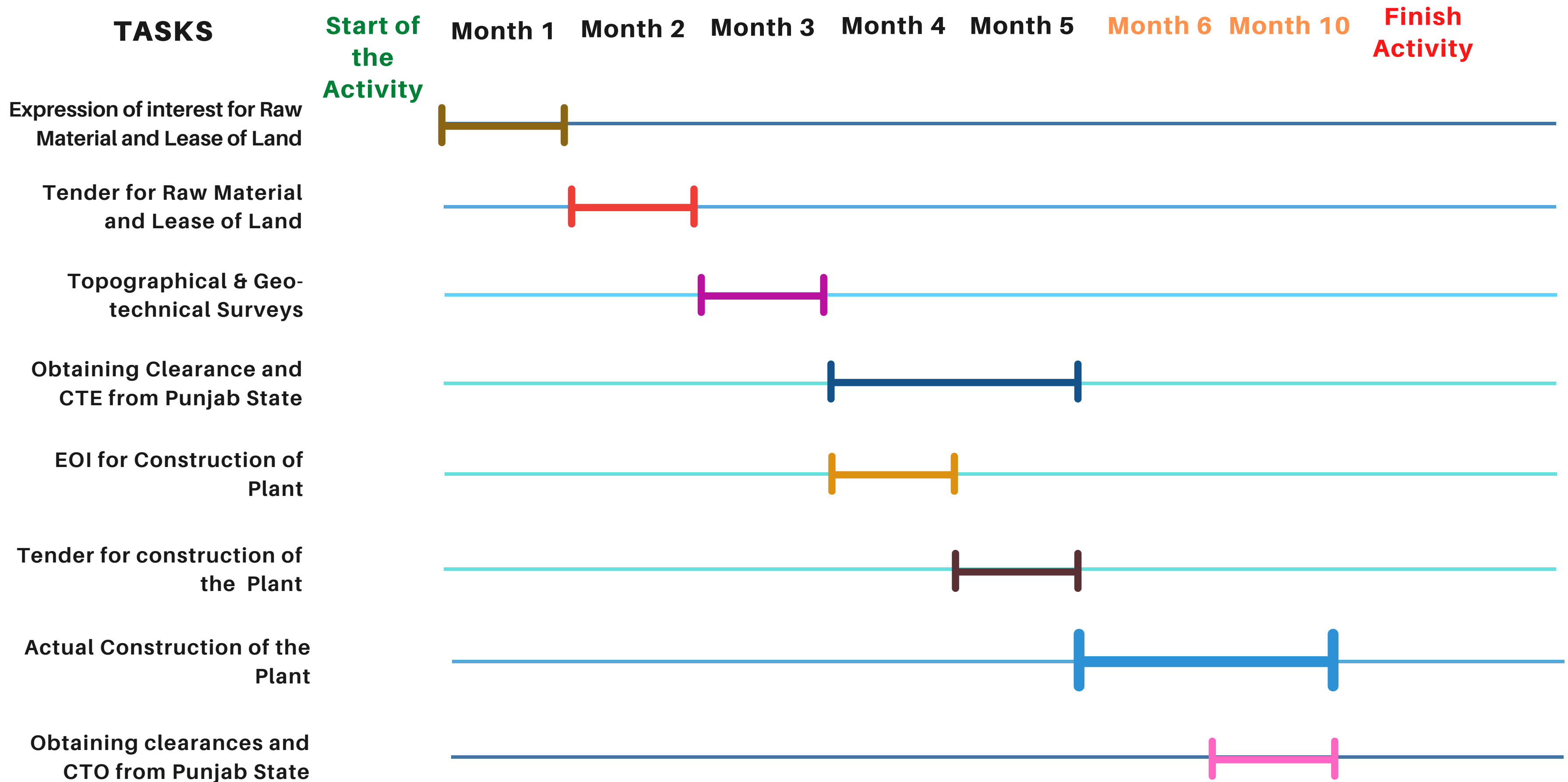
