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23 February 2023

To

Mr. Sanjeev Kumar Sharma
Advisor (Broadband and Policy Analysis)
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan
Jawaharlal Nehru Marg, New Delhi - 110002
INDIA.

Dear Sirs,

Subject: E-marine's Comments on TRAI's Consultation Paper dated 23.12.2022
Licensing Framework and Regulatory Mechanism for Submarine
Cable Landing in India.

Permit us to extend our warm greetings from E-marine PJSC, Dubai, United Arab Emirates.

It is indeed a great move that TRAI has recently released its subject Consultation Paper on Licensing Framework and Regulatory Mechanism for Submarine Cable Landing in India.

As desired, immense is our pleasure that E-marine having its privilege to be one of the stakeholders would like to submit our detailed comments as attached.

Moving forward, E-marine is hopeful that TRAI would consider our comments positively in order that we are jointly able to progress with the intended mechanisms implemented to facilitate greater flexibility in terms of our business transactions whilst our business relationship further entrenched to our mutual gain on a "win-win" approach.

Whilst we look forward to hearing from you in due course, we shall remain at your disposal to provide any further clarification/details/discussion that you may require whilst evaluating our comments and the recommended way forwards.

Many thanks

Omar Jassim Bin Kalban
Chief Executive Officer



Before the Telecommunication Regulatory Authority of India (TRAI)

Stakeholder Comments:

Submitted by:

E-marine PJSC, Dubai, United Arab Emirates.

1. Introduction:

By way of a brief introduction, E-marine PJSC is one of the top players and leader in the submarine cable industry in the region with its head office in Dubai, United Arab Emirates.

E-marine is wholly owned entity by UAE's largest Telecom Company and provides total solutions in the sphere of submarine cable installation, maintenance, storage and related activities locally, regionally and internationally for more than three decades.

The robust trade relation that India and UAE have shared through the centuries has been taking tremendous new dimensions with the recently introduced various regulatory flexibilities. Growing India-UAE economic and commercial relations contribute to the stability and strength of a rapidly diversifying and deepening bilateral relationship between the two countries. Both sides are striving to further strengthen these ties for further augmenting their mutual benefits.

Ever since its inception, E-marine has been serving several of its esteemed Indian submarine cable owners and operators pursuant to different submarine cable maintenance and storage contracts. Accordingly, E-marine vessels are regularly operating in Indian waters as and when a repair notification is issued. That said, it is a long time privilege that E-marine has been continuously enjoying to be the most-favored business partner of our Indian clientele thanks chiefly to the strategic locations of E-marine's vessels and Cable Depots.

2. Concerns Raised in TRAI's Consultation Paper:

In the context of the recent Consultation Paper released by TRAI on "*Licensing Framework and Regulatory Mechanism for Submarine Cable Landing in India*" and noting the extended deadline for the stakeholders' comments until 24/02/2023, E-marine is extremely pleased to respond with its comments to clarify the various aspects particularly pertinent to the below 3 concerns:

- 1. Presently, there is no Indian marine service provider available who can support the submarine maintenance activities in and around Indian waters.*
- 2. Feasibility of Indian Flagged vessel for carrying out submarine cable operation and maintenance smoothly in time-efficient manner.*
- 3. Whether it will be beneficial to lay stub-cables in India- the requisite policy, licensing, and regulatory framework for operating and maintaining them. (A stub cable is a new concept of placing pre-laid dark fiber from the Cable Landing Station (CLS) through a Beach Manhole (BMH) into the territorial waters.*



3. E-marine's Comments:

3.1 Availability of an Indian Marine Service Provider with an Indian Flagged Vessel:

According to TRAI, India's used international bandwidth is expected to grow at a compounded annual rate of 38% between 2021 and 2028 with a growth rate for international bandwidth demand increase 10 times over this period.

