	Item	Description	Total estimate cost	Amount requested	Amount covered by other funds
1	VPS/Dedicated Server	VPS/dedicated server Monthly subscription at US$ 300/month for 2 years. Recommended specifications: - 128 GB of RAM to facilitate bulky deep learning models and large batch sizes. - Dual 12-Core E5-2697v2 processors to provide sufficient compute power for ML tasks. - A mix of 240GB SSD for system and programs and 2TB SSD for data to enable fast data loading. Network: - Network connections ranging from 100 Mbps to 1 Gbps to facilitate sharing of large datasets and models between researchers. Operating System: - Linux OS to leverage the vast open-source ML/DL libraries and tools such Python, Tensorflow and Keras. GPU specifications: - Nvidia RTX A4000 GPUs to accelerate AI development and training. - Support of up to 2 GPUs per server to provide the necessary compute power for data science and ML research. The key specs of these	7,200.0	7,200.0	0.0

		GPUs are: - Microarchitecture: Ampere - CUDA Cores: 6144; - Tensor Cores: 192; - GPU Memory: 16 GB GDDR6; - FP32 Performance: 19.2 TFLOPS.			
2	AI Infrastructure back-end installation, configuration and set-up	Requires 2 full stack software engineers paid at the rate of US$ 150/hour for 3 days working 4 hours each day (2 x 150 x 3 x 4).	3,600.0	3,600.0	0.0
3	Integrating AI infrastructure into TSSFL Technology Stack through APIs and web services	Requires 2 full stack software engineers paid at the rate of US$ 150/hour for 3 days working 4 hours each day (2 x 150 x 3 x 4).	3,600.0	3,600.0	0.0
4	AI infrastructure Maintenance	Requires 2 full stack software engineers paid at the rate of US$ 150/hour for 10 hours in 2 years.	1,500.0	1,500.0	0.0
5	Power/energy distribution optimization ML/DL model development	Development of machine learning/deep learning model for power distribution optimization which may include data preparation, model training and evaluation; data pre-processing, hyper-parameter optimization, and ensemble modeling. Requires one data scientist/AI engineer/ML researcher paid US$ 50/hour for 21 days working 8 hours each day (50 x 8 x 21).	8,400.0	1,350.0	7,050.0
6	Model refining	Improving model performance by trying different model architectures, hyper-parameters and other techniques.	4,200.0	4,200.0	0.0

		Requires one data scientist/AI engineer/ML researcher paid US$ 50/hour for 14 days working 6 hours each day (50 x 6 x 14).			
7	Domain expert in energy consultancy fees/salaries	Salaries/fees for the energy domain expert consultant paid at the rate of US$ 70/hour for 5 days working 3 hours each day (70 x 5 x 3).	1,050.0	1,050.0	0.0
8	Documentation	Provide well-documented instructions to help users get started in developing, testing, and deployment of models.	2,000.0		
9	Training, partnerships, stakeholders/community engagement, and collaboration	Training and capacity-building workshop/seminar for testing, dissemination, collaboration and engagement with stakeholders.	5,000.0	0.0	5,000.0
10	Equipment and supplies	Costs for mobile/internet data.	1,000.0	1,000	0.0
11	Indirect costs/overhead	Indirect costs/overhead.	1,500.0	1,500.0	0.0
Total			39,050.0	25,000.0	12,050.0