

# Israel Natural Gas Lines Ltd.

## Presentation of the National Transmission System for Natural Gas



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# General Framework

- **INGL** is 100% government owned and operates under a 30 year license granted by the Minister of National Infrastructures in 2004
- **Mission:** To construct and operate the national high pressure natural gas transmission system
- **Regulation:** INGL is subject to tariff and safety regulation by the Natural Gas Authority
- **Revenues:** The transmission tariff is composed of capacity and throughput fees, based on a 90/10 split
- **Employees:** INGL employs 96 full time staff and relies on outsourcing for additional support as needed



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# Gas Installations

- **Onshore and offshore pipelines**  
Diameters ranging from 12" to 30" (44-80 bar)



- **Receiving Stations**  
To receive natural gas from  
upstream suppliers  
in Ashdod and Ashkelon



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# Gas Installations



- **Pressure Reduction and Metering Stations**  
PRMS facilities to connect with customers and distribution companies



- **Block Valve Stations**  
Located at 10 kilometer intervals along the pipeline, to monitor and operate the system and to isolate sections in an emergency



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# Alon Tavor PRMS



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# Haifa IEC PRMS



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# Tel Kashish Block Valve Station

During Construction



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# The Marine Pipeline

## Northern Section

Reading - Dor

In operation since 7/2007

length – 60 km

## Southern Section

Ashdod - Reading

In operation since 5/2006

length – 34 km

BUOY

1/2013

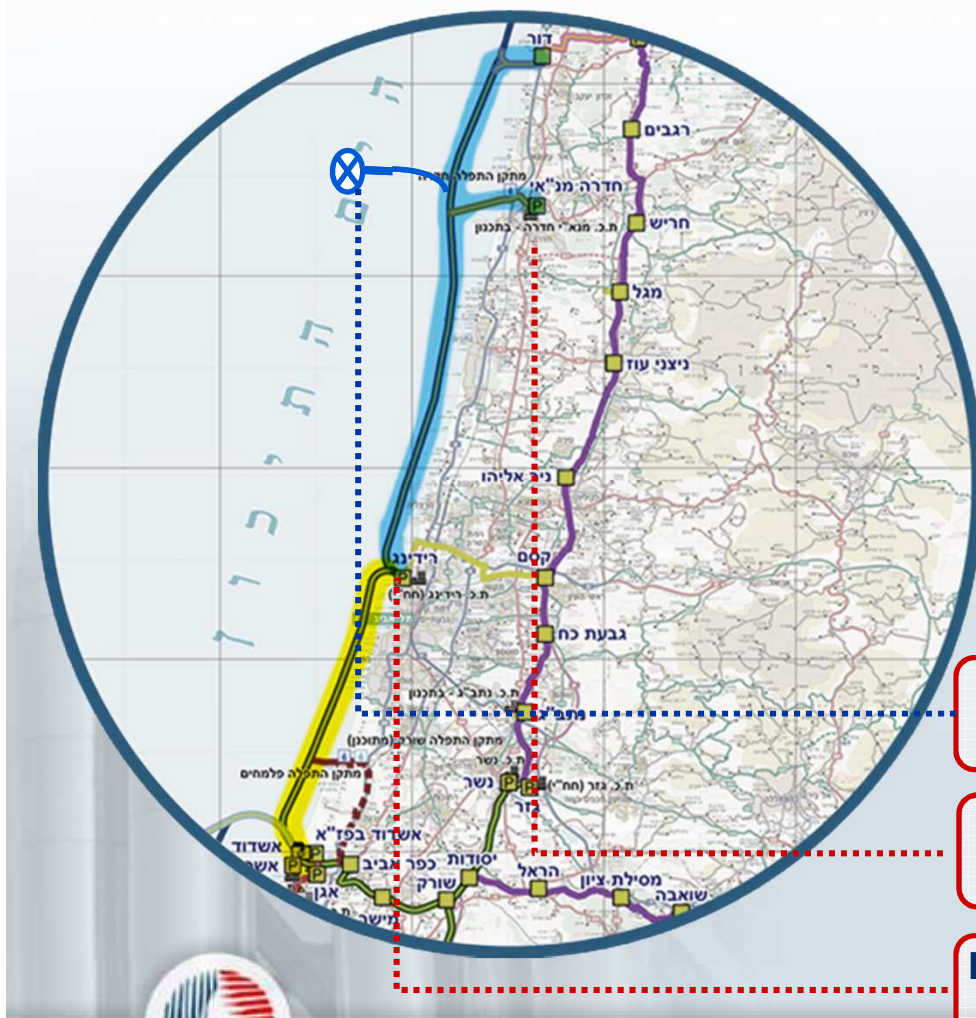
AIPM

8/2007

IEC Reading

6/2006

On 9/2012 INGL has completed a “**Rock Dumping**” project for covering and defending the offshore pipeline



