

CHALLENGES AND STRATEGIES FOR ACHIEVING CRITICAL PERMITTING MILESTONES IN THE CONTEMPORARY GLOBAL REGULATORY LANDSCAPE

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Abstract: Cable system owners and suppliers consider and address a multitude of interdependent technical, regulatory, operational, and environmental challenges during the life cycle of a cable project. Each country where the cable lands or transits has its own requirements, and they are often on different durations and schedules for permit acquisition. The permit acquisition process is often part of the critical path for all cable projects. Considering that delays in permits can push the project into the following installation season, a well-considered and implemented permitting plan is essential to meeting schedules on a cable project.

Challenges occur at each project phase (*e.g.*, concept, Bids & Proposals (B&P), Desktop Study (DTS), survey, installation, maintenance) and the strategies we implement to avoid or minimize permitting risk and maintain project schedule are described. Among key challenges explored are cable routing in maritime claims and United Nations Convention on the Law of the Sea (UNCLOS), permit scoping in the presence of regulatory ambiguity, owner and supplier readiness, coordination, and management during the permit acquisition effort, accounting for changing regulatory environment between time of contract forming and project implementation, and government bureaucracy. Strategies to address these challenges include judicious cable routing, permit scoping due diligence, joint owner and supplier best practices for managing the permit acquisition phase, project advocacy and asset (cable ship) utilization flexibility. The considerations and recommendations for the split of permit responsibilities between purchaser/owner and the supplier are presented and discussed.

1. REGULATORY SETTING

Representatives of the international undersea telecommunications cable industry (“Industry”) who have had direct or indirect experience with system permitting understand how time-consuming and costly regulatory scoping, acquisition, and compliance efforts can be. On most projects, permitting is the critical path for cable route survey, installation, or maintenance. The breadth of regulatory challenges the Industry faces is often underestimated.

Regulatory requirements (*i.e.*, permits) for a submarine cable are determined by a project’s temporary and permanent

footprints as they relate to project activities and occupancy on land or at sea. This includes footprints for the cable station (CS), outside plant (OSP), beach manhole (BMH), ocean ground bed (OGB), and submarine cable. A project’s overall footprint determines government stakeholders that may have underlying jurisdictional authority and permit requirements for a cable system, as well as non-government stakeholders (*e.g.*, fishermen, subsea cables and pipelines) that may be affected. Jurisdiction in this context refers to the legal authority of a governmental to control and/or authorize submarine cable survey, installation, and maintenance activities and infrastructure siting and placement.

Consider that our Industry is the only one in the world that routinely constructs continuous physical infrastructure on a trans-continental scale and that the majority of a system's footprint is in the maritime realm. Also consider that greater than half of the world's maritime boundaries are subject to overlapping jurisdictional claims [1] and even where these claims are undisputed, there is no single authoritative source that verifies, legitimizes, or promulgates these claims. The result is that system footprints often traverse a mosaic of undisputed and disputed maritime jurisdictional claims for which the lines of jurisdictional authority, and permit requirements, are blurred.

A simple point-to-point trans-oceanic system will traverse a minimum of two domestic (national) cable landfall jurisdictions but may traverse many more. For example, the footprint may traverse the territorial sea (TS) or exclusive economic zone (EEZ) maritime claims of non-landfall countries. Traverses of these claims by submarine cables may, and often does, result in additional permitting requirements in each instance where they occur. The South China Sea is arguably the best example of a geographical region where this risk is greatest. Here, numerous maritime jurisdictional claim disputes between neighboring countries have resulted in a geopolitical flashpoint that is the subject of weekly international headlines. Militarization of the South China Sea is escalating because of disputed maritime claims, as are challenges to these claims (e.g., freedom of navigation exercises), and the stakes could not be any higher; national sovereignty, military power projection, and rights to exploitable resources. Submarine cable routing through this region often requires a level of back-door diplomacy and redundant permitting efforts so as not to prejudice any country's jurisdictional authority in instances of overlapping claims.

Unfortunately, UNCLOS, which provides an international legal framework for defining

the rights and duties of nations with respect to their use of the world's oceans, cannot, as a practical matter, be relied upon to mitigate these regulatory challenges. While UNCLOS does include specific freedoms and entitlements for the laying of submarine cables within EEZs and on the continental shelf (CS), many countries that are party to UNCLOS are uninformed or indifferent to their obligations regarding the same. In practice, many countries that are party to UNCLOS often impose regulatory requirements on cables beyond their TS in direct contravention of UNCLOS. Furthermore, UNCLOS does not provide a timely dispute resolution mechanism between parties that allows project proponents to challenge jurisdictional overreach and still maintain aggressive project schedules that are customary to this Industry. Moreover, the Industry is not in a position, nor has the authority, to resolve or to legally challenge jurisdictional overreaches in these instances and undesirable precedent has been established.

