chosen areas. It is likely that there will be leav or no distribution facilities, in which case the costs will be much higher, closer to those for a conventional renewable energy project. The schedule will adie to the negotiating process under the BOT model. Estimated cost breakdown: \$10.0 million for the connection to a local leotated grid, and \$60.0 million if the distribution and connection are to be carried out.	2019	70.0	70.0	TED	TBD	Proposed			FERD, MPI Myanmar fantsectionegmail. com





## List of Energy Projects Investments (6)

							Potential I			KayLocations	Expected/	
		Country		Year	CostE (\$m	stimate (lice)	Source and (5 mill			and GMS Economic Corridor	Planned Measurable	
No.	Project Title	Coverage	Description	of Approval	Original	Updated	Original	Updates	Status Updates	Alignment	Outputs	Project Contact
8	Transmission Interconnection Project from Lao POR (Na Bong) to Thailand (Udon Thailand (Udon Thani 3)	Lao PDR, Thailand	The project is upgrading an existing 230 KV transmission line, designed tor 500 KV transmission from the Lao POR (Na Bong) to Thailand (Udon Thani 3. When completed, the line will be 107 km in length and have 1,800 MW peak capacity.	2014	60.0	60.0	TBD	TBD—6ΩD	Ongoing	Na Bong, Lao PDR Udon Thani, Thailand NSEC	See description	Mr. Charthaly Charsompheng Office of the GMS National Coordinator, Lao PDR charsomphenge yahoo.com Generation and Transmission System Planning Division, Electricity Generating Authority of Thalland TeL+662 436 3532 Erail: swapop.ile agat.co.th
9	Transmission Interconnection Project from Lao POR (Ban Lak25) to Thaland (Jbon Ratchathani 3)	Lao PDR, Thailand	The project will construct a 500 KV transmission line that will initially be energised at 230 KV from the Lao PDR (Ban Lak25) to Thaland (Ubon Ratchathani 3), When completed, the line will be 150 km in length and have 1,400 MW peak capacity.	2019	90.0	90.0	AD8—15.0 Cofinancing—75.0	ADB—15.0 Cofinancing— 75.0	Proposad	Ban Lak, Lao POR NSEC Ubon Ratchathani, Thailand SEC	See description	Mr. Chanthaly Charsompheng Office of the GMS National Coordinator, Lao PDR charsomphenge yahoo.com Generation and Transmission System Planning Division, Electricity Generating Authority of Thaliand Te1+662 436 3532 Paxi-662 436 3593 Email: sawapop.be egal.co.th





## List of Energy Projects Investments (7)

No.         Project Tile         Contry Contry (Plance)         Description         Original original (Plance)         Original (Plance)         Original (Plance)         Updates         Statu Updates         Egrication (Rescription)         Egrication (Rescription)           10         Transmission         Lao FOR, Trained         The project Will construct a trained         Tab         T	_										$\langle \rangle$	$\frown$	
No.         Project Tillia         Coveragio (Negrova)         Description         of Approval         Original         Updates         StabutsUpdates         Magenest         Outputs         Project Contact (Name)           10         Tratemesion         Lao FR, Thaland         The project Wit Contruct (Contruct)         TBO         TBO         TBO         TBO         TBO         TBO         Project Mit Contruct)         See doctruct/ (Contruct)         Mrt Charmer (Contruct)         Mrt Charmer (Contruct)         Table of (Contruct)         TBO         TBO         TBO         TBO         TBO         TBO         Project Mit Contruct)         See doctruct/ (Contruct)         Contruct)         Contruct (Contruct)         Contruct)         Contruct         Contruct         Contruct         Contruct)         Contruct			Country		Year			Source and	Amount		and GMS	Planned	$\bigcap$
S00 W // Ctransmission line on Pia Ngyon; Lo POR (Pia Ngyon; To Thilard (Pia Ngyon;	No.	Project Title		Description	of Approval	Original	Updated	Original	Updates	Status Updates	Ugament	Outputs	Project Contact
Hydropower Project       construction and operation of a 250 MW hydropower generation facility on a build-operate-transfer (BOT) arrangement at the Nam Ngiop River in the province of Bolikhamsay and Xaysomboun, Lao POR.       JBIC—197.0       JBIC—197.0       Construction PIVate       Xaysomboun, Lao POR       Portfolio Management         Subtotal (Energy Investment Projects Included in RIF 2022)       2,230.1       2,327.7       0.0       V	10	Transmission		500 W AC transmission line from the Lao PDR (Pak Beng or Pak Nguyen) to Thalland (Tha Wang Pha). When completed, it will be 120 km in length and have 800 MW peak capacity. This project is currently under consideration and subject to a power purchase agreement (PPA)	TBD	TED	TBD	TED	TBD	Proposed	Nguyen, Lao PDR Tha Wang Pha, Thailand	See description	Charsomphong Office of the GMS National Coordinator, Lao PDR charsomphonge yahoo.com Generation and Transmission System Planning Division, Electricity Generating Authority of Thalland TeL+662 436 3532 Fax-662 436 3593 Email:sawapop.te
Subtotal (Energy Investment Projects proposed to be added in RIF 2022) 0.0	11	Hydropowar	Lao PDR	construction and operation of a 250 MW hydropower generation facility on a build-operate-transfor (BOT) arrangement at the Nam Ngiep River in the province of Bolikhamaay	2014	976,7	976.7	JBIC-197.0 Private	JBIC—197.0 Private		Xaysomboun, Lao PDR	See description	Portfolio Management
	Sub	total (Energy Inves	tment Projects Incl	uded in RIF 2022)		2,230.1	2,327.7						
Subtotal (Energy Investment Projects included in RIF 2022) 2,230.1 2,327.7	Sub	total (Energy Inves	tment Projects prop	posed to be added in RIF 200	22)		0.0						
	Sub	total (Energy Inves	tment Projects incl	uded in RIF 2022)		2,230.1	2,327.7						