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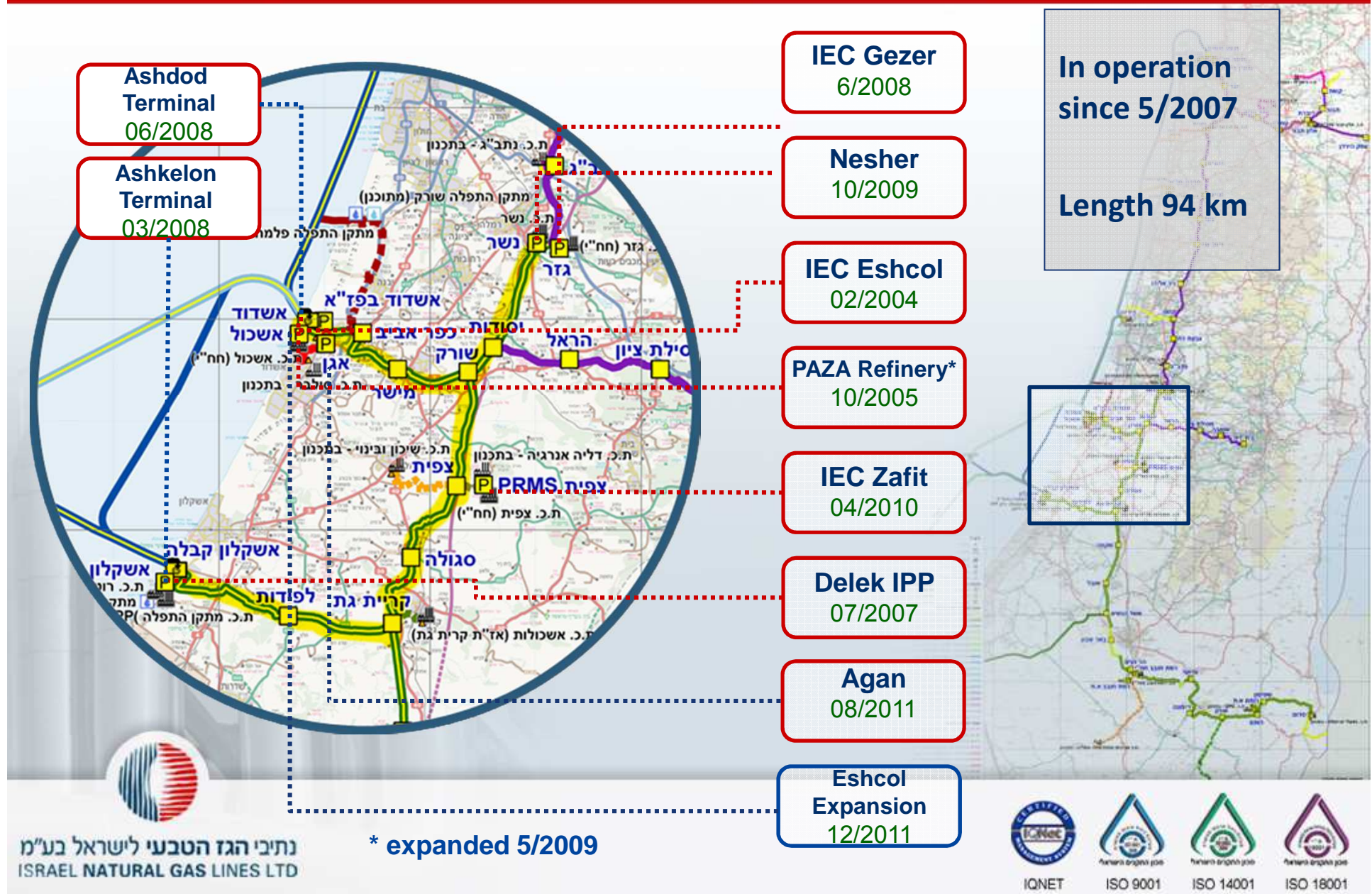
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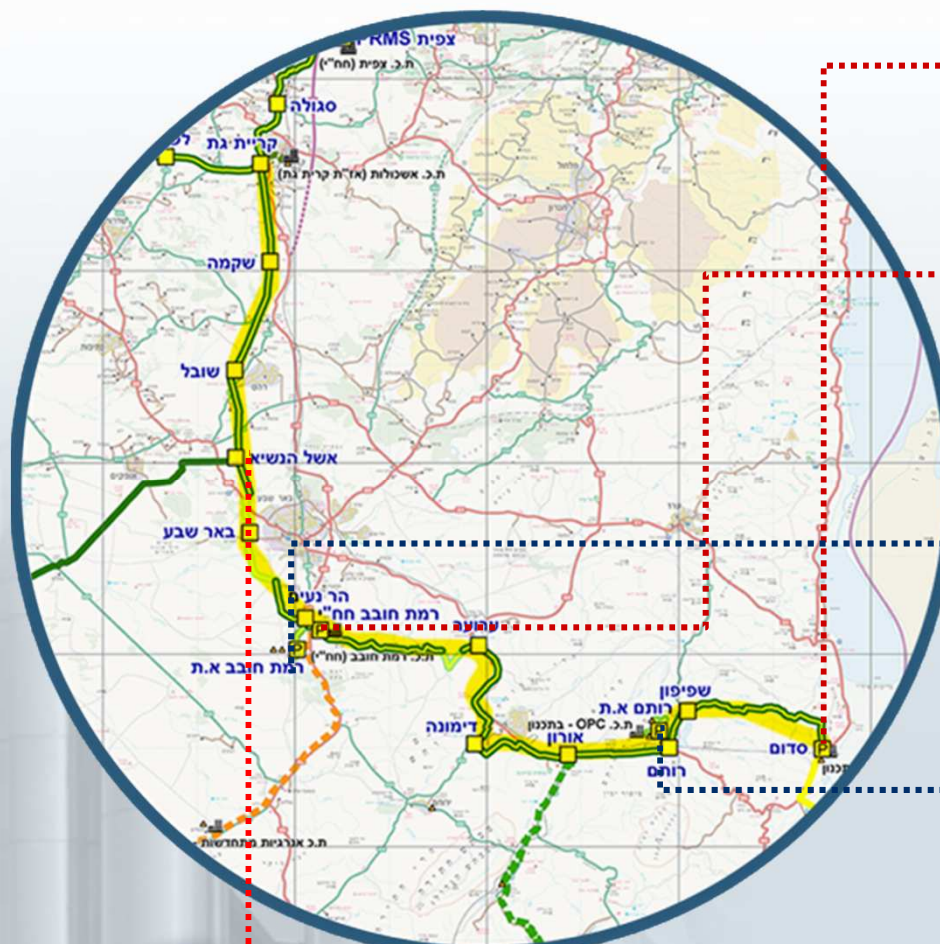


