



सत्यमेव जयते

Government of Gujarat

# Petroleum, Chemical and Petrochemical Investment Region (PCPIR)



# PCPIRs in India



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India currently has four approved PCPIRs.

## Gujarat PCPIR (Dahej)

Total area - **453 sq. km.**

Actual investment - **INR 1,12,873 crore**

Actual employment generated - **1.84 lakh**

ONGC Petroleum addition Limited (OPaL)

## Tamil Nadu PCPIR (Cuddalore - Nagapattinam)

Total area - **256.83 sq. km.**

Actual investment - **INR 8,100 crore**

Actual employment generated - **13,950**

Nagarjuna Oil Corporation Ltd. (NOCL)

## Odisha PCPIR (Paradeep)

Total area - **284.15 sq. km.**

Actual investment - **INR 45,000 crore**

Actual employment generated - **38,000**

Indian Oil Corporation Ltd. (IOCL)

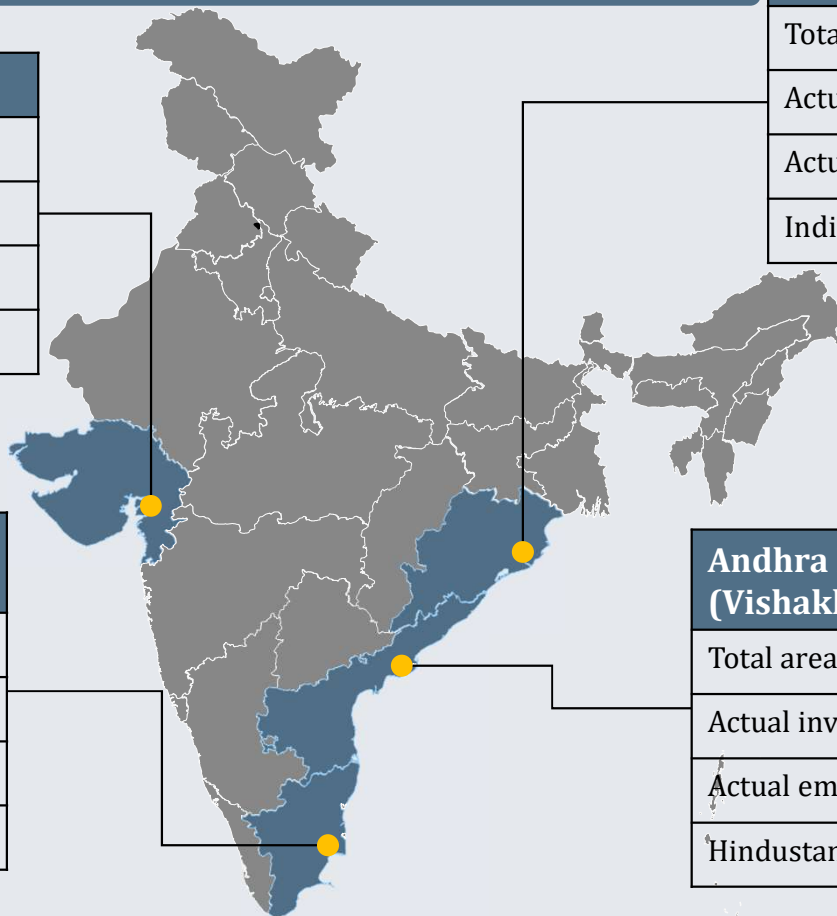
## Andhra Pradesh PCPIR (Vishakhapatnam - Kakinada)

Total area - **640 sq. km.**

Actual investment - **INR 43,744 crore**

Actual employment generated - **1.11 lakh**

Hindustan Petroleum Corporation Ltd. (HPCL)

