

Charting a Course to Energy Independence

Providence, RI
August 9-12, 2009

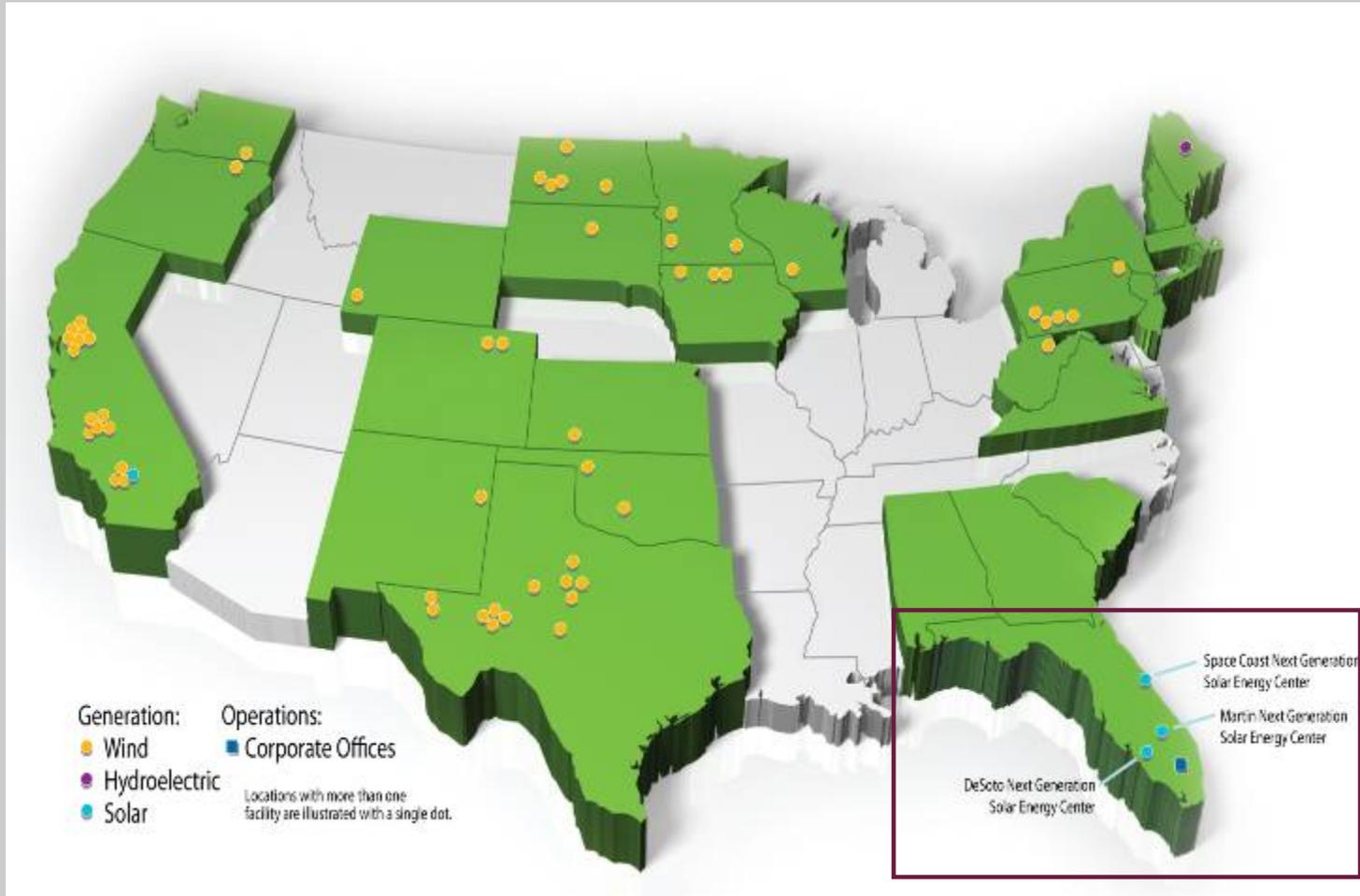
*Case Study: FPL's Space Coast
Next Generation Solar Energy Center
An EUL Success Story*

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With over \$9 billion already invested, FPL Group is the world leader in renewable energy





FPL has started construction on the world's first hybrid energy center in Martin County

Martin Next Generation Solar Energy Project



Solar Field = approx 500 acres
Solar Array = approx 180,000 mirrors
Solar Output = 75 megawatts



Construction is well underway at what will be the nation's largest solar PV facility

