



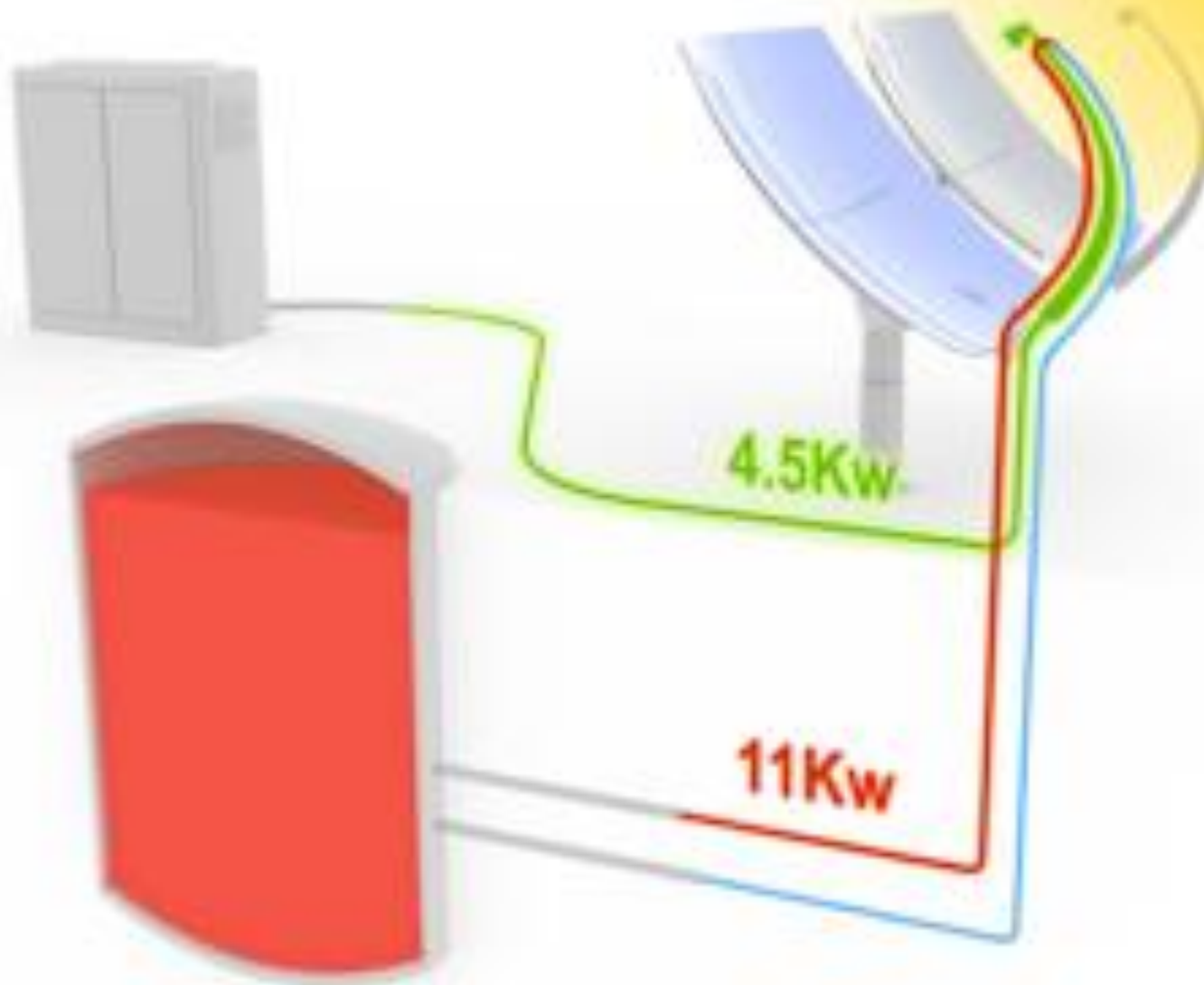
**Zenith Solar Presentation to
Energy Forum, the Samuel Neaman Institute
Technion - Israel Institute of Technology
March 20, 2012**