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### List of Energy Projects Technical Assistance (1)

		Country		Year		stimate filon)	Potential I Source and (\$ mill	Amount	_	Kay Locations and GMS Economic Corridor	Expected/ Planned Measurable	$\frown$
No.	Project Title	Coverage	Description	of Approval	Original	Updated	Original	Updates	Status Updates	Alignment	Outputs	Project Contact
Pro	ojects in RIF 20	022									$\smile$	$\smile$
1	Harmonizing GMS Power Systems to Facilitate Regional Rower Trade (formerly Support to RFTCC In the Compilation of Performance Standards, Grid Codes, Markat Rules, and Subrogional Transmission Expansion Plant)	All GMS countries	The technical assistance (TA) supports the development of a clear basis for regional market nuises that would comprise agreed nuises and indicative planning of interconnections. It will result in a more functional regional market with ganuine exchanges of electricity, leading to an improved reliability and quality of power supply and lower costs. A supplementary TA project was approved in 2017, the outcome of which will be a set of GMS performance standards and grid codes, and an enhanced regulatory framework. Additional output, among others, include feasibility studies for four new infarconnection projects.	2014	35	3.0	ADB—2.5 PRC trust Fund—0.5 (Agence Françabe de Développement (AFD)—0.5]	AD8—2.5 PRC trust Fund—0.5	Ongoing		Regional Power Coordinating Center (RPCC) established and operations commenced through continued support to Regional Power Trade Coordination Committee (RPTCC). GMS performance standards and grid codes considered for implementation by the Working Group on Performance Standards and Grid Code (WGPG). Guidelines for GMS regulatory framework proposed by the Working Group on Regulatory Issues (WGRI)	Bul, Duy-Thanh Southeast Asia Dopartment (SEND Energy Division, SERD
2	Ensuring Sustainability of Greater Mekong Subregion Regional Power Development (Phase 2)	All GMS countries	The TA will support the efforts of the Regional Power Trade Coordination Committee to forge agreements among the GMS countries on the technical, institutional, and operational aspects of the GMS regional power market,and ensure that these comply with environmental sustainability requirements.	2016	1.0	1.0	AFD—1.0	AFD—1.0	Ongoing			





## List of Energy Projects Technical Assistance (2)

		Country		Year		stimate Ilion)	Potential Source and (\$ mil	i Amount		KeyLocations and GMS Economic Corridor	Expected/ Planned Measurable	
No.	Project Title	Coverage	Description	of Approval	Original	Updated	Original	Updates	Status Updates	Alignment	Outputs	Project Contact
3	Development of GMS Coordination Center for Regional Power Trade	All GMS countries	The project will help set up the Regional Power Coordination Center (RPCC) and build the capacity of national and subregional bodies. These bodies will work with the RPCC in implementing and overseeing cross- border power enchanges; coordinating regional power planning; and daveloping transmission facilities of regional importance through (I) technical and equipment support and staffing, (II) staff training and (III) support for specific studies (e.g., on tariff structures, operational standards, etc.) and activities (e.g., power planning, database maintenance, etc.).	To be determined (TED)	3.0	3.0	TBD	TBD	Proposed			
4	Scoping Study on the Future of the Trans-ASEAN Gas Pipeline (TAGP)	All GMS countries	This project is specified in the Association of Southeast Asian Nations (ASEAN) Master Plan on Connectivity and aims to contribute to ASEAN's energy socurity. The study will lead to an agreed concept for the deployment of the TAGP in the future, with the critical investments identified. This is a wide-ranging project that needs strong cooperation with the ASEAN Council on Petroleum (ASCOPE). It should be steered by a national	TBD	1.0	1.0	TBD	TBD	Proposed			





