Handouts from Committee of the Whole Meeting of
Tuesday, November 1, 2011

1. Response from Berns, Clancy & Associates to Questions and Suggestions from Jim Patchett, Conservation Design Forum

2. Response from Berns, Clancy & Associates to letter of October 19, 2011 from Gary Maxwell, Champaign County Board Member

3. Memo from John Hall dated November 1, 2011 re: Proposed County Board Special use Permit Case 696-S-111.

4. Invenergy – California Ridge Wind Energy Project slides

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DAN ROTHERMEL
KATHERINE LATHAM

MICHAEL BERNS
OF COUNSEL

October 28, 2011

TO: **CHAMPAIGN COUNTY BOARD MEMBERS**

PROJECT: **NORTHERN WATERSHED STORM WATER MANAGEMENT**
CHAMPAIGN COUNTY EAST CAMPUS
URBANA, CHAMPAIGN COUNTY, ILLINOIS

ITEM: Response to Questions and Suggestions
Jim Patchett, Conservation Design Forum
Memorandum of October 4, 2011

We attach a copy of the memorandum from the Conservation Design Forum we received for your reference. We respond to issues noted therein and provide information for consideration as follows:

Paragraph 1 –

The "flooding and / or drainage issues that need to be addressed or solved" include flooding that occurs in the central portion of this northern watershed which is the area south of I.L.E.A.S., around the Salt Dome, and around the Animal Control and the Physical Plant Maintenance buildings. The issues also include reducing the peak runoff rate from the property under the currently developed conditions to reduce impacts on downstream properties to the north.

Paragraph 2 –

The existing storm infrastructure is not only insufficient to convey runoff from Art Bartell Drive to the two (2) existing storm water detention basins to the west, it is non-existent. There is no subsurface sewer or surface drainageway to transfer the storm water to the constructed storm water detention basins. This important component of the overall Storm Water Management project that constructed the two (2) storm water detention ponds several years ago was delayed "to a later date". That "later date" is now.

The existing storm water detention basins to the west are sized to accommodate the flows from this 31.8 acre watershed. These basins presently receive runoff only from the western 11.3 acres around the Fleet Maintenance building and have been underutilized all this time.

At the present time, there is no peak flow volume reduction in runoff from the developed conditions from this eastern 31.8 acre watershed - - other than some attenuation that results from the surface flooding that occurs in the central area of the watershed. Runoff from this developed 31.8 acre watershed flows northward to Main Street and then continues, without reduction, to downstream properties to the north. Making the connection to the storm water detention basins to the west will reduce the peak flows to downstream properties by storing runoff and releasing it at a lower, regulated rate.

Paragraph 3 –

There is a virtually unlimited number of alternatives to the proposed "Best Management Practices" BMP approach that can be suggested and studied. Some of the five (5) goals listed, and potentially others, are complementary and some are competing. The priority of some may be greater than others. Any analysis must begin with at least a relative valuation of priorities as a means of judging the outcomes.

Bullet Point 1 –

Eliminating the soil amendments in the bio-swales will certainly save costs. But these bio-swales are proposed in existing lawn and grass swale areas. If these amendments are not made, there will be no change in runoff from the current conditions.

Bullet Point 2 –

Plug plantings were included in addition to seeding to enhance and accelerate the establishment of the naturalized landscapes. Without accelerated establishment, additional maintenance and attention will be required for the first several years to promote growth of the new plantings over weeds. In consultation with County staff, a relatively equivalent level of required maintenance was desired between the two (2) alternatives (naturalized landscaping versus lawn). Otherwise, the higher ongoing annual maintenance cost will not be reflected in the cost comparison.

Bullet Point 3 –

The detailed design of specific rain garden areas will be tailored to the precise environmental and hydrologic conditions at each location. But designing those areas as wetland basins would be more expensive, not less, due to the additional excavation and inclusion of wetland vegetation.

Bullet Point 4 –

The attention to the perimeter of the western storm water detention basin was an additional issue, not included in either the Storm Sewer Approach or the "Best Management Practices" Approach proposals. County staff requested a "non-structural" approach to bank stabilization around the western pond. The original design of the detention basin called for a modular concrete block wall for bank stabilization and erosion control similar to what was constructed at the northeastern pond. This aspect of construction was deferred. The flattening of the existing steep slope is not at all about increasing storm water detention volume, it is about providing a stable bank with natural vegetation to enhance water quality. Other alternatives can also be considered.

Bullet Point 5 –

The quantities for 24 inch diameter storm sewer were checked and they are accurate. There are about 50 more feet of 24 inch diameter storm sewer pipe in the "Best Management Practices" Approach. There is a 24 inch diameter storm sewer extended all the way from Art Bartell Drive back to the storm water detention basins to the west.

Paragraph 4 –

It is reasonable to anticipate it will be possible to reduce the costs of either of the two (2) alternatives or a hybrid approach during the final design phase of the project when all potential details are evaluated, weighed and discussed with County staff. The two (2) approaches presented were developed from very different starting points with a goal of accomplishing similar flood control goals. Both approaches also produce different benefits.

One consideration not reflected in the construction costs of these two (2) alternatives is the value of currently undeveloped land. Lawn areas within this watershed area available for alternative development at any time in the future when so desired. The Storm Sewer Approach essentially consumes none of this available area within the watershed. The "Best Management Practices" Approach uses much of this undeveloped (lawn) space leaving little area available for future alternative use. This consumption of land should be recognized and may be given a value in the estimate of costs if desired to provide a more equitable comparison between the two (2) approaches.

There may be state and federal grant programs available as a funding source for some of the costs. It is unknown what the likelihood of selection success, amount available, or timing might be.

Summary –

We offer the above information for the consideration of the Champaign County Board as the consideration of this project continues.

Respectfully Submitted,
BERNS, CLANCY AND ASSOCIATES, P.C.

Chris Billing

Christopher Billing, P.E., Vice President

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potentially peak flow performance of the basin, it is unclear whether the additional storage is needed.

- The consultant should check their quantities. The cost estimates show more 24-inch storm sewer in the BMP plan than in the storm sewer plan but the drawings appear to show the opposite.

In summary, it is our opinion that it is likely possible to develop a sustainable site development and water management alternative that is comparable in cost to the proposed standard storm sewer plan. The flood reduction and environmental benefits of the sustainable approach should also be taken into consideration. It should also be noted that there are several state and federal funding programs including the Illinois Green Infrastructure Grant Program (IGIG) that routinely provide funding support to implement green infrastructure demonstration projects.

