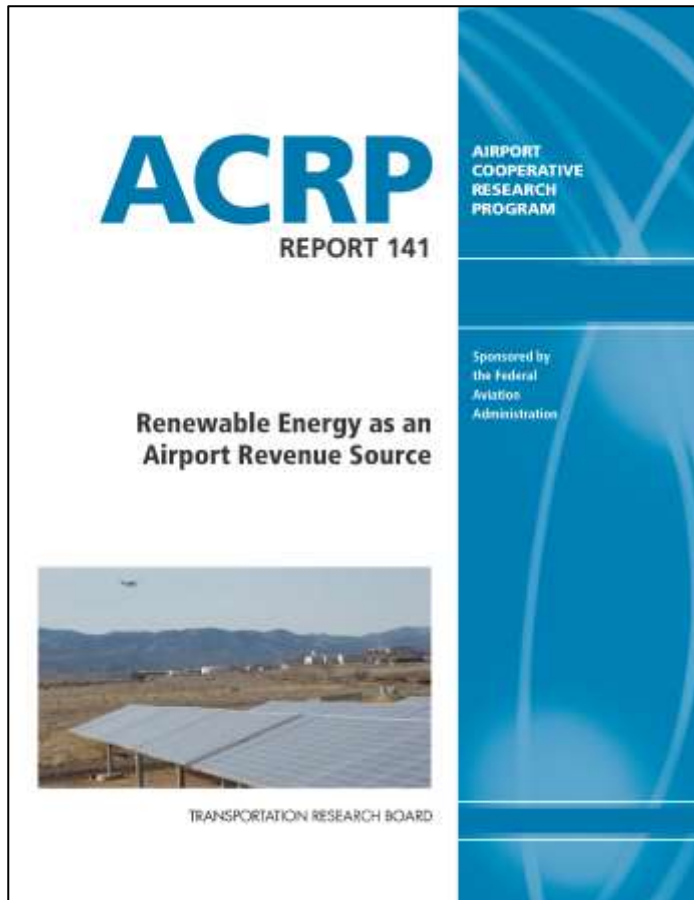


ACRP Report 141 Renewable Energy as an Airport Revenue Source



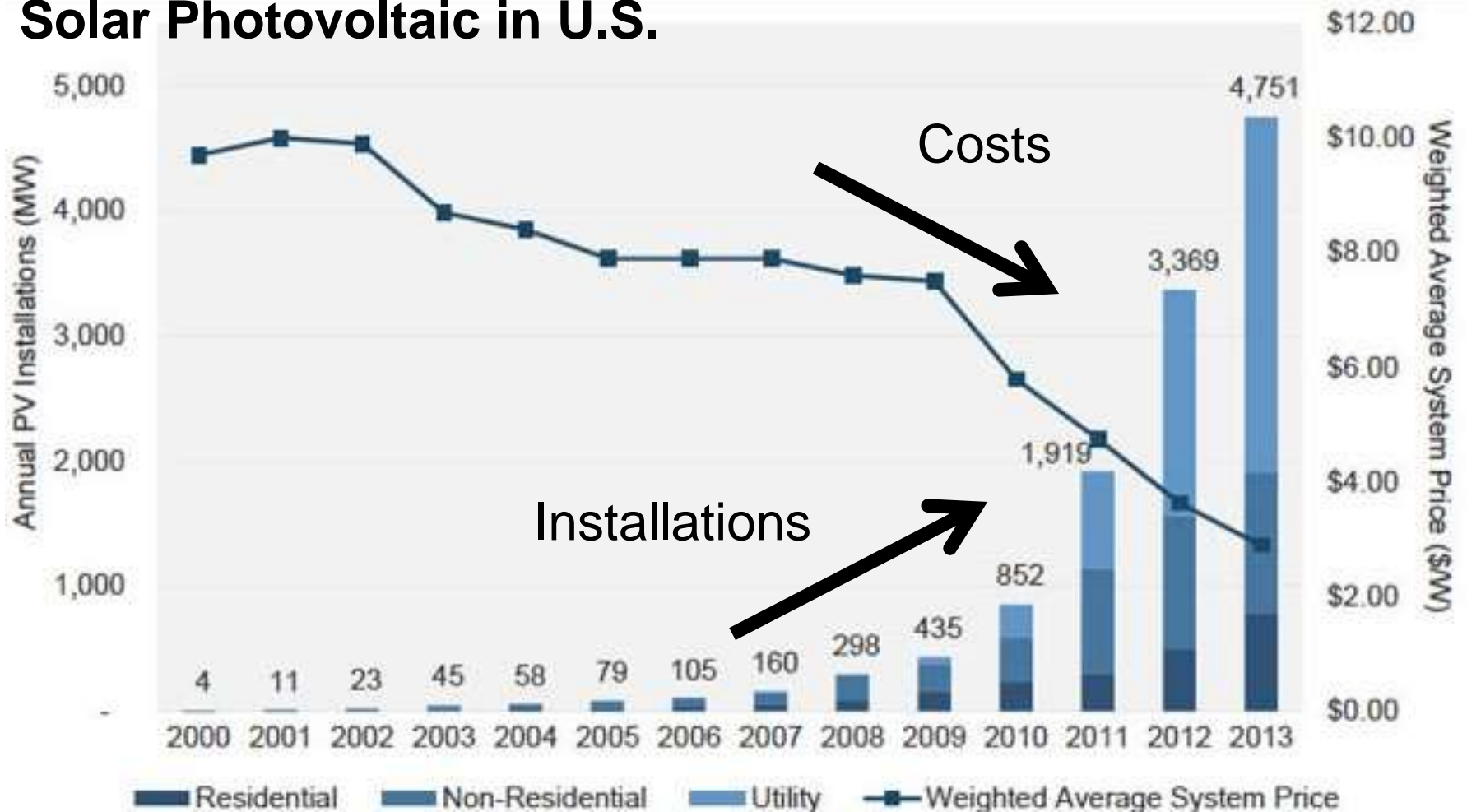
**ACI-NA:
Annual Conference
Long Beach, CA**

October 4, 2015

Economic Drivers for Renewable Energy

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Solar Photovoltaic in U.S.