ZenithSolar Mission

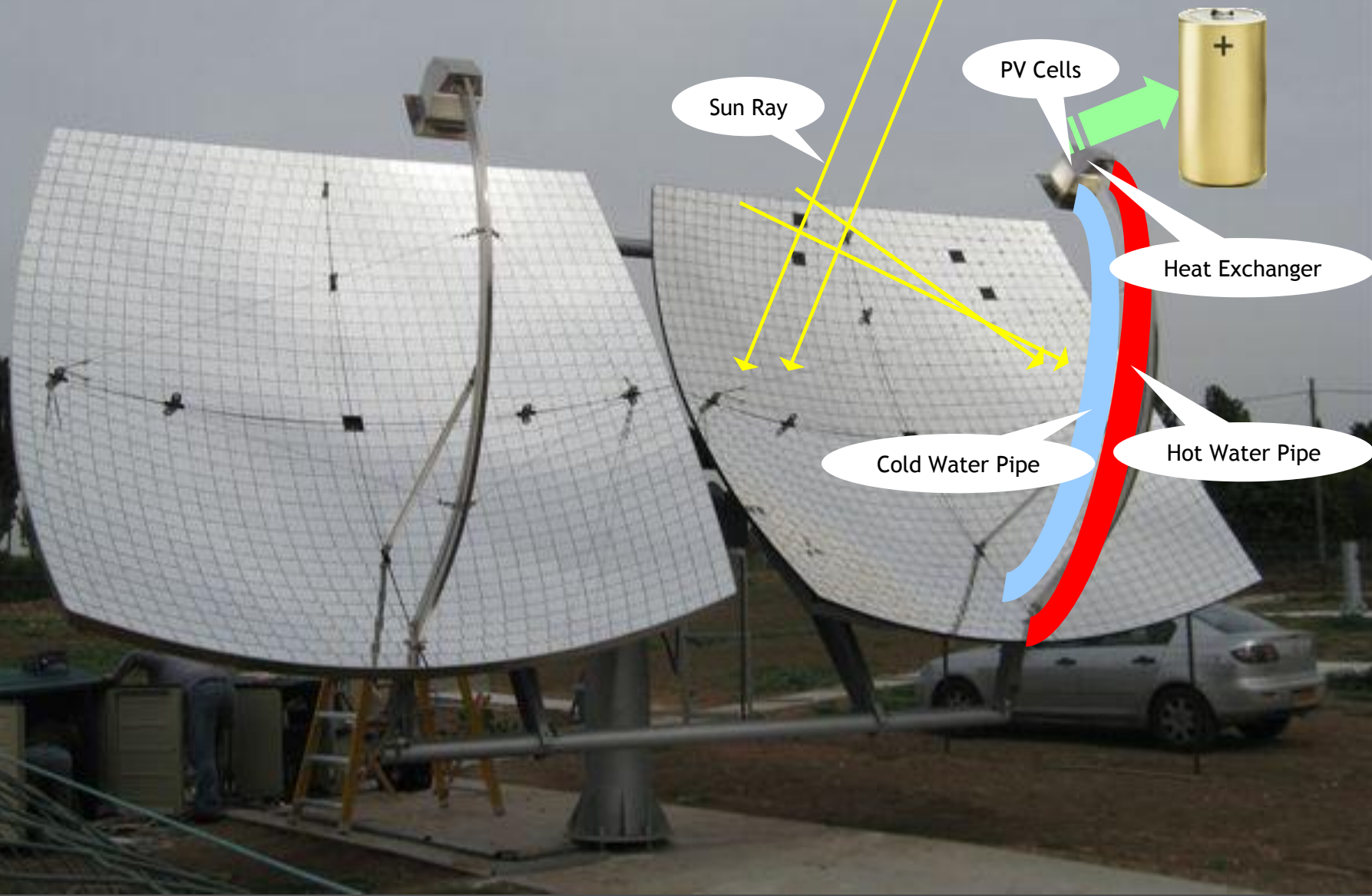


To produce solar electricity and hot water, for the global home and business markets, at or below grid parity

