

The background of the slide features a photograph of several white wind turbines in a green field under a clear sky. A large, stylized graphic is overlaid on the image, consisting of a thick blue curved shape that frames a white, rounded rectangular area. The text is centered within this white area.

RES Wind Development

NREL

September 2, 2010

Background – Carey Kling



Geologist (BS) and Economist (MS)

Summer National Park Service - DC

4.5 years MA Dept of Environmental Protection - Hydro

10 years Shell Oil (4.5 Shell Wind Energy) - Business

2.5 year RES – Senior Development Manager

What makes a site great?

Wind resource is #1 anywhere – must be competitive

**Demand for wind energy – ability to get an off take agreement
– price and quantity**

Transmission availability and proximity

Ability and Ease to lease land

Ability and Ease to get a permit

At reasonable cost and certainty

In a reasonable time frame

Stable regulatory environment

State/Local incentives



What to avoid?

View sheds

Difficult terrain - constructability

T&E species and unique habitat (playa lakes)

Proximity to homes

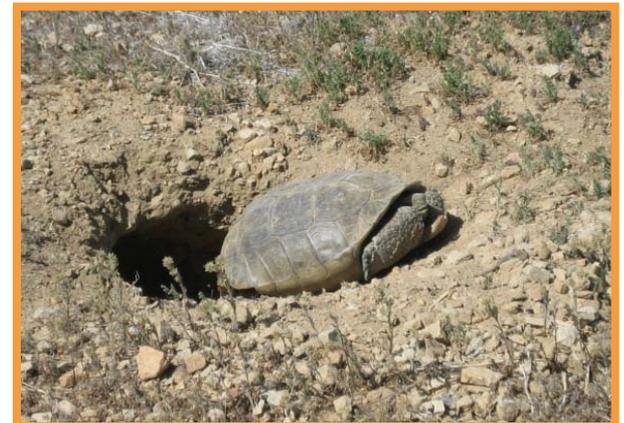
Communities with history of NIMBYS and BANANAS

Anything that could cause significant uncertainty

Federal land

DOD and FAA exposure

California?



Private is always preferable because of time and cost of EIS/EIR – walked away from good CO opportunity

Lease costs have increased to comparable rates that are paid to private land owners

Majority of Site is private – avoid the few public sections

State land is preferable to BLM land



Interconnection location allows earlier online date

need certainty that delays will not out-way this

Access to market not be available using private land

all private is taken or other issues

Wind is better than on private land

Checker board – you have no choice

In CA - very little wind in state so every parcel is good

you have to go through CEQA anyway

Other issues that need to be avoided



Lease Terms

Private:

Development lease –
\$2-10/acre

Royalty – 2-10%

Ask for 5-10 yrs,
renegotiate renewals

Public:

\$1/acre

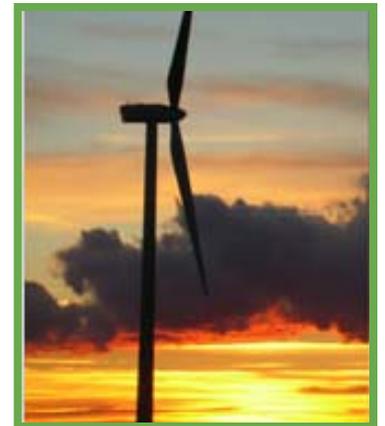
\$4k MW royalty

3 years – renewal?



What Makes working with Ranchers go Well?

- Develop relationship with landowner and they become advocate for project
- Common interest in getting project built asap, they make things happen in the county and with objectors – they help us network
- They are not absentee landowners, they influential tax payers which help the community
- They know the local politics and make that work for the project
- They know everything about their ranch and often have relationships with wildlife regulators
- They are fun to work with – although very demanding – learn a lot from them
- We figure out how to get it done as a team
- They think its cool
- It is a privilege to work for them



Where have things gone wrong? What needs to change?