# The Central Pipeline





# The Southern Pipeline



**Dead Sea Works**

09/2009

**IEC Ramat Hovav**

05/2010

**Ramat Hovav Industrial Zone**

Brom, Makhteshim

03/2011

**Mishor Rotem**

Rotem, Periclas, Haifa Chemicals

03/2011

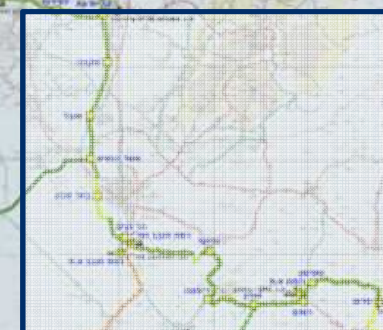
**Eshel HaNasi**

Negev Gas Distribution Company

01/2013

**In operation since 8/2009**

**Length 135 km**



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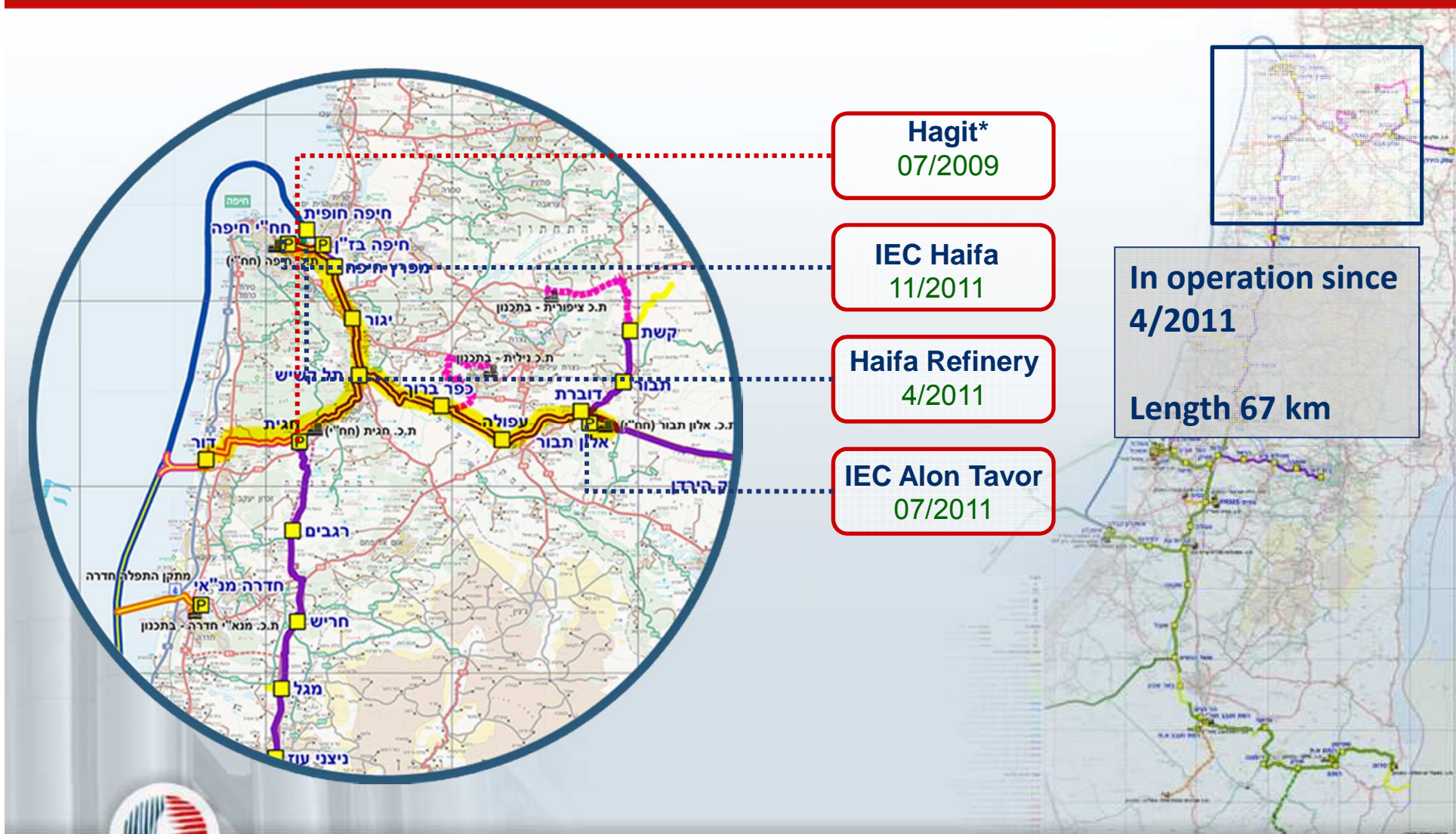
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# The Northern Pipeline