Z20 - Hybrid System



CHP Based CPV



Zenith system



- ~ 1,000 x concentration
- Efficiency >70%
- Lowest \$/Wp
- Upgradable on site
- Z20, 4.5kWp (e) + 11kWp (t)
- 3J GaAs solar cells 37% (e)



21% Electric output

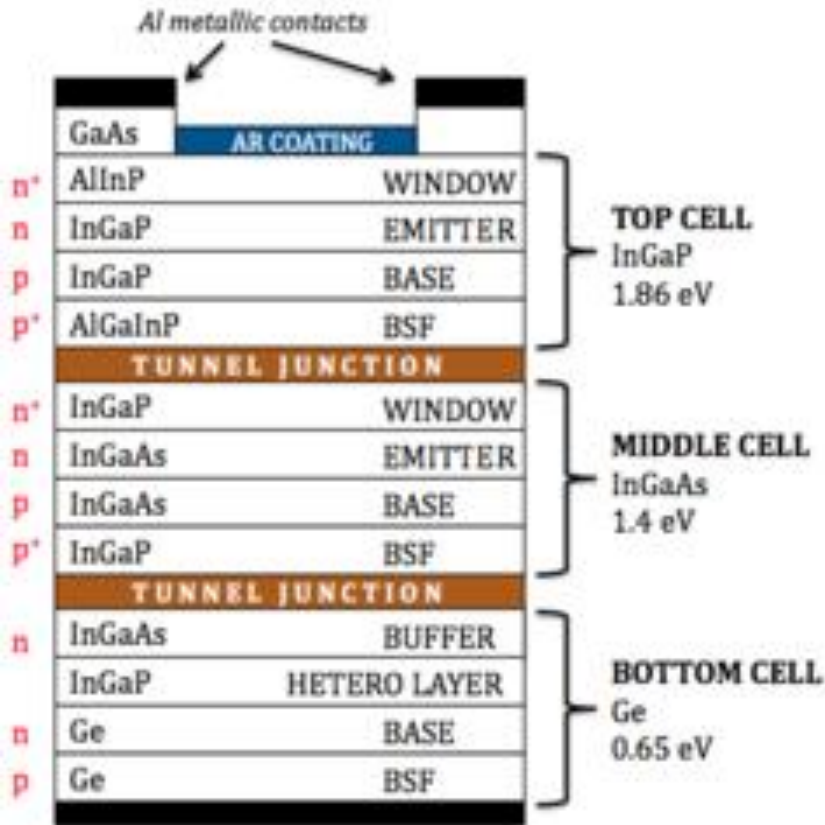