I hope that these comments may be of some benefit. Again, it is difficult to thoroughly assess the characteristics of each alternative without some knowledge of the site, but suffice it to say, that you can not simply compare these from an apples to apples comparison because of the multiple benefits that can be achieved through a more

Conservation Design Forum
Landscape Architecture · Planning · Civil / Water Resources Engineering · Sustainable Urbanism · Ecosystem Sciences

MEMORANDUM

Date:	October 4, 2011
To:	Astrid & Pattsi
From:	Jim Patchett
Re:	Berns Clancy Storm System
cc:	
Ref. #:	[Project #] – [2011-10-04] – [Berns Clancy Stormwater Review]

MEMO

We have reviewed the documents including the Opinions of Probable Construction Cost for both the "Storm Sewer Approach" as well as the "Best Management Practices Approach". In all fairness to the consultant, it is difficult to adequately review and interpret the plans and documents without knowledge of the site, the existing conditions, and any flooding and/or drainage issues that need to be addressed. In other words, we don't know what problem the proposed improvements are designed to solve. We do, however, have some comments that may be relevant based on our cursory observations.

First of all, the standard storm sewer approach relies on the construction of a 4x6 foot box culvert at an estimated cost of $125,000 for the purpose of stormwater runoff and flood conveyance. We presume the culvert is necessary to address existing site flooding. Apparently, the existing storm infrastructure is insufficient to convey runoff to the two (2) existing stormwater detention basins located in the northwest portion of the site. It is unknown whether these basins are sufficiently sized in their existing configuration to accommodate the larger peak flows that are likely to result from the "improved" storm infrastructure. If the higher peak flows resulting from the improved storm infrastructure cause the two basins to over flow or release higher flows downstream, this would be a concern. Obviously, the traditional "Storm Sewer Approach" does not provide any of the runoff volume reduction, peak flow control, and water quality benefits of the "BMP Approach".

It is likely that some alternative of the best management practices approach could be developed that would provide enhanced flood storage, increased on-site infiltration and corresponding runoff reduction, substantially improved water quality, and supplemental wildlife habitat enhancement at a competitive cost. A few suggestions might include:

- Elimination of the gravel drainage layer and amended topsoil in the proposed bio-swales, converting them to simple vegetated swales. Elimination of these components would mean that they would not perform quite as well from a runoff volume and water quality perspective but they would perform equally well from a peak flow control perspective and cost substantially less.
- Seeding of the bio-swales, vegetated swales, and rain gardens is more than sufficient to incorporate naturalized landscapes into this environment. Plug plantings are nice and result in quicker establishment but they could be considered a luxury that could either be eliminated altogether, or substantially downscaled.
- The design of the rain gardens is unclear. However, designing them as wetland basins may be less expensive than designing them as rain gardens.
- There is proposed regrading and naturalized planting around the existing detention area in the northwest portion of the site. While this may improve the water quality performance and

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November 1, 2011

TO: **CHAMPAIGN COUNTY BOARD MEMBERS**

PROJECT: **NORTHERN WATERSHED STORM WATER MANAGEMENT**
CHAMPAIGN COUNTY EAST CAMPUS
URBANA, CHAMPAIGN COUNTY, ILLINOIS

ITEM: Response to Letter of October 19, 2011
Gary W. Maxwell, Champaign County Board Member, District 1

We attach a copy of the letter from County Board Member Gary Maxwell we received for your reference. This letter is a suggestion to modify the proposed Best Management Practices Approach into another alternative. The major components of this new alternative removes some "Hybrid" Approach Best Management Practices and utilizes more components of a standard storm sewer approach which are summarized as follows:

1. Salt tolerant grass around the Salt Dome is retained.

2. Upland grass prairie on the earth mound is retained.

3. The wetland basin Best Management Practice east of Art Bartell Drive is deleted and replaced with a vegetated swale thereby reducing excavation and planting costs.

4. The wetland basin Best Management Practice north of the Salt Dome is deleted and replaced with a grassed, dry stormwater detention area thereby reducing excavation and planting costs.

5. Extend a 24 inch diameter storm sewer along the eastern edge of Art Bartell Drive from Main Street south to the access drive to the Humane Society to convey runoff through the high spot.

6. Increase the size of the proposed storm sewer south of Main Street from Art Bartell west to the existing storm water detention basins from 24 inch diameter to 48 inch diameter to transfer the increased runoff from the south (the new storm sewer) at an increased rate to the existing storm water detention basins.

□ 405 EAST MAIN STREET • POST OFFICE BOX 755 • URBANA, IL 61803-0755 • 217/384-1144 • FAX 217/384-3355
□ 28 WEST NORTH STREET • 301 THORNTON BLDG. • DANVILLE, IL 61832-5729 • 217/431-1144 • FAX 217/431-2929

7. Add bio-swale area to the west of the north driveway to I.L.E.A.S.

8. Bio-swales will continue to include underdrains.

9. Bio-swales will be constructed with amended topsoil as natural soils are typically very tight. Clay soils will be minimized in the areas around the salt dome area.

The estimated construction cost at this schematic design stage for this revised "Hybrid" Approach alternative is $659,000 as is documented on the attached Engineer's Opinion of Probable Construction Costs. This is a higher cost than either of the two (2) approaches.

The final issue raised related to quantities and unit costs. The breakdowns provided are more detailed than is typical for a schematic design level, but were provided in an effort to give consideration to as many factors and details as may be involved in these differing approaches.

The unit cost for the 6 foot x 4 foot concrete box culvert suggested in the estimate attached to the Gary Maxwell letter from a contractor is $330 per lineal foot. Our estimate for this box culvert of September 2, 2011 showed this unit price at $200 per lineal foot. We projected forward from past project experience but with a low escalation factor to match current economic conditions. However, we acknowledge upon further investigation that there is a change in fabricators in this area during this time period and that costs may have escalated to a greater degree. We spoke to the material supplier and received pricing. The contractor providing the price estimate is reputable. But we also know that contractor and material supplier provided prices when not bidding are usually not as low as when work is publicly bid. This is why we bid public projects.

Therefore, we suggest a unit cost of $300 per lineal foot would be appropriate to substitute into the estimate of construction costs to match in the same confidence level as other unit prices. This would add another $62,500 to this item and increase the total estimated cost of the Storm Sewer Approach from $358,000 to about $470,000. For reference, the previous Best Management Practices Approach cost was $537,000.