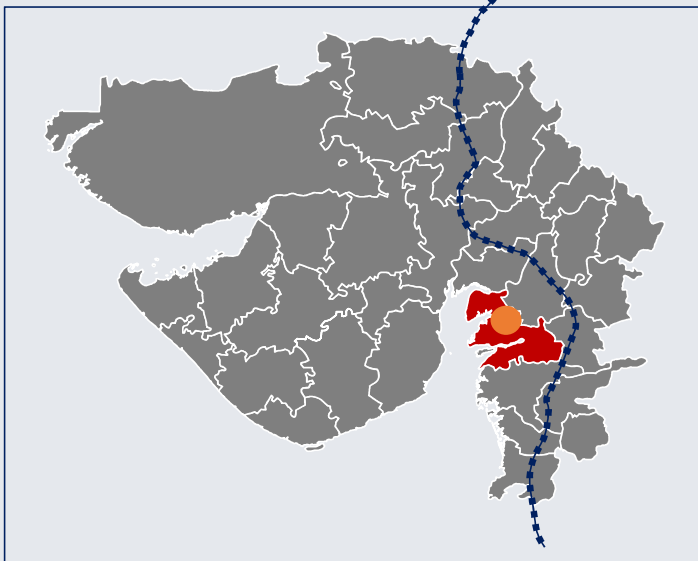


# Gujarat PCPIR: Overview



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## India's 1<sup>st</sup> Petroleum, Chemical and Petrochemical Investment Region (PCPIR)



Entire PCPIR area falls within 50 kms of Dedicated Freight Corridor (DFC) proposed on the Delhi Mumbai Industrial Corridor

<b>Location</b>	Bharuch District comprising of 44 villages (Vagara & Bharuch Talukas)
<b>Area</b>	453 sq. km

Total area **453** sq.km

Investment made till date  
**US\$ 13.5 bn**

Infrastructure Development  
**US\$ 2.4 bn**

Employment  
**1,84,000**

Sector  
**Petroleum, Chemicals and Petrochemicals**

Strategically located with excellent access to entire North West Indian hinterland

1.1 MMTPA multi-feed cracker

Availability of natural resources and feedstock

Chemical port terminal and chemical storage facility at Dahej

LNG Terminal at Hazira and Dahej

Liquid Fuel Jetty and Solid Cargo Jetty

Effluent disposal pipelines, solid waste disposal sites

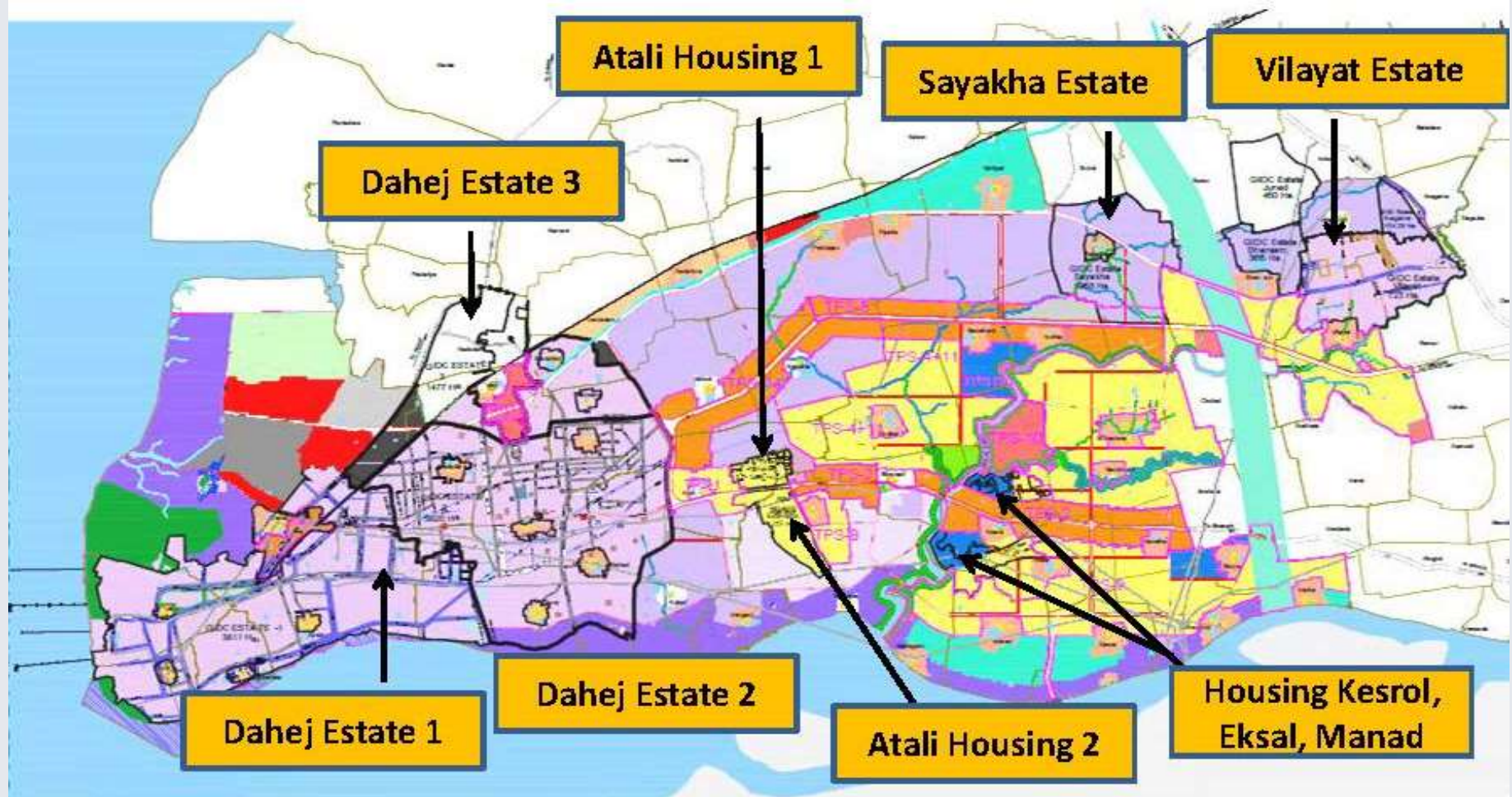
One of Asia's largest Petrochemical complex by ONGC