Eagle issue – consultation with F&W – everything on hold (\$\$\$\$\$\$)

Unnecessary technical requirements – on going – time, money

Inconsistent decision on substation permitting – lost 7 months so far

Not getting project letters directly – consultants provide them to us

Management of 3rd party EIS consultant – no ownership

Not deliver permitting within timeframe – have to renegotiate power purchase agreement or face stiff penalties

Local communities do not receive taxes from project

BLM project require a lot more of a developer's time

Waited 8 years for wind monitoring ROW



Low use site

Not Core Area for Eagles :

southern end of habitat

ie statistics from other CA sites don't apply

40 years of Golden Eagle nesting data:

historic nest cards held by BLM,

field notes from Dr. Larry LePre,

Wildlife Research Institute surveys (2003, 2008)

Avian Point Count Surveys

9/2006-9/2007: 124 point counts

1 golden eagle in winter

1 golden eagle in spring

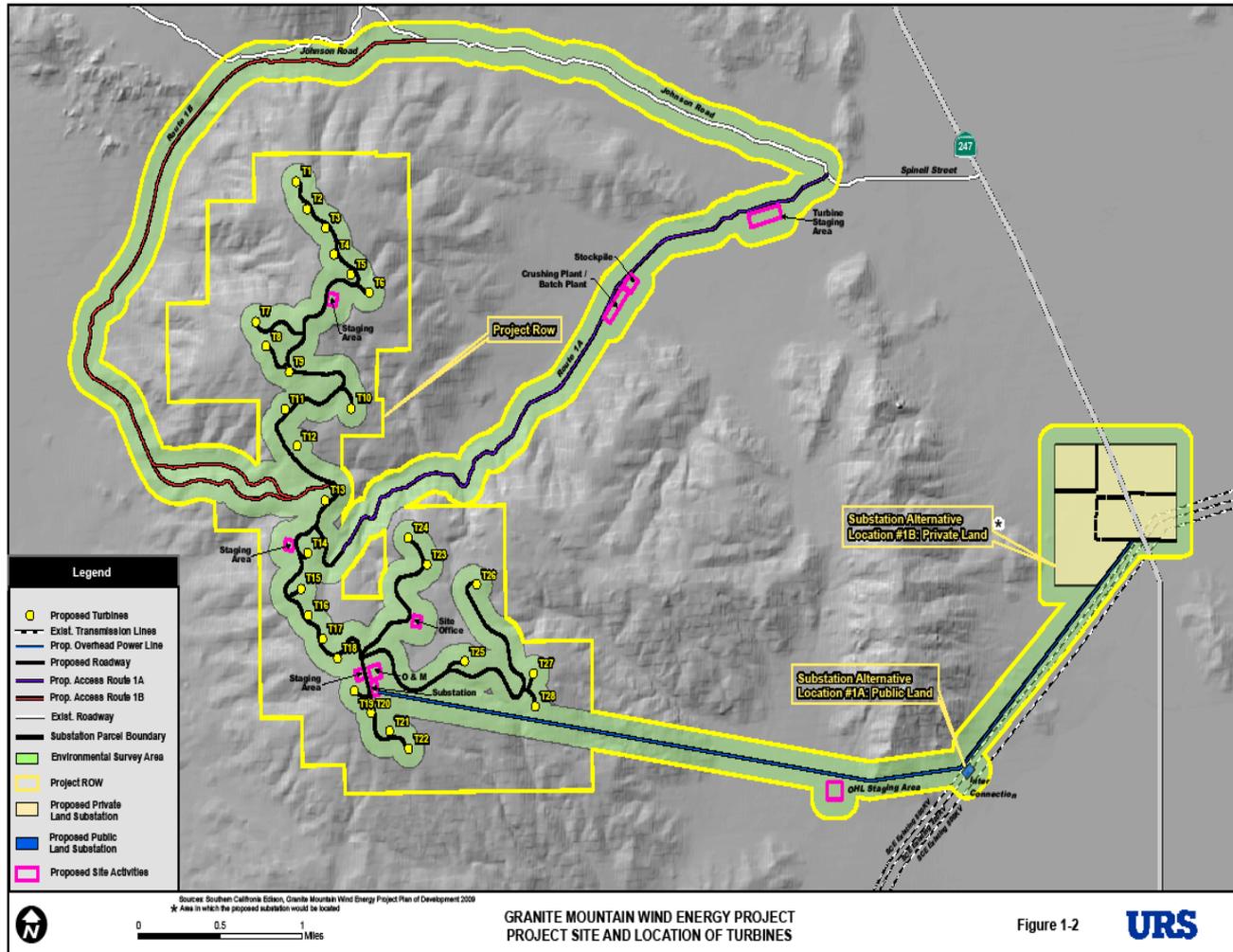
10/2007 – 9/2008: 103 point counts

1 golden eagle in fall

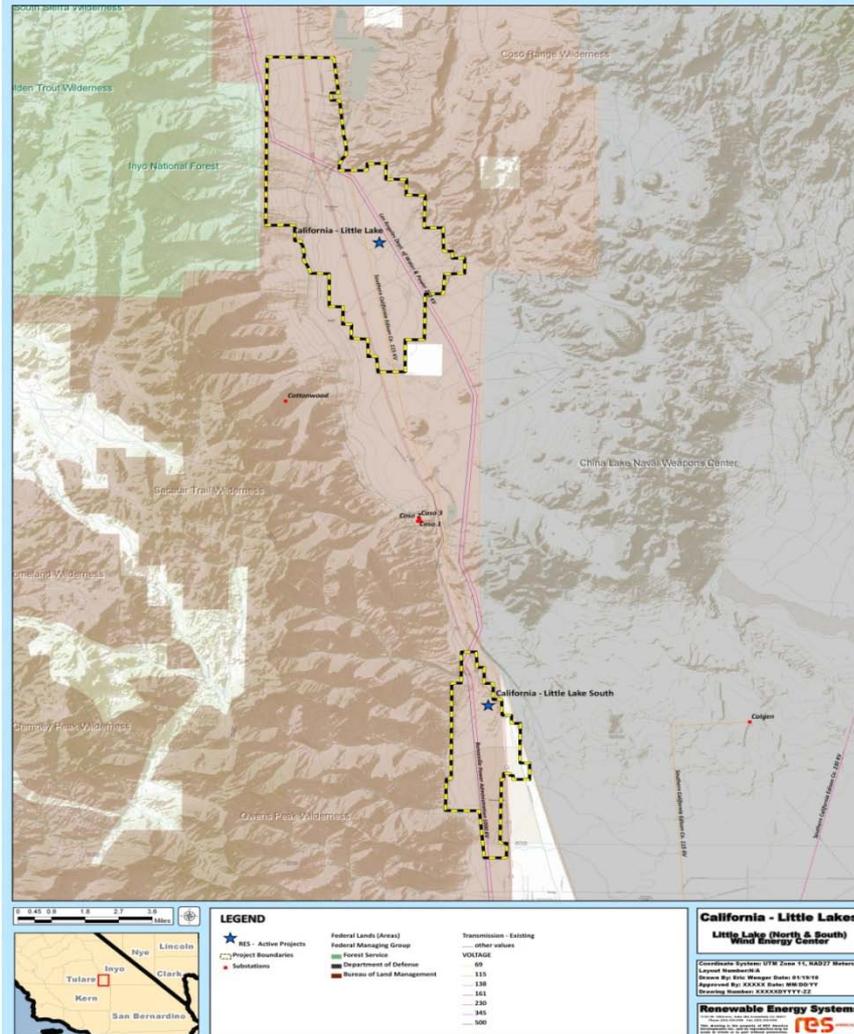
2 golden eagles in winter

1 golden eagle in spring

Turbine Layout & Substation



Waited 8 years for wind monitoring ROW



What would be great for Developers?