One last item of importance that is different in approaches is the use of currently undeveloped land within the watershed. In the Storm Sewer Approach, the larger areas of undeveloped space which are currently kept in lawn remains essentially unused and available for the future. Both the Best Management Practices Approach and the "Hybrid" alternative suggested and addressed above consume these areas for Best Management Practices and storm water detention, so they are not available for future use. This watershed is therefore, by-in-large fully developed and provides little opportunity for expanded parking, material storage, building expansions or other alternative uses. This consideration is not addressed in the comparative estimates of construction costs, but is worthy of note.

We would be pleased to help you address any other concerns or questions you may have. We appreciate being of assistance to you as you consider the best approach to watershed drainage improvements.

Respectfully Submitted,
BERNS, CLANCY AND ASSOCIATES, P.C.

Chris Billing

Christopher Billing, P.E., Vice President

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MICHAEL BERNS
OF COUNSEL

November 1, 2011

ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COSTS
SCHEMATIC DESIGN PHASE
NORTH WATERSHED STORM WATER MANAGEMENT
CHAMPAIGN COUNTY EAST CAMPUS SITE

MODIFIED "HYBRID" APPROACH PER GARY MAXWELL

	Item	Quantity	Unit	Unit Price	Total
1	Mobilization	1	Lump Sum	$20,000	$20,000
2	Traffic Control	1	Lump Sum	$5,000	$5,000
3	Temporary Erosion Control	1	Lump Sum	$10,000	$10,000
4	Tree Removal	8	Each	$1,000	$8,000
5	Temporary Culvert Plug	1	Lump Sum	$1,000	$1,000
6	Concrete Box Connection	1	Each	$1,000	$1,000
7	Manhole Breakin Connection	2	Each	$600	$1,200
8	4 Foot Diameter Manhole	2	Each	$2,200	$4,400
9	7 Foot Diameter Manhole	5	Each	$4,400	$22,000
10	8 Foot Diameter Manhole	1	Each	$6,500	$6,500
11	48 Inch Storm Sewer	695	Lineal Feet	$200	$139,000
12	24 Inch Storm Sewer	680	Lineal Feet	$50	$34,000
13	15 Inch Storm Sewer	115	Lineal Feet	$45	$5,175
14	12 Inch Storm Sewer	65	Lineal Feet	$50	$3,250
15	12 Inch Culvert	60	Lineal Feet	$40	$2,400
16	24 Inch Storm Sewer Plug	1	Each	$300	$300
17	Manhole Removal	1	Each	$1,200	$1,200
18	18 Inch Storm Sewer Removal	330	Lineal Feet	$10	$3,300
19	8 Inch Storm Sewer Removal	130	Lineal Feet	$10	$1,300
20	Inlet Removal	1	Each	$300	$300
21	2 Foot Diameter Inlet	1	Each	$1,000	$1,000
22	Prep Upland Grass Prairie	1.25	Acres	$2,000	$2,500
23	Seed Upland Grass Prairie	1.25	Acres	$2,500	$3,125

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	Item	Quantity	Unit	Unit Price	Total
24	Prep Vegetated Swale	0.5	Acres	$4,000	$2,000
25	Seed Vegetated Swale	0.5	Acres	$2,500	$1,250
26	Prep Bioswales	1.9	Acres	$12,000	$22,800
27	Plant Bioswales (plugs)	1.9	Acres	$8,000	$15,200
28	Bioswale Seeding	1.9	Acres	$2,500	$4,750
29	Excavate Main Street Bioswale Basin and Short Haul	1,460	Cubic Yards	$15	$21,900
30	Excavate Rain Gardens and Short Haul	1,000	Cubic Yards	$15	$15,000
31	Prep Rain Gardens	0.6	Acres	$4,000	$2,400
32	Plant Rain Gardens	0.6	Acres	$8,000	$4,800
33	Excavate Wetland Basin and Short Haul	4,400	Cubic Yards	$15	$66,000
34	Prep Vegetated Swales	1.3	Acres	$2,500	$3,250
35	Seed Vegetated Swales	1.3	Acres	$4,000	$5,200
36	Outlet Structures	2	Each	$3,000	$6,000
37	Rock Checks	35	Tons	$150	$5,250
38	Erosion Blanket	4.6	Acres	$14,500	$66,700
39	4 Inch Underdrain	650	Lineal Feet	$12	$7,800
40	Granular Trench Backfill	560	Cubic Yards	$50	$28,000
41	Remove and Replace Pavement	200	Square Yards	$80	$16,000
42	Fertilize, Seed, and Mulch Lawn	0.5	Acres	$6,000	$3,000
			Subtotal		$573,250
			15% Contingency		$85,750
			Total		**$659,000**

October 19, 2011

1802 E. Lakeshore Dr.
Mahomet, IL 61853

Ms Deb Busey
Champaign County Administrator
Brookens Administrative Center
1776 East Washington St.
Urbana, IL 61802

Dear Ms. Busey:

Attached is a marked up copy of Bems, Clancy and Associate's Best Management Practices Approach to solving the storm water management problem at the east campus. Davis Atchley, PE, PLS at MSA Professional Services assisted in the preparation of the following comments as a courtesy to the County.

- Planting salt tolerant grasses around the salt dome is a good idea.
- Planting an upland grass prairie on the mound located south of the salt dome is a good idea.
- Eliminate the proposed wetland basin on the east side of Art Bartell Road and replace it with a vegetated swale.
- Eliminate the wetland basin north of the salt dome, grade to drain and replant with grasses as needed.
- Construct a storm sewer south near Main Street a sufficient distance and of a sufficient size to carry the water from the southerly portion of the area through the high spot to the existing detention at the maintenance facility.
- Increase the size of the bio-swale / rain garden / detention along Main Street as needed.
- Constructing the bio-swales along the roadways with an under drain is good practice from a highway engineering perspective. Under drains would also discourage the growth of cat tails. It should also be noted that salt runoff from the salt dome area would react with clay in the bio swales and make the bio-swales less pervious. Therefore it's a good idea to construct the bio swales in the salt dome area with low clay content soils.