India's First Operational PCPIR

# PCPIR Development Plan



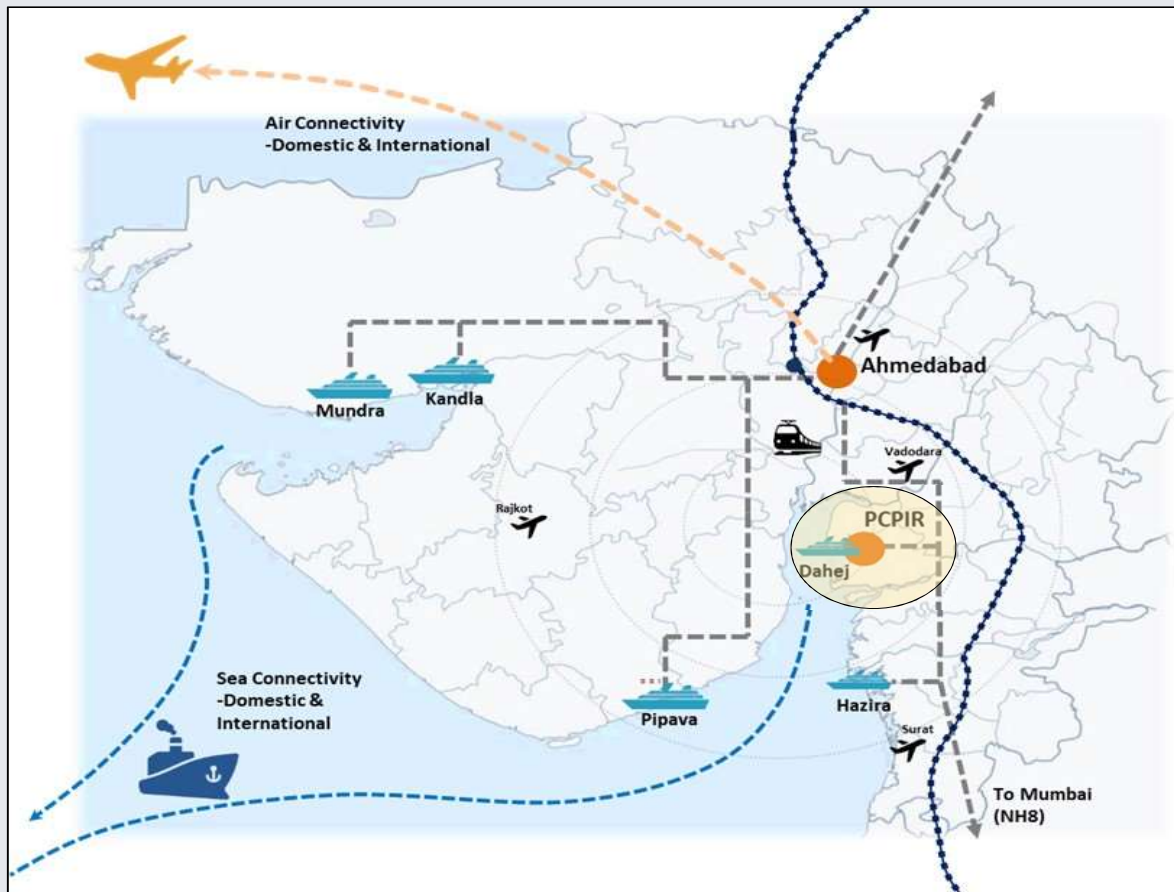
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# Air Connectivity at Dahej PCPIR



