



YEP

FIELD TRIP 2017

ISRAEL



Technology Tour Itinerary



YEP – Young Engineers' Panel



5.11.2017

DAY 1

- **Pickup 8:00 PM** - Eilat airport, **14:30 PM** - Ben Gurion Airport
- **Nesher Israel Cement Enterprises: 12:30-13:30 PM**
Nesher Israel Cement Enterprises is Israel's leading cement producer and constitutes the cornerstone in the development of the construction and infrastructure sectors in the country. The company today constitutes a prominent force in Israeli industry with a history that is interwoven with that of the State of Israel.

Nesher Ramla

The Ramla manufacturing plant has the highest production capacity and currently includes two large kilns in which clinker is produced, and seven cement mills, as well as a packing facility and storage silos. These dry lines represent the most efficient clinker production method, and the facility is considered one of the largest in the world at a single site.

As of 2010, the plant started consuming electricity from a natural gas-fueled power station built by the Nesher parent company at the plant entrance. The plant also makes wide use of alternative raw materials (byproducts of other industries such as fly ash, FGD gypsum, byproducts from the steel industry) in order to minimize the use of non-renewable natural resources, as well as alternative fuels as a substitute for fossil fuels.

The Nesher Ramla plant covers an area of about 55 hectares, and produces 4 million tons of clinker and 5 million tons of cement per year.



- **'Dalia' power station - 16:30**

'Dalia' power plant was constructed near Tzafit in south-central Israel. It was constructed by Alstom and in July 2015 the power plant commenced its commercial operation, and now it supplies electricity to a large customer base, and accounts for about 7% of the energy and electricity sector in Israel.

'Dalia' produces approximately 900 MW through two efficient turbines, producing 450 MW each, operated by natural gas. In addition, it is also possible to operate the station using diesel fuel. This option is kept as backup in case of an interruption in the gas supply. The power plant operates using combined-cycle technology, which provides it with energy efficiency of 58% – the highest energy efficiency that is currently available in the Israeli electricity market.

'Dalia' is based on combined-cycle technology and consists of a gas turbine and a steam turbine. The gas turbine burns the natural gas and the hot exhaust gases are passed from the gas turbine to the steam boiler, which channels the generated steam to operate the second turbine – steam turbine – which produces additional clean and efficient energy. All electricity produced is transmitted to the IEC transmission grid.

- **Overnight and dinner near Kiryat Gat. 19:30**
20:00 – Dinner

מתוך אתר פיקיוויקי, Photographer Amos Gil



6.11.2017

DAY 2

- 7:00 – Breakfast after check-out
Departure at 7:30
- **Beit Guvrin Caves, 8:00-10:00** in particular the Bell Cave are this area main attraction. There are at least 800 bell shaped caves in the park (and 2,000 in the area), some of which are linked by underground tunnels. The most famous of these caves is 28 meters high. These caves were quarried during the 4th to 9th century when the chalk was used to make roads, plaster and mortar. There is a meter wide hole in the cave ceiling where chalk was extracted.
- **Intel Kiryat Gat (Technology tour) 10:30 -12:30**. Intel in Qiryat Gat began operations in 1999, manufacturing processors using 0.18-micron technology. In 2008, Intel opened it's second Kiryat Gat plant, Fab 28. F28 is a high-volume manufacturing Fab, which runs 300mm wafers on a 45nm process technology.
- **Lunch in Yavne Industrial Zone**
- **Sorek desalination plant (Technology tour) 14:00-15:30**. Sorek desalination became operational in October 2013 with a seawater treatment capacity of 624,000m³/day, which makes it world's biggest seawater desalination plant. The desalination facility uses seawater reverse osmosis (SWRO) process providing water to Israel's national water carrier system.
- **16:30 - Overnight** in Tel Aviv, free evening in the city.
19:00 – Dinner



7.11.2017

DAY 3

- 7:00 – Breakfast after check-out
Departure at 7:30
- **Hadassah medical center (Technology tour) 9:15-10:15**, electrical and energy devices. For nearly 100 years, Hadassah Medical Center has been a leader in medicine and nursing in Israel, laying the foundation and setting the standards for the country's modern health care system. Hadassah has developed Israel's community health services, established the first modern hospital and medical and nursing schools, and set the climate for medical research in Israel.



Photo by Avram Graicerp



- **SATEC, Jerusalem (Technology tour). 11:00-12:00** SATEC is a global leader in the research, development and manufacturing of energy management solutions. With two decades of rich experience in energy management, our team has the technological expertise to deliver flexible solutions for customer applications worldwide.
- **Jerusalem - old city tour.**
- **17:15 - Overnight - Masada**
Dinner - 18:30

8.11.2017

DAY 4

- 7:30 – Breakfast after check-out
- **8:00 - Cable car to Masada.** Masada is an ancient fortification in the Southern District of Israel situated on top of an isolated rock plateau, akin to a mesa. It is located on the eastern edge of the Judean Desert, overlooking the Dead Sea 20 km (12 mi) east of Arad. Herod the Great built palaces for himself on the mountain and fortified Masada between 37 and 31 BCE. According to Josephus, the siege of Masada by troops of the Roman Empire at the end of the First Jewish–Roman War ended in the mass suicide of 960 people, the Sicarii rebels and their families hiding there.
- Departure at 9:15



Photo by Avinoam Michaeli

- **Dead sea works (Technology tour) 10:00.** Dead Sea Works is the world's fourth-largest producer and supplier of potash products. The company also produces magnesium chloride, industrial salts, de-icers, bath salts, table salt, and raw materials for the cosmetic industry. It has customers in over 60 countries. Dead Sea Works is part of the Fertilizers Division of Israel Chemicals Ltd. It is located in the southern basin of the Dead Sea and the extracted chemicals are exported around the world.
- Join **Electricity 2017**, accommodation in Americana hotel Eilat. www.electricity2017.com



Note: The Itinerary is subject to modifications

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