Mitigation Enabling Energy Transition in the MEDiterranean region

Grid-Connected Small-Scale Photovoltaic Systems (Egypt-PV)

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Introduction

**Egypt–PV Outcomes**

1. Support Market takeoff of PV systems
2. Enabling Policy & Institutional Framework
3. Facilitating Finance of PV Systems
4. Strengthening the Supply Chain
Impact of Egypt-PV

141 PV Plants
16 MWp
25 GWh/year

Impact on employability in solar market
> 1200 engineers, technicians, workers

14,000 Beneficiaries

425 trainees
13 ktons/year

New Capital 15 MWp, Roadmap
Geographical Distribution  17 Governorates

1. Alexandria
2. Aswan
3. Behera - Wady El Natron
4. Cairo
5. Dakahlia
6. Damietta
7. El Minya
8. Gharbia - Tanta
9. Giza
10. Ismailia
11. Luxor
12. New Valley
13. Qalyubia
14. Red Sea
15. Sharqia
16. Sohag
17. South Sinai
Target Sectors

**Industrial Sector**
- 7.7 MWp
- 6,160 tons/year

**Residential Sector**
- 0.56 MWp
- 530 tons/year

**Commercial Sector**
- 1.5 MWp
- 1486 tons/year

**Public Buildings**
- 2.7 MWp
- 2318 tons/year

**Tourism Sector**
- 3 MWp
- 2214 tons/year

**Educational Sector**
- 0.77 MWp
- 707 tons/year
## Egypt-PV Projects – Industrial

<table>
<thead>
<tr>
<th>Company</th>
<th>Power (kWp)</th>
<th>Location</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Ceramic</td>
<td>151</td>
<td>Mostorod</td>
<td>Qalyubia</td>
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<tr>
<td>Cairo Petrol</td>
<td>70</td>
<td>Amreya</td>
<td>Alexandria</td>
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<td>150</td>
<td>Obour</td>
<td>Qalyubia</td>
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<tr>
<td>El Gawhara</td>
<td>110</td>
<td>Al Azbakeya Cairo</td>
<td>Qalyubia</td>
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<tr>
<td>Fahim Ragab</td>
<td>25</td>
<td>Tersa -Tukh</td>
<td>Qalyubia</td>
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<tr>
<td>Hero</td>
<td>150</td>
<td>Industrial Zone</td>
<td>Cairo</td>
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<tr>
<td>Rosen Berg</td>
<td>56</td>
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</tbody>
</table>

6th October Giza
Egypt-PV Projects – Tourism

- **JW Marriott**: 150 kWp - Mirage City Cairo
- **Tropical**: 300 kWp - Sahl Hashish Red Sea
- **Steigerberger**: 150 kWp - Hurghada Red Sea
- **Beit Yakan**: 17 kWp - Al- Darb Ahmar Cairo
- **Renaissance**: 189 kWp - Mirage City Cairo
- **Kimpinski**: 150 kWp - Soma Bay Hurghada
- **Sharm Bride**: 150 kWp - Sharm El Sheikh South Sinai
Egypt-PV Projects – Commercial

<table>
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<tr>
<th>Project</th>
<th>Location</th>
<th>Power (kWp)</th>
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<tbody>
<tr>
<td>Carrefour Branches</td>
<td>Madinty and Ismalia</td>
<td>180/495</td>
</tr>
<tr>
<td>Nada Mall</td>
<td>6th October Giza</td>
<td>20</td>
</tr>
<tr>
<td>Sodic</td>
<td>Beverly Hills Zayed Giza</td>
<td>330</td>
</tr>
<tr>
<td>QNB Branches</td>
<td>6th October and Mansoura</td>
<td>50/14</td>
</tr>
<tr>
<td>Lasheen Farm</td>
<td>Tanta Gharbia</td>
<td>35</td>
</tr>
<tr>
<td>OMMAT</td>
<td>Wady Natrun El Beheira</td>
<td>300</td>
</tr>
</tbody>
</table>
Egypt-PV Projects – Public

- **General Authority**: 15 kWp, Nasr City, Cairo
- **HBRC**: 93 kWp, Dokki, Giza
- **Engineering Syndicate**: 10 kWp, El Wady El Gedid, Cairo
- **Egyptian Eng. Society**: 35 kWp, El Azbokia, Cairo
- **Misr Library**: 25 kWp, El Wady El Gedid
Egypt-PV Projects – Residential

Nada Compound

345 kWp (45 units)

Palm Hills

330 kWp (30 units)

6th October City
Egypt-PV Iconic Projects

**Cairo International Airport**
- 300 kWp
- 20 charger units
- CO2 Reduction 240 tons/year

**New Administrative Capital**
- 8 MWp
- Governmental buildings
- 6400 tons/year
Egypt-PV Iconic Projects

Ramsees Railway Station
310 kWp
248 tons/year

Shefa El Orman Hospital
495 kWp
420 tons/year

57357
98 kWp
70 tons/year
Egypt-PV Iconic Projects

Sharm International Convention Center
935 kWp
794 tons/year
Egypt-PV Iconic Projects

Sharm El Sheikh Airport 280 kWp
Egypt-PV Iconic Projects

Sharm El Sheikh Hotels

- MonteCarlo 374 kWp
- Dive-Inn 300 kWp
- Novotel 100 kWp
- Regency Palaza 126 kWp
- Sharm Bride 682 kWp
- Hayah Regency 152 kWp
- Sunrise Palm 130 kWp
- Pyramisa 130 kWp
New Capital Solar Roadmap

“Solar Smart Roadmap” to transform the New Capital City of Egypt into a Solar City.
PV Hub

Towards Digitizing The Egyptian Solar PV Market

- Registering online
- Online payments
- Renewing Certificates
- Online Approvals

A huge critical step in the Solar Market development in Egypt
Local Manufacturers – Site Visits
Egypt-PV Projects – Residential

Nada Compound

345 kWp
(45 units)

Palm Hills

330 kWp
(30 units)

6th October City
Residential Projects – Palm Hills Designs

@by the system integrator – TSC
Residential Projects – Palm Hills Success Story
Residential Challenges

- Limitation of space on the roof of the house and obstacles
- Limited knowledge of the households about the solar PV plants
- Several meetings with the owners of the PV plants to explain about the system operations and maintenance procedures, and estimations of savings.

Obstacles, permanent shadings
Limitation of space, and oversized PV plants
Limitation of space, inverters with direct sunlight
Lessons learnt - Residential Projects

Egypt-PV developed another guideline “Beneficiaries User Guideline” a small-scale PV projects user manual for the purpose of public and individual’s awareness, who wish to know more about grid-connected PV systems.
Lessons learnt - Residential Projects

Egypt-PV developed a “Best Practices Installation Guidebook” to assist PV installers to improve their operating practices in installing and commissioning roof top PV systems in the household.

SMALL-SCALE GRID-CONNECTED PV SYSTEMS
BEST PRACTICES INSTALLATION GUIDELINE
Contact us!

Mitigation Enabling Energy Transition in the MEDiterranean region
Together We Switch to Clean Energy

For any inquiries or comments, please don’t hesitate to contact us

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