I have reviewed the memo from Jim Patchett of CDF to Patsi and Astrid and found his comments to be sound and constructive. I concur with his suggestion that BCA should check their quantities and further suggest BCA should recheck their unit costs. As an example I am attaching an estimate from an area contractor to install the 6'x4' concrete box culvert listed in BCA's storm sewer approach design.

Please pass these comments along to Berns, Clancy and Associates. Call me if you have any questions.

Sincerely,

Gary W. Maxwell
Champaign County Board Member, District 1

10/7/11

BRIAN JOHNSTON - CO MATERIALS CALLED $
SAID 6X4 CULV DELIVERED TO UKSAUA = 215/LNFT
6WM

Gmail by Google

gary maxwell <maxwell.gary58@gmail.com>

Box Culvert Estimate

2 messages

Steve Blair <Steve@feutzcontractors.com> Fri, Oct 7, 2011 at 12:04 PM
To: "maxwell.gary58@gmail.com" <maxwell.gary58@gmail.com>
Cc: BJ Thomey <bj.thomey@feutzcontractors.com>

Gary

Please see below our budget estimate on this installation, based on the following assumptions. Should you have any questions regarding this issue, please call me.

Steve Blair

Assumptions

1. One line of precast box culvert 6'x4' at 625 lineal foot. No access problems for equipment and/or trucks

2. Budget price for box material based on 0-2 ft cover and C850 design criteria. No headwalls included in pricing

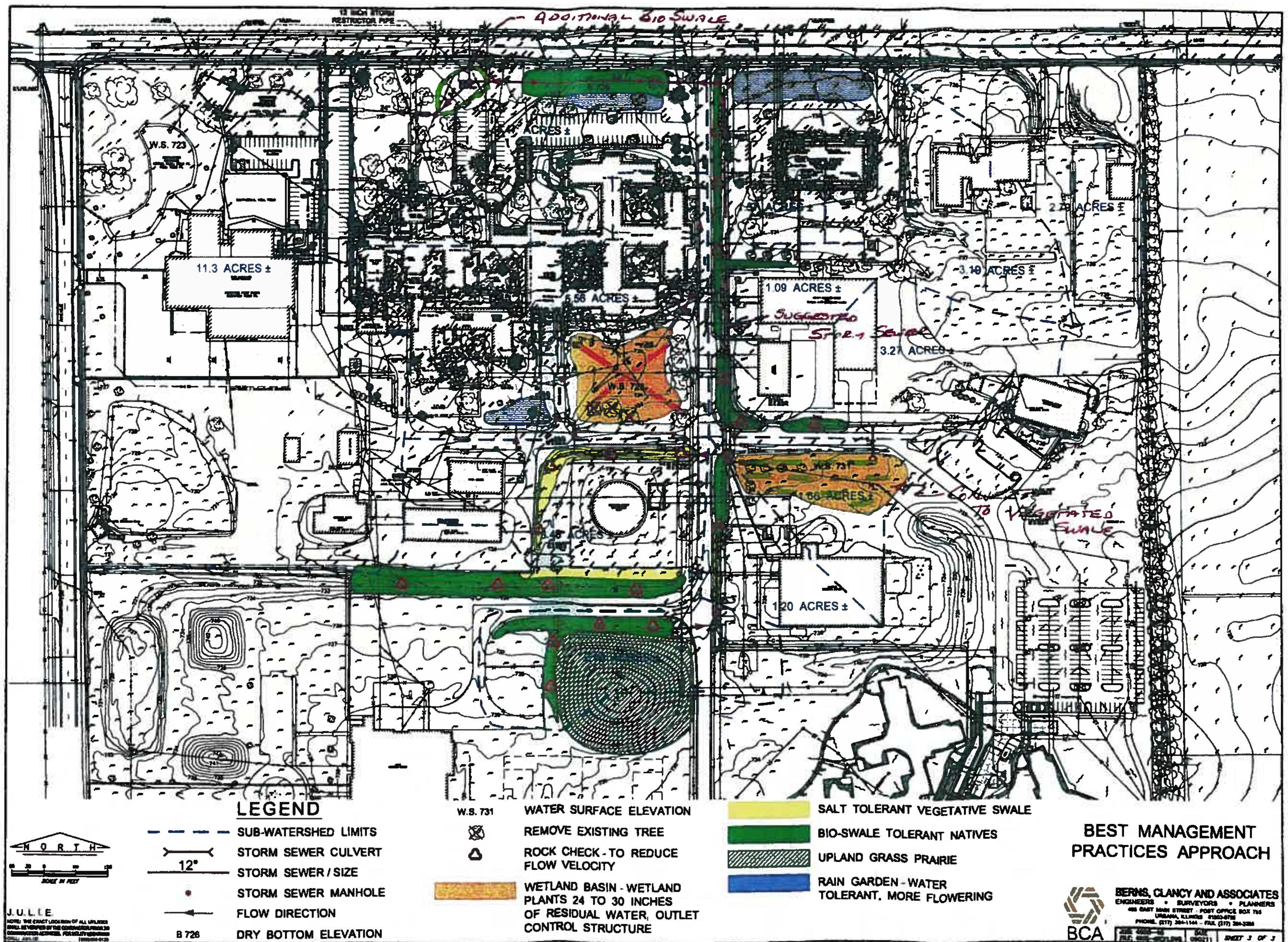
3. Bedding beneath box culvert – 6 inch aggregate

4. Placed in landscape area, all backfill to be excavated material. Excess spoil trucked away from the site.

5. No surface feature restoration. Allowed for generally shaping and grading to match adjacent contours after completion of culvert installation.

Budget Price: PRECAST BOX CULVERT, 6'X4'.....625 LINEAL FEET AT $330.00 PER LINEAL FOOT.

