

# Air Force Sustainability Initiatives

**HON. Terry Yonkers**

Assistant Secretary of the Air Force  
(Installations, Environment, Energy and Logistics)

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## Aspects



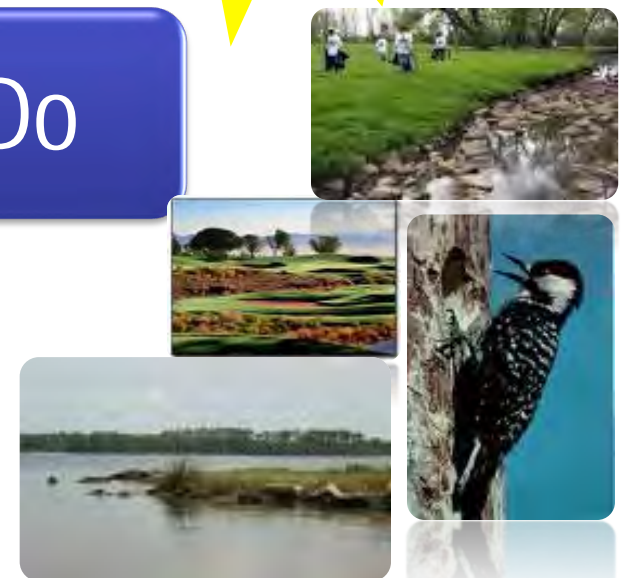
Plan

Act

Check

Do

*Best Opportunity to Optimize: During Planning and Design*



## Impacts





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# Sustainable Planning & Design

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SYMPOSIUM

Planning Indicator	Charleston			
	Supply	Demand	Headroom	Rating
<b>ENERGY</b>				
from A7CAE (Demand=Total Reportable Consumption / (MBTU - Rating=Cost/SEI)		27,412,067.61		24.07
from A7CAE (Intensity=Total MBTU/SF)				
Energy Intensity (MBTU)				
Energy Cost (\$/Sq Ft)				
Energy Consumption (MBTU)				
Energy Cost (\$/yr)**				
Renewable Energy Projects & Purchases (Electric)				
Existing				
Potential (Planned, Budgeted or Funded)				
Contribution to Energy Reduction				
Vehicle/Eqpt Fuel Consumption				
Petroleum				
Alternative				
<b>WATER SUPPLY</b>				
Water Supply (avg gal/day)	27,168,139.00	739,804.00	26,428,335.00	N-0
Water Supply (peak gal/day)	27,168,139.00	936,133.00	26,232,006.00	N-0
<b>WATER DISCHARGE</b>				
Water Discharge (avg gal/day)	1,391,000.00	727,986.00	663,014.00	N-0
Water Discharge (peak gal/day)	1,391,000.00	947,258.00	443,742.00	N-0
<b>WATER QUALITY</b>				
Water Supply (current)				N-1
Water Supply (future)				N-1
Storm Water Discharge				NA
Storm Water Receiving Body (current)				N-2
Storm Water Receiving Body (future)				N-2
<b>AIR QUALITY</b>				
Air Quality (Attainment/Nonattainment)	Attainment			N-0
Pollutants in Nonattainment				
Air Permit	Synthetic Minor / Title IV			
Nox (tons/year)	100.00	10.42	89.58	
SO2 (tons/year)				
PM (tons/year)				

## Legend for Natural Infrastructure Assessment (NIA) Data

N-rating	Description
N-0	N-0 – Opportunities
N-1	N-1 – Resource is capable of fully supporting the mission of assigned units, organizations, and/or tenants with acceptable regulatory or permit constraints.
N-2	N-2 – Resource is capable of supporting the mission of assigned units, organizations, and/or tenants with minimal regulatory or permit constraints.
N-3	N-3 – Resource capability presents challenge to the mission of assigned units, organizations, and/or tenants due to moderate regulatory or permit constraints.
N-4	N-4 – Resource capability presents significant challenges to the mission of assigned units, organizations, and/or tenants due to significant regulatory or permit constraints.