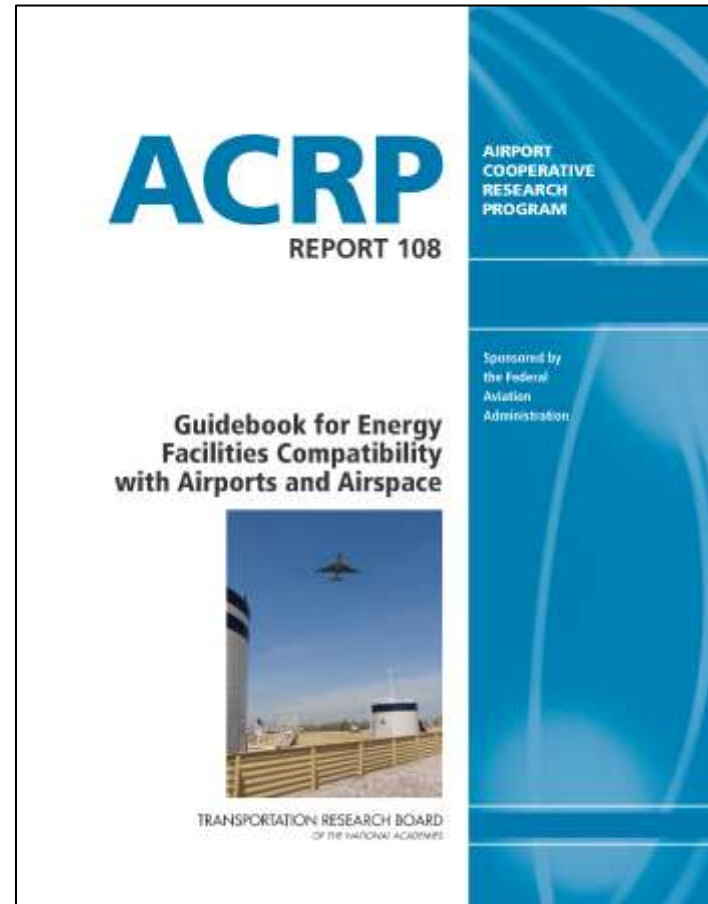
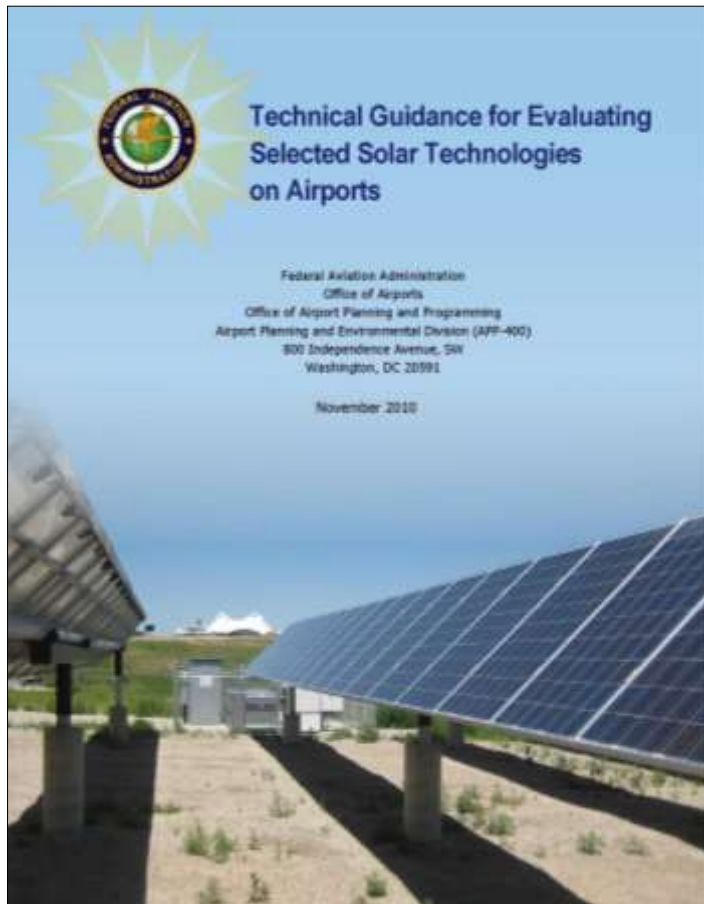
Result at Airports

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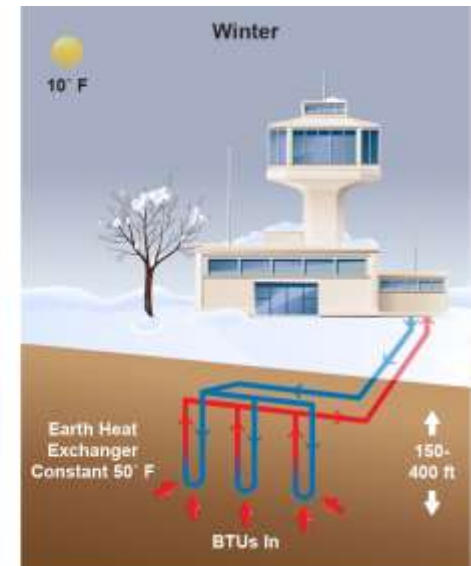
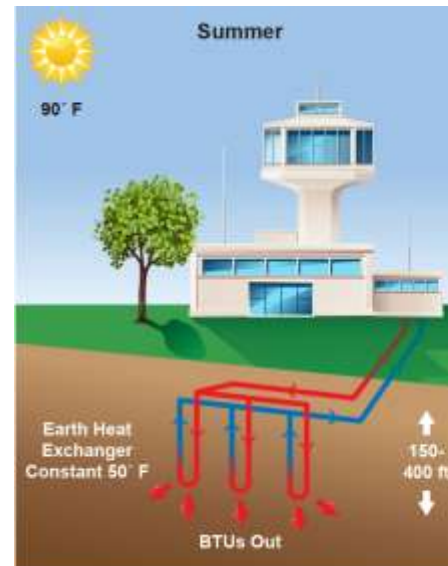
Industry Guidance