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## Existing

- 250 km from international airport at Ahmedabad
- 90 km from international airport at Vadodara
- 85 km from domestic airport at Surat

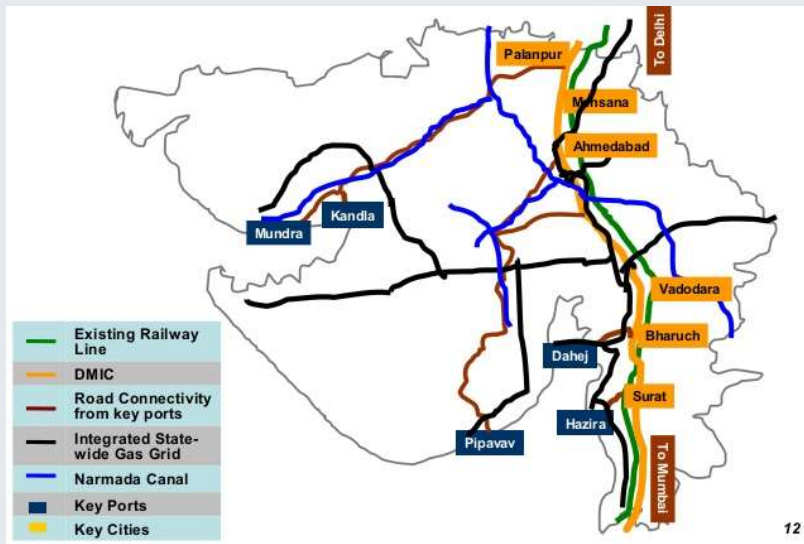
## Proposed

- Airstrip at Ankleshwar

# Rail Connectivity at Dahej PCPIR



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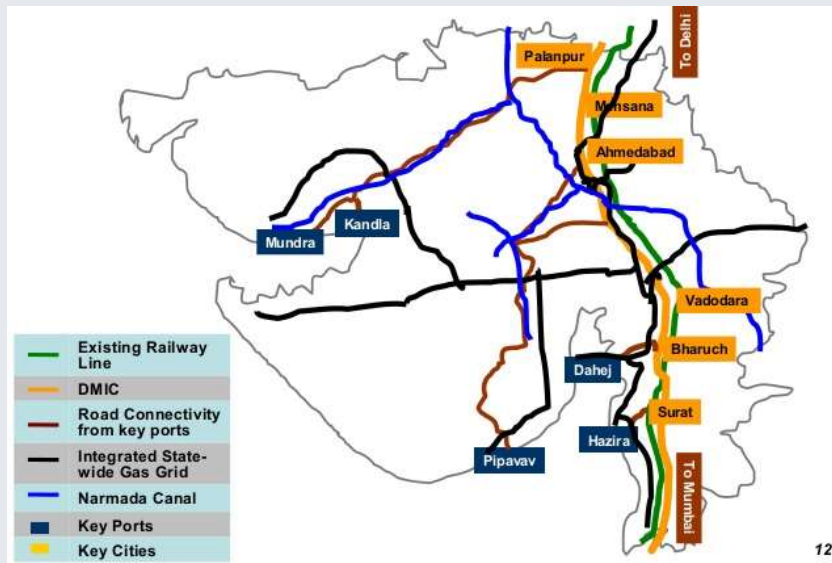
<p><b>Existing</b></p>	<ul style="list-style-type: none"> <li>• Connected to Delhi – Mumbai Broad Gauge railway line at Bharuch</li> <li>• Dahej – Bharuch broad gauge line (62 km)</li> </ul>
<p><b>Proposed</b></p>	<ul style="list-style-type: none"> <li>• Delhi – Mumbai Dedicated Freight Corridor (DFC) will touch the PCPIR on the eastern side</li> <li>• Dahej – Bharuch broad gauge line to be connected to the DFC at Dayadra Jn.</li> </ul>