Planning Indicator	Charleston			
	Supply	Demand	Headroom	Rating
<b>Green House Gases</b>				
Facility Electricity (GHG Target Subject)		34,827.50		
Facility Fuel Combustion (GHG Target Subject)		5,139.30		
<b>WASTE REDUCTION</b>				
Non-HAZ Waste Reduction (Tons)				
Construction Waste Reduction (Tons)				
<b>COMMUNITY PLANNING</b>				
Land Use: In-Fill				
<b>ENROACHMENT</b>				
% Incompatibility				
CZ				
APZ 1				
APZ 2				
<b>NATURAL/CULTURAL</b>				
Wetlands				
Archaeological Sites				
Historic Facilities				
Land Use-Nat/Cul Areas				
<b>EXTERNAL SUSTAINABILITY</b>				
Urban Sprawl (High, Med, Low)				High (see Strom Thurmond Institute of Govt & Public Affairs)
Increase in Regional Growth Rate				2.4208
Regional Population Growth				8.57684
Regional Land Urbanization*				10,739,483,367
Housing Affordability				33.94
Housing Availability				15
Climatic Vulnerability (2030 or 2050 timeframe?)				
--- Drought				0
--- Federally Declared Floods				High
--- Flood Risk*				
--- Sea Level Rise (flooding expected to be caused by < 1 meter, > 1 meter, N/A)				< 1 meter
--- Temperature Rise Impact				Low
--- Precipitation Pattern Changes				Low
--- Seismic Zones				Low
--- Storm Surge/Intensity				Med
--- Tornadoes				0.0082
--- Lightning Density				
--- Wildfires				

Very Low Vulnerability (1)

Low Vulnerability (2)

Moderate Vulnerability (3)

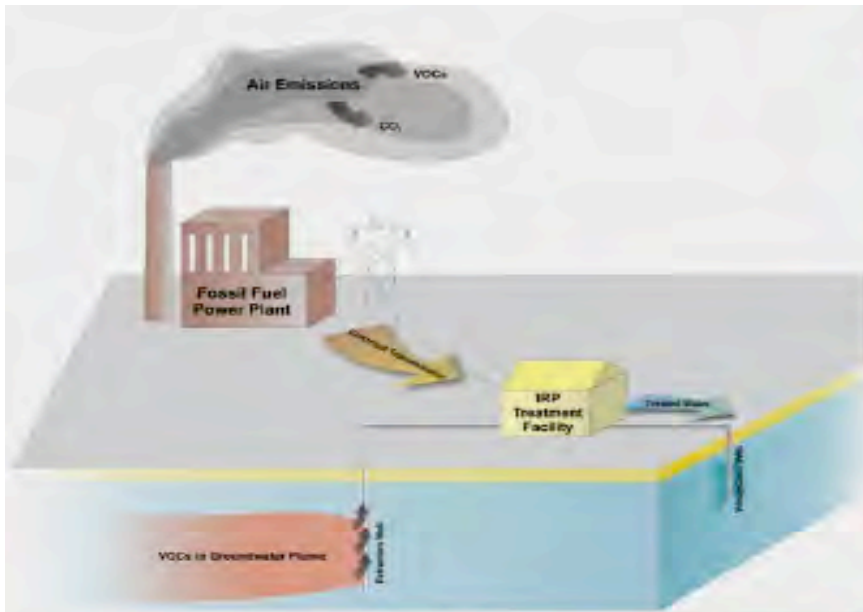
Vulnerable (4)

High Vulnerability (5)



# Sustainability Application: MMR Remediation Project

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***Electricity Generation  
to Power IRP Remedial  
Systems Results in Air  
Emissions Including  
Greenhouse Gases***



***MMR Wind Turbine Construction***

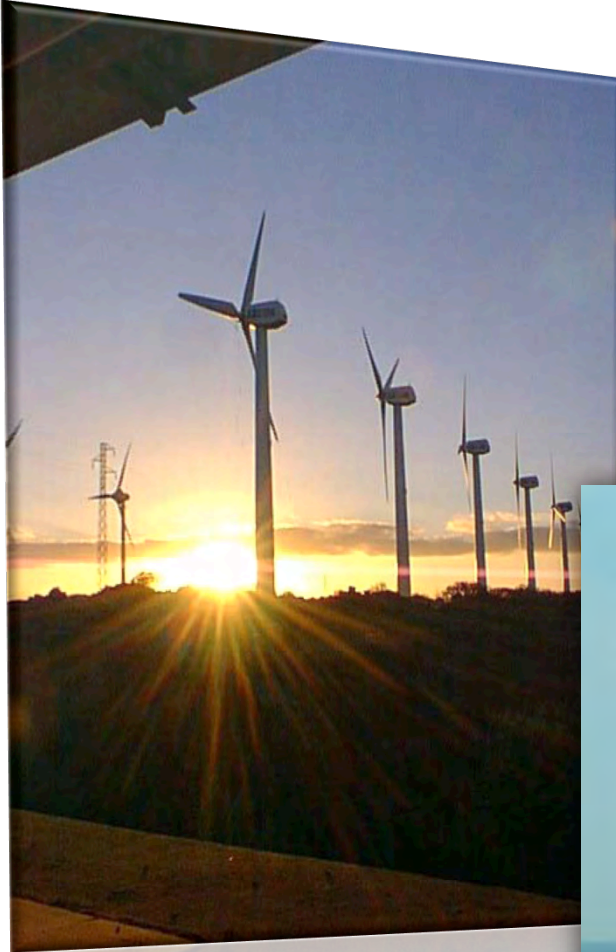
***Wind power to offset green  
house gas production***





