



IBERDROLA
RENEWABLES

Wind Power Development on Private Land

BLM WEATS at NREL Wind Technology Center

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Iberdrola Renewables is:

The world leader in wind power capacity and output*

- The U.S. division of parent company Iberdrola Renewables, which has the world's largest renewable energy asset base at over 11,000 Megawatts (MW) across 12 countries.
- Iberdrola Renewables is the 2nd largest U.S. wind operator at 3,877 MW.
- 30% of global capacity is in the U.S.
- Over 850 employees in the US.
- Has financial backing of Iberdrola S.A., Spain's #1 energy group and the 5th largest utility in the world by market cap.

Iberdrola Renewables is:

41 wind projects installed in the U.S.

- An American company headquartered in Portland, Oregon. Regional offices in Houston, Philadelphia, Calgary, Chicago, Salt Lake City, Boulder, Minneapolis.
- Typically present for full project life cycle. We develop, design, finance, construct, operate, maintain, and decommission our wind farms.
- Invested in US wind development with more than \$2 billion spent in 2008 and 2009. Plans to invest an additional \$6 billion in renewable energy facilities in the US over the next 3-4 years.

The wind energy production from the U.S. assets alone meets the electricity demand of more than a million typical American homes.

U.S. Asset Portfolio



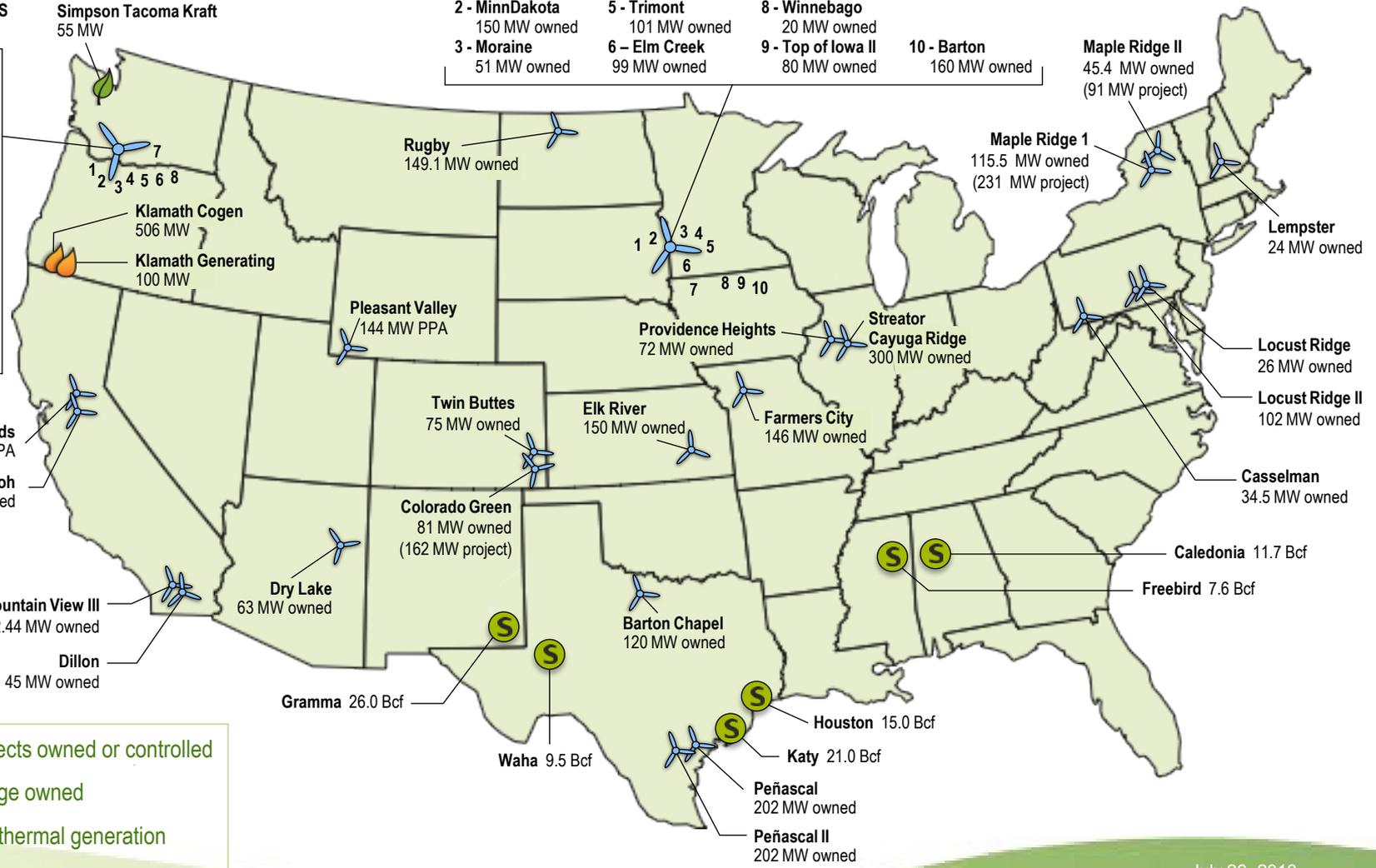
WIND PROJECTS



WIND PROJECTS

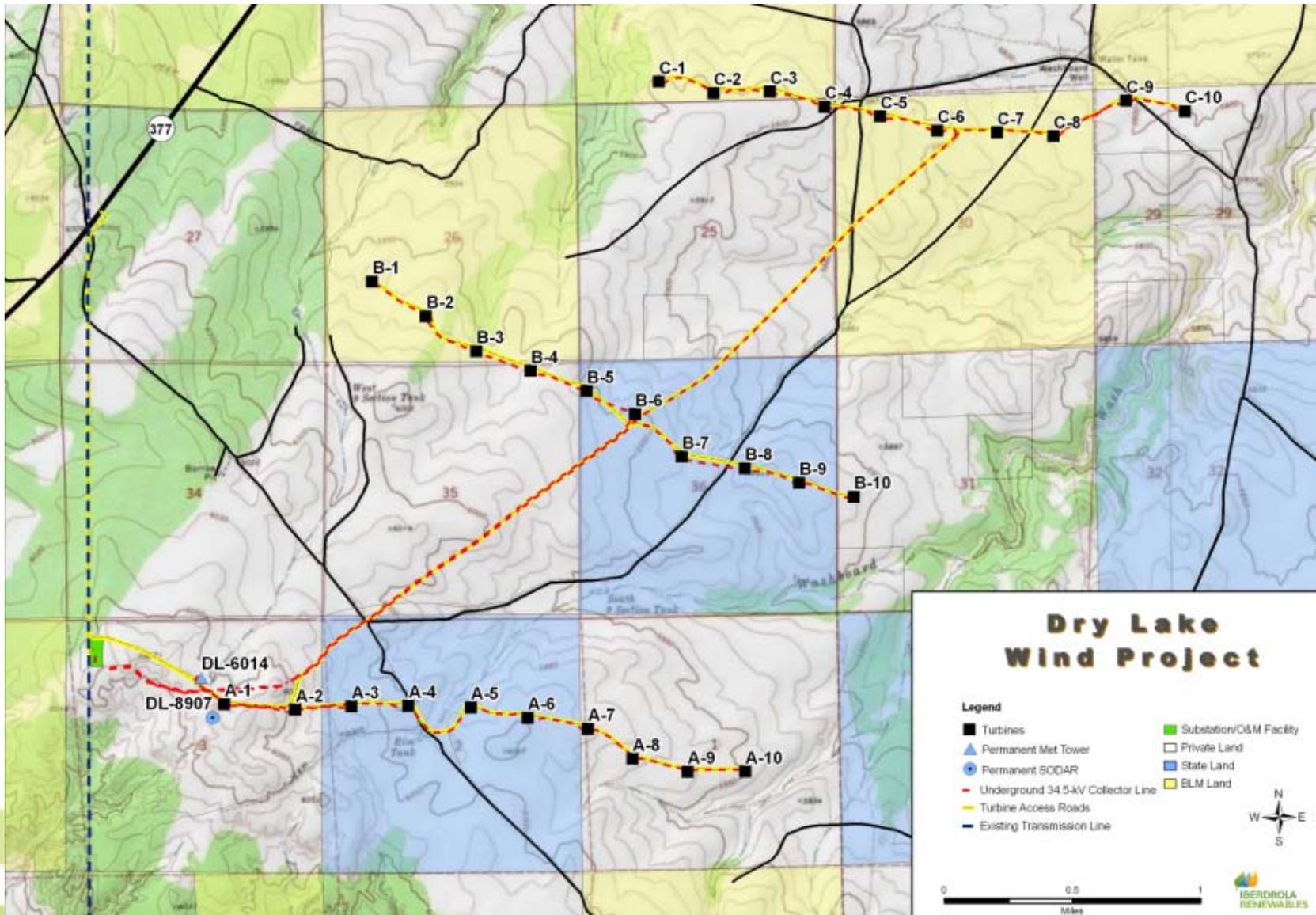
- 1 - Klondike III a
76.5 MW owned
- 2 - Hay Canyon
100.8 MW owned
- 3 - Klondike
24 MW owned
- 4 - Klondike III
223.6 MW owned
- 5 - Star Point
99 MW owned
- 6 - Klondike II
75 MW owned
- 7 - Big Horn
199.5 MW owned
- 8 - Pebble Springs
98.7 MW owned