# Road Connectivity at Dahej PCPIR

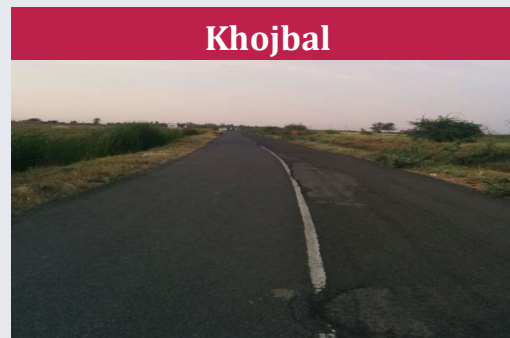


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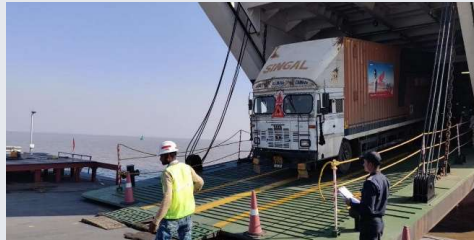
<b>Existing</b>	<ul style="list-style-type: none"> <li>50 km four lane Dahej-Bharuch State Highway connecting six lane Delhi-Mumbai National Highway and National Expressway</li> </ul>
<b>Proposed</b>	<ul style="list-style-type: none"> <li>Ahmedabad-Vadodara National Expressway to be extended to Mumbai</li> <li>Upgradation of 8 km of port linkage</li> <li>Escape routes of 150 m &amp; 120 m to NH-8</li> </ul>



# Port Capacity at Dahej PCPIR



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## Existing

- Adani Petronet Dahej Port P. Ltd : **11 MMTPA**
- GCPTCL Liquid Chemical Terminal : **4.9 MMTPA**
- LNG Petronet (Gas Terminal) : **10 MMTPA**
- Reliance Liquid Fuel Jetty : **02 MMTPA**
- Birla Copper Bulk Cargo Jetty : **05 MMTPA**
  
- Dahej- Ghogha Ro-Ro Ferry Service Terminal by GMB (Passenger ferry commenced on 22/10/2017) (Cargo ferry commenced on 28/10/2018)
- Development of Jetty for handling ODC (Over Dimensional Cargo). JV of GMB & Dahej SEZ Ltd.

## Proposed

- GCPTCL is expanding the existing capacity to 12.0 MMTPA by setting up 2nd berth.
- Development of Marine Shipbuilding Park (MSP)



# Port Infrastructure at Dahej PCPIR



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**GCPTCL  
(Liquid Chemical Terminal)**