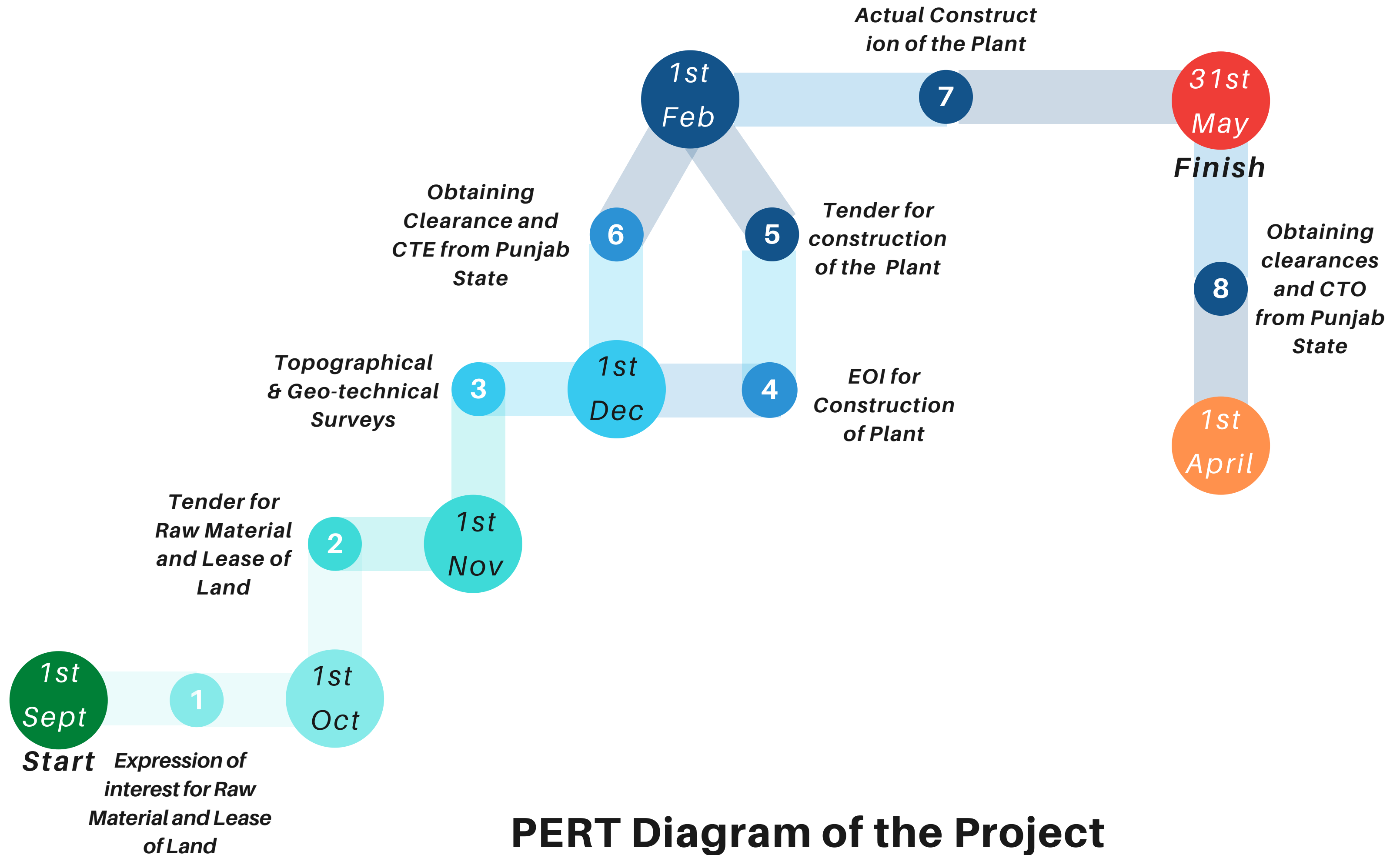


