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UNITED STATES OF AMERICA

FEDERAL ENERGY REGULATORY COMMISSION

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- Free Flow Power Corporation : Project No. 12829-001
- FFP Project 28, LLC : Project No. 12861-001
- FFP Project 32, LLC : Project No. 12921-001
- FFP Project 41, LLC : Project No. 12930-001
- FFP Project 42, LLC : Project No. 12938-001
- FFP Project 54, LLC : Project No. 12915-001
- FFP Project 57, LLC : Project No. 12912-001

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PUBLIC SCOPING MEETING

Embassy Suites New Orleans
 315 Julia Street
 New Orleans, Louisiana 70130
 Tuesday, April 28, 2009

The public hearing, pursuant to notice, convened at 7:08
 p.m. before a Staff Panel:

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STAFF PANEL

STEPHEN BOWLER, Office of Energy Projects

ALLYSON CONNER, Federal Energy Regulatory
Commission

MICHAEL PINCUS, OGC, FERC

FRED WINCHELL, Louis Berger

TYLER RYCHENER, Louis Berger

MARTY BOWERS, Louis Berger

Also

RAMYA SWAMINATHAN, Free Flow Power

JON GUIDROZ, Free Flow Power

CHRIS WILLIAMS, Free Flow Power

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PUBLIC SPEAKERS

SEAN CUMMINGS, CEO, New Orleans Building Corporation 15

DAVID BUTLER 14

P R O C E E D I N G S

1
2 MR. BOWLER: I'm Stephen Bowler of the Federal
3 Energy Regulatory Commission and I'm opening the evening
4 meeting on the Free Flow Power Mississippi River Lead
5 Hydrokinetic Projects on April 28, 2009 in New Orleans,
6 Louisiana. And because we are lightly attended with outside
7 guests tonight, we will use a fairly informal format, do an
8 abbreviated version of a presentation, and let our guests
9 ask questions; and then we will keep the record open at
10 least until 8 o'clock to give people the opportunity to
11 speak. We'll also pass around a sign-in sheet so we know
12 who was here for the event.

13 So I'm going to come around and sit down closer
14 to the audience and use the other microphone; and we'll just
15 go through some of the process through which we evaluate
16 these types of applications.

17 The FERC, the Federal Energy Regulatory
18 Commission, is an independent agency. We're in the
19 Department of Energy, but our commissioners are appointed by
20 the president and approved by the Senate, and are
21 independent; they serve staggered terms. And there are five
22 of them, three of them can be from the same party. Right
23 now we're down to four because we have an opening due to the
24 transition.

25 Basically the Commission is a regulatory agency

1 that evaluates, approves and conditions energy projects in
2 the United States. We regulate the wholesale electric grid,
3 grid interconnections, oil and gas pipelines, liquid natural
4 gas terminals -- there are a few in this area -- and also,
5 the thing that we're here to talk about tonight is
6 hydropower, and in this case hydrokinetic energy, which we
7 define as energy developed using the power of water without
8 the use of a dam, or the head of the dam. So that includes
9 wave energy, tidal energy, river currents and ocean
10 currents. Which in the U.S. case is just the Gulf Stream.

11 So we're the lead federal agency evaluating this
12 proposal to do in-river hydrokinetic energy, which basically
13 in this case means putting up to 180,000 turbines at up to
14 55 locations in the Mississippi River to generate
15 electricity. This project is being evaluated. Of the 55
16 sites that have preliminary permits. We've carved out 7
17 sites that for various reasons are representative to be the
18 lead project sites. And those are being processed through
19 one of our licensing processes; that's sort of the front-
20 loaded process, the most front-loaded of our processes where
21 we get stakeholders involved very early, before the
22 application is filed, a couple years before following the
23 filing of the pre-application document, which is like a
24 collection of the available information and a description of
25 the project proposal.

1 And then we do this process that we're in now,
2 which is scoping, which is gathering sort of the list of
3 issues from everybody, and then we go into a very formal
4 negotiation process about what studies should be done to
5 develop the application; the developer does those studies,
6 prepares the application, and then we go into developing an
7 environmental impact statement. We'll have meetings both in
8 the study planning phase, public meetings, and when we
9 release the draft environmental impact statement.

10 Based on the comments on that document, we'll
11 prepare a final environmental impact statement, which is the
12 Federal Energy Regulatory Commission's Staff's
13 recommendations to the commissioners on what we recommend
14 their decision should be. They independently take that
15 information and make a decision, which if they decide to
16 authorize the project, it's in the form of a license order,
17 which is our decisional document; and if we authorize it, it
18 has all the conditions that go with it.

19 So the main purpose of these public meetings is
20 to get as many members of the public out as we can to get
21 the issues out as early as we can so that the proper studies
22 can be developed to analyze the various environmental,
23 developmental and competing use issues as early as possible
24 so that when -- the application comes in in a form that's
25 nearly ready for the environmental analysis.

1 We put a document out which is on the seats, on
2 March 16th which is what we call Scoping Document 1. And
3 that's basically, we review the PAD, the pre-application
4 document that was filed, and we propose a list of issues,
5 and the scope of those issues, and this is an opportunity
6 for people to react to that.

7 In this case, there's a particularly central role
8 for the U.S. Army Corps of Engineers, because they have a
9 statute that is 20 or 30 years older than ours; the Rivers
10 and Harbors Act, which gives them responsibility for
11 navigation in the waters of the U.S.; and when the statute
12 we work under, the Federal Power Act was passed in 1920,
13 Congress incorporated their authority in the Federal Power
14 Act by making them a mandatory conditioning agency, so
15 basically they can exercise their authority over navigation
16 by writing conditions into our license. And this is a
17 statement that I read at the earlier meeting from the Corps
18 of