J. Steve Blair, P.E., Chairman and CEO
FEUTZ CONTRACTORS, INC. since 1925
reply to: 1120 N. Main St. Paris, IL 61944



12 INCH STORM RESTRICTOR PIPE
ADDITIONAL BIO SWALE
W.S. 723
11.3 ACRES ±
.56 ACRES ±
1.09 ACRES ±
SUGGESTED STORM SEWER
3.27 ACRES ±
3.10 ACRES ±
2.70 ACRES ±
W.S. 726
W.S. 731
.68 ACRES ±
CONVERT TO VEGETATED SWALE
1.20 ACRES ±
LEGEND
SUB-WATERSHED LIMITS
STORM SEWER CULVERT
12"
STORM SEWER / SIZE
STORM SEWER MANHOLE
FLOW DIRECTION
B 726
DRY BOTTOM ELEVATION
W.S. 731
WATER SURFACE ELEVATION
REMOVE EXISTING TREE
ROCK CHECK - TO REDUCE FLOW VELOCITY
WETLAND BASIN - WETLAND PLANTS 24 TO 30 INCHES OF RESIDUAL WATER, OUTLET CONTROL STRUCTURE
SALT TOLERANT VEGETATIVE SWALE
BIO-SWALE TOLERANT NATIVES
UPLAND GRASS PRAIRIE
RAIN GARDEN - WATER TOLERANT, MORE FLOWERING
NORTH
J.U.L.I.E.
BEST MANAGEMENT PRACTICES APPROACH
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Champaign County Department of
PLANNING & ZONING
Brookens Administrative Center
1776 E. Washington Street
Urbana, Illinois 61802
(217) 384-3708

To: **Champaign County Board Committee of the Whole**

From: **John Hall,** Zoning Administrator

Date: **November 1, 2011**

RE: **Proposed County Board Special Use Permit Case 696-S-11**

Request: **The ZBA Recommends Denial of a request for a Wind Farm Special Use Permit application which consists of 30 Wind Farm Towers (wind turbines) in total with a total nameplate capacity of 48 megawatts (MW) of which 28 Wind Farm Towers with a total nameplate capacity of 44.8 MW are proposed in Compromise Township (Part A) and 2 Wind Farm Towers with a total nameplate capacity of 3.2 MW are proposed in Ogden Township (Part B), and including access roads, wiring, and public road improvements, and including specific waivers of standard conditions.**

Petitioner: **California Ridge Wind Energy LLC and the landowners listed in the attached list of participating landowners**

STATUS

The October 24, 2011, Memorandum did not make it clear that approval of the this zoning case should include a change to Finding of Fact #2 that involves not just the overall Finding of Fact #2 but also sub-findings 2.g. and 2.h. The memo proposes changes to that Finding.

A proposed change to the Reclamation Agreement is also attached as are two recommended directives for a remand.

CHANGING FINDING OF FACT #2 TO SUPPORT APPROVAL

Four of the five required Findings of Facts in this Case support approval but Finding of Fact #2 does not. See pages 73 to 74 of the Approved Final Determination. Any motion for approval should include proposed changes to sub-Findings 2.g. and 2.h. and to overall Finding of Fact #2 that would be consistent with approval. The following is a Draft version of those changes:

In overall Finding of Fact 2, item 2.g. on p. 73 should be revised as follows:

Item 2.g. as recommended by the ZBA:

Noise impacts will be INJURIOUS to the District because of the difference of interpretation of the Illinois Pollution Control Board standards regarding measuring at the property line or the dwelling and in some instances there could be a violation.

Item 2.g. revised to eliminate the injury to the District:

Noise impacts will NOT BE INJURIOUS to the District because of the difference of interpretation of the Illinois Pollution Control Board standards regarding measuring at the property line or the dwelling BECAUSE CHAMPAIGN COUNTY SHALL ENFORCE THE ILLINOIS POLLUTION CONTROL BOARD NOISE REGULATIONS AS AUTHORIZED IN THE CHAMPAIGN COUNTY ZONING ORDINANCE INCLUDING ANY VIOLATION THAT IS FOUND TO BE CONSISTENT WITH THE NOISE STUDY INCLUDED IN THE PETITIONER'S APPLICATION.

In overall Finding of Fact 2, item 2.h. on p. 73 should be revised as follows:

Item 2.h. as recommended by the ZBA:

The Reclamation Agreement provides INADEQUATE assurance for decommissioning the wind farm because of the possibility that the lien holder's collateral position could result in the County having to pay out of pocket to complete the decommissioning.

Item 2.g. revised to document that the proposed assurance is adequate:

The Reclamation Agreement provides ADEQUATE assurance for decommissioning the wind farm because THERE IS ONLY A SLIGHT CHANCE that the lien holder's collateral position could result in the County having to pay out of pocket to complete the decommissioning AND THERE IS NO WAY TO ELIMINATE THAT POSSIBILITY AND THE AMOUNT OF FINANCIAL ASSURANCE BEING PROVIDED SHOULD BE ADEQUATE FOR ANY LIKELY CONDITION.

And finally, the overall Finding of Fact 2. should be revised to read as follows:

2. The requested Special Use Permit **SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN** is so designed, located, and proposed to be operated so that it **WILL NOT** be injurious to the district in which it shall be located or otherwise detrimental to the public health, safety, and welfare because:

FIVE CHANGES REQUIRED FOR APPROVAL

A motion to approve Case 696-S-11 requires the following five changes:

1. A change to sub-finding 2.g. (see above); and

2. A change to sub-finding 2.h. (see above); and

3. A change to overall Finding of Fact 2 (see above); and

4. The elimination of the waiver of standard condition 6.1.4 I (see the 10/24/11 memo); and

5. Affirmation that the proposed Reclamation Agreement is adequate (see the 10/24/11 memo) (or a change to the Reclamation Agreement).

PROPOSED REVISION TO THE RECLAMATION AGREEMENT

The petitioner has proposed a change to the Draft Reclamation Agreement (see attached). The proposed change is an improvement to the Draft Reclamation Agreement even though it is not a cure all. The case should be remanded to the ZBA to have this new evidence entered.

RECOMMENDED DIRECTION UPON REMANDING

If the Board remands the case to the ZBA so that the Reclamation Agreement can be revised, the remand should include at least the following two directives:

1. Add the Revised Reclamation Agreement including any relevant change to sub-finding 2.h.

2. Address any inconsistencies or incongruities that the ZBA sees in the Finding of Fact.

3. Other pertinent changes that the ZBA may be inclined to make within the time available and provided that the case is returned to the County Board in time for a County Board decision on November 17, 2011.

ATTACHMENTS

A Proposed Revision to Draft Reclamation Agreement

moving toward completion, to the satisfaction of the **Zoning Administrator**, following the **Principal**'s notification to the **Zoning Administrator**. If the work is so completed, and verified on site by the **Zoning Administrator** or his designee, the **Zoning Administrator** shall draw upon the **Financial Assurance** to pay any accrued **Associated Costs**, and then release the remainder of the **Financial Assurance** to the issuer of the **Financial Assurance**, the **Principal**'s obligation to provide **Financial Assurance** under this Agreement shall cease and the **Special Use Permit** shall then expire. The **Principal**'s exercise of this right shall not, in any way, limit the authority of **Champaign County** under Section (9) or Paragraph 6.1.1.8 of the **Zoning Ordinance**, and may be denied to the extent it conflicts with this authority.

