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Export Commercial Tutorial

January 2020

Outline

- Export Commercial Role
- Oil and Natural Gas Export Life Cycle Phases
 - Exploration and Appraisal Drilling
 - Project Development
 - Operations and Maintenance
 - Abandonment
- Questions

Export Commercial Role

An Export Commercial organization provides support to the Upstream Organization in evaluating, recommending and finalizing agreements in managing oil and natural gas export solutions for each offshore commercial development.

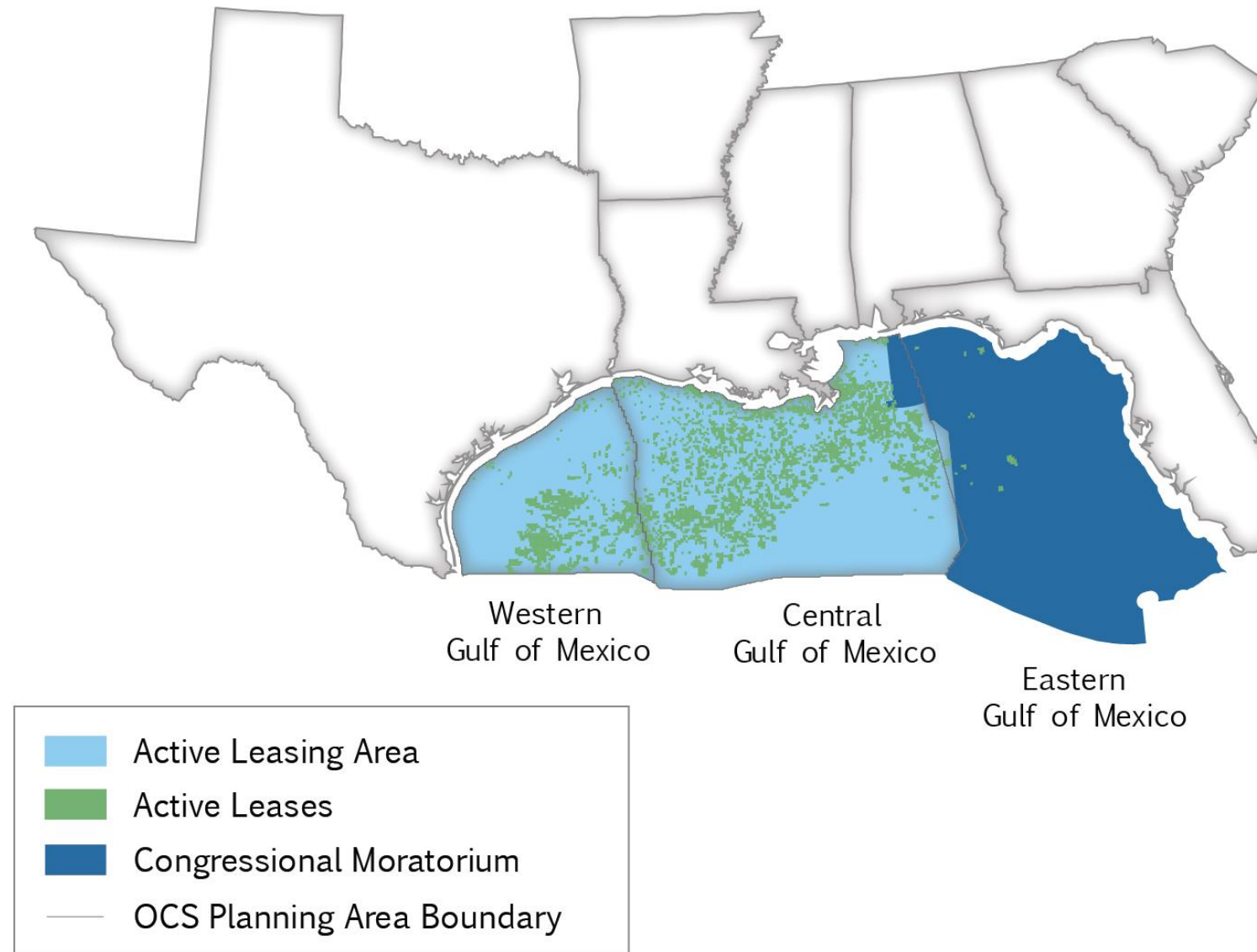
Phases of an offshore oil and natural gas Project Life Cycle include:

- Exploration and Appraisal
- Project Development (Pre-Final Investment Decision and Post-FID)
- Operations
- Abandonment



Exploration and Appraisal Phase

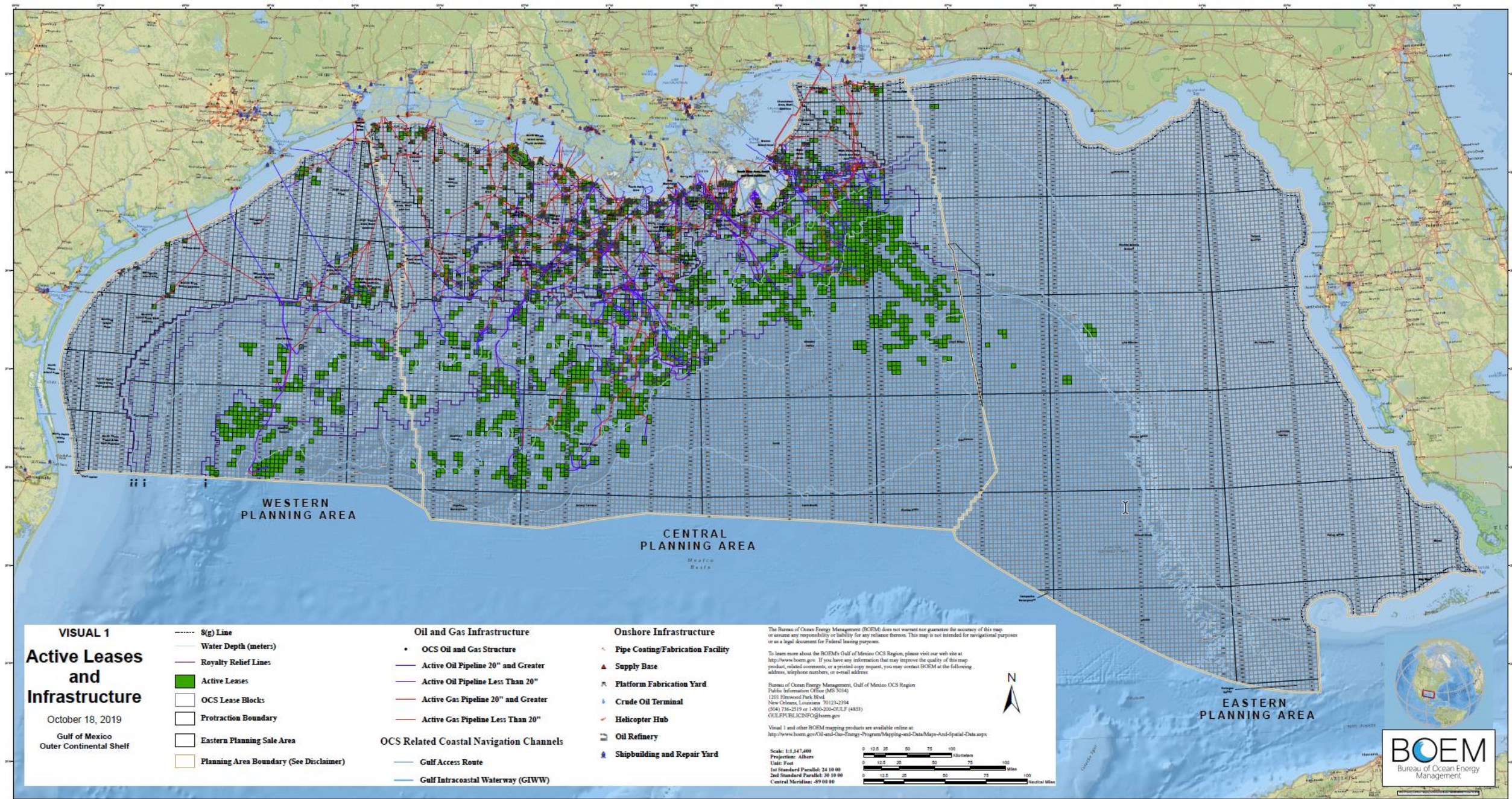
Department of the Interior Outer Continental Shelf Oil and Gas Strategy
Gulf Region