Gantt Chart of the Project





Project Phasing

Expression of interest for Raw Material and Lease of Land (1 month)

The intent of inviting this EOI is to encourage the applicant

- To contract for Lease of land (for 5 years with provision of further extension for 5 years) for the purpose of establishment of pellet plant on the leased land.
- For supplying agro-residue paddy straw (contract of 10 years) to pellet/ torrefied pellet plant on staggered/ daily basis.
- This shall establish agro residues supply chain management infrastructure viz. collection, processing, transportation etc. of surplus agro residues which is often set on fire by farmers and causes air pollution.
- After identifying the applicants through EOI who are interested in leasing land and supplying paddy straw for the upcoming pellet plant and are willing to participate in future tenders of NVVN, a workshop shall be conducted.
- The workshop shall help the applicant to understand NVVN's requirement of land's location, potential sources paddy straw, their properties, storage and other technological details. Information regarding supply chain management i.e. agro residue collection, processing, storage, handling, transportation etc. shall be provided by experts in that area. Information regarding business related issues shall also be imparted to the applicants.

Tender for procurement of raw material and lease of land (1 Month)

- The intent of this tender is to identify the applicant supplying the raw material and contract for
- lease of land at minimum cost, provided all technical and financial criteria are fulfilled.
- This tender will be exhaustive in nature and will be giving the minutest detail of the quality, quantity, location etc. of raw material and the land required. Moreover, this will also give details of the contractual terms between the two parties.

Signing of contract after topographical and geotechnical survey of the applicant's land (1 month)

- The Topographical and Geotechnical surveys are done by the consultant and final report shall be submitted to NVVN. Based on the report of the survey the tender for raw material and land will be finally awarded and the contract between the parties will be signed.

Obtaining statutory clearances and consent to establish from Punjab Government (1 months)

- Punjab Pollution Control Board (PPCB) has categorized all existing as well as new industries into three categories namely Red, Orange and Green keeping in view their pollution potential.
- The process of palletization is kept in the orange category according to the list available on the PPCB website.

*** Detailed list is attached in the Annexure-1*

EOI for construction of pellet plant (1 Month)

The intent of this tender is to encourage EPC contractors

- To take part in future tender of construction of pellet plant.
- To construct paddy straw-based pellet/ torried pellet plant of 3TPH in the Punjab state.

After the potential contractors are identified through the EOI floated, the workshop will be conducted by NVVN.

The workshop shall help the applicant to understand NVVN's requirement of plant structure, their properties, storage and other technological details. Information regarding their commitments and responsibility and expert talks shall be provided by experts in that area. Information regarding business related issues shall also be imparted to the applicants.

EPC tender for construction of pellet plant (1 month)

- The intent of this tender is to identify the applicant who will be responsible for construction of the pellet plant at minimum cost, provided all technical and financial criteria are fulfilled.
- This tender will be exhaustive in nature and will be giving the minutest detail of the structure, responsibilities, location, etc. about the plant. Moreover, this will also give details of the contractual terms between the two parties.

Actual Construction period of the plant (4 months)

- In this period, the actual construction of the plant will take place.

*** As mentioned in the FR*

Obtaining consent to operate certificate from Punjab Government (1 Month)

When the plant is in the last leg of its construction the Consent to Operate certificate should be obtained from the Punjab government.

List of documents needed to obtain consent to operate certificate

1. Compliance report of NOC / Consent Conditions in annotated form
2. Completion certificate of ETP/APCD along with Dimensional Drawing
3. Plan showing the location of ETP/APCD and all outlets and various channels/pipes/sewers with requisite colors as detailed below:
 - a) Fresh Water-Blue Color
 - b) Effluent Channel- Red Color.
 - c) Recirculation Water Channel - Green Color.
 - d) Storm Water - Orange Color.
 - e) Domestic Sewer - Dotted Black ink.
4. CA's certificate regarding un-depreciated value of the fixed assets of the industry at the end of last financial year.

*** Detailed order is attached in the Annexure-5*

Suggestions

As per discussion, if the termination value needs to be zero, then we must take 100% depreciation which will be 10% per year based on the straight line depreciation method.

Repair and maintenance cost - 10 % of the capital cost

<http://pure.iiasa.ac.at/id/eprint/13896/1/CEEW%20-%20Working%20Paper%20-%20Techno-economic%20assessment%20of%20bio-pellets%20-%2025Oct16.pdf>