## List of Energy Projects Technical Assistance (3)

		Country		That		timate Elon)	Potential Source and (S mil	Amount		Key Locations and GMS Economic Corridor	Expected/ Planned Measurable	
No.	Project Tible	Coverage	Description committee of experts and executed by a small part-time team of national experts, but also include funding for short-term studies on strategic issues (e.g., shale gas and coal bed methane prospects, future liquefied naturalgas markets, carbon capture and storage, storage options, the role of gas as a backup for renewables, and future gas demand). Four meetings over 2 years will be sufficient. The budget musicover the participation of ASCOPE	of Approval	Ortiginal	Updalad	Original	Updates	Status Updates	Algement	Outputs	Project Contact
5	Development of Coherent Energy- Efficiency Action Plans Across the Subregion	All GMS countries	experts. This TA will entail preparing national energy efficiency action plans according to a common format, with stronger and better-targetad actions to promote energy efficiency. This project is predicated on the supposition that the Subregional Energy Forum can act as a technical advisory body to policy maken, proposing policies that can support regional activities. It can be executed by a team of high-level national experts (supported by international and regional consultants) that reviews progress in energy efficiency across the subregion; conducts benchmarking: proposes aggressive targets, stronger	TBD	1.0	1.0	TBD	TBD	Proposed			





## List of Energy Projects Technical Assistance (4)

		Country		Year		stimate Ilion)	Potential I Source and (5 mill	Amount		KeyLocations and GMS Economic Corridor	Expected/ Planned Measurable	
No.	Project Title	Coverage	Description policies, and subregional convergence; and, where feasible, identifies sources of financial spoot (e.g., Ciean Development Mechanism and post-Nyoto mechanisms). It should be an ongoing project funded initially for 3 years.	of Approval	Original	Updated	Original	Updates	Status Updates	Alignment	Outputs	Project Contact
6	GMS: Renawable Energy Development (Ptase 2)	All GMS countries	This TA will support follow- up activities from the Prase I regional technical assistance. It will include further propagation and preparation of policy manuals based on the pilot results of Phase I, covering GMS-appropriate practices in nonwable energy and cleaner fuel promotion, continuing inowlodge sharing and taining, and laying the groundwork for investment projects in renewable energy.	TBD	2.0	2.0	TBD	TBD	Proposed			
7	GMS Northern Cross-Border Power Trade and Distribution	Lao POR	The project will examine new potential cross-border power-transmission projects.	2018	1.0	1.0	AD61.0	AD81.0	Proposed			
8	Regional Action Plans for Sustainable Power Sector Development and Climate Change Mitigation	All GMS countries	The proposed TA aims to improve energy security and mitigate climate change in the GMS through strengthened regional power cooperation, with an increased use of clean energies, knowledge starting in GMS power development, and better policy and business environmentsfor promoting renewable and efficient energies.	2018	2.0	2.0	ADB-2.0	AD82.0	Proposed			