**APDPPL (Solid Cargo Terminal)**



**Ro-Ro Ferry Service**



**LNG Petronet (Gas Terminal)**



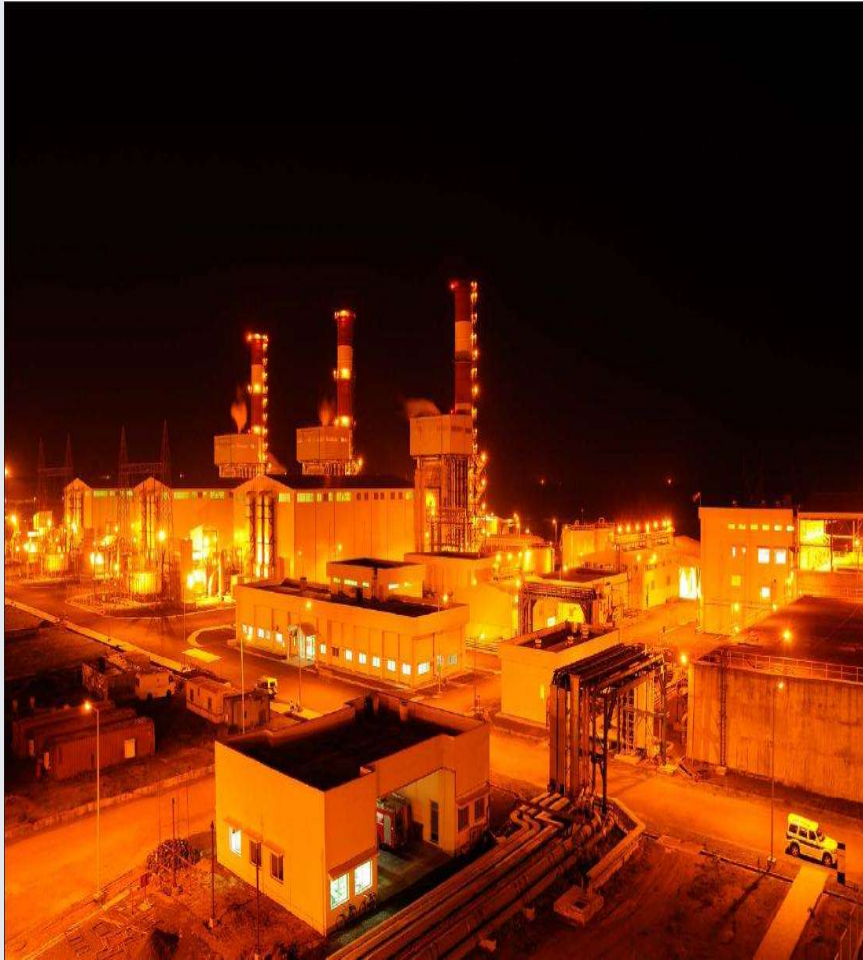
**Ro-Ro Terminal (GMB)**



# Power Supply at Dahej PCPIR



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## Existing

### Power available from:

- **Four 220 KV** sub-stations located at Dahej, Dahej SEZ, Rahiyad-Suva & Vilayat
- **Eight 66 KV** substations located at Dahej, Luna, Bhensali, Vadadala, Galenda, Jolwa Sambheti and Vilayat.
- Gujarat Energy Transmission Corporation Limited (GETCO) has completed construction of **220 KV** substation at Suva Dahej, which is in operation.
- **1600 MW** gas based power plant by Torrent Power Ltd. in Dahej SEZ has been completed.
- Construction of **2640 MW** coal based power plant of Adani Power is in progress.

## Proposed

- **Two 220 KV, One 400 KV & Ten 66 KV** substations are planned in Dahej & Saykha & Atali Housing.

# Water Supply at Dahej PCPIR



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<b>Existing</b>	<ul style="list-style-type: none"><li>• GIDC has developed Dahej Raw Water Reservoir with a capacity of <b>366 MG</b></li><li>• Water supply network comprising of branch canal and pipelines with cumulative installed capacity of <b>108 MGD (490 MLD)</b></li></ul>
<b>Present utilization</b>	Average - <b>180 MLD</b>

**Raw Water Reservoir**



**Intake Well 25 MGD at Narmada River Nand**



# 100 MLD Desalination Plant



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Desalination Plant including contingency worth US\$ 116 MN (INR 881.19 crore)



## Status

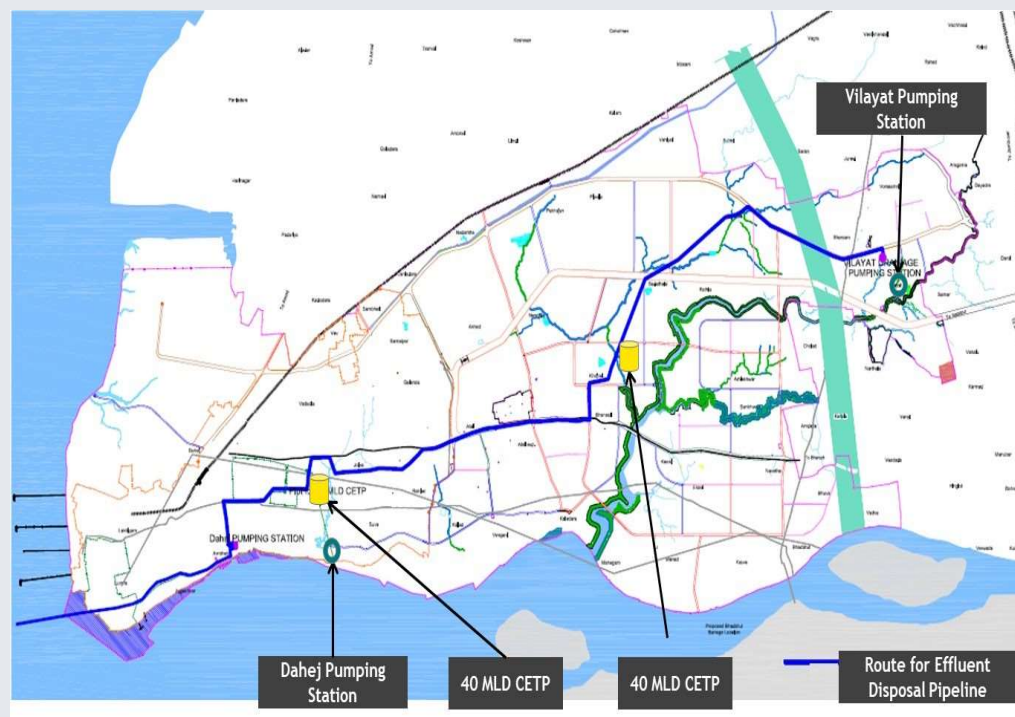
- Site cleaning completed
- Topography Survey completed
- Soil Investigation completed
- Water product pipeline route survey completed
- EC has been issued
- Ground improvement survey is ongoing
- Trenching commenced
- Earth works for reservoir and Admin building ongoing
- CRZ clearance under progress