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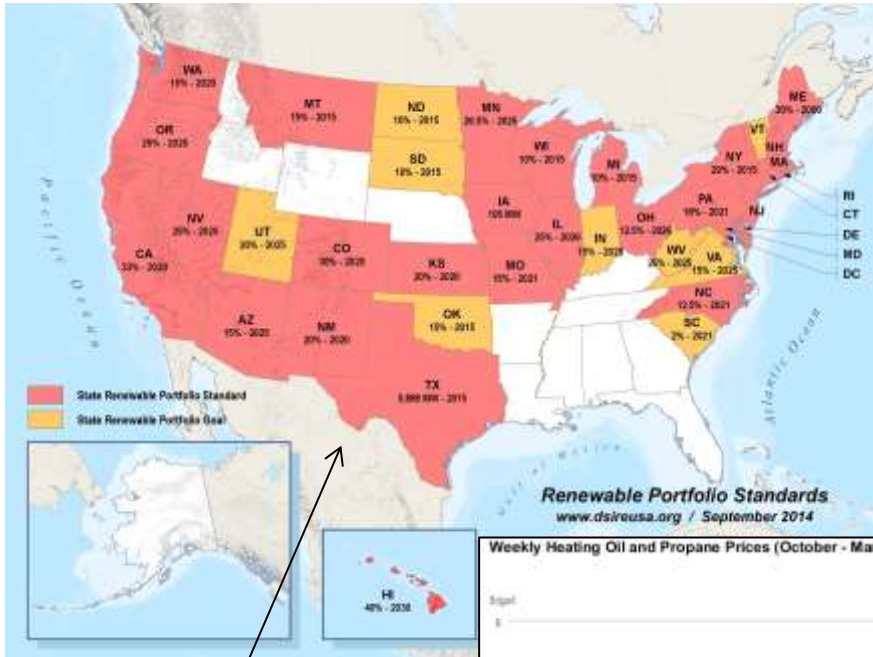
Report 141: Energy and Technologies

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Report 141: Cost-effective Renewable Energy

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State mandates for Utilities to buy renewable electricity enhances markets



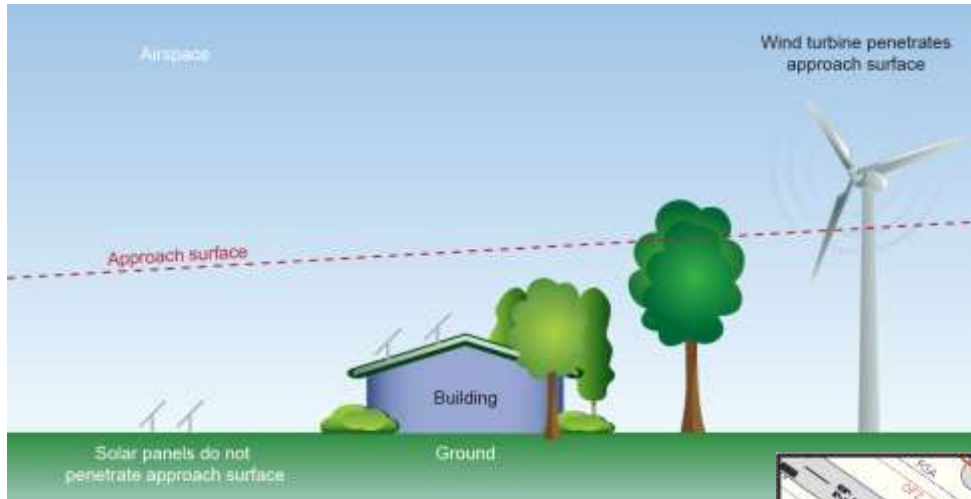
Stabilized energy costs due to free fuel, compared to unstable fossil fuel prices