# AF Encroachment Management Program

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# Conservation Successes

*Red-Cockaded Woodpecker*



*Okaloosa Darter*





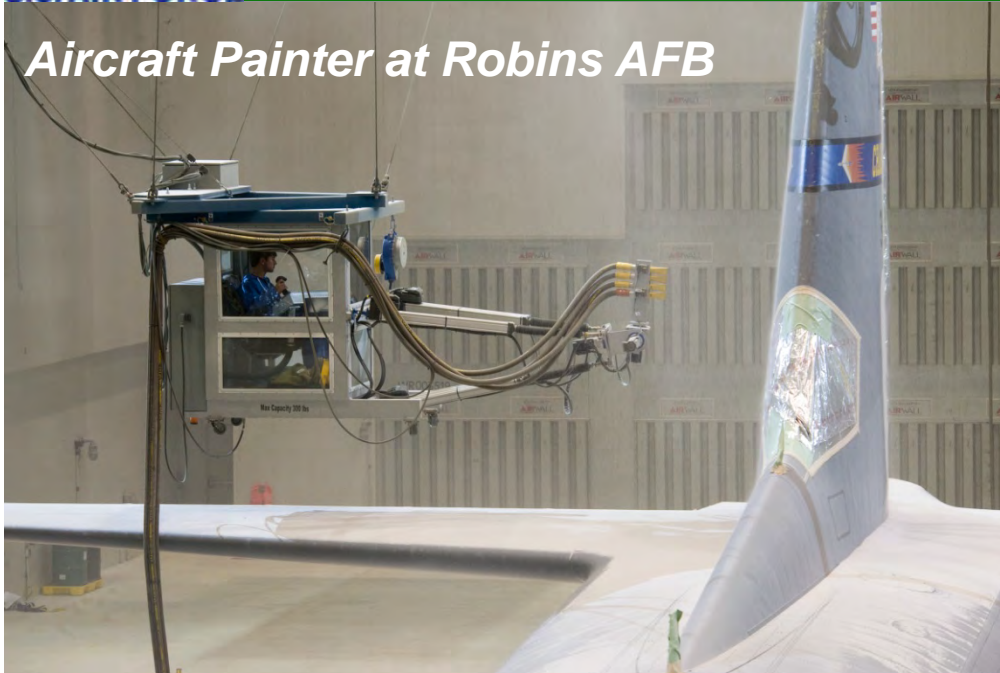


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# Pollution Prevention

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*Aircraft Painter at Robins AFB*



*Biofuel refill for A-10 Thunderbolt II at Eglin AFB*



*Hazardous Waste Technician at Randolph AFB*



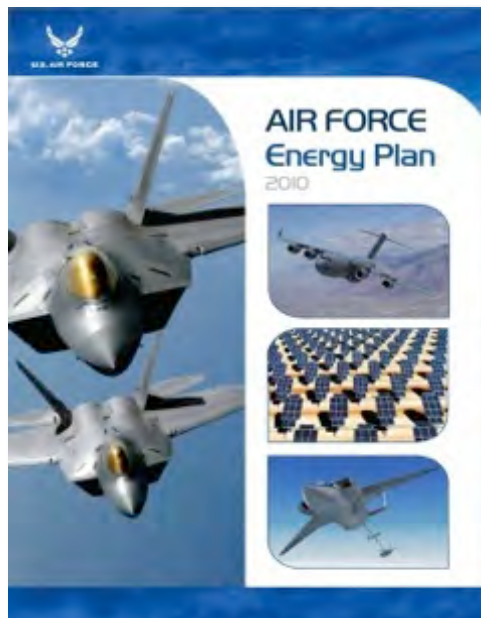
*Scrap Metal for Recycling*





# Air Force Energy Plan

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## 3-PART STRATEGY

- *Reduce Demand*
- *Increase Supply*
- *Change the Culture*



**ENERGY VISION:**  
*Make Energy A Consideration In All We Do*





# Reduce Demand

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# Increase Supply

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# Change the Culture

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