(b) The **Principal** shall perform the **Reclamation Work** prior to:

(i) **Abandoning** the **Project**;

(ii) Ceasing production of electricity from the **Project**, after it has begun, other than in the ordinary course of business;

(iii) Transferring the **Project** other than in compliance with this **Reclamation Agreement**.

(c) The **Principal** shall be responsible for paying the costs of performing the **Reclamation Work** and for paying any **Associated Costs.** The **Principal**'s obligation to perform this **Reclamation Work** and to pay **Associated Costs** shall be independent of its obligation to provide **Financial Assurance**.

(d) The liability of the **Principal** for failure to perform the **Reclamation Agreement** or any other breach of this **Reclamation Agreement** shall not be capped by the amount of the **Financial Assurance**.

(7) Abandonment Process. Once the **Zoning Administrator** has made a finding the **Project** has been **Abandoned**, the **Zoning Administrator** shall issue notice to the **Principal** that **Champaign County** will draw on the **Financial Assurance** within thirty (30) days unless the **Principal** appeals the **Zoning Administrator**'s finding, pursuant to Paragraph 9.1.8 of the **Zoning Ordinance** or enters a written agreement with **Champaign County** to perform the **Reclamation Work** and remove the **Project** within ninety (90) days. No such notice is required if the **Zoning Administrator** determines the **Project** poses an imminent threat to the health and safety of the public or any person.

(a) The obligation to perform the **Reclamation Work** hereunder shall constitute a covenant running with the land. Any and all financing and/or security agreements entered into by **Principal** shall be subject to said covenant.

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(b) Any and all financing and/or security agreements entered into by **Principal** shall expressly provide that they are subject to the foregoing covenant. Evidence of the same must be submitted to the Zoning Administrator prior to any Zoning Use

Permit approval.

(8) The **Principal** shall pay any accrued **Associated Costs** upon sixty (60) days written demand from the **Zoning Administrator**.

(9) Drawing Upon the **Financial Assurance**:

(a) The **Zoning Administrator** may draw upon the **Financial Assurance** to have the **Reclamation Work** completed when any of the following occur:

(i) The **Project** is deemed **Abandoned**, under the process set forth in Section (7), and the **Principal** has not responded to the notice from the **Zoning Administrator** within thirty (30) days of its issuance; or, having responded, has not appealed the **Zoning Administrator**'s finding; or entered a written agreement to perform the **Reclamation Work** and remove the **Project**.

(ii) The **Principal** does not enter into, or breaches any term of, a written agreement with **Champaign County** to perform the **Reclamation Work** and/or remove the **Project** and or the **Project**'s supporting structures and regrade and provide soil and erosion control as provided in the approval of the **Zoning Case**.

(iii) Any material breach or performance failure of any provision of this **Reclamation Agreement;** including, but not limited to, the failure to maintain **Financial Assurance**; the failure to replace expiring **Financial Assurance** within the deadlines set forth herein; or the removal or replacement of equipment or property from the **Project** in violation of Section (5).

(iv) The **Principal** has filed a bankruptcy petition, or compromised **Champaign County**'s interest in the **Financial Assurance** in any way not specifically allowed by this **Reclamation Agreement.**

(v) A court of law, an arbitrator, mediator, or any state or Federal agency charged with enforcing State or Federal law has made a finding that either said **Project** or any of the facilities or structures supporting or constituting said **Project** and/or any related site grading and soil erosion controls or lack of same, constitutes a public nuisance or otherwise violates State or Federal law, or any State or Federal agency charged with enforcing State or Federal law has made a final determination imposing an administrative sanction on the **Project** or denying the **Project** a permit necessary for its lawful operation.

(vi) **Champaign County** discovers any material misstatement of fact, or misleading omission of fact, made by the **Principal** or its

Invenergy

California Ridge Wind Energy Project

November 1st, 2011

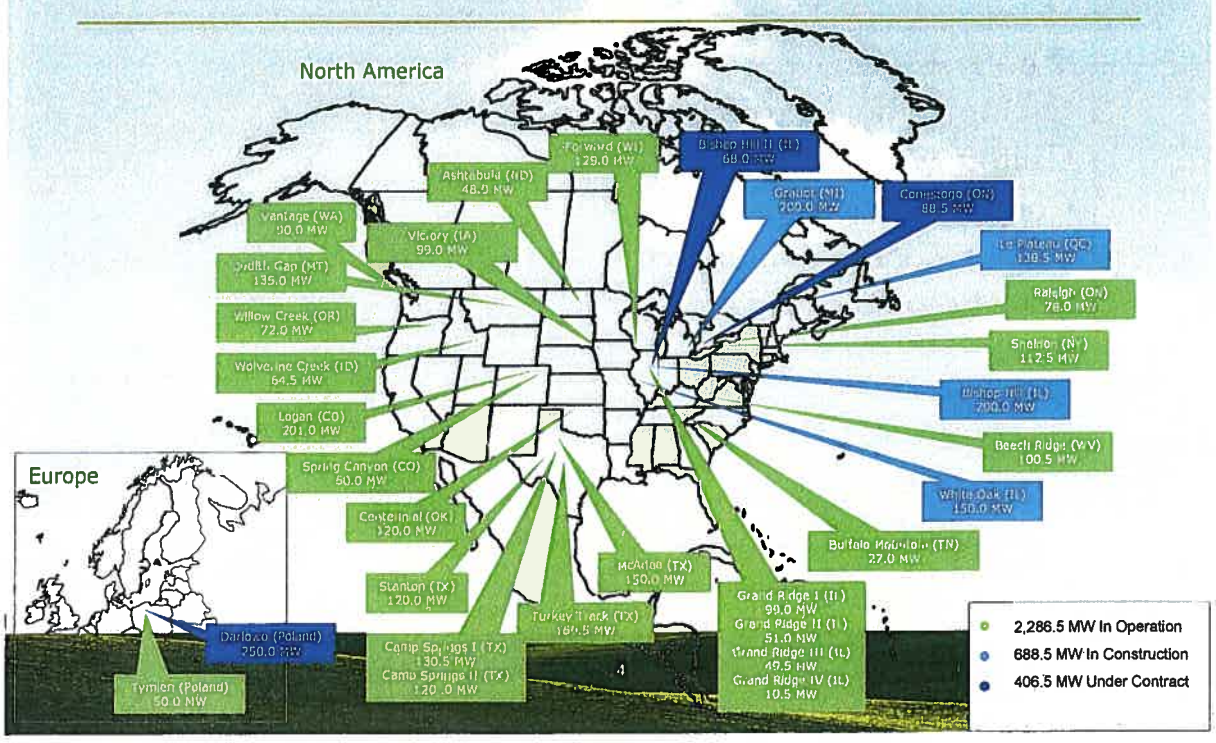
Topics

- Who is Invenergy?
- California Ridge Project Team
- California Ridge Project Specifics
- Community Benefits
- Project Zoning Compliance
- ZBA Recommendation

Who is Invenergy?