Credits that place monetary value on inherent renewable energy benefits like clean air

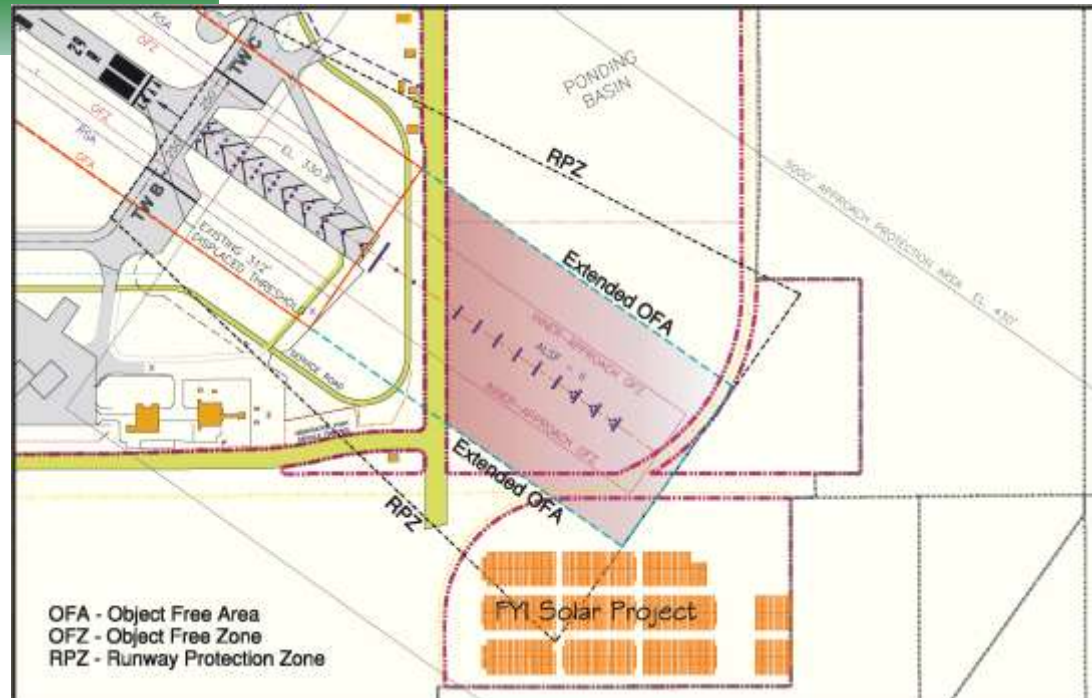
Report 141: Siting Opportunities and Challenges

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Some technologies more compatible with airspace than others.