DeSoto Next Generation Solar Energy Project



Solar Field = 180 acres
Solar Panels = approx 90,000
Capacity = 25 MW



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Desoto Next Generation Solar Energy Center

Image # 90527 1079
Date 05.27.09



Case Study: Space Coast Next Generation Solar Energy Center

Overview

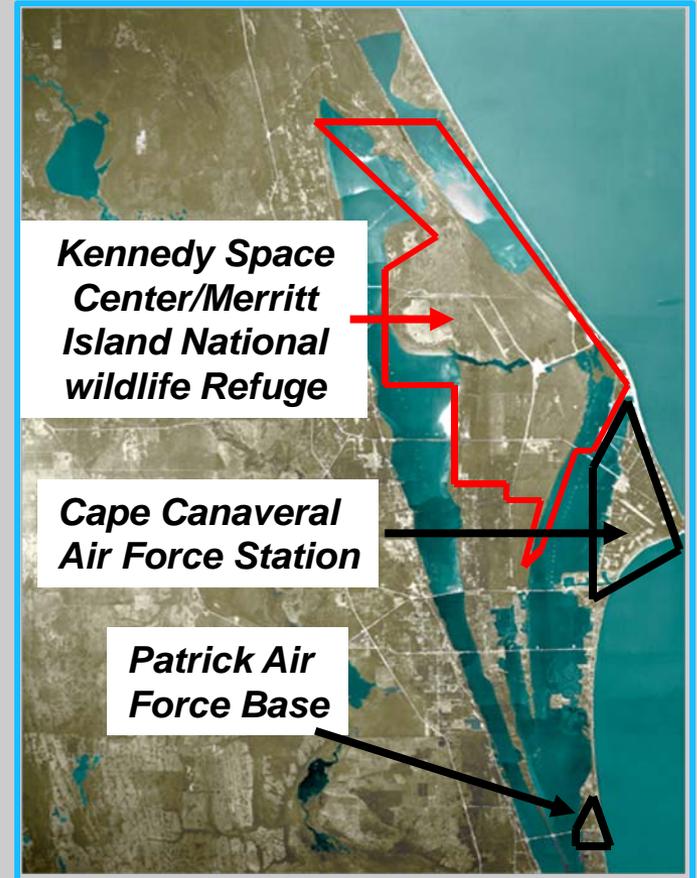
- Demographics
- Why Renewables on the Space Coast?
- Establishing/Executing the Way Forward
- Project Specifics
- Keys to Success



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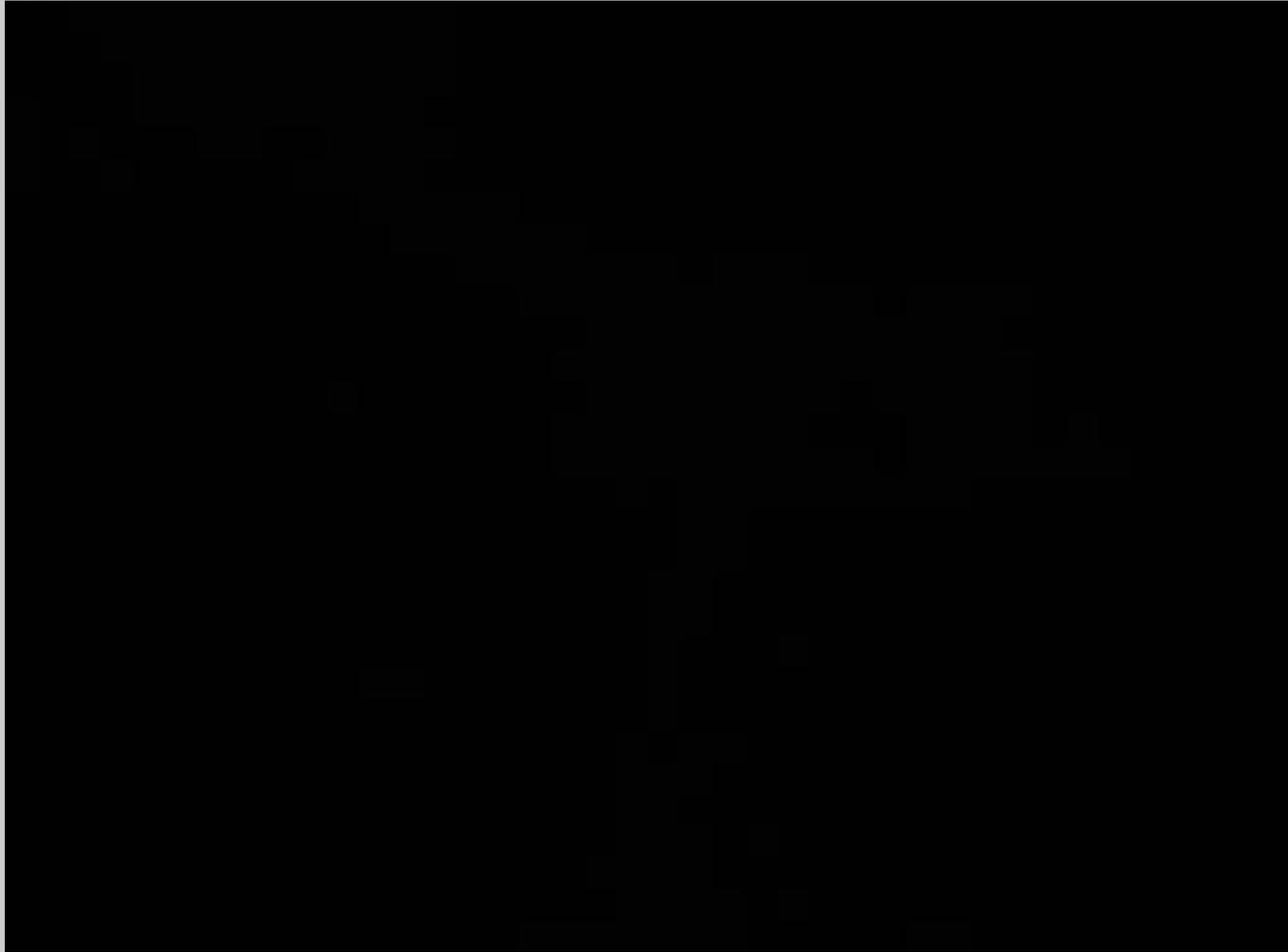
Demographics