# Effluent Disposal



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## Common Effluent Treatment Plants



## Effluent Disposal

- GIDC has developed 90 MLD disposal pipeline of 40 km from Vilayat pumping station to Dahej to dispose the effluent into deep sea (8.5 Km Onshore line & 4.5 Km Offshore line - from Dahej final pumping station ).
- Additional **150 MLD** Effluent Disposal Line under planning

## CETP

GIDC has established two CETPs in the region

- **40 MLD** at Dahej
- **40 MLD** at Sayakha

# Waste Disposal



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## **Treatment Storage and Disposal Facility (TSDF)**

- Hazardous waste management has been developed by Bharuch Enviro Infrastructure Limited in Dahej PCPIR having a capacity of **1.4 MMT**

## **Incinerators**

- **20 Million Kcal/hour** system installed by Saurashtra Enviro Projects Pvt Ltd.

**Utilization: 60% of current capacity**

## **Waste Heat Recovery System**

- **4 KL/hour** forced evaporation system is installed by Saurashtra Enviro Projects Pvt Ltd.

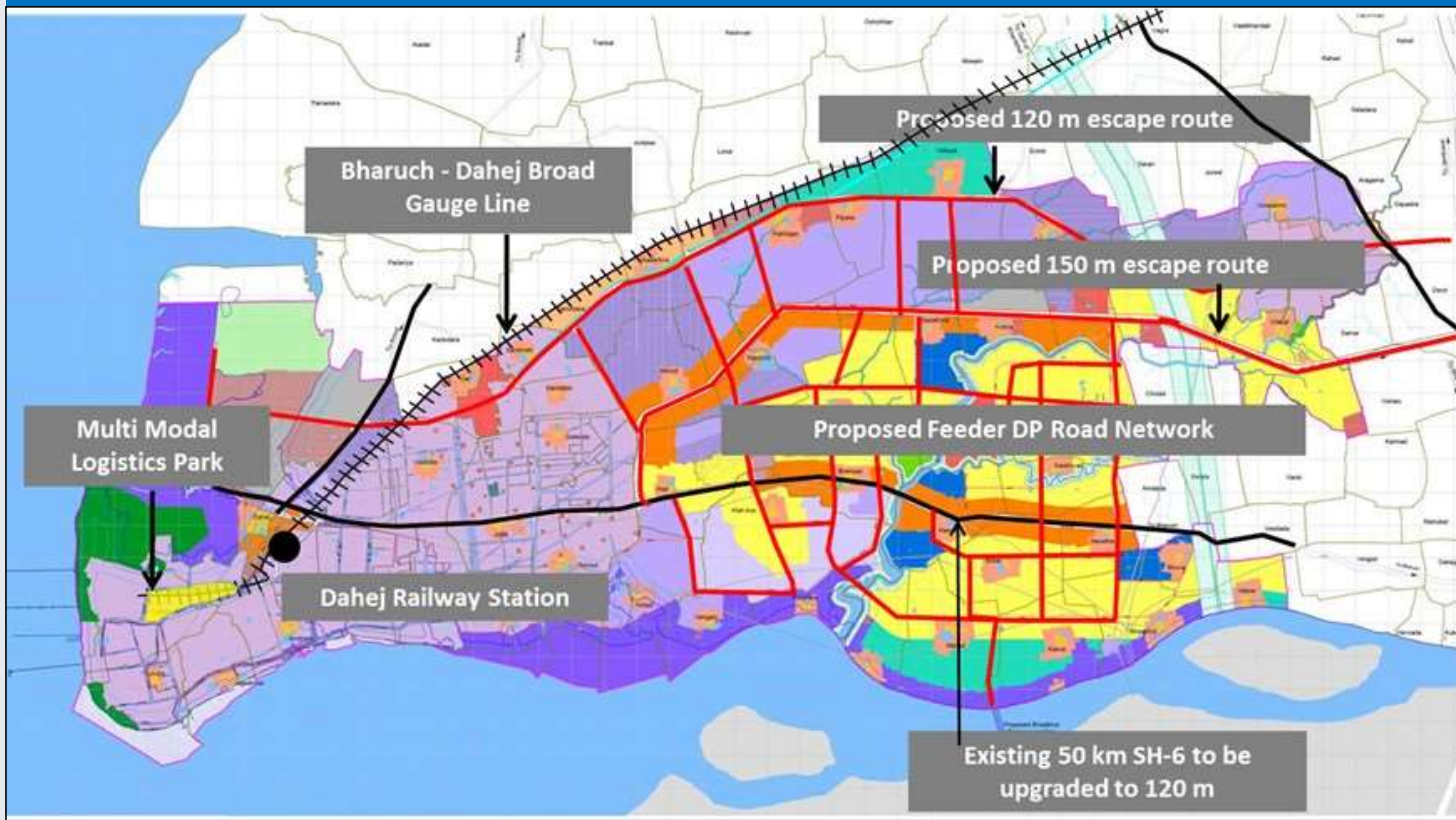


# Multi-Modal Logistics Park



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Logistic Park to be developed by GIDC and Container Corporation of India Ltd (CONCOR)



## Total Project Cost

**INR 210 crore**  
(excluding land)

**INR 120 crore**  
(Phase I)

**INR 90 crore**  
(Phase II)

## Status

**Civil construction  
work order given to  
RSC Infratech  
Developer LLP**

Total area to be developed - **25 hectare** (Phase-I)



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# Anchor Tenant: ONGC Petro additions Ltd (OPaL)

- JV of ONGC, GAIL and GSPC has developed a world scale multi-feed cracker in the PCPIR