“Fast Track” sense of urgency – things happen when they are supposed to

Act like BLM and Applicant are a team rather than a regulated object

Be responsible in what you ask for – do you really need that or would it just be nice to have? Understand the technical issues

Don't treat consultants like an unlimited resource – it costs everyone

Don't expect us to know your process

Agree on terms for development and stick to them

Agree on timeline and stick to it – milestone schedules

Stream line processes (preaching to the choir?) and improve communication

Help us manage your system and requirements so we can get things done

Do involve the necessary people – don't assume they know what to do either

Professionalism – treat project like it is as important as it is to a farmer



What might Help BLM lease more?



Make it easy for people to see the land is not leased and has a good wind resource

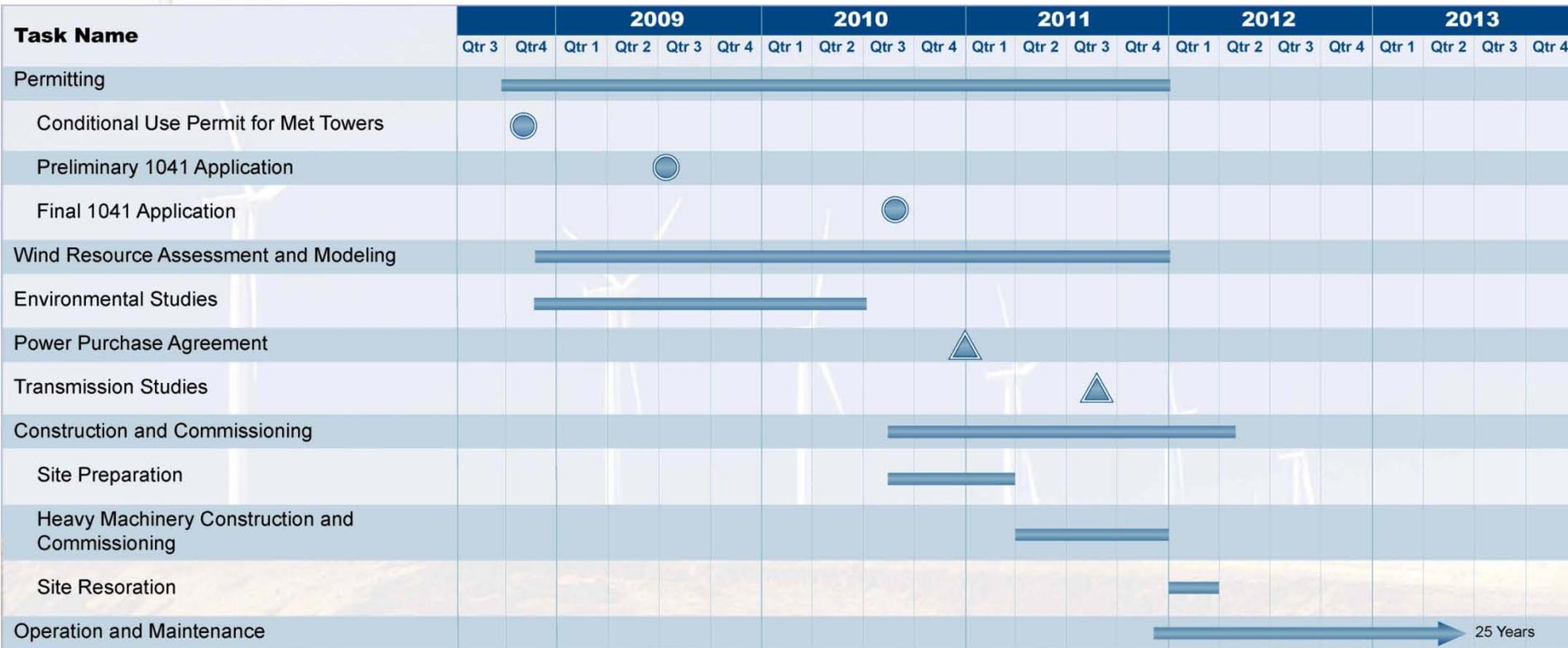
Offer a condensed canned permitting process

Lease to developers that have track record of getting projects built

Provide a milestone schedule of when BLM will deliver and when developer will deliver, and deliver



Project Schedule



● = Opportunity for Public Comment
 ▲ = Estimated Completion