Solar can generate revenue for land that is otherwise limited in value



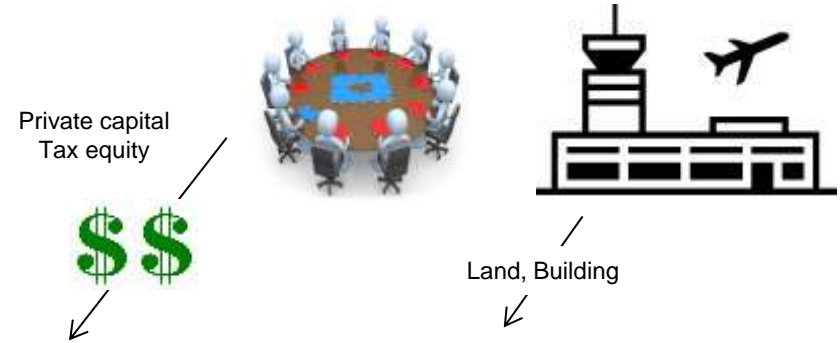
Report 141: Business Structure

Airport Owned

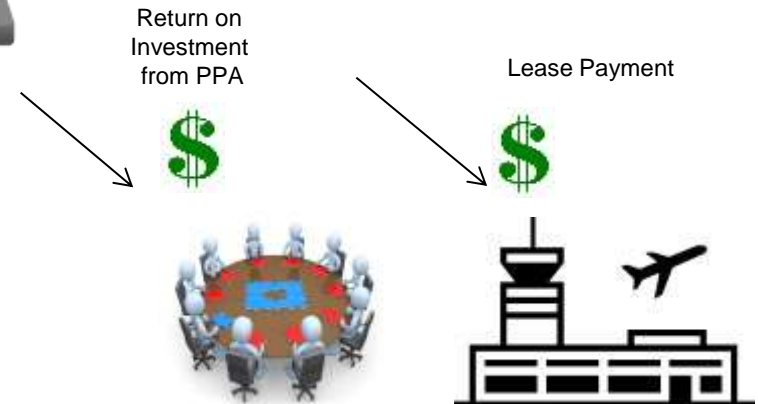
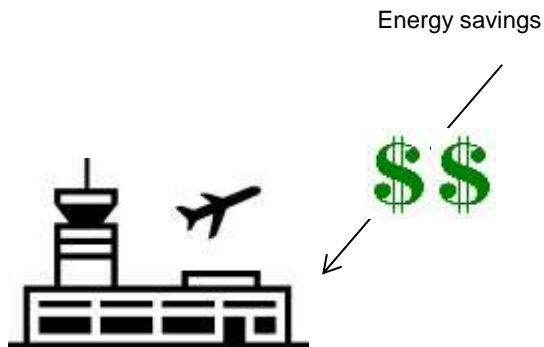


Government Cannot Monetize Tax Credits, Must Fund with Grants

Third Party Owned



Tax Credits available to private parties, Savings passed to Airport and Electricity Buyer



Report 141: Case Summaries

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| | Airport | State/Country | Renewable Energy Technology | Ownership |
|----|-------------------------|----------------|-------------------------------|-------------|
| 1 | Barnstable (HYA) | MA | Solar PV | Third Party |
| 2 | Boston – Logan (BOS) | MA | Solar PV | Third Party |
| 3 | Boston – Logan (BOS) | MA | Wind | Airport |
| 4 | Brainerd Lakes (BRD) | MN | Solar Thermal | Airport |
| 5 | Burlington (BTV) | VT | Wind | Tenant |
| 6 | Chicago-Rockford (RFD) | IL | Solar PV | Third Party |
| 7 | Denver (DEN) | CO | Solar PV | Third Party |
| 8 | East Midlands (EMA) | United Kingdom | Wind | Airport |
| 9 | Grant County (JDA) | OR | Biomass | Airport |
| 10 | Indianapolis (IND) | IN | Solar PV | Third Party |
| 11 | Juneau (JNU) | AK | Geothermal | Airport |
| 12 | Lakeland (LAL) | FL | Solar PV | Third Party |
| 13 | Nantucket (ACK) | MA | Geothermal | Airport |
| 14 | Outagamie (ATW) | WI | Solar PV, Thermal, Geothermal | Airport |
| 15 | Portland (PWM) | ME | Geothermal | Airport |
| 16 | Redding (RDD) | CA | Solar PV | Airport |
| 17 | San Diego (SAN) | CA | Solar PV | Tenant |
| 18 | San Diego (SAN) | CA | Solar PV | Third Party |
| 19 | Toronto – Pearson (YYZ) | Canada | Solar Thermal | Airport |
| 20 | Tucson (TUS) | AZ | Solar PV | Airport |
| 21 | University Park (UNV) | PA | Geothermal | Airport |

Copies and Credits

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- Copies at: <http://www.trb.org/Main/Blurbs/172634.aspx>
- ACRP Program Manager: Theresia Schatz
- Panel: Meenakshi Singh, San Jose Airport
Daniel Bartholomew, Reno-Tahoe Airport
Rhona DiCamillo, DKMG Consulting
Jennifer Fuller, NC DOT
Robert Nicholas, Ithaca-Tompkins Airport
William Shoard, Energy Efficiency Group
David Duchow, FAA
Aneil Patel, ACI-NA
Christine Gerencher, TRB



Thank you!

Steve Barrett
Sbarrett@hmmh.com