By way of erring on the side of caution, conceptualizing the readiness of an Indian flagged vessel to cater for the inordinate submarine cable repair demands anticipated in the Indian waters in the years to come requires proper analysis of the disheveled disadvantages, to name a few, such as the following:

1. Relying on only Indian flagged vessel will imply various unavoidable predicaments in terms of efficiency of adequately addressing prompt repair demands of damaged cables particularly in terms of the different repair operations to be carried out in shallow waters and deep waters according to the nature of the cable faults.
2. Without having an adequate fleet of repair vessels, the practicality of continuous standby of a vessel- a *sine qua non* for submarine cable repairs- to promptly attending to a cable fault could be highly challenging.
3. Submarine cable owners would be denied the opportunity to avail tailor-made one stop competent solutions from other regional players.
4. Submarine cable owners must have the liberty to choose a proper and reliable service provider of proven trajectory to repair their respective cables with the shortest outage.
5. Dry-docking or repair of an Indian flagged vessel could cost submarine cable owners quite dearly with long outage of their systems without a vessel ready to attend to an urgent repair.
6. Submarine cable systems in India are currently owned almost uniformly by private operators who also undertake operations associated with these systems. While there are currently 16 operational submarine cable systems in India, at least 4 additional cable systems are planned. Two ownership models are prevalent in India, namely, private ownership and consortium-based ownership with a group of international operators to fund, build, operate and own the cable system. The members of the consortium build the cable landing stations in their respective countries and lay cables in accordance with the agreement executed between them. That said, the viability of addressing the contracted repair obligations could be questionable when relying only on an Indian flagged repair vessel.

3.2 India's march toward a Digital India and the Important Role of Submarine Cables:

It has been substantiated through plethora of previous papers and appeals from different systems owners and operators that Submarine Cables are the vital and core infrastructure of the digital age for any country. With this in mind, now that in particular, given India's steadfast transformational march to a "**Digital India**", it is utmost important that TRAI mulls roll out of massive overhaul and multi-steps to ensure that submarine cable repair operations in Indian waters are no more an uphill tasks due to the complicated regulatory requirements and procedural hassles entailed thereof.



Given Submarine Cable infrastructure is the backbone and key to global telecommunications and the internet *vis-à-vis* the security and economy of every country, India's growing population and its dependency on cable networks create an exigency to require one of the largest subsea networks to meet the growing demand in the economy. India's strategic and geographic position in the Indian Ocean region must be exploited to meet its ambition in becoming one of the world's few cyber superpowers. India is set to register the highest growth in the Asia Pacific submarine cables industry with sizeable market share by 2030.

Submarine Cables inhabit a critical position within the globally interconnected networks by carrying about 99% of international communications traffic, with demand projecting to double every two years for the foreseeable future. This rocket growth in demand for data, fueled by continued exposure to mobile device usage, and proliferation of cloud-based services, has driven towards a considerable growth and rise in the global submarine deployments.

Furthermore, Subsea Cables, typically, thousands of kilometers in length, are laid on the ocean floor and digitally connect countries worldwide transmit high volumes of data rapidly. India has 17 submarine cable networks coming from across the world to connect with the terrestrial networks.

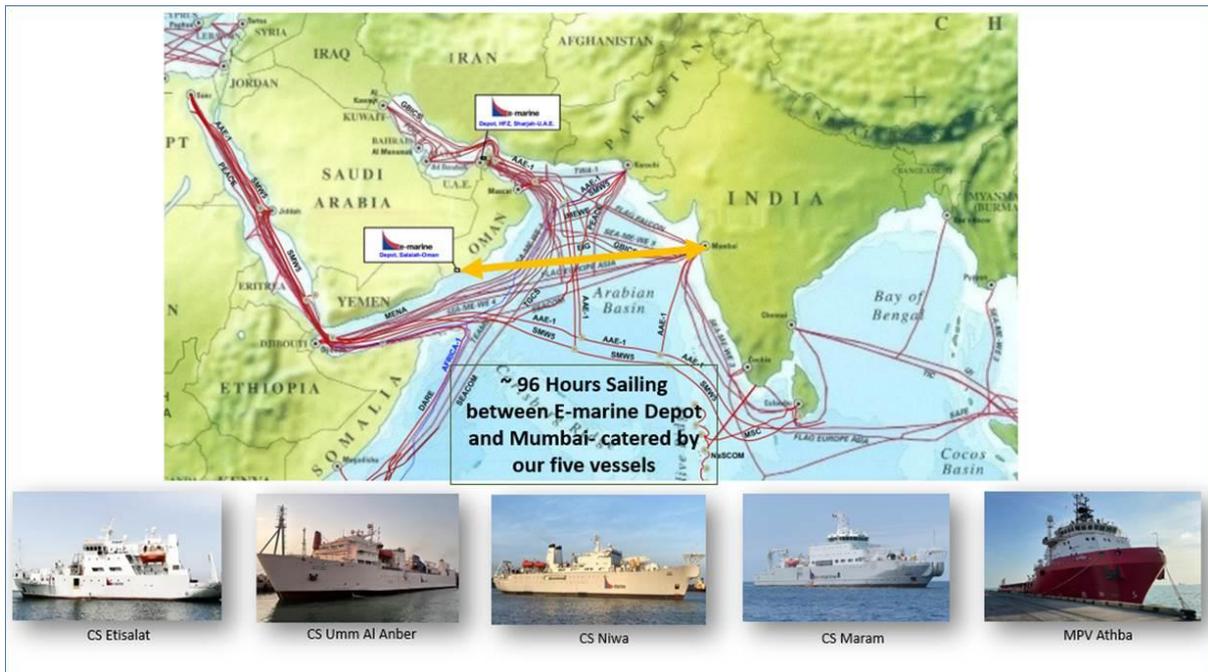
4. "Why E-marine is always No.1 Option to India?"