- OPaL's unit at PCPIR, is the largest petrochemical plant in India, developed at an investment of US\$ 3.9 Billion
- The OPaL Cracker Unit was dedicated to the nation by Hon'ble Prime Minister Mr. Narendra Modi, in March 2017

## Products

- Ethylene (1100 KTPA)
- Propylene (400 KTPA)
- Dedicated High Density Polyethylene (340 KTPA)
- Polypropylene (340 KTPA)
- Swing High/Linear Low Density Polyethylene (720 KTPA)
- Benzene (149 KTPA)
- Butadiene (114 KTPA)
- Carbon Black Feed Stock (70 KTPA)
- Pyrolysis Gas (165 KTPA)



Source: OPaL; Petroleum, Chemicals and Petrochemicals Investment Region, Government of Gujarat



# Major Industries in PCPIR



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**BASF**



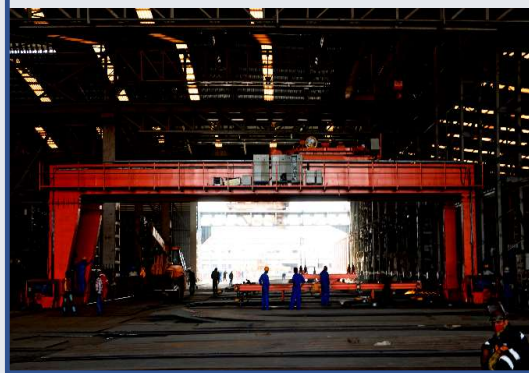
**OPaL**



**LNG Petronet**



**ABG Shipyard**



## Projects Commissioned



## Projects Under Implementation



Source: Petroleum, Chemicals and Petrochemicals Investment Region, Government of Gujarat

# Major Industries in PCPIR



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**DIC Fine Chemical**



**Firmenich Aromatics**



**Rallis India**



**Roxul Rockwool**



**Filatex**



**Indobajjin**



Source: Petroleum, Chemicals and Petrochemicals Investment Region, Government of Gujarat

# Investment Opportunities



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**Manufacturing  
of Specialty,  
Textile,  
Construction &  
Automotive  
Chemicals**

**Manufacturing of  
feedstock for  
polymer industry**

**Development of  
Container Freight  
Station (CFS),  
warehousing  
facilities**



**Development of  
Tank Farms for  
storage of POL  
(Petroleum, Oil and  
Liquids)**

## Connect for more Information

### **Gujarat Industrial Development Corporation (GIDC)**


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