Source: <https://www.bsee.gov/stats-facts/ocs-regions/gulf-of-mexico>



Exploration and Appraisal Phase



Source: https://www.boem.gov/sites/default/files/documents/about-boem/Visual-1-Active-Leases-and-Infrastructure_0.pdf



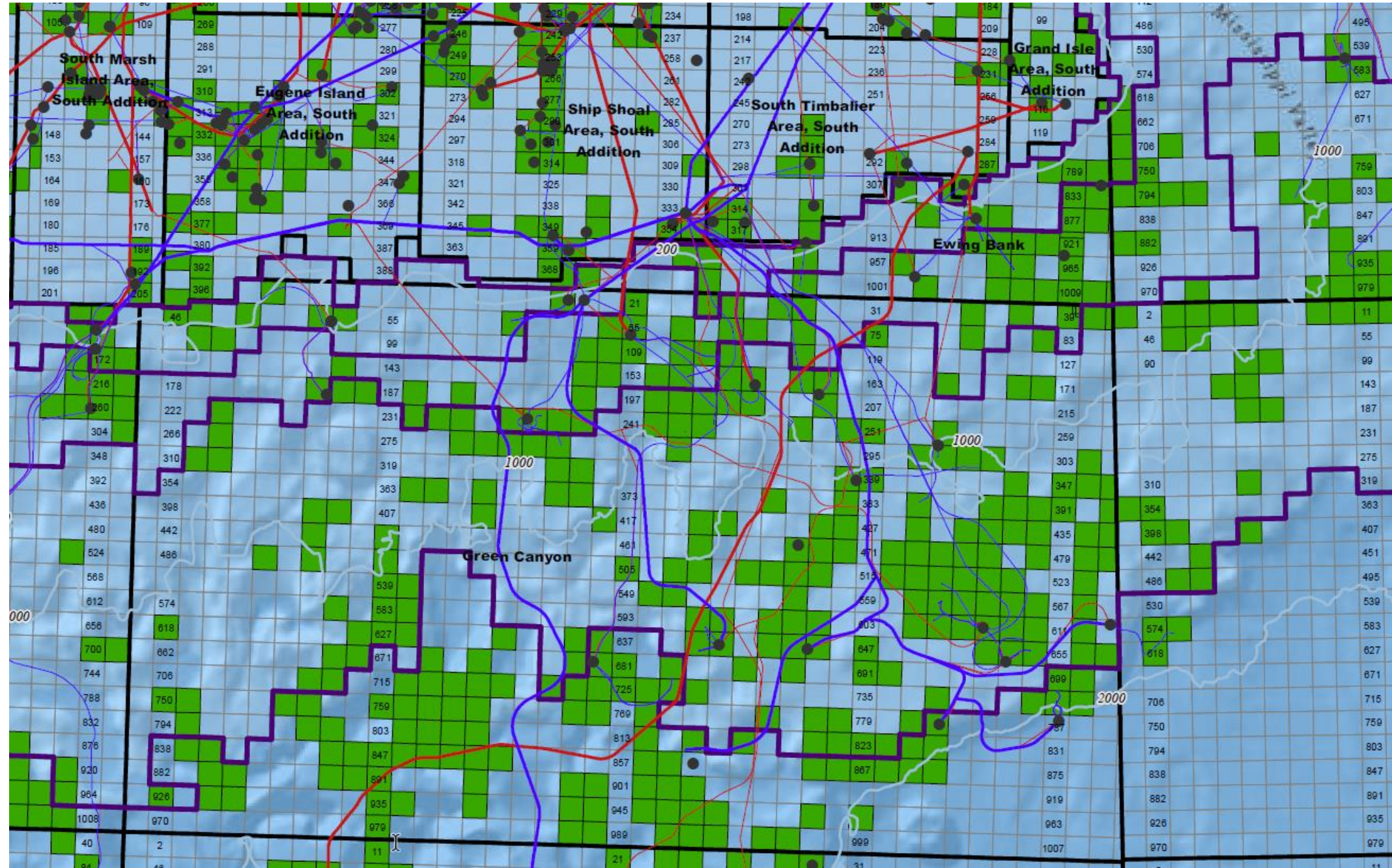
Exploration and Appraisal Phase

During this Phase of the Project, and after a discovery is made, the Export Commercial Organization is engaged and provides the following inputs:

- Develop a range of inputs (based on industry and company knowledge) to be used within the potential development project economic modeling:
 - Oil Transportation Cost
 - Gas Transportation Cost
 - Natural Gas Liquids value
 - Oil Market pricing (inclusive of any quality bank requirements)
 - Gas Market pricing (inclusive of any quality bank requirements)
 - Potential Production Handling Agreement (PHA) costs for the area of interest should a tie-back scenario be a viable production system alternative



Project Development Phase



Source: https://www.boem.gov/sites/default/files/documents/about-boem/Visual-1-Active-Leases-and-Infrastructure_0.pdf



Project Development Phase

In order to support the project development Phase, the Export Commercial team will be focused on the following activities:

- Review of the area of interest in developing a list of potential third party Midstream Service Providers (“MSP’s”) that could provide export solutions for the oil and gas delivered into the market place.
- Enter into Confidentiality Agreements with the MSP’s.
- Submit a Request for Proposal (“RFP”) to third party MSP’s. Inputs required for the RFP consist of the following technical information:
 - Range of expected flow rates for oil (bpd) and sales gas (MMscfd) (P10,P50,P90)
 - Oil flow characteristics (i.e. gravity, viscosity and sulfur)
 - Gas btu content and range of expected components (i.e. N2, CO2, Methane, Ethane, Propane, Butanes, Pentanes, Hexane +).
 - Gas rates are based on a mmbtu basis and hence the need to understand the gas btu content.



Project Development Phase (continued)

- Intent of the RFP is to gain knowledge of the following:
 - Flow Assurance (Age of Infrastructure, System Capacity, Remote Operational Functionality, Downtime statistics, Off Specification Product Handling, Repair functionality etc.)
 - Operating Parameters (pressure, temperature etc.)
 - New Build export pipeline lateral design details (Milestone Schedule, Basis Of Design, Pipeline Standards, Floating Production Unit Access, Measurement Standards etc.)
 - Transportation Fee Structure/Rates (escalation rates, lost and unaccounted rate, etc.)
 - Transportation Priority and Curtailment Management methodology (Firm Space, Interruptible, Rights to increase capacity and/or decrease)
 - Import capability / costs (gas for fuel and oil for hydrate inhibition on flow lines)
 - Quality Specifications and applicable Quality Banks
- Conduct evaluations of proposals received
 - Quantitative (economics) and Qualitative (flow assurance, import/export functionality, curtailment management, etc.)



Project Development Phase (continued)

- Develop and implement a negotiation strategy to be used for the overall oil and natural gas export commercial efforts.
 - This may be developed for each individual MSP further as you continue negotiations
 - Driving towards better transportation rate structure, gas processing value, and minimizing risk exposure to flow assurance, pipeline repairs, and curtailment methodology
- Develop and implement a stakeholder management plan (influencers, external/internal, roles they may play, decision making, etc.)
- Finalize decision and develop a Decision Record for both the oil and natural gas export solutions (Decision Records are used by the project team to formally document the decision)
- Enter into a Letter of Intent with selected MSP or go directly to negotiation of definitive agreements
- Negotiate and execute definitive agreements
 - Oil Agreements typically include
 - Dedication and Transportation: manages transportation, quality, flow management etc;
 - Interconnect/Construction, Operations & Use: Used for technical requirements of hooking up the Floating Production Unit to the export pipeline (design considerations, measurement specifications, operations etc).



Project Development Phase (continued)

- Oil Agreements (continued)
 - Producers Agreement is used to have structure on how the Producers will manage the developed field between themselves and the third party MSP
- Gas Agreements
 - Gathering & Dedication: management of gathering services and dedication provisions
 - Interconnect/Construction, Operations & Use: Used for technical requirements of hooking up the Floating Production Unit to the export pipeline (design considerations, measurement specifications, operations etc)
 - Liquids Transportation: allows for management of retrograde condensate or injected condensate transportation rates, quality, allocation etc.
 - Liquids Separation & Handling: Structure of this agreement provides for recovery of condensate and processing in order to meet sales requirements
 - Transportation: Used for transportation services for Federal Energy Regulatory Commission pipelines
 - Gas Processing and Fractionation: manages NGL recovery and fractionation into spec products for sale
 - Producers Agreement (same as above)