- Developer, Owner and Operator of large scale wind energy generation projects headquartered in Chicago with development offices in Denver, Austin and Rockville, MD
- One of the 'top 10' wind energy developers in North America based on constructed projects over the last several years.
- Largest "independent" wind energy developer in the United States – "independent" meaning unassociated with a large corporate parent.
- Completed over 2,200 MW of wind projects with more than 1,000 MW in construction or under contract.

Invenergy Wind Projects



California Ridge Project Team

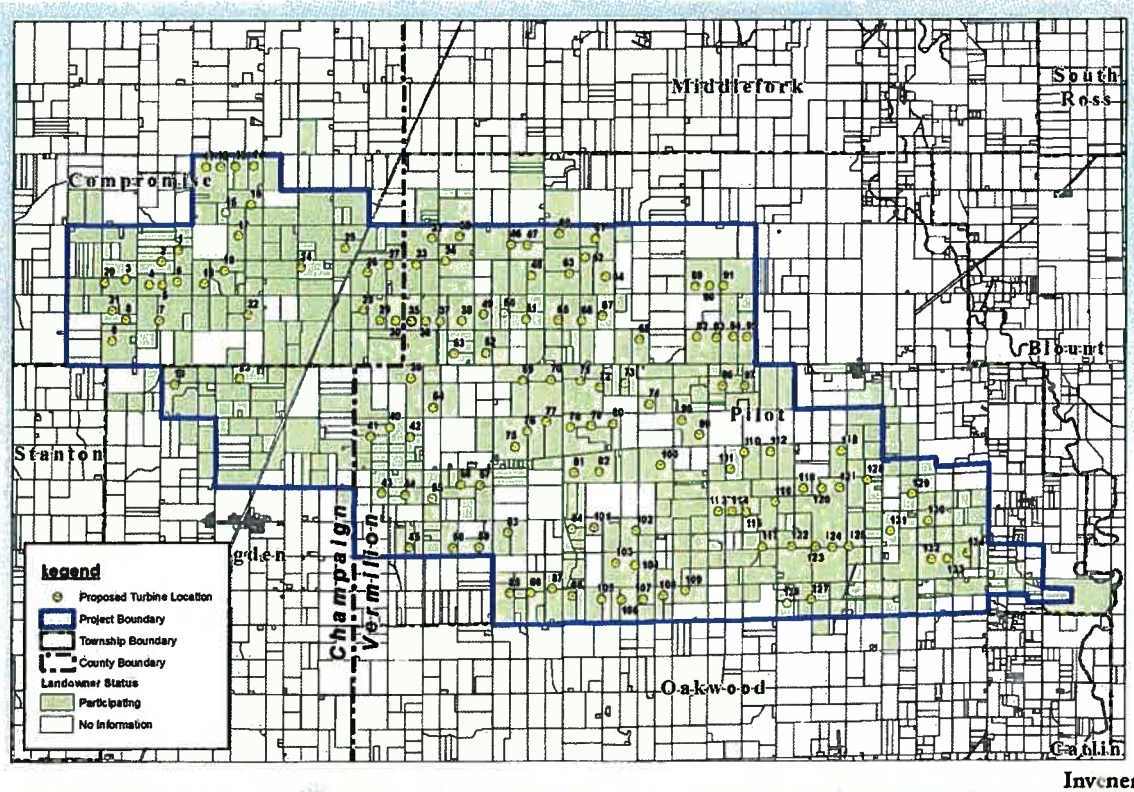
- California Ridge Wind Energy LLC is an affiliate of Invenergy LLC
- Bryan Schueler – Senior Vice President, Development
- Kevin Parzyck – Vice President, Central Region Development
- Greg Leuchtmann – Business Development Manager
- Ryan Bollenbacher – Project Engineer
- William Davidson – Land Agent
- Marlin Conry – Site Construction Manager
- White Construction – Construction & Installation Contractor

California Ridge Specifics - History

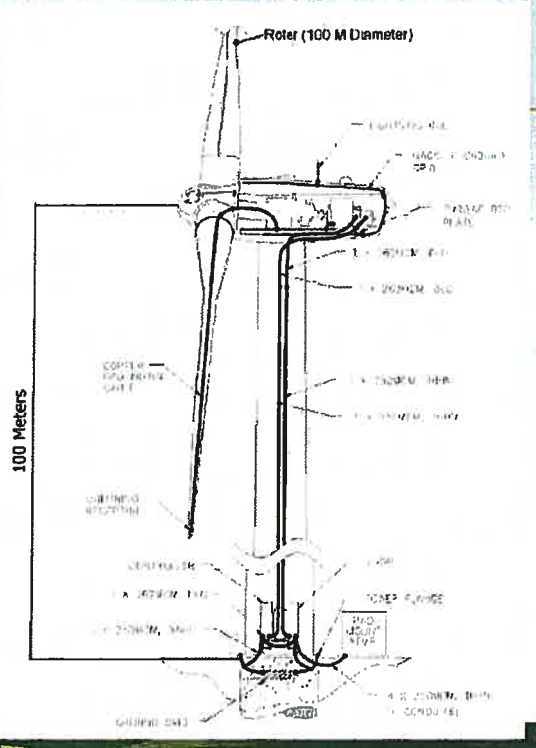
- Began developing project in 2008
- 3 years of wind measurements data
- Studied transmission requirements to connect to the electrical grid with the Midwest Interconnect
- Completed wildlife assessments and studies & developed Avian & Bat Protection Plan with USFWS & IDNR
- A long-term power purchase agreement is in place with a sound & stable public utility