- 4.1 At the outset, it is pertinent to look into our partnership in the backdrop of the historical unrivalled trade relationship that India and UAE have been enjoying for centuries. Furthermore, the continued high level endeavors of both the governments of our respective countries have enabled our mutual trade relationship further entrenched with our mutual trust and confidence continuously reinforced.
- 4.2 The above being said, the chief highlight of E-marine's partnering with our Indian customers is the close proximity and the reachability of E-marine's vessels from their base ports in the UAE to attend to a submarine cable repair in the Indian waters. This special advantage for India is best akin to *"A Doctor a call away with fully equipped ambulances readily available at any time for any condition"*.
- 4.3 As a matter of greater practicality, E-marine vessels are just 96 hours (4 days) away from India.
- 4.4 Compared to a normal repair operation in other countries (*considering their processes*), the cable repair in Indian waters would take ~12-15 days to restore the connectivity and the ~17-20 days for the end -to end- operation, namely;
 - a. 4 days sailing to India (*Mumbai*)
 - b. 1 day for clearing in
 - c. 7 -10 days for repair(*depending on the fault*)
 - d. 1 day for clearing out
 - e. 4 days transit back to base port.
- 4.5 E-marine is the market leader in submarine cabling services with its core activities of turnkey solutions for submarine cable installation, maintenance and storage. E-marine has its market presence for the past three decades with an impeccable track record worldwide of delivering the much needed infrastructure of laying and maintaining submarine cables, the backbone of the telecommunications & power systems.



- 4.6 E-marine has installed numerous cable systems (Power & fiber-optic) and maintains more than 100,000 kms of submarine cables across the Middle East Africa and the Indian Sub-continent section.
- 4.7 E-marine established the first purpose-built cable ship in the Middle East region, let alone landed the first communication cables in the UAE for better communication. E-marine has its fleet of five vessels for shallow & deep water operations and two bonded depots, one in UAE and the other in Oman.
- 4.8 E-marine has its integral role towards advancement of the region. UAE is one the most strategically located countries, connecting east to west and has the most modern infrastructure on telecommunications, including fiber optic solutions to home.
- 4.9 E-marine has become the growth engine for regional telecommunication business. Its expertise coupled with skilled resources, E-marine's vision is to encompass high end technology and become a global player in the submarine cable industry.
- 4.10 E-marine's total commitment for quality is evidenced with an integrated Quality, Health, Safety and Environment Management System in place. It is certified to ISM Code, ISO 9001, ISO 14001 and OHSAS 18001.
- 4.11 E-marine offers efficient and quality solutions for the challenges that lay ahead. By anticipating global market trends and frequent communication with our valued customers, we are well equipped to surpass our customers' needs and expectations.
- 4.12 With its unrivalled state-of-the-arts capabilities, E-marine successfully pursues its core activities in laying submarine power and fibre optic cables, which form the backbone of the communications between countries, continents and between O&G platforms and the mainland. As the leader in the region in submarine cable solutions by exceeding its customers' expectations, E-marine spares no efforts in rightly monitoring the pulse of this market. E-marine has proudly chronicled the evolutions in the growth story of the region, stretching from India and Iraq to Egypt and Tanzania, over the past decades.
- 4.13 Interestingly, more than 97 percent of global data traffic is carried through submarine fiber cables, with the remaining 3 percent carried through satellite systems. E-marine, strategically located in the region, with our world-class infrastructure, ensures the installation and maintenance of submarine cables, most economical, in the shortest possible time.
- 4.14 Furthermore, E-marine is in the process of expanding its resources and geographically extending its active presence in order to enable boost the economy of the respective countries by facilitating the high-speed submarine fiber connectivity and also maintaining submarine cables and repairing faults in the shortest possible time (thus reducing cable downtime from 3-4 weeks to within 1-2 days only and averting potential huge revenues losses to those countries.
- 4.15 E-marine currently has an impressive fleet of 5 cable ships with sophisticated equipment and machinery onboard each vessel whilst there are processes underway to procure additional ships with various capabilities for shallow & deep water operations.
- 4.16 With the recently rolled out CEPA between UAE and India, the value proposition of E-marine serving in Indian waters is incredibly impeccable.