- 1 - Buffalo Ridge
50.4 MW owned
- 2 - MinnDakota
150 MW owned
- 3 - Moraine
51 MW owned
- 4 - Moraine II
49.5 MW owned
- 5 - Trimont
101 MW owned
- 6 - Elm Creek
99 MW owned
- 7 - Flying Cloud
43.5 MW owned
- 8 - Winnebago
20 MW owned
- 9 - Top of Iowa II
80 MW owned
- 10 - Barton
160 MW owned

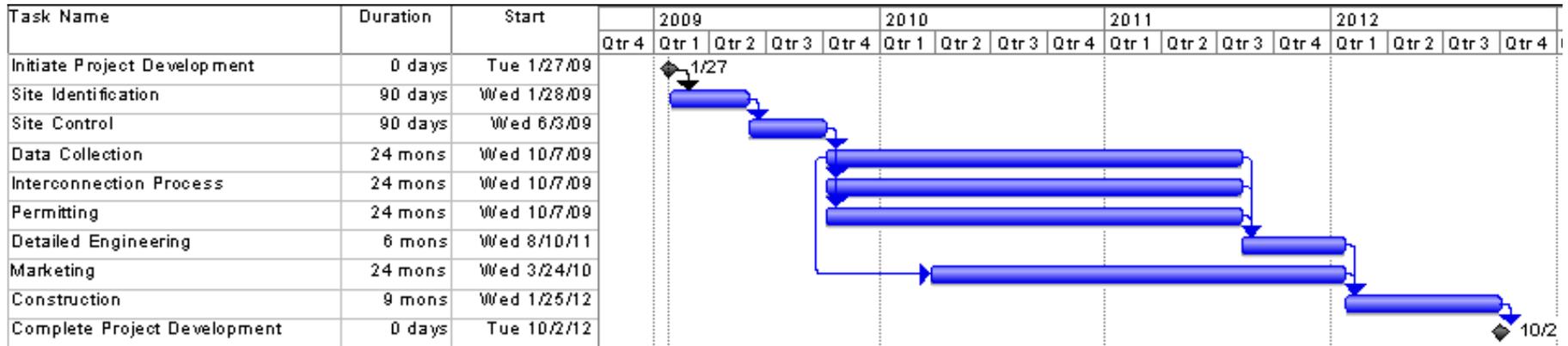


- Wind projects owned or controlled
- Gas storage owned
- Gas-fired thermal generation
- Biomass cogeneration