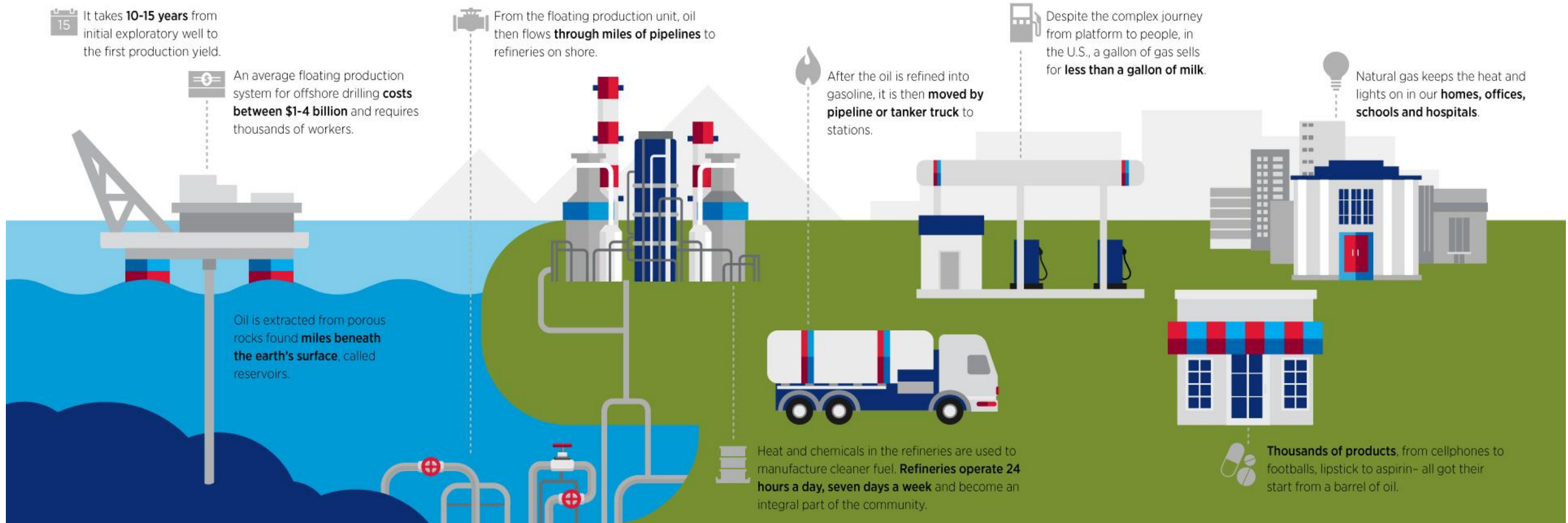
Project Development Phase (continued)

- Develop Oil and Gas marketing plans
- Manage interface between Operator and MSP during design, fabrication, installation etc.
- Support project commissioning needs in purchasing of oil and/or gas as applicable for line-fill needs as well as fuel. Typically the gas MSP will own the line fill volume while on the oil side, it is the shipper of record.
- Transition to Commercial Operations



Operations

from platform to people



Source: <https://www.chevron.com/projects/jack-stmalo/virtual-offshore-experience>



Operations

- Work with Marketing organizations in providing anticipated flow rates to be used for monthly nominations of sales gas or oil on the MSP's pipeline as well as management of imbalances that may occur
- Manage Flow Assurance Plans
- Interface with facility operations
 - Providing knowledge of any planned interruptions that could impact export services
 - Communicating with the MSP's any planned facility outages
 - Work towards minimizing downtime
- Management of the export agreements
- Arranging for fuel and/or oil buyback needs (which for some GOM plays will become a requirement for later in life of the fields ie low Gas Oil Ratio fields)
- Review of invoices provided for by the respective MSP's
- Generate net back reports for management use in understanding the expected revenue for each development to allow for knowledge of transportation fee's, quality bank impacts, market influence



Abandonment



Source: Chevron Environmental Management Company



Abandonment

- Identify who is responsible for the pipeline abandonment liability
- Manage line fill volumes that are returned to the shipper of record
- Provide notices as prescribed within the export commercial agreements
- Develop documentation which provides for knowledge of terms and conditions that survive the cancellation of the export commercial agreements
- Interface between facility operations and the respective MSP's on any requirements for disconnecting from the MSP