50% Thermal output

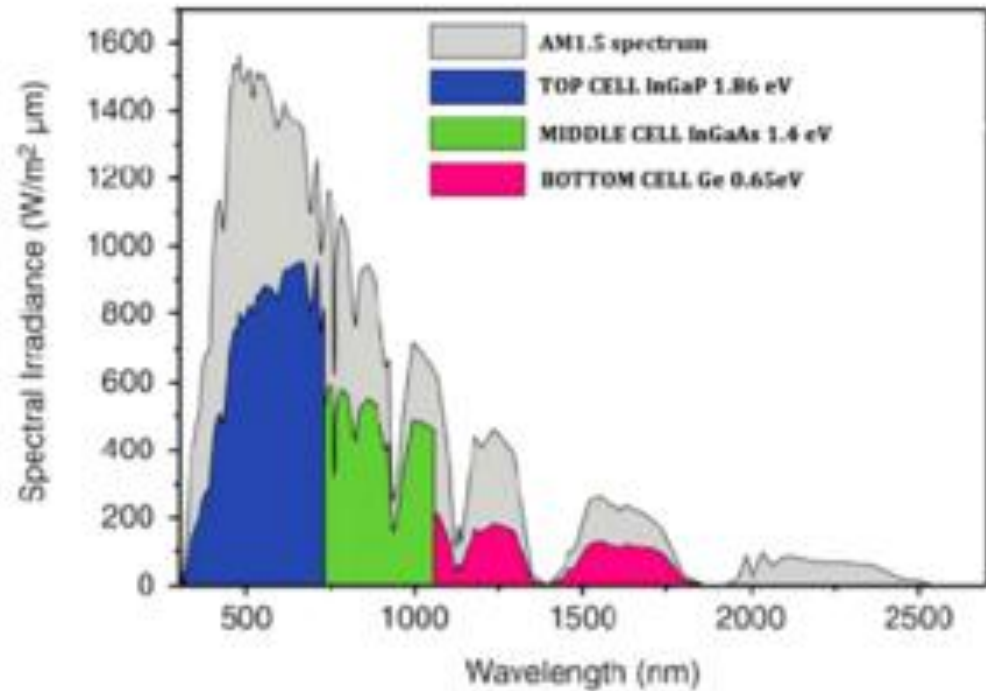
Combined Heat and Power



3J PV Solar Cell



(a)

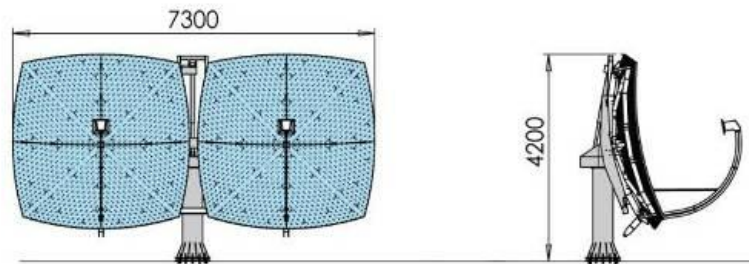
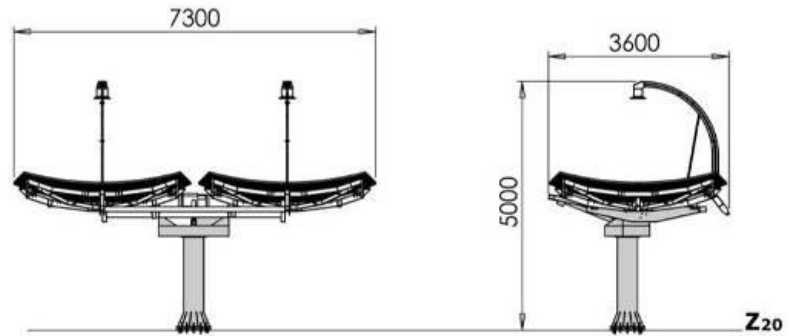
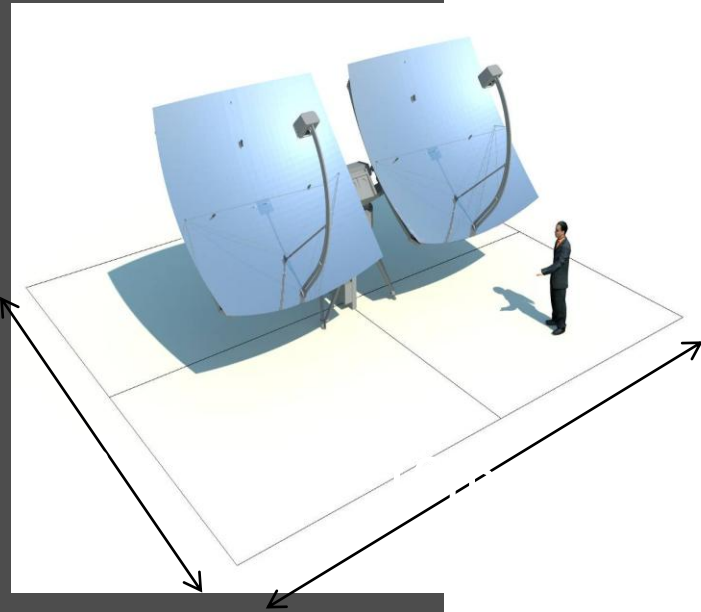


(b)