Dry Lake (63MW) Wind Farm: 1/3 BLM

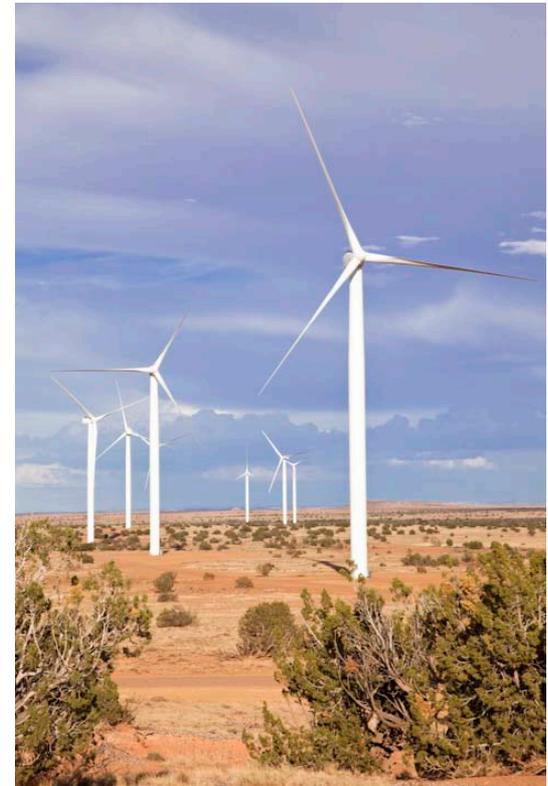


Basic Development Schedule



Development on Private Land

1. Acquire Land through a Wind Energy Lease
2. Permit and Install Met Towers
3. File Interconnection Request for LGIA
4. Conduct Environmental Studies
5. Market the Project
6. Permit the Project at County and/or State
7. Execute LGIA and PPA
8. Start Construction



Land Acquisition for Private Landowners

1. Development Period
 - Rental Payment (\$/acre)
 - 5-7 Year Term
2. Construction
 - Impact Payments (\$/MW, \$/acre)
 - 6-9 Months
3. Operations
 - Royalty (%, \$/MWhr, \$/MW)
 - 30 - 50 year Term



Met Tower Permitting

A temporary structure, no power, no lighting, no concrete.

Use Permit (CUP, SUP)

- May or May not be Required by a County
- Planning Commission Hearing
- County Commissioners/Board of Supervisors Hearing
- Approval Typically Takes ~ 60 days.

Building Permit (1 day)

Standard Precautions (Regardless of Permit Requirements):

- Aviation Balls and/or Reflective Paint
- Guy Wire Fencing and Flagging
- Anabat® or similar Pulleys

Typically No Permit Requirements for Sodar



BLM IM 2009-043, Wind Energy Development Policy on Site Testing and Monitoring:

1) Site-specific or Project Area Applications: The scope of the environmental analysis required for either a site-specific application or a project area application includes direct, indirect, and cumulative effects of the proposed site testing and monitoring-related facilities. The site testing and monitoring right-of-way authorization is for a limited term (3 years) and usually includes only a few wind monitoring towers with instruments attached to measure various meteorological parameters such as wind speed, wind direction, and temperature at various heights above the ground. The footprint for each monitoring tower is small and the need for site clearances should be limited to the areas of proposed surface disturbance and associated areas of potential effect. Some newer technologies using sonar equipment are also being used to collect wind data. This type of equipment also has a small footprint and requires little or no surface disturbance.

The environmental review should not address wind energy development facilities, as the installation of wind turbines are not proposed during site testing and monitoring. The environmental review of wind energy development facilities will occur at the point in time when a wind energy development application is submitted. The reasonably foreseeable development discussions in the environmental analysis for a site testing and monitoring right-of-way application should focus on anticipated installation of additional wind monitoring facilities during the term of the right-of-way grant. Typically only a small number of wind energy site testing and monitoring authorizations ever lead to actual wind energy development projects. Therefore, the reasonably foreseeable development discussion should not focus on uncertain future development scenarios. However, the cumulative impacts of other wind energy site testing activities and any other reasonably foreseeable activities that potentially impact the same environmental resources in the area are required to be addressed in the environmental analysis.