5. Complex Procedural Requirements with sizeable Financial Obligations:

5.1 It is a serious disadvantage that India’s complex legal and regulatory requirements coupled with the inconsistency within domestic laws makes vessel operation an uphill task. It is worth underscoring that unlike in other parts of the globe, submarine cable related issues are regrettably regulated by measures that are found scattered in frequently changed different laws, notifications, orders, etc. and that are dealt with by different hierarchy in different authorities that run across several Ministries. Apart from various complicated and lengthy procedural requirements to be complied with there is huge financial burden to be shouldered by a cable ship operator with a long draw-back claim that could typically stretch to more than a year for the deposited substantial amounts of money to be refunded subsequent to the completion of a repair and re-exportation of the repair vessel in addition to the different duties and taxes to be fulfilled. Certainly such cumbersome importation and re-exportation procedural requirements are absolutely unheard of on the other hand for similar repair operations in the other part of the world.

5.2 Key players in the market have been consistently showing their keenness to roll out innovative breakthroughs to address the exponential digital demands in India. However, they must be reassured with the needed flexibility in the regulatory framework so as to boost their confidence in forging appropriate business alliances with reliable partners. It is in this context that a logical analysis of distinguishing an in-house Indian submarine cable services provider with a cable ship and an already established player, like E-marine PJSC with its multiple fleet of cable ships gains importance.

5.3 E-marine endeavors to articulate India’s current regulatory echo-system unsupported by an efficient permitting process in the light of the domestic legal framework. Our comments are mainly intended to focus on the present-day challenges in the Indian regulatory system that need to be urgently looked into perhaps for an overhaul and to improve India’s position that India truly deserves in global telecommunications.



- 5.4 There have been instances of E-marine's cable ship not being able to operate for more than a month due to certain vague re-categorization of India's exclusive economic zone, continental zone and territorial zone together being classified as "*Indian Customs Waters*" whereby the regulatory compliances become more complex and lengthy.
- 5.5 Conscious efforts must be made in improving the procedural compliance process for cable repairs and installation mechanisms. Accordingly, the process on cable operations, repair and infrastructure requires close analysis on the issue. This can be achieved by seeking uniformity in regulatory practices by establishing a regional committee that looks into the cooperation and consultation of both the cable operators and the government authorities/ regulators. This uniformity would establish a supportive mechanism under which the operations and activities related to submarine cables would run smoothly. Hence, with India's capability to become a potential global superpower, it is important that India recognizes the need for a submarine cable infrastructure and take measures necessary in pursuit of the same. It must take heed of the regional and strategic privilege of being located in the Indian Ocean and must become a host country to generate a common platform for the stakeholders in the submarine cable industry. Hence, planned and prudent mechanisms would help India fulfil its ambitions in the field of global telecommunication.