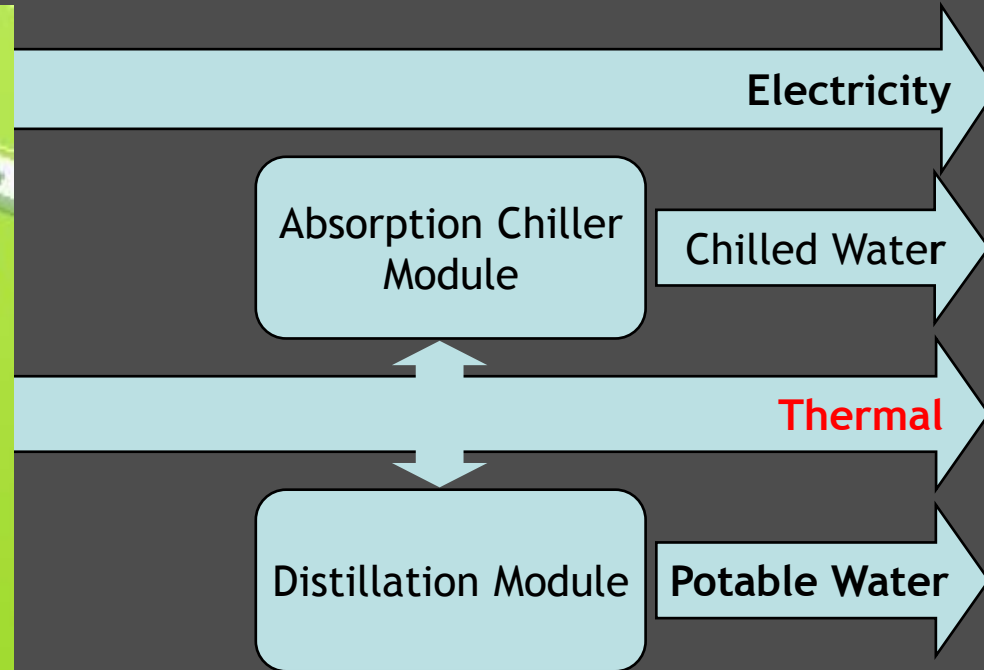
Z20 in the Field



Z20 Configuration



Power, Heating, Cooling, Water Desalination



Applications

- Municipality - Heating
- District Heating
- Hospitality/Health Care
- Residential/Gated Communities
- Industrial Process Heat
- Chilled Water (air-conditioning)
- Desalination

Municipality - Heating

Location: Kibbutz Yavne, Israel (Cooperative Settlement)

Application: Centralized water heating for 250 households

Energy: 144MW electricity and 350MW thermal per year

- Electricity fed to the grid at favorable FIT
- Thermal replaces 30,000 ltr of fossil fuel/year

Grid connected since June 2010



Residential/Gated Communities

Location: 2 Projects: Abu Dhabi, UAE and Calabria. Italy

Application: Supplying hot water and cooling to a high-end gated community of villas in Abu Dhabi and hot water for a Health Spa in Calabria

Energy: Will convert thermal component into absorption cooling and feed health spa boilers with hot water



Hospitality/Health Care

Location: 2 Projects: Port Melbourne, Australia and Bergamo Hospital in Lombardia, Italy

Application: Supplying hot water to small medical clinic and newly built hospital

Energy: Will supplement hot water requirements by feeding into standard boilers with electricity fed to the grid at favorable FIT