A wind farm is not a foregone conclusion.

Transmission

(Same Process Regardless if Project is Sited on BLM or Private Land.)

An Executed **Interconnection Agreement** is Key.

1. Oasis Request Establishes a Queue Position.
2. Feasibility Study (3-6 mos)
 - a. Is there capacity?
3. System Impact Study (6-9 mos)
 - a. How much should it cost?
4. Facility Study (3-6 mos)
 - a. Defines upgrades/costs and allocates them between the Utility and the Generator
5. Interconnection Agreement (LGIA)
 - LGIA is a Financeable Document

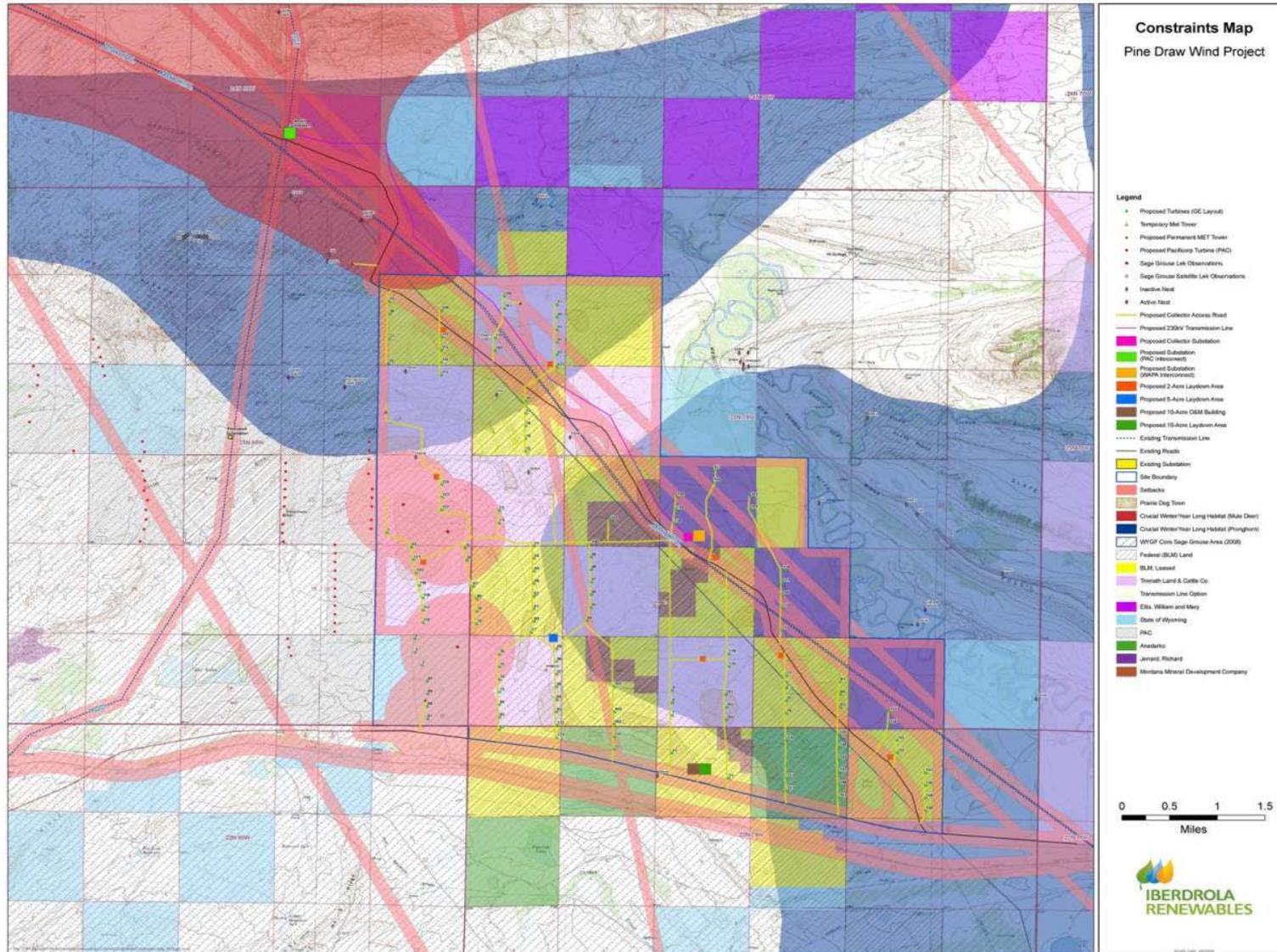


Environmental Siting Due Diligence

- Biological
 - Constraints Analysis (Existing Data using GIS)
 - Site Characterization Study (3rd Party Env. Consultant)
 - Agency Consolation: (Game and Fish, USFWS)
 - Wildlife Field Studies (Multiple Seasons)
 - T&E Spp., Vegetation, Wetlands
- Cultural
 - Desktop Analysis (Class I)
- Other
 - FAA
 - Telecom (FCC)
 - Military (DOD & DHS Flight Paths and Radar)
 - Local Land Use Standards (Sound, Setbacks, Visual)
 - Community Acceptance



Constraints Mapping Using GIS



Avian & Bat Protection Plan (ABPP):

A Corporate Policy - Executed by our CEO

- Pre-Construction Suitability Assessment and Project Design
- Operations Considerations for Wildlife:
 - Post-Construction Monitoring
 - Annual Agency Reporting
 - Impact Assessment
 - Unexpectedly high mortality would trigger agency review/discussion of causes.
 - Nest Management
- Mortality Reduction & Mitigation
 - Reduce Impacts, Mitigation,
 - Fund Research, Participate in Guidelines Process, etc.
- Permit Compliance Process
- Implementation
 - Training of Field Staff and Management
 - Quality Control - Audit of Processes; Revisions to ABPP
 - Public Awareness: Company Preference for Transparency
 - Applied to 2010 Projects.