- Florida's Space Coast: 160,000+ Acres of Federal Land between:
 - ☐ 45th Space Wing
 - Patrick AFB
 - Cape Canaveral AFS
 - ☐ Kennedy Space Center
- KSC Land Management: Joint effort w/NASA & Dept of Interior (U.S.Fish & Wildlife Service)





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Why Renewables on the Space Coast?

- Moving towards Governor's Executive Order of 20% renewable energy by 2020
- Vast amounts of available land
- Expand KSC Business Opportunities
- NASA has history and experience with using Renewables
- Long/Strong Project Partnership with NASA and FPL





Case Study: Space Coast Next Generation Solar Energy Center

Establishing/Executing the Way Forward - MOU

- Five year agreement signed in Dec '07
- Objective - Develop Renewable Energy Facilities at KSC
- Key Aspects
 - ☐ Defined potential renewable opportunities: solar, wind , biomass
 - ☐ Start w/ solar PV: 10 MW on ~50 acres
 - ☐ Defined NASA/FPL Partnership; assured management support
 - ☐ Provided team goals and attitude
 - ☐ Obstacles became challenges/ opportunities; not roadblocks
- MOU Process
 - ☐ Environmental assessment
 - ☐ Site selection
 - ☐ Land appraisal and EUL





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Establishing/Executing the Way Forward – Enhanced Use Lease

- EUL/Project Goals:
 - ☐ FPL:
 - Work toward meeting Governors’ renewable energy goals
 - Construct solar PV system that easily ties into FPL grid
 - Maximize outreach, strengthen relationship, realize synergies
 - ☐ NASA:
 - Locally Benefit from FPL Partnership (in-kind consideration)
 - FPL to construct, operate and maintain a separate NASA PV system
 - Help meet NASA’s renewable energy requirements
 - No out-of-pocket costs
 - Maximize PV output



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Establishing/Executing the Way Forward – Enhanced Use Lease

- NASA/FPL agree to lease terms and siting
 - ☒ 100 acres earmarked for Solar PV
 - ☒ Phase 1 = 60 acres
 - 30 year lease
 - FPL-Owned 10 MW PV
 - ☒ In-kind consideration
 - Construct/O&M NASA-owned PV
 - Approx. 1 MW on 5 acres
- EUL Signed June 2008
 - Defines Project Process
 - Allows for Phase II (48 acres) under existing terms/consideration