07/2009

11/2011

4/2011

07/2011

**Length 67 km**



**\* expanded 10/2010**

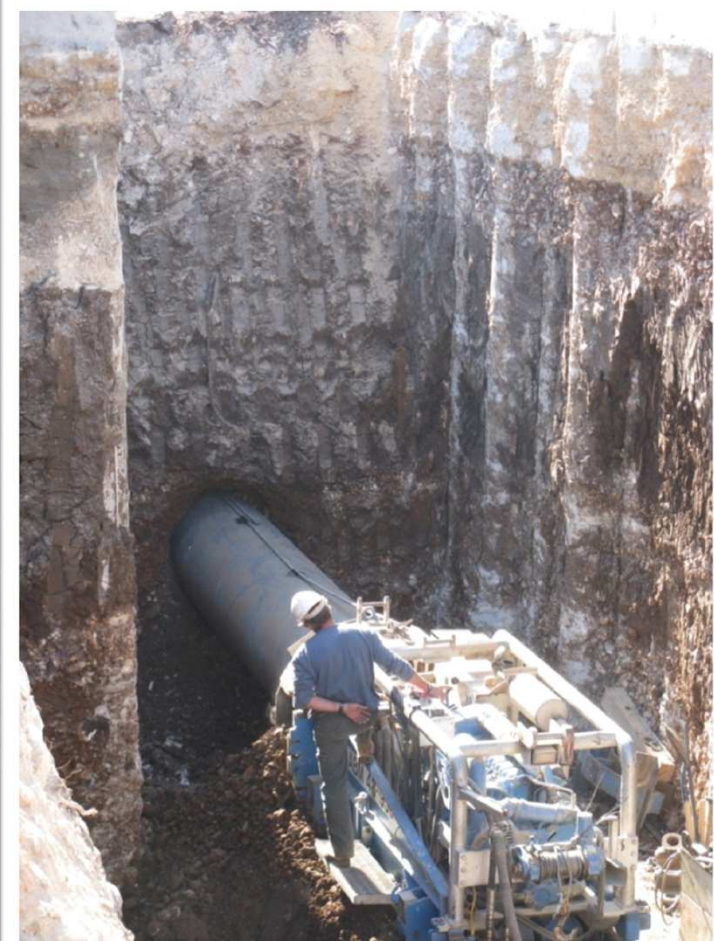
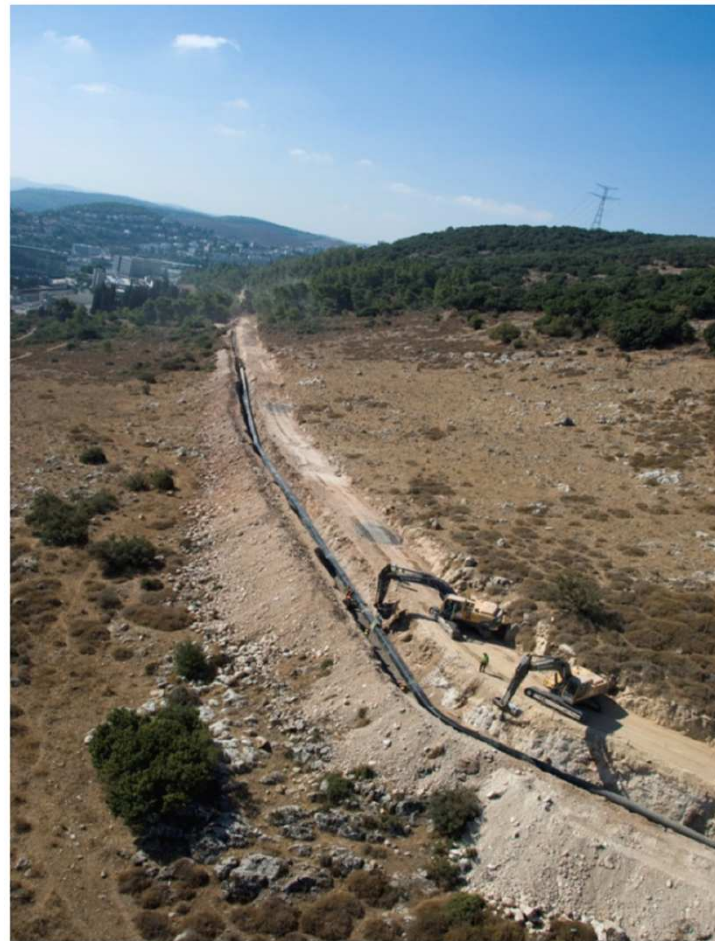