### List of Energy Projects Technical Assistance (5)

						stimate	Potential Source and	d Amount		Kay Locations and GMS	Expected/ Planned	
No.	Project Title	Country Coverage	Description	Year of Approval	(s m Original	llion) Updated	(\$ mil Original	Updates	Status Updates	Economic Corridor Alignment	Measurable Outputs	Project Contact
			The TA will assist the GMS countries in adopting specific climate-mitigation measures for the power interconnection projects; establish measurable targets and action plans for inducting greenhouse gas emissions resulting from power sector development; adopt measures for meawable- energy and energy-efficiency improvements over time that can be monitored against a well-defined baseline; and to clearly define the public policy interventions under the action plans. These activities will all contribute to sustainable power sector development and climate change mitigation									
		Subtotal	Energy TA Projects included	in RIF 2022)	14.5	14.0						
Pro	jects propose	ed to be adde	d in RIF 2022									
9	Integrated Resource Planning with Strategic Environmental Assessment for Sustainable Power Sector Development in the Gisaater Mekong Subregion	All GMS Countriles	The facthrical assistance (TA) project is designed to (I) enhance the GMS countries' capacity in applying integrated resource planning (IP) with strategic environmental assessment (SEA) in their power development plans (PDPs); (II) improve regulations, policies, programs and/or targets for renewable energy and energy efficiency as necessary and as validated through the IRP, and (III) support the cross-border interconnections as necessary and as validated through the IRP, and (III) support the cross-border interconnections as necessary and as validated through the IRP, and (III) support the cross-border interconnections as necessary and as validated through the IRP, and (III) support the cross-border interconnections as necessary and as validated through the IRP, and the IRP and III) as the country of the IRP and the IRP and III and III as the country of the IRP and Charge Impacts. The TA outputs will be also deseminated through Bagional Power Trade (RPTCC) meetings, which are organized by los a year.	2015		22		Ongoing. AFD—1.15 Regional Cooperation and Integration Fund—0.5 Cooperation Fund for Project Preparation In the Greater Melong Subregion and In Other Specific Asian Countries—0.5		Expected/Planned Measurable Outputs: 1.Viet Nam's IRP and SEA capacity enhanced, 2.Awareness among GMS countries Increased, and 3. Knowledge Products (KRs) shared.		Lee, Hyunjung Southeast Asia Department (SERL Energy Division, SERD
	Subto	stal (Energy TA Proj	ects proposed to be added Subtotal (Energy)		2,230.1	2.2						





# **NEXT STEPS**





#### **RIF 2022 Updating and Progress Reporting Process**

Q1	The Asian Development Bank (ADB) Greater Mekong Subregion (GMS) secretariat initiates report preparation by advising ADB sector divisions and GMS national coordinators to communicate with country sector agency focal points. The Regional Investment Framework (RIF) publication is disseminated for use and reference during the budget and development programming cycle.	<ul> <li>RIF progress report is revised to become the annual report.</li> <li>GMS national coordinators play a key role in collaborating with line ministries and in project investment pipelines.</li> <li>RIF 2022 report discussions are to better align with GMS</li> </ul>
Q2-Q3	<ul> <li>ADB's sector divisions interact with country sector agency focal points through GMS working groups and forums to</li> <li>receive and compile the completed and agreed sector reports, and</li> <li>submit the sector reports to the ADB GMS secretariat for collation.</li> <li>GMS national coordinators collaborate with line ministries for progress and proposed projects.</li> </ul>	<ul> <li>are to better align with GMS working groups and forums.</li> <li>Final RIF 2022 reports are to be disseminated as reference for development and budget planning cycles.</li> </ul>
Q3 Annual GMS Ministerial, Q3 or Q4	<ul> <li>The ADB GMS secretariat</li> <li>assembles reports for each country and sector into the consolidated Revised Regional Investment Framework status report;</li> <li>distributes the status report to the countries' GMS national coordinators, sector agencies, and ADB's sector divisions;</li> <li>distributes the status report to interested development partners;</li> <li>uploads the status report to the ADB GMS website; and</li> <li>includes the status report in the documentation for a subsequent GMS event—senior officials meeting, ministerial meeting, or summit.</li> </ul>	

ADB



#### 2019-2020 Timeline of GMS Regional Investment Framework (RIF) 2022 Progress Reporting and Updating

•	
Dates/Period	Milestone/Task
March-May	Disseminate the GMS Ministers' endorsed/approved RIF 2022: First Progress Report and Update for use in country and regional programming activities that can further advance priorities under Ha Noi Action Plan 2018-2022
21-22 March 1-2 April 3-4 April (TBD) April 21- 23 May	<ul> <li>25<sup>th</sup> RPTCC</li> <li>WGE AM-24</li> <li>WGA</li> <li>Video Senior Officials' Meeting</li> <li>Tourism WG -43</li> </ul>
3-7 June	Kick off the process of the annual RIF progress reporting and updating ADB GMS Secretariat initiates RIF 2022 Annual Progress Report/Update (2019) preparation by advising ADB Sector Divisions as Working Group Secretariat and GMS Countries (thru GMS National Coordinators)
(TBD) June	GMS SOM Retreat on the Preparation of GMS Long Term Directions Beyond 2022
10 June – 31 July	<ul> <li>ADB sector divisions and GMS National Coordinators interact with country focal points (<i>identify focals</i>) to prepare RIF 2022 Progress Reporting Tables:</li> <li>Table A- Projects already in RIF 2022; and</li> <li>Table B- New projects for inclusion in RIF 2022.</li> </ul>
	NOTE: GMS countries bilateral discussions for new proposed projects may also be undertaken. GMS Sector Working Group (WG) Meetings can also be venues for interaction, compiling and endorsement of respective sector reports and lists.
(TBD) July	<ul> <li>TTF and ICT sectors: project reporting and vetting will be done through GMS National Coordinators</li> <li>3<sup>rd</sup> Meeting of Urban Development WG</li> </ul>