Uncertainty within national regulatory frameworks also creates additional permitting risk for the Industry. Most countries do not have laws and regulations specific to international submarine cables. While some, like Australia, Singapore and China, do, they are the exception rather than the rule. Project proponents have a greater burden to perform regulatory due diligence in the absence of prescribed regulations. Efforts to properly identify domestic stakeholder authorities and permit requirements that will result in necessary project approvals (i.e., avoidance of unnecessary permits or consultations) can be fraught with pitfalls. Careful consideration must be given to stakeholders that are identified for engagement, how the project is formally introduced, and how regulatory due diligence inquiries are made.

Potential domestic permitting requirements may number in the hundreds or greater. The

following multipliers provide a conservative estimate: (1) countries with maritime claims (*i.e.*, potential cable landing nations [2]) = 152 and (2) typical number of jurisdictional authorities per country requiring permits = 4. This equates to 608 potential global submarine cable permitting requirements.

This estimate conservatively assumes four jurisdictional authorities requiring permits per country and one permit per jurisdictional authority. There can be two or more jurisdictional authorities at each government subdivision level that require permits. For example, at the U.S. federal level, the Federal Communications Commission and the U.S. Army Corps of Engineers both issue separate permits for submarine cables. A recent Industry project in Pacific City, Oregon (USA), which has three government subdivisions (*i.e.*, federal, state, county), required at least seven permits, not including formal consultations or agreements with other stakeholders.

Given the contemporary international and domestic regulatory settings, dozens of legal and regulatory professionals could be employed to try and stay abreast of the ever-changing permit requirements to which the Industry may be subjected. So well recognized is the importance of regulatory challenges that the World Bank ranks “Dealing with Construction Permits” for each country as part of its annual *Doing Business* report.

2. MARITIME CLAIMS & UNCLOS

Efforts to mitigate permitting risk can be initiated at the earliest project planning stage. At the conceptual-phase, great-circle routing (GCR) is typically performed between a system’s desired cable landing locations. GCR is an important tool for determining the shortest cable routes between landings, but it is inadequate for addressing the multitude of potential natural and manmade routing

constraints that are normally evaluated more comprehensively at the DTS phase.

Nevertheless, one of the easiest measures that can be taken during concept-phase GCR to significantly reduce permitting risk is to make judicious route adjustments, if feasible, to avoid TS and EEZ claim traverses in non-landfall countries. The goal is to avert regulatory compliance efforts given that UNCLOS freedoms and entitlements afforded submarine cables in the EEZ and on the CS do not apply to the TS. In SubCom’s experience, a TS traverse will trigger an obligatory domestic regulatory compliance effort. For similar reasons, when feasible, conceptual routing should avoid non-landfall EEZ traverses to avert the risk that the traversed State will not honor UNCLOS submarine cable freedoms afforded in EEZs.

Conceptual routing is also an opportune time to perform a screening-level evaluation of known environmental and cultural sensitivities that may further complicate the permitting process. For example, the system footprint can be evaluated to avoid or minimize traverses of known sensitivities like UNECSO World Culture and Natural Heritage sites, RAMSAR wetland sites, and other known environmental (*e.g.*, coral reefs) and cultural sensitivities for which geospatial data is publicly available.

Route adjustments to avoid these constraints cannot be performed in isolation but must be weighted and balanced simultaneously with the potential added cost for cable and repeaters, survey and installation ship time, operational-phase fault risk, and system latency.

3. REGULATORY SCOPING

To mitigate regulatory uncertainty, it is important to begin permitting scoping due diligence as early as possible—preferably as early as the B&P project phase but certainly no later than the DTS phase. Initial

regulatory scoping efforts typically rely on legacy project experience for guidance on anticipated permitting requirements and durations. However, reliance on legacy experience alone must be considered with an abundance of caution. In the financial world there is common disclaimer that “past performance is no guarantee of future results.” This well-known adage is equally true for submarine cable permitting. SubCom’s decades of permitting experience have proven time and again that individual cable landing permitting processes for the same location or jurisdictions are rarely, if ever, identical, even in instances where they occur in quick succession.