District Heating

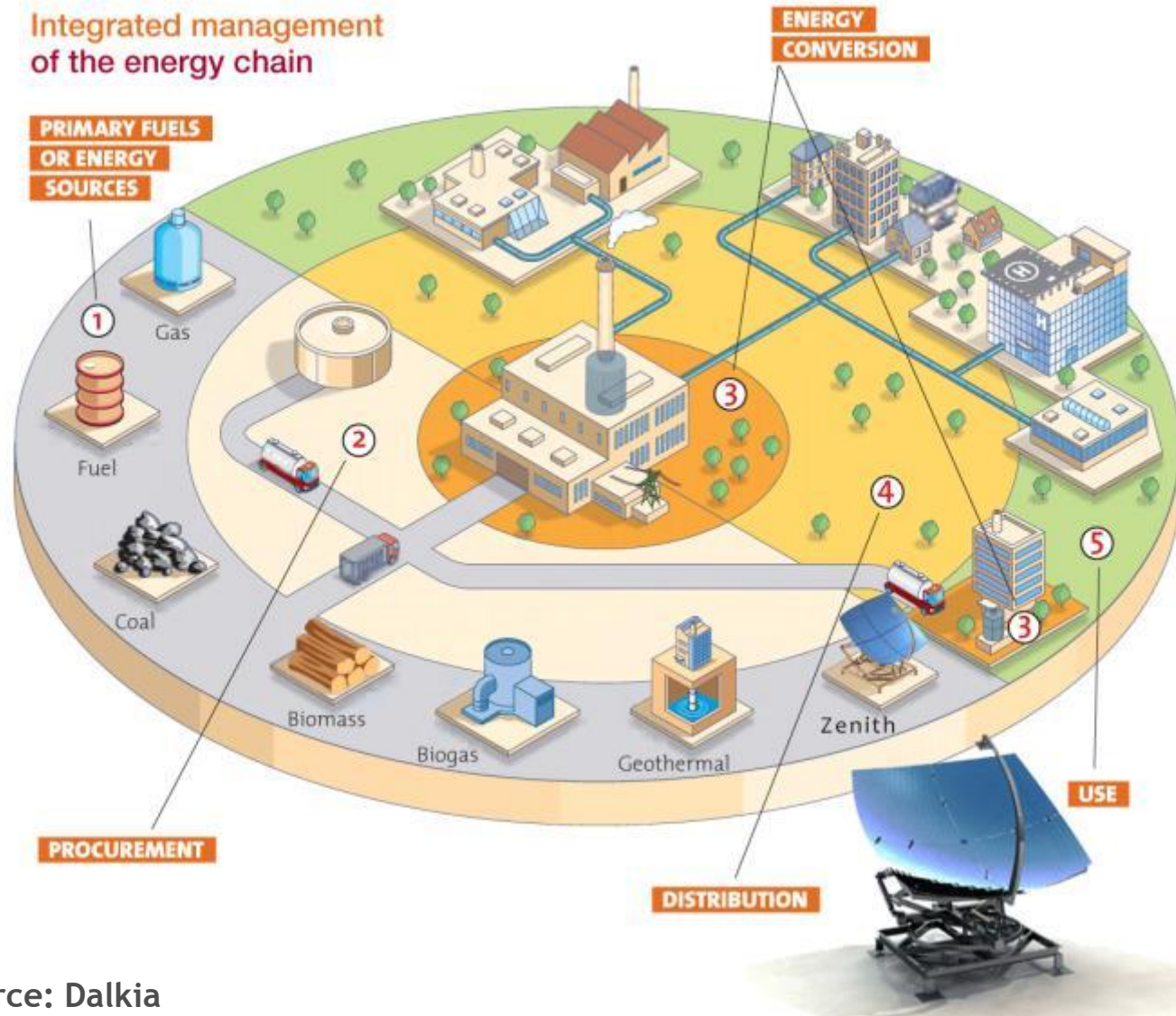
Location: Korea District Heating Corp., Busan, South Korea

Application: Largest district heating service serving 2m customers over a network of 4,000km of hot water piping

Energy: Provides booster heating to existing network based on fossil fuels as part of commitment to reduce emissions by 20% by 2020



Municipal District Heating



Source: Dalkia

Summary

- ZenithSolar has the **most efficient** solar energy system available with >72% combined efficiency
- The Z20 is uniquely positioned to provide **Electricity and hot water** for nearby customers and take advantage of available FIT's on electricity
- CHP project can provide **attractive returns** on investment

תודה רבה!

Abraham Bechar
ZenithSolar Chief Engineer

www.zenithsolar.com

Movie:

http://www.youtube.com/watch?v=4izFzVCzx6A&feature=player_embedded