Permitting the Project

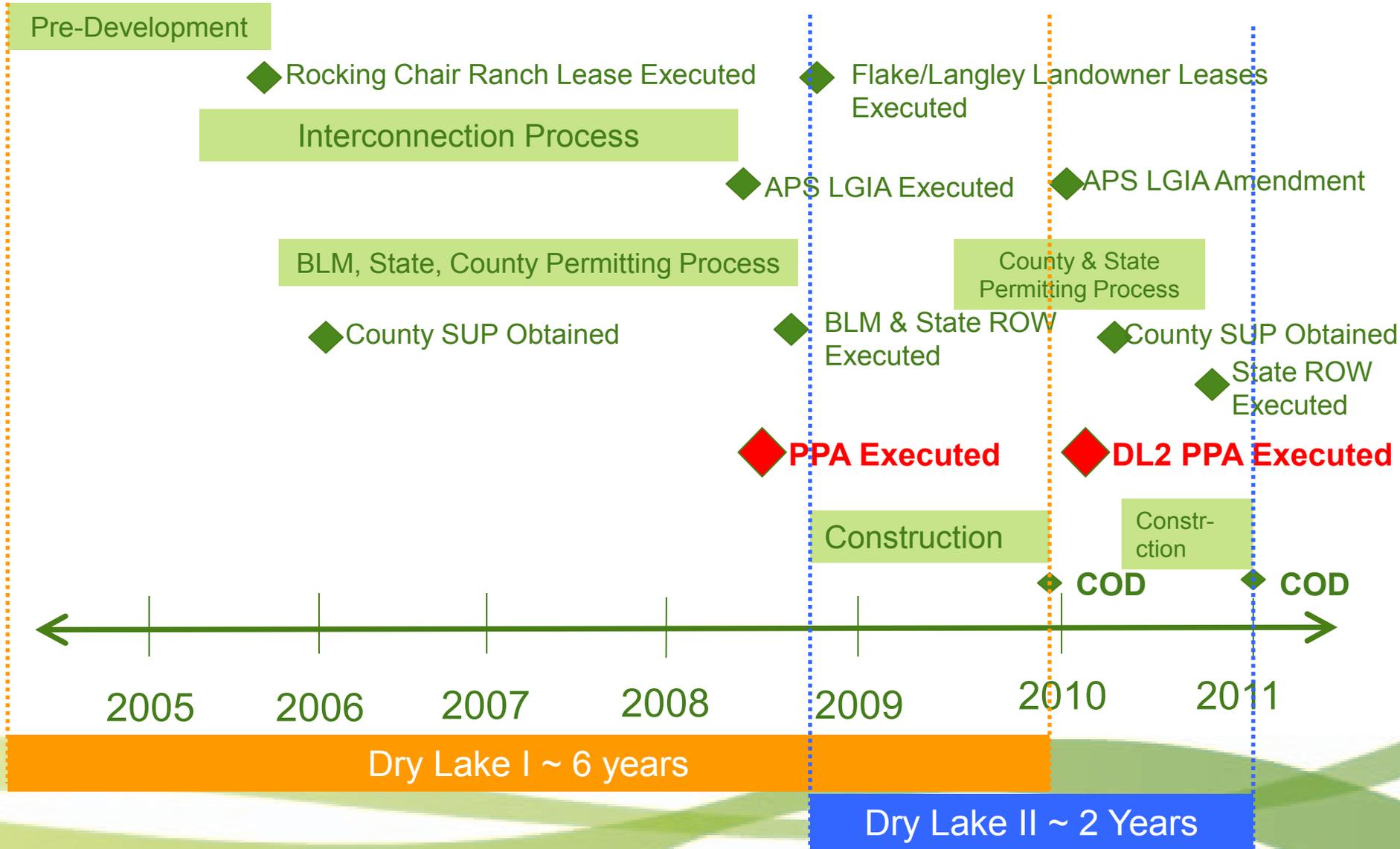
- County Use Permit, if required:
 1. Planning Commission
 2. County Commissioners / Board of Supervisors
 - Takes 6 - 9 months
 - Cost: \$10s of thousands
- State Permit, if required:
 - Takes 6 -12 months
 - Costs: \$100s of thousands
- BLM ROW and NEPA
 - 12 - 24 months
 - Costs: ~\$1M

Marketing the Project “Off-Take”

- Sale of Power
 - Power Purchase Agreement (P.P.A)
- No Sale of Power
 - Build To Sell (B.T.S)
 - Build Own Transfer (B.O.T)
 - Merchant Plant
 - Asset Sale



Dry Lake I and II Development Timelines



Benefits of Working With the BLM

- A Clearly Defined Permit Process via National Policy, IMs and PEIS
 - Fast Track and RECO are working.
 - Definite Gains Since 2003
- PEIS Tiering Avoids “Reinventing the Wheel”
- Consistent Financial Terms
- Consistent Decommissioning Requirements
- A Reliable and Efficient Vehicle for ESA and NHPA Consultation and Compliance
- Inclusive Stakeholder Permitting Process
 - Consistent with Iberdrola Renewables’ Preference for Transparency

Discouraging BLM Behavior:

- Inconsistency among BLM offices (bandwidth and approach)
- Onerous Requirements for Site Testing and Monitoring
 - Requiring a POD for a Met Tower
 - Requiring and EA for a Met Tower
 - Over Stipulating Met Towers, and Access.
- Delays Past 60-day Processing Timeframe for Site Testing and Monitoring
- “Reinvent the Wheel”
 - Underutilizing the PEIS
 - Deviating from the National Wind Energy Development Policy (IM 2009-043)
 - EIS Default
- Moving Targets after BLM Consultations.



IBERDROLA RENEWABLES

Thank You!

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