There are many reasons for permitting inconsistency between similar projects. Each project has its own unique set of variables such as changes to laws, regulations, or policies affecting submarine cables and how they are administered, Landing Parties (LPs) and their level of involvement in the permitting process, the flag states of vessels scheduled to support marine programs, Permit Granting Authority personnel assigned to manage, review, and approve a permit, environmental, cultural, or other sensitivities that are specific to a project’s footprint, and project schedules relative to non-work time-of-year restrictions (*e.g.*, fishing, monsoon and tourist seasons).

As part of a well-considered and implemented permitting plan and best practice, SubCom recommends engaging regulatory stakeholders early and often to better quantify and manage project-specific regulatory uncertainty and mitigate permitting critical paths. To accomplish this, SubCom recommends that a comprehensive permit feasibility study (PFS) be initiated at the B&P stage if possible. The benefits of conducting a PFS are numerous and include the opportunity to verify and update legacy permitting requirements (when applicable), establishment of proactive and inclusive engagement with potentially affected

stakeholders, identification of stakeholder concerns/issues (*e.g.*, route constraints and time-based no-work restrictions) to help determine the most viable project solution(s), establishment of stakeholder point-of-contacts and liaisons, and the opportunity to identify and verify individual permit requirements and predecessor relationships.

A PFS that will produce the best result is one that can be undertaken by formally engaging potential regulatory stakeholders regarding a well vetted project-specific footprint (*e.g.*, a well-developed concept or preliminary designed and engineered route). SubCom leverages its extensive global network and relationships with environmental and engineering firms to identify experienced and capable in-country permitting practitioners that can execute PFSs quickly and thoroughly. SubCom selects consultants based upon prior submarine cable experience or equivalent experience with coastal and marine projects, and those with a proven track record of experience and results with relevant regulatory stakeholders.

SubCom also recommends that cable owners’ and suppliers’ contractual permit scope split is clearly delineated to ensure that both parties are in lock step and coordinated for an efficient and effective permitting effort. For too many years, the Industry has loosely used terminology such as “permits-in-principle”, “operational permits”, “work permits”, “purchaser permits”, “supplier permits”, etc., without adequately defining these permit types and the contractually responsible party. This has not served the Industry well. As a result, SubCom has endeavored to add clarity and improve the understanding of purchaser and supplier contract permitting scope split by introducing a Permit Responsibility Matrix (PRM) to aid the contract forming process. SubCom’s PRM attempts to more clearly define permitting terminology, each party’s permit responsibility, and the division of permitting costs and fees. The PRM includes

three categories of permits: proprietary permits for long-term occupation of the land and seabed, regulatory permits for activities related to the work to be performed, and other third party stakeholder notifications and/or agreements such as those for pipeline crossings. The PRM further details each infrastructure element such as CS, OSP, OGB, BMH, and submarine cable and identifies which party has responsibility for each permit category for each infrastructure element. We believe the PRM has been an important tool for clarifying contractual roles and responsibilities and eliminating some of the permitting ambiguity that was so prevalent in the Industry's past.

4. REGULATORY CHANGE

International and domestic regulatory settings are constantly changing. Thus, it is reasonable to expect that one or more regulatory changes may occur in the many weeks or months that can pass between contract forming and project implementation. To mitigate this risk, one of SubCom's best practices is to be mindful to monitor for changes that may be formally promulgated by regulatory stakeholders. Regulatory stakeholder points-of-contact that may have been established at the PFS or scoping stage are another resource for staying current on formal or informal changes in regulation or practice. Lastly, consultants that have been engaged in supporting a system's permitting efforts should be aware of regulatory changes given their regular engagement with stakeholders.

If a PFS has already been initiated at the B&P phase, then efforts to fill any PFS gaps and identify regulatory changes can be furthered during the DTS phase -particularly during site visits when vetting of conceptual terrestrial and marine footprints typically progresses toward a preliminary engineered solution. This is an opportune time to revisit project stakeholders or introduce the project

for the first time and discuss the latest project footprint with regard to permit scoping.

Developing a preliminary engineered solution for both terrestrial and marine project aspects is critical. Some permitting authorities have jurisdiction over both the terrestrial and marine elements of a project or portions of both. For this reason, it is essential in these instances that a preliminary engineered solution for the entire project is defined before a permitting effort can be properly scoped and commenced.

In SubCom's experience, it is normal for an individual and collective permitting process to have a range of potential durations. Reasons for this are many and may include: regulations that do not have clearly prescribed timeframes, timeframes that may be dependent on a discretionary action(s) of a permit reviewer and instances where legacy permit durations (*i.e.*, based on practice) are shorter or longer than those specified in regulations.

One strategy that SubCom employs to manage this risk during project implementation is to utilize best- and worst-case durations for both individual and collective permit processes in its plans of work. Utilizing best- and worst-case permit availability forecasts is an important tool for the project team to both effectively communicate and quantify the magnitude of this risk and to plan and implement the most cost-effective solutions for either scenario.