California Ridge Specifics – Size & Layout

- 48 MW in Champaign County
  - 214 MW total project capacity
- 30 General Electric 1.6-100 wind turbine generators in Champaign County
  - 100 m hub height and 100 m rotor diameter
  - 134 turbines for total project
  - More than 15,000 GE turbines in worldwide operation
- Approximately 10,200 acres in Champaign County
  - Approximately 26,000 total acres under easement



GE 1.6 MW 100m Rotor



Invenergy

Community Benefits

- Property tax payments
- Construction & Operating Jobs
- Road funding & upgrades
- Payments to landowners
- Local economic benefit from project

Community Benefits

- Property tax payments
  - Wind turbines are classified as Personal Property
  - First year property taxes estimated to be $550,000
  - Taxes paid in accordance with county and township millage rates
  - Significant addition to the county's tax rolls with no infrastructure costs to the county

Community Benefits

- Jobs
  - Direct & indirect jobs created
  - Approximately 200 craft jobs during construction phase
  - Indirect jobs associated with local suppliers:
    - Construction materials – concrete, stone, rebar, etc.
    - Secondary services – hardware, gasoline, restaurants, hotels, etc.
  - 12 to 15 permanent operations jobs created for project
    - Direct technicians & operations jobs working for California Ridge
    - Long-term indirect jobs associated with the maintenance and operation of the facility

Community Benefits

- Road Funding & Upgrades
  - Road agreements that include hundreds of thousands of dollars of funding for roadwork in:
    - Champaign County
    - Compromise Township
    - Ogden Township
  - County & Township road upgrades made by California Wind contractor to support construction & delivery efforts
  - At the end of installation work roads used for construction will be left in an improved condition over their current condition

Community Benefits

- Landowner Payments
  - 92 landowners with easements in Champaign County
  - Over $400,000 in annual payments (indexed to inflation) to Champaign County landowners
  - Steady income stream to compensate for agricultural market fluctuations
  - Minimal impact to land and ongoing farming operations

Community Benefits

- Local Economic Benefits from Project
  - Immediate local stimulus through 2011 & 2012 construction activities
  - Long-term steady cash flow through taxes & landowner payments
  - Long-term stimulus associated with operation & maintenance of facility
  - Stability of long-term power purchase agreement

Project Zoning Compliance

- In compliance with the Wind Zoning Ordinance
- The findings of the Zoning Board of Appeals addressed project-specific waiver requests
- Special Conditions were established by the Zoning Board of Appeals to address concerns raised over the 15 hours of public testimony
- Two areas of concern were raised in the ZBA's Recommendation

Project Zoning Compliance

- Reclamation Agreement
  - Modifications have been made to the agreement to satisfy ownership matters
  - Regular decommissioning estimate updates will assure sufficient funds are available
- Noise Compliance
  - Engineering analysis shows project to be in compliance with IPCB requirements
  - Site specific engineering analysis consistent with industry standards in Illinois and throughout the country

Zoning Board of Appeals Recommendations

- Reclamation Agreement
  - The current draft of the reclamation agreement reflects the specifics of the ordinance requirements
  - Two additional terms that go over and above the requirements of the ordinance were added:
    - An updated Decommissioning Estimate will be prepared by a licensed engineer every 3 years for the first 13 years of the project and every 2 years afterward & the financial assurance modified accordingly
    - A minimum financial assurance will be maintained, regardless of potential fluctuations in the revised cost estimates

Zoning Board of Appeals Recommendations

- Reclamation Agreement (cont.)
  - The structure of the financial assurance for the county exactly matches the ordinance
  - The decommissioning estimate includes the material scrap value of the tons of steel & copper in each turbine
  - The commodity prices for the steel & copper are based on five-year averages & are updated with the report every 3 or 2 years

Tower Section

68 tons of ¾ inch thick structural steel

Tower Section

Zoning Board of Appeals Recommendations

- Reclamation Agreement (cont.)
  - The ZBA's basis for denial was "… the possibility that the lien holder's collateral position could result in the County having to pay out of pocket to complete the decommissioning"
  - If the county determines abandonment & must remove the turbines the financial security funds & the right to seize the steel & copper for scrap value is in the agreement
  - The following terms have been added to the current draft of the agreement to provide assurance

Zoning Board of Appeals Recommendations

- Reclamation Agreement (cont.)
  - The obligation to perform the **Reclamation Work** hereunder shall constitute a covenant running with the land. Any and all financing and/or security agreements entered into by **Principal** shall be subject to said covenant
  - Any and all financing and/or security agreements entered into by **Principal** shall expressly provide that they are subject to the foregoing covenant. Evidence of the same must be submitted to the Zoning Administrator prior to any Zoning Use Permit approval

Zoning Board of Appeals Recommendations

- Illinois Pollution Control Board (IPCB) Standards regarding Noise Levels
  - Ordinance requires "Noise levels from each WIND FARM TOWER or WIND FARM shall be in compliance with the applicable IPCB regulations"
  - IPCB regulates emission of sound from any source located on any Class A, B, or C land to any receiving Class A land.
  - Class A land is defined as including residential property and can exist with Class C land within a larger legal parcel

Zoning Board of Appeals Recommendations

- Illinois Pollution Control Board (IPCB) Standards regarding Noise Levels (cont.)
  - The noise level must be in compliance "at any point within" the receiving Class A land, not at the property line
  - The engineering analysis and expert testimony provided by HDR confirms compliance with IPCB noise standards
  - The state-of-the-art environmental acoustic analysis utilized by HDR accounts for variations across Class A land within rural properties and confirms compliance with the IPCB regulations

Zoning Board of Appeals Recommendations

- Illinois Pollution Control Board (IPCB) Standards regarding Noise Levels (cont.)
  - This methodology is the standard for noise analysis throughout Illinois
  - California Ridge must be in compliance with the IPCB noise standards throughout its operation life
  - California Ridge must cooperate fully in resolving any noise complaints including reimbursing for the services of a qualified noise consultant pursuant to any proven violation

Zoning Board of Appeals Recommendations

- Illinois Pollution Control Board (IPCB) Standards regarding Noise Levels (cont.)
  - Noise complaints will be resolved in accordance with IPCB rules and regulations
  - A new noise analysis will be submitted with the Zoning Use Permit for any turbine moves

Conclusion

Thank you for your time & efforts

Invenergy