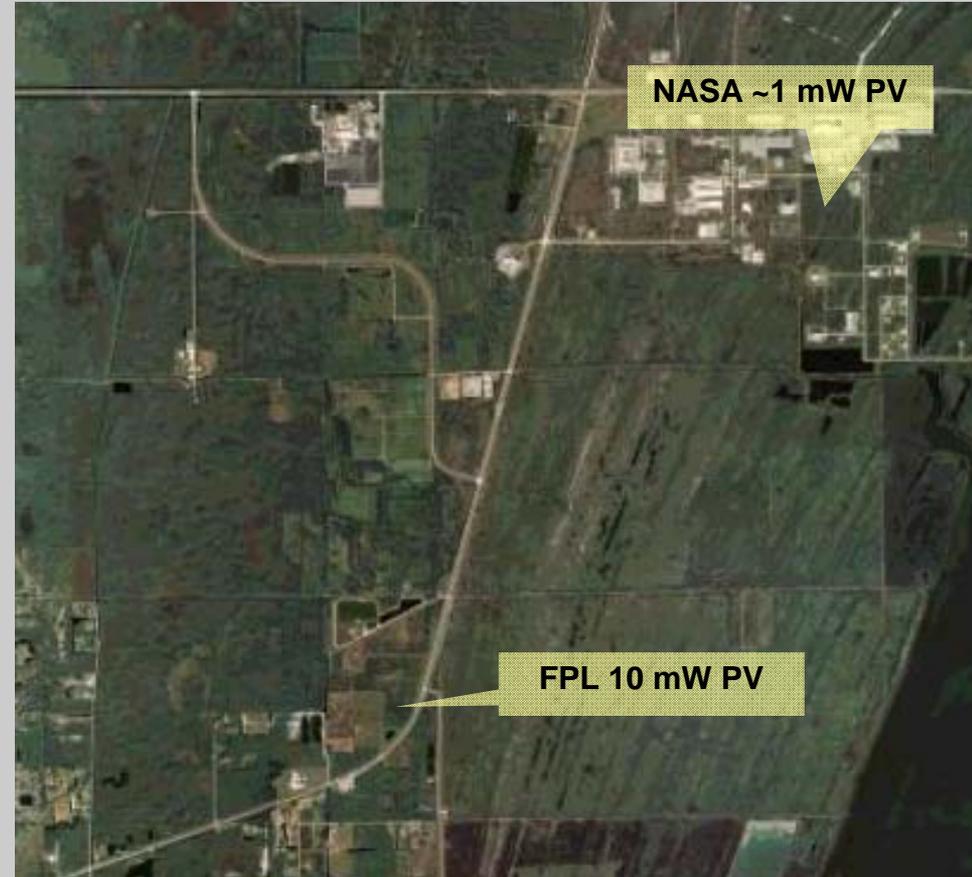
FPL Vice President and Chief Development Officer Eric Silagy (right) signs the agreement with NASA for the Space Coast Next Generation Solar Energy Center at Kennedy Space Center (KSC) as KSC Project Manager Jim Ball (l) and KSC Associate Director for Engineering and Technical Operations Michael Wetmore look on. The 10-MW photovoltaic solar facility is one of three solar power plants that will help make Florida the second-largest supplier of utility-generated solar power in the nation.



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Project Specifics

- Groundbreaking 27 May 09
- Construction: 1 Jun 09
- NASA Project Completion: 30 Sep 2009
 - Approx 1 MW
- FPL Project Completion: March 2010
 - 10 MW





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Project Specifics – NASA 900 kW PV facility

- 1% of KSC power requirement
- Output feeds directly into NASA distribution system
- Remotely monitored
- 130 mph wind standard



NASA Solar Energy Center

Artist's Conception





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Project Specifics – FPL 10 MW PV facility

- Annual estimated generation 16,000 megawatt hours
- Enough power to serve about 1,100 homes
- Will save customers an estimated 2.8 billion cubic feet of natural gas and 122,000 barrels of oil
- Avoids 227,000 tons of greenhouse gases, equivalent to removing more than 1,800 cars from the road every year
- Will provide around 100 construction jobs

Space Coast Next Generation Solar Energy Center

Artist's Conception





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Keys to Success

- #1 Focused Team
 - ☐ Support from KSC Center Director and FPL VP/Chief Development Officer
 - ☐ Dedicated NASA/FPL Project Team
- #2 Shared Goals
 - ☐ Increase Renewable Energy Usage
 - ☐ Strengthen Relationship
 - ☐ Broaden Business Opportunities
- #3 EUL Opportunity:
 - ☐ In-kind consideration makes best use of resources
 - ☐ A true win-win