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# Laying Pipe



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# Working in the Desert



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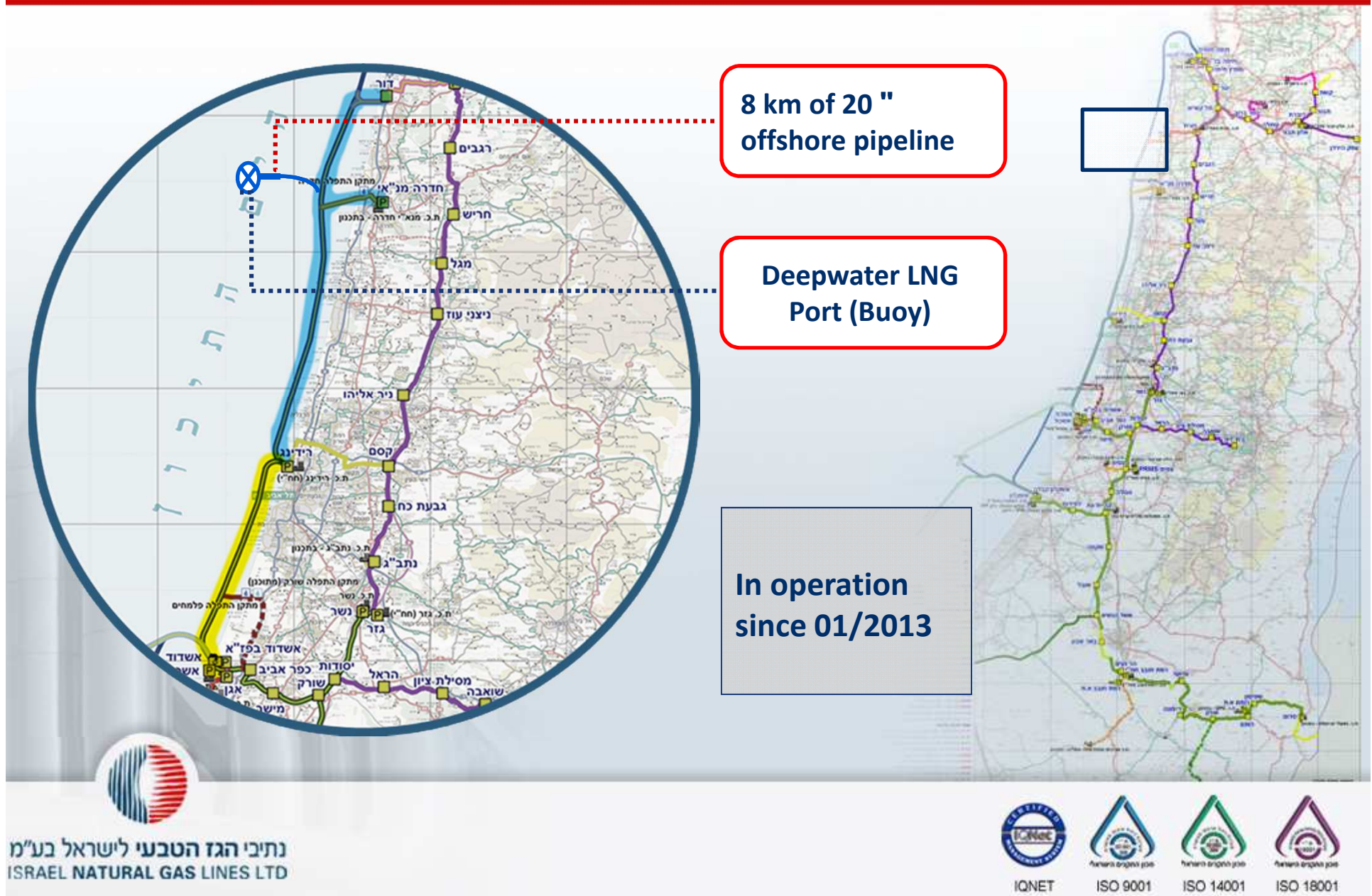


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# Deep Water Terminal for Gas Import (BUOY)





# Working Offshore



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# Overboarding the Buoy



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# Transmission System 2013

Installation	Number in Operation
Pipelines	435 km
Receiving Stations	2
PRMS	22
Block Valve Stations	28
Deepwater LNG Port	1



