

ABSTRAK

PRARANCANGAN PABRIK *LINEAR LOW DENSITY POLYETHYLENE* (LLDPE) DENGAN BAHAN BAKU *ETHYLENE* DENGAN KAPASITAS PRODUKSI 150.000 TON/TAHUN

Oleh

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Pabrik *Linear Low Density Polyethylene* akan didirikan di Tanjung Bintang, Lampung Timur. Pabrik ini berdiri dengan mempertimbangkan ketersediaan bahan baku, daerah pemasaran, sarana transportasi yang memadai, tenaga kerja yang mudah didapatkan dan kondisi lingkungan.

Pabrik direncanakan memproduksi *Linear Low Density Polyethylene* sebanyak 150.000 ton/tahun, dengan waktu operasi 24 jam/hari, 330 hari/tahun. Bahan baku yang digunakan adalah ethylene sebanyak 18.939,39 kg/jam

Penyediaan kebutuhan utilitas pabrik *Linear Low Density Polyethylene* berupa pengadaan air, pengadaan *steam*, pengadaan listrik, kebutuhan bahan bakar, dan pengadaan air pendingin.

Bentuk perusahaan adalah Perseroan Terbatas (PT) menggunakan struktur organisasi *line* dan *staff* dengan jumlah karyawan sebanyak 134 orang.

Dari analisis ekonomi diperoleh:

<i>Fixed Capital Investment</i>	(FCI)	= Rp 177.102.551.742,13
<i>Working Capital Investment</i>	(WCI)	= Rp 31.253.391483,91
<i>Total Capital Investment</i>	(TCI)	= Rp 208.355.943.226,04
<i>Break Even Point</i>	(BEP)	= 45,92 %
<i>Shut Down Point</i>	(SDP)	= 27,19 %
<i>Pay Out Time before taxes</i>	(POT) _b	= 1,98 tahun
<i>Pay Out Time after taxes</i>	(POT) _a	= 2,36 tahun
<i>Return on Investment before taxes</i>	(ROI) _b	= 34,34 %
<i>Return on Investment after taxes</i>	(ROI) _a	= 27,47 %
<i>Discounted cash flow</i>	(DCF)	= 31,42 %

Mempertimbangkan paparan di atas, sudah selayaknya pendirian pabrik *linear low density polyethylene* dikaji lebih lanjut, karena merupakan pabrik yang menguntungkan dan mempunyai masa depan yang baik.

ABSTRACT

MANUFACTURE OF LINEAR LOW DENSITY POLYETHYLENE (LLDPE) FROM ETHYLENE FOR CAPACITY OF 150,000 TONS / YEARS

By

GARYBALDI Y.S

Factory which is made by raw material ethylene, will be erected on Tanjung Bintan, East Lampung. The factory was established by considering the availability of raw materials, marketing area, transportation facilities, readily available labor and environmental conditions.

The factory is planned to produce linear low density polyethylene of 150,000 tons / year, with operating time of 24 hours / day, 330 days / year. The raw materials used are ethylene 18.939,39 kg/hr.

Provision of utility plant needs linear low density polyethylene the provision of water, provision of steam, electricity supply, fuel requirements, and procurement of air cooling water.

The form is a Limited Liability company (PT) using a line and staff organizational structure and employs as many as 134 people.

From the economic analysis is obtained:

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Considering the above explanation, it is proper plant establishment linear low density polyethylene was studied further, because it is a profitable factory and have a good future.