6. Adverse Impact of a Complex Compliance Requirements:

- 6.1 The prevailing process for repairing submarine telecommunications cables in Indian waters is very complex, time consuming and costly. Trajectory of the past repair operations carried out would be tell-tale indicators of the cumbersome Import and Export clearance procedures that consume ~30% - ~50% of the total mobilization time of a repair vessel and cost of the repairs. Apart from the minimum 10 to 15 days required for vessel importation, extended outage time of the cable system mostly costing the cable owner dearly.
- 6.2 The imposition of significant amount of customs duty + different IGST for the consumables onboard and repair services in Indian waters are hugely negatively impacting the interests of the cable owners. Interestingly, neither such prolonged importation-exportation formalities nor duties and taxes are required for submarine cable repairs in other countries.
- 6.3 Given its active presence in the Indian waters with myriad repairs carried out on various submarine cable systems in the Indian waters for the past several decades, E-marine earnestly appeals to TRAI to reviews the whole process for repairing submarine telecommunications cables in the Indian EEZ and Territorial Waters (now jointly termed "*Indian Customs Waters*") with the aim of streamlining the process so as to reduce the outage time to the end customers, let alone enabling avoidance of huge revenue loss in addition to making each submarine cable repair mission significantly cost-effective similar to other countries globally.
- 6.4 The cable owners and ship providers have developed a worldwide cable maintenance infrastructure and have implemented practices that rely on specialized ships and trained and qualified crew and joiners, as well as the provisioning of system spares in depots around the globe.
- 6.5 Cable owners typically enter into a maintenance agreement that provides for these specialized cable ships to be stationed at strategic locations and they are dedicated to the repair of cables described in the agreement. As such, cable ship services are efficiently shared by many cable systems in a given geographic region. When a fault occurs the networks are at greater risk of

outages since the spare bandwidth is greatly reduced. If another path is not available, the affected countries suffer an immediate loss of bandwidth or connectivity. Timely repairs to undersea cables are critical so that full capacity can be restored to the networks to avoid further degradation and service interruptions in the event of a second fault. Network outages can have a major impact on the affected country's economy and reputation.. Logistically, the repair vessel can load spare cable and get underway quickly to the repair site. Practices have been refined to the point where the mobilization, transit, cable recovery, repair and return to port can usually be completed within two weeks. However, the lengthy and complex permission and approval process for vessels to operate in the maritime zones of India often extends the repair time by weeks or even months. During this time, India's international communication link is degraded and is at risk of further degradation or complete loss in the event of additional cable faults. This risk can and must be mitigated by streamlining and shortening the permission process.

6.6 The United Nations Convention on the Law of the Sea (UNCLOS), to which India is a party, specifically outlines the duties and responsibilities of states with respect to the protection of this crucial fabric of the global digital economy.

7. E-marine Recommendations:

Having said the above, E-marine would like to recommend TRAI to ensure necessary measures in line with similar recommendations by some of the key end customers, namely:

- 1) Issuing blanket Annual Permits for all cable systems (*and not per cable system basis*) for repair vessels to undertake submarine cable repairs in Indian waters on long term basis.

(As stated above, a cable ship is best akin to an ambulance, there needs to ensure enough flexibility for the vessel's access in the Indian waters as in the case of various exemptions to an ambulance).

- 2) Fast tracking permit issuance digitally or in any case not taking more than 2 to 3 days and without having to undergo any importation formalities and customs deposit.
- 3) The repair vessel being allowed to proceed directly to the fault location soon after a port/customs representative(s) boards the vessel with fast tracked port clearance.
- 4) After completion of a repair operation, the repair vessel being able to depart directly from the fault location and without having to enter an Indian Port or undergo any re-exportation formalities.
- 5) Waiving the requirement of an Import Export Code (IEC) for the repair vessel to enter into Indian waters.
- 6) Significantly reducing the customs duties and different taxes related to a marine repair vessel operation in Indian Waters.
- 7) Regulatory requirements for Indian flagged vessel and foreign flagged vessel must be equally applicable so as to encourage competition and availability of different cost-effective and time-efficient repair service solutions.

- 8) In addition, improved timeliness of repairs will also reduce the risk of catastrophic outages due to multiple faults. By streamlining what is now a lengthy and complex process for obtaining cable repair ship permits, India will benefit in many ways.
- 9) International legal process for installation and maintenance of submarine cables recognizes unique freedoms for the installation and maintenance of submarine cables. Various international treaties dating back to 1884 guarantee unique freedoms to lay, maintain, and repair submarine cables. Principles articulated in these treaties have since been recognized as customary international law. Specifically, these treaties guarantee the freedom to install submarine cables on the high seas beyond the continental shelf and to repair existing cables without impediment or prejudice. In line with these guaranteed international privileges, needed changes in regulations are to be ensured.

In conclusion, E-marine enormously appreciates the great efforts of TRAI and look forward to have a prompt resolution of the current challenges encountered by us to enable us further reinforce the promptness and efficiency of our services to our esteemed Indian customers.

Many thanks and with our kindest regards.



Omar Jassim Bin Kalban
Chief Executive Officer