## RIF 2022 Progress Reporting Tables: Table A- Projects already in RIF 2022

#### Table A. PROJECTS IN ORIGINAL RIF 2022 LIST

#### I. Investment Projects

No	(1) Project Title	(2) Country	(3) Description	(4) Year		(5) Cost Estimate (\$ million)		(6) Potential Funding Source and Amount (\$ million)		(8) Key locations and GMS	(9) Expected/ Planned Measurable	(10) Project Contact
		Coverage	(Please indicate if there are changes in the project description/specifications)	of Approval	Original	Updated (if any)	Original	Updates (if any)	progress/changes in project development status or implementation. (Refer to Guide for Accomplishing the Progress Report table.)	Economic Corridor Alignment	Outputs	

#### II. Technical Assistance Projects

N	10.	(1) Project Title	(2) Country	(3) Description	(4) Year		(5) st Estimate \$ million)	(6) Potential F Source and (\$ milli	Amount	(7) Status Updates Please indicate	(8) Key locations and GMS	(9) Expected/ Planned Measurable	(10) Project Contact
			Coverage	(Please indicate if there are changes in the project description/specifications)	of Approval	Original	Updated (if any)	Original		progress/changes in project development status or implementation. (Refer to Guide for Accomplishing the Progress Report table.)	Economic Corridor Alignment	Outputs	





## RIF 2022 Progress Reporting Tables: Table B – New Projects for inclusion in RIF 2022

#### TABLE B. PROPOSED NEW PROJECTS FOR INCLUSION IN RIF 2022

_	П.	Investment Proje	cts								
	No.	(1) Project Title	(2) Subsector	(3) Description	(4) Year of Approval	(5) Cost Estimate (\$ million)	(6) Potential Funding Source and Amount (\$ million)	(7 justific Please indicate the ba justifications for the p (a) Strategic thrust/ operational priority in HAP and/ or relevant sector strategy supported (Refer to Annex I)	(8) Key locations and GMS Economic Corridor Alignment	(9) Expected/ Planned Measurable Outputs	(10) Project Contact

#### II. Technical Assistance Projects

No.	(1) Project Title	(2) Subsector	(3) Description	(4) Year of Approval	(5) Cost Estimate (\$ million)	(6) Potential Funding Source and Amount (\$ million)		(8) Key locations and GMS Economic Corridor Alignment	(9) Expected/ Planned Measurable Outputs	(10) Project Contact





#### 2019-2020 Timeline of GMS Regional Investment Framework (RIF) 2022 Progress Reporting and Updating

Dates/Period	Milestone/Task
1-16 August	ADB sector divisions compile sector inputs and submit to the ADB GMS Secretariat the
	consolidated sector Progress Report:
	<ul> <li>Table A- Projects already in RIF 2022; and</li> </ul>
	<ul> <li>Table B- New projects for inclusion in RIF 2022.</li> </ul>
(TBD) August	Video SOM
(TBD) August	Subregional Transport Forum (STF-23)
19 August -6	GMS Secretariat consolidates proposed Progress Report and Updated RIF 2022 in close
September	consultation with Sector divisions and GMS National Secretariats
10 September	GMS Secretariat to circulate to GMS NCs and Sector Focals the first draft
_	consolidated Progress Report Tables for review and confirmation.
30 September	GMS Countries submit comments and/or confirmation of RIF 2022 Second Progress
	Report and Update
1-15 October	GMS Secretariat incorporates comments and additional information on RIF Progress
	Report Tables
16-30 October	GMS Secretariat prepares the RIF Progress Report (write-up and tables) and the
	Updated RIF 2022, including typesetting of as meeting document
(TBD) November/	Take up in Final SOM for the 11 th ECF and 23rd Ministerial Conference the draft
December	RIF 2022 Second Progress Report and Update
December 2019/	GMS Secretariat finalizes the draft with consideration of GMS Senior Officials'
January 2020	advice/action on November/ December 2019 SOM. GMS Secretariat incorporates
	proposed revisions from countries, if any, and <b>finalize Draft RIF 2022 Second Progress</b> Report and Update
January/February	Printing and circulation of GMS Ministers' endorsed RIF 2022: Second Progress Report
2020	and Update
1 Car	





# **Final Points**

- Next RIF 2022 updating will kick off in early June 2019
  - Please confirm points of contact
- Initial thoughts on long-term energy directions beyond 2022





# **Questions & Discussion**

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