As a complimentary strategy, SubCom is uniquely positioned to permit multiple installation vessels (*e.g.*, Reliance class ships) in its permit applications when relevant. This allows SubCom to take advantage of scheduling flexibility across the Industry's largest fleet of cable ships to maximize mobilization readiness based on permit availability.

5. PERMITTING READINESS

Readiness to undertake a permitting effort is another critical element to ensure project success. One key recommendation SubCom has in this regard is for the customer and supplier to form a Permit Working Group (PWG) for the duration of the project to ensure a coordinated and efficient permit acquisition and compliance effort. Permitting is best managed when both the customer and supplier are proactively engaged and mutually supportive, regardless of contractual permit scope split. SubCom recommends the formation of a PWG that includes designated LP and Supplier leads for each permit jurisdiction. The PWG should hold regular conference calls and face-to-face meetings (*e.g.*, at customer coordination meetings (CCMs)) to ensure coordination regarding overall project permitting scope. Coordination should include a review of the information required for each party's respective permit applications to support timely application submission, a review of permit plans of work and/or flow charts that detail individual permit durations, predecessor relationships, and forecasted availability of permits to support cable route survey and installation, and a review of permit critical paths and strategies and mitigation measures to be implemented.

As the project proponent, permitting readiness for the cable owner may also include additional responsibilities like ensuring the establishment of a business entity (*e.g.*, telecommunication services provider) that is formally registered to conduct business in each jurisdiction as may be necessary when local laws require. Other recommendations for permitting readiness primarily involve timely mutual support of the cable owner when the supplier has been contracted to undertake permitting on their behalf. Given that the LP normally has established business interests in a country and often has pre-established relationships

with key government stakeholders, it is sometimes necessary and faster for the LP to help arrange and attend introductory or permit scoping meetings with stakeholders. To support a supplier's permitting efforts and to formally commence a permit scoping and acquisition effort, it may also be necessary for the LP to issue formal Letters of Introduction/Appointment that detail the scope of the project, project benefits, and the contracted parties and their project roles. Timely issuance of Letters of Invitation by the LP may also be necessary for project representatives to obtain visas for in-country project activities.

6. BUREAUCRACY

Government bureaucracy is often an underestimated challenge for submarine cable permitting efforts. It is uniquely difficult to both gauge and manage because of its very nature. For most permitting efforts, the regulated party has poor visibility into the inner workings of the regulator and little or no ability to influence (*e.g.*, expedite) the permitting process even in instances where the working-level regulator may have the discretion to lessen permit application or compliance requirements. Many working-level regulators are regimented in their project reviews and have a "check the box" mindset to the permitting process.

One potential strategy that SubCom recommends to mitigate bureaucracy is to engage in high-level government advocacy and/or a public relations campaign. Cable Owners/LPs are uniquely positioned to undertake these efforts due to their established business interests and previous liaison or ongoing relationships with in-country government stakeholders. By engaging with government stakeholders at the highest administrative levels (*e.g.*, Ministerial) and/or with relevant political leaders, the cable owner may be able to more effectively advocate for their project than can be achieved with working-level stakeholders

or a foreign-based supplier that is permitting on the cable owner's behalf. Successful advocacy or public relations campaigns where direct and indirect project benefits are clearly communicated can help to garner stakeholder support and may result in project prioritization and ultimately shorter permitting timeframes. Advocacy/public campaign efforts should emphasize the benefits of the project from all perspectives (e.g., advancement of regional, national, and local connectivity initiatives, improved cyber security and redundancy, broadband infrastructure improvements, job creation, etc.).

7. CONCLUSION

A well-considered and executed permitting effort is proactive and forward-thinking, identifies opportunities to avoid or minimize risk at each project phase and implements strategies and measures to address these opportunities. Successful efforts begin with developing a well-vetted terrestrial and marine solution while jointly conducting regulatory scoping. Best practices include the engagement of stakeholders early and often and the leveraging of in-country experience and the capabilities of permitting experts. Close coordination between customer and supplier permit leads is essential to ensure timely mutual support and continuity and to minimize permit submission efforts. Direct and indirect project benefits should be emphasized with working-level stakeholders and potentially as part of an advocacy campaign with high-level stakeholders as well.

8. REFERENCES

- [1] Durham University, International Boundaries Research Unit.
- [2] Table of claims to maritime jurisdiction (as at 15 July 2011). Office of Legal Affairs of the United Nations, Division for Ocean Affairs and the Law of the Sea,