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# Site Restoration

## Park Hadera



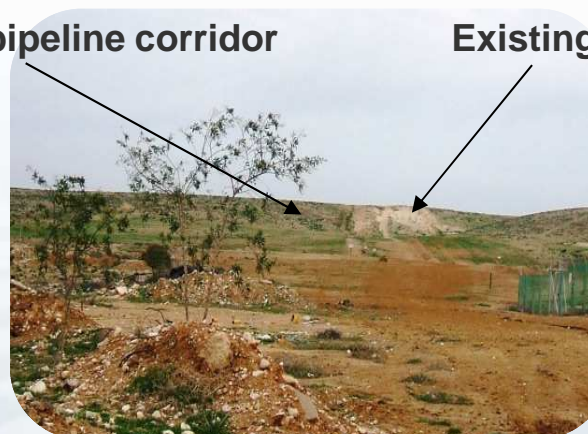
During Restoration



## Eshel Hanasi

INGL pipeline corridor

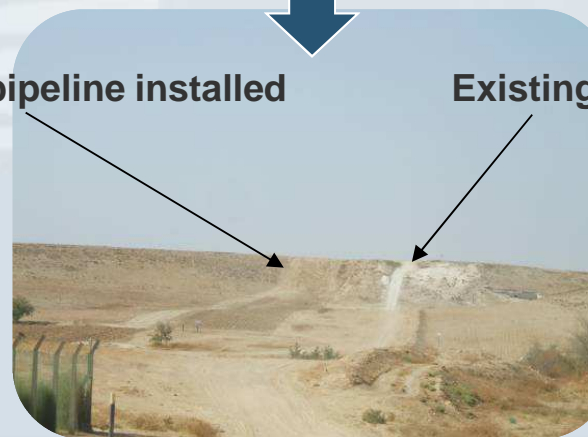
Existing oil pipeline



After installation

INGL pipeline installed

Existing oil pipeline

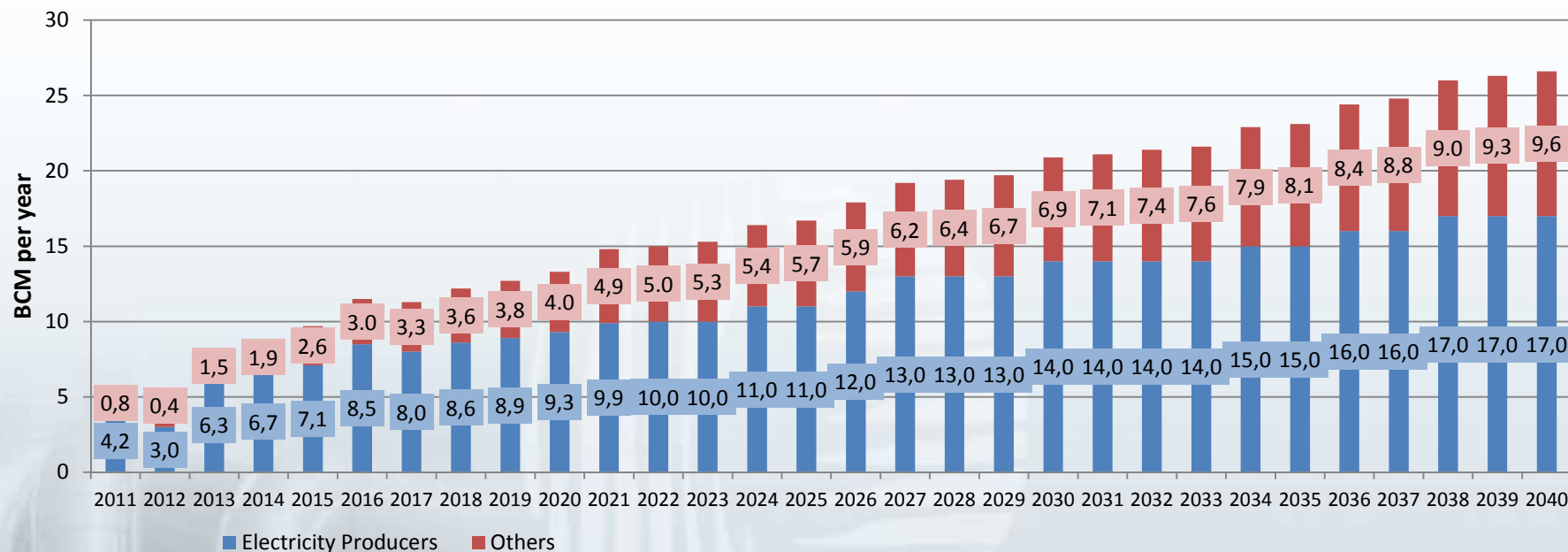


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# Demand Forecast 2009-2030



\* Forecast produced by the National Gas Authority in 2012

- Annual savings from conversion to natural gas in excess of \$2 Billion
- More than \$10 Billion saved from 2004-2010



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# Supply



## Tamar

- Start of operations April 2013
- 2x16" 150 km tie back
- 1700 m subsea completion
- Up to 1.2 million cubic meters per hour
- Expansion underway for 2015/16

## Hadera Gas Import Terminal (buoy)

- Start of operations January 2013
- Up to 0.6 million cubic meters per hour



## Leviathan

- 17 TCF estimated reserve
- Up to 1.6 BCF/day
- Targeting initial production end 2017

## Other Offshore Discoveries



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# New Connections



## Distribution Companies

- Connection agreements signed with 5 distribution companies
- 16 distribution zones
- Eshel Hanasi, Ramat Hovav and Dimona distribution zones in operation

## IPPs

- Transmission agreements signed with 3 large and several smaller IPPs
- Total generation capacity >2500 MW

## CNG

- CNG terminals under construction in Ashdod and Alon Tavor



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# Development Plan 2012-2015 - Main Lines

Dovrat - Ziporit	Nilit	Palmahim	Ashdod - Soreq	Jerusalem	Nesher - Airport	Eastern Line	
27	15	14	22	35	10	83	Length in km
10+18	12	18	30	18	36	36	Diameter in inches
2014	2015	2015	2015	2015	2014	2015	Planned Completion

**Deepwater LNG Port (Buoy) – Q4 2012**

**Total Investment – 3.2 Billion ILS**

**Total Pipeline Length – 206 km**

*Additional looping in south and north will be required in the near future*



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# Development Plan 2012-2015



## Eastern Pipeline

Length – 83 km

Diameter – 36"

Planned Completion 2015

## Nesher - Airport

Length – 10 km

Diameter – 36"

Planned Completion 2014



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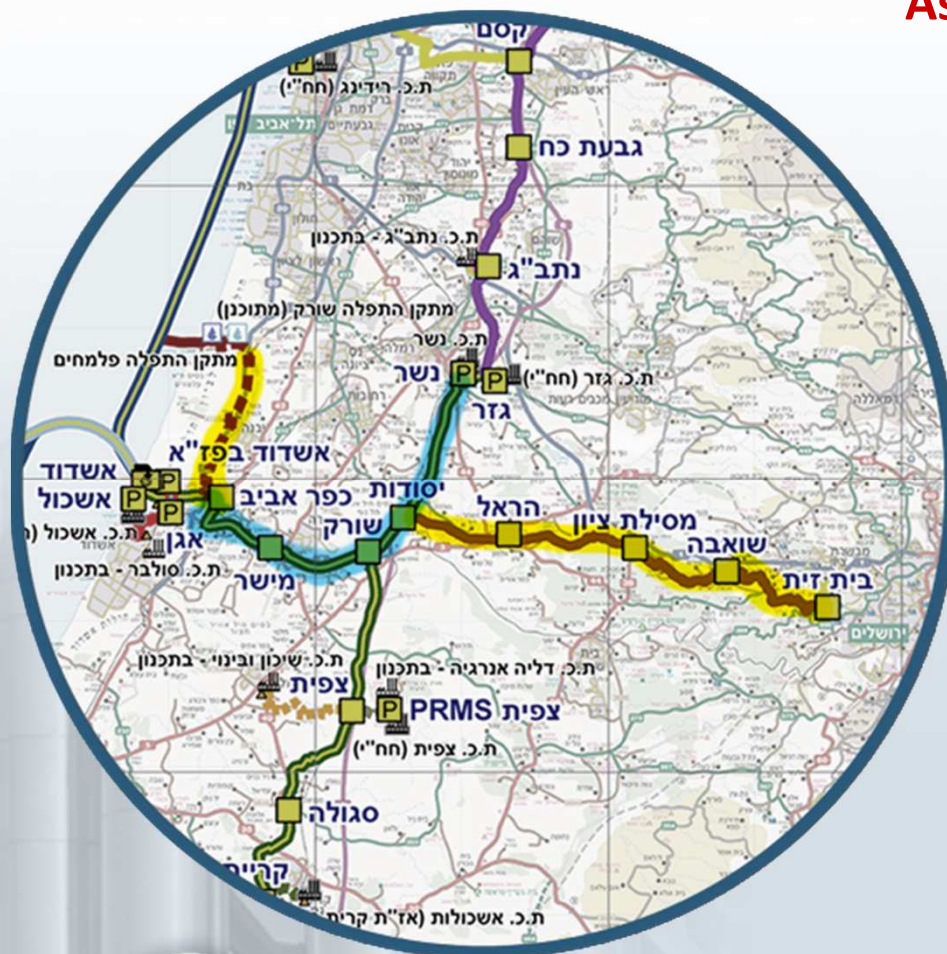
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# Development Plan 2012-2015



