



Renewables:

Wind Energy and the Federal Government



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UPC Wind Partners LLC

- A world leader in wind energy production
- Expertise in wind resource analysis, turbine sighting, and project design
- World's largest wind farm project financing
- Experienced construction management
- 98.5% availability over six years



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Recipe for Successful Wind Energy Development



- Excellent wind resource with long term data
- Land needs to be permitable and developable
- Reliable wind turbine technology
- Capable EPC and BOP Contractors
- Cost effective Operations and Maintenance
- Transmission inter-connection and access
- Credit worthy power purchaser
- Successful financing, debt and equity

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Responding to the Changing World of Restructured Energy

- How do you get involved in buying renewables?
- How involved do you get?
- Budget effects do to power market price fluctuations, dam water shortage
- Open access issues, transmission, RTOs
- Retail and wholesale power marketing
- Decisions on supply mix from various sources, for various terms



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Have the Desire – No Mechanism



- **Executive Order 13123**
- **Need for energy diversity in supply and environmental sensitivity**
- **Wind energy has price and supply stability**
- **Resource is indigenous and renewable**
- **Provides energy supply security,**
- **No fuel price risk, no water demand**
- **Diversifies national economy**

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The way it's been

- **Historically only small specialized projects**
- **Not military's mission to concentrate on energy**
- **Interference with training operations, and safety**
- **Always received favorable pricing and transmission access**
- **Receive limited power allocation from WAPA**
- **Limited on site resource development potential**



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Where are the Opportunities for Wind Energy ?

Federal lands developed by: Private developers, Utilities, Army Corp Engineers,

Develop on Military Bases, buy direct sell excess. Done thru Fed funding or RFP for PPA

Purchase Green Tags only , no premium?

Utilize, in place Federal initiatives, Wind Power America, Farm Bill, Energy Bill, desired increased use of BLM lands

Enter into long term contracts with WAPA, BPA to increase their available hydro allocation by blending available hydro and new wind



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An Example: Edwards Air Force Base

RFP for 100% Green Power, firm

Enron combined the WAPA allocation with a mix of available biomass, then wind, and filled in ancillary services by SCE to create 5 year PPA

WAPA supplied 88GWhrs/yr Enron supplied firm blocks 133GWhrs/yr and SCE covers balance thru ancillary services

Result SAVINGS OF \$42,000,000.



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How To Get To the Finish Line

Sticking Points:

WAPA no growth responsibility

No available funding or appropriation

Requires support from leadership to give authority

An answer:

GSA, military, requests 2000MW of wind power from WAPA via allocation to blend with hydro

WAPA has authority to procure on behalf of DOD through inter-agency agreements

WAPA absorbs large wind energy into system at various locations



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