

## OVERVIEW

Encana Corporation (Encana) is the owner and operator of the Deep Panuke natural gas development, located in the marine environment approximately 175 kilometres (km) offshore Nova Scotia. The development includes facilities required to produce natural gas from the Deep Panuke field, such as the offshore platform (production field centre or PFC), subsea wells, flowlines, control umbilicals and protection structures for subsea equipment. Natural gas is processed offshore and transported via a subsea pipeline to shore near Goldboro, Nova Scotia for further transport to markets using the Maritimes & Northeast Pipeline (M&NP). Encana permanently ceased production from Deep Panuke on May 7, 2018 and has begun the work required for decommissioning activities.

## DECOMMISSIONING PROCESS

It is currently Encana's plan to generally complete the decommissioning of the Deep Panuke development as follows:

- Decommissioning of the offshore platform (PFC), subsea structures, flowlines, umbilicals, gas export pipeline, and onshore facilities
- Well plugging and abandonment and subsea structure removal
- PFC removal and final field survey

<p><b>Wells</b></p> <ul style="list-style-type: none"> <li>• Plug and abandon four production wells</li> <li>• Plug and abandon one disposal well</li> <li>• Remove subsea production trees</li> </ul>		<p><b>Gas Export Pipeline (GEP)</b></p> <ul style="list-style-type: none"> <li>• Flush and clean GEP</li> <li>• Remove subsea isolation valve (SSIV)</li> <li>• Remove above ground onshore facilities</li> <li>• Abandon GEP in place</li> </ul>
<p><b>Subsea Facilities</b></p> <ul style="list-style-type: none"> <li>• Remove wellhead protection structures</li> <li>• Flush and clean flowlines</li> <li>• Disconnect flowlines and umbilicals; abandon in place</li> </ul>		<p><b>Production Field Centre (PFC)</b></p> <ul style="list-style-type: none"> <li>• Flush and clean</li> <li>• Remove</li> </ul>

## PROJECT UPDATES

For each of Deep Panuke's four subsea production wells and one subsea injection well, a drill rig will install a series of permanent barriers to plug and isolate the producing/injection zones. These barriers are typically a combination of steel plugs with cement on top. Encana has selected the Noble Regina Allen jack-up drilling unit for well plugging and abandonment. The Noble Regina Allen is currently working on the Sable Offshore Energy Project decommissioning.

For further information on the Noble Regina Allen, please contact:

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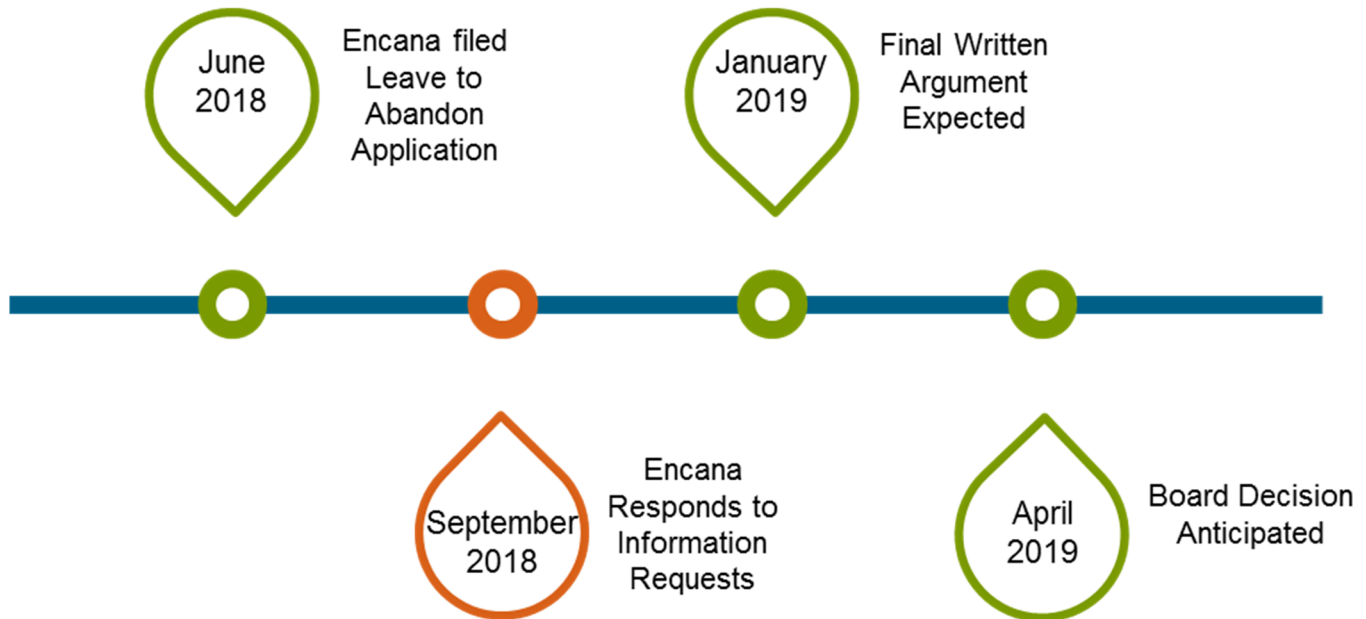


## REGULATORY PROCESSES

Decommissioning and abandonment of the Deep Panuke development will require approvals from the Canada-Nova Scotia Offshore Petroleum Board (CNSOPB) and the National Energy Board (NEB). The CNSOPB will issue Operations Authorizations and well approvals to approve the decommissioning and abandonment of Deep Panuke facilities. The NEB will issue a Leave to Abandon for the Deep Panuke gas export pipeline and onshore facilities.

### NEB – Leave to Abandon Application

The Leave to Abandon Application was filed with the NEB on June 19, 2018. Encana’s Leave to Abandon Application is undergoing a written hearing process. Encana is currently responding to information requests provided by Indigenous groups and stakeholders. Final written argument is expected in January 2019 with a Board decision anticipated within 12 weeks of final argument.



### CNSOPB – Operations Authorization

An Environmental Study Report for Deep Panuke decommissioning and abandonment activities was filed with the CNSOPB on June 26, 2018 for approval. Other authorizations required include:

- Amendments to Operations Authorization – Production
- Well plugging and abandonment: Approval to Alter the Condition of Wells
- PFC removal: Operations Authorization – Removal

## SCHEDULE

Encana anticipates conducting the following decommissioning activities during the 2019-2021 timeframe.

Activity	Target	Estimated Duration
<b>Subsea</b>		
Flowline flushing and cleaning	2019	2-3 weeks
Flowline subsea disconnects	2019 or 2020	1-2 weeks
Subsea structures removal	2020 or 2021	1-2 weeks
<b>Well Plugging and Abandonment</b>		
Offshore execution	Q4 2019-2020	4-5 months
<b>Production Field Centre (PFC)</b>		
PFC de-install	2020 or 2021	1 week
<b>Gas Export Pipeline (GEP) and Onshore</b>		
GEP flushing and pigging	2019	2 weeks
Onshore facilities removal and restoration	2020	1 month

## CONTACT

A key component of this information update is to provide up-to-date information on key activities. Encana is available to meet with interested groups that would like to discuss potential effects, concerns, and interests related to the decommissioning activities so that these may be considered in the decommissioning planning process.

For additional information, please feel free to contact:

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