## Ashdod-Soreq Looping

Length – 22 km

Diameter – 30"

Planned Completion 2015

## Jerusalem

Length – 35 km

Diameter – 18"

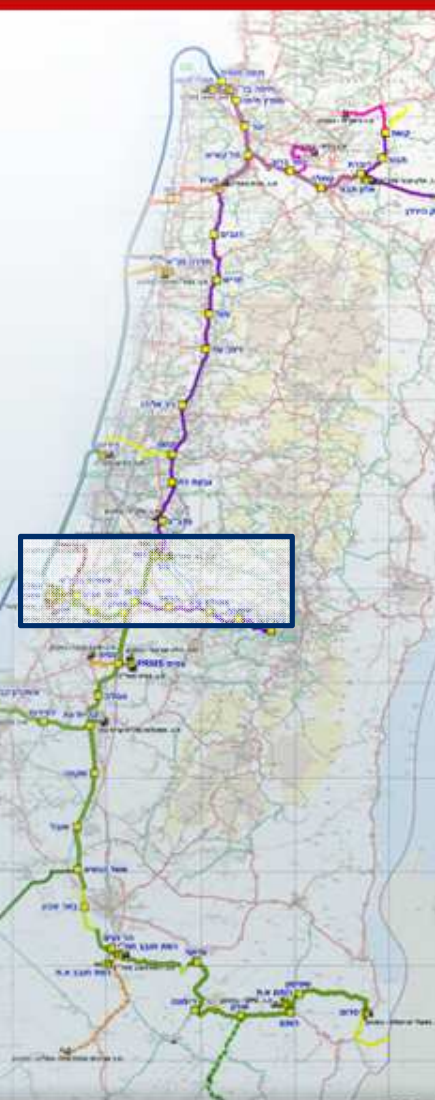
Planned Completion 2015

## Palmahim

Length – 14 km

Diameter – 18"

Planned Completion 2015



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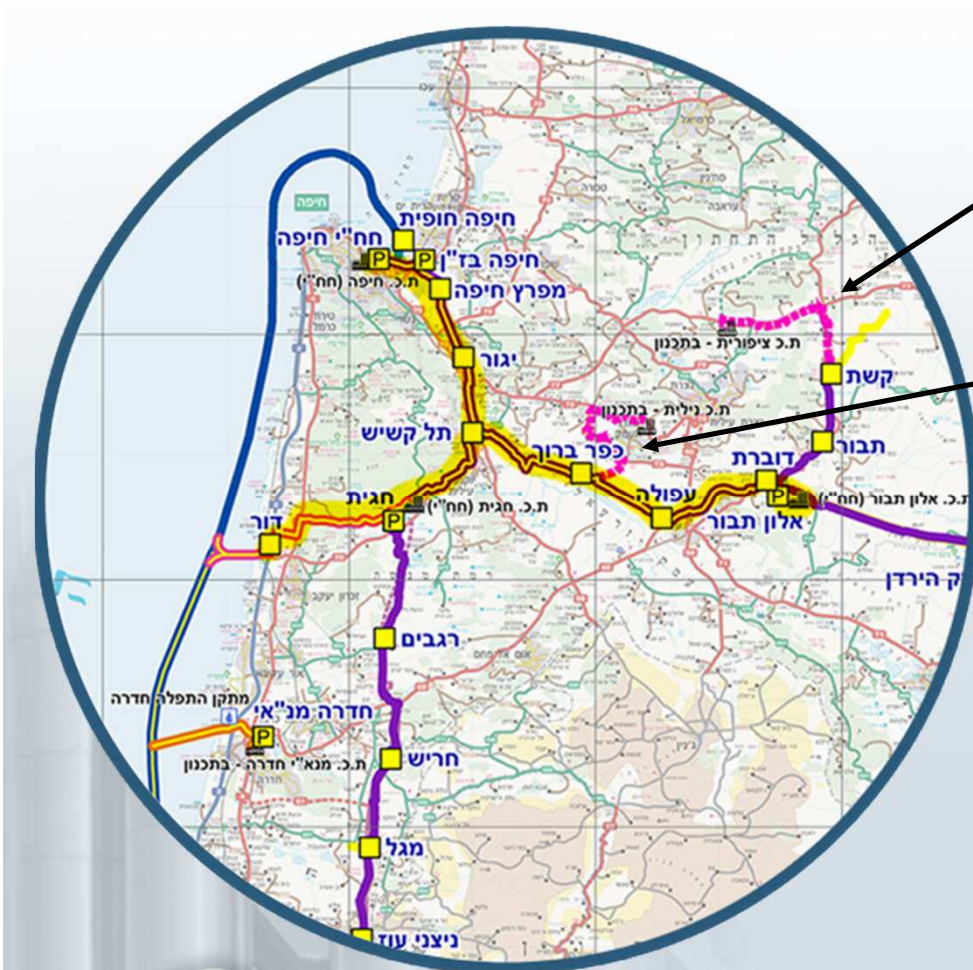
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# Development Plan 2012-2015



# Dovrat-Ziporit

**Length – 27 km**

**Diameter – 18" + 12"**

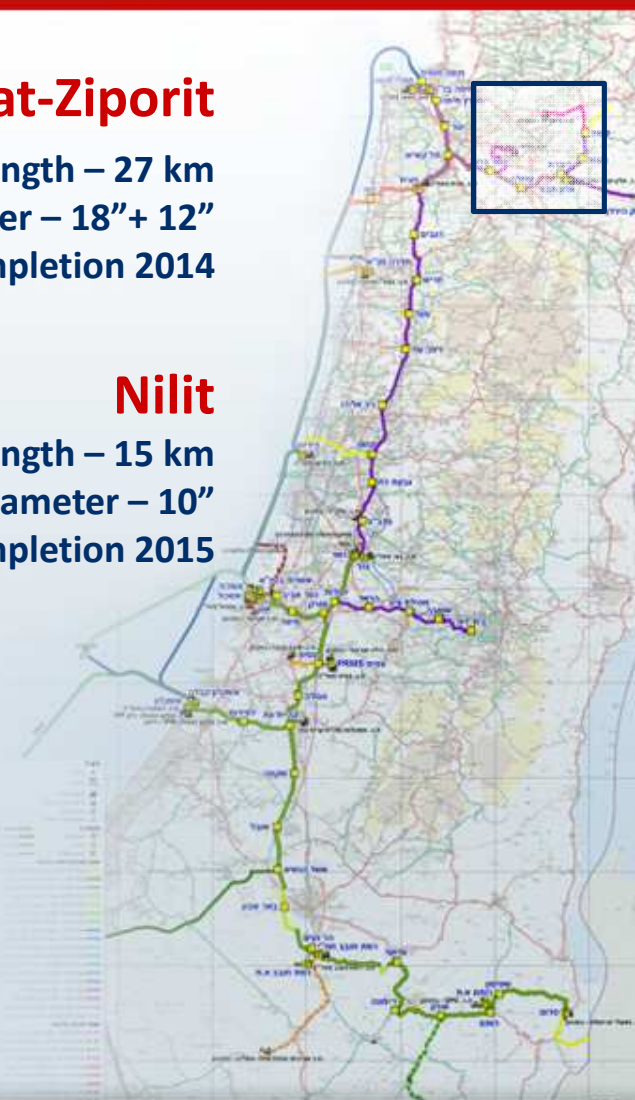
## Planned Completion 2014

**Nilit**

**Length – 15 km**

**Diameter – 10"**

## Planned Completion 2015



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Agencia de Noticias



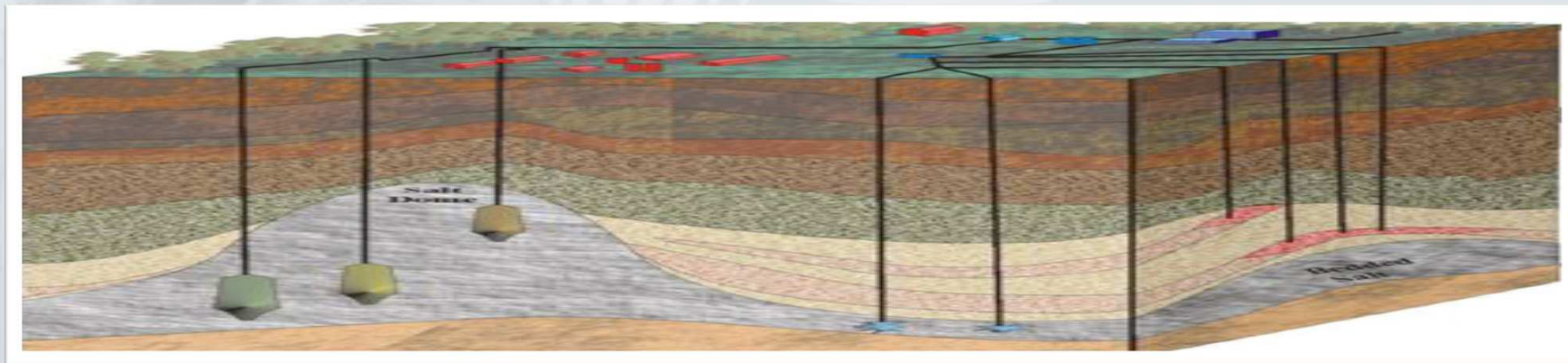
Franchises: 65,000+ units



For more information, visit [www.pearsoncmg.com](http://www.pearsoncmg.com)

# Natural Gas Onshore Storage Facility

- **Goals:**
  - ✓ Natural gas storage for a period of several months, designed to serve as a reserve of energy in a crisis situation
  - ✓ Increase operational flexibility and provide additional quantities of natural gas during periods of high demand
- **Storage Capacity:** up to 500 MCM
- **Status:** Pre-feasibility study (Geostock), statutory planning
- **Construction period:** 3-5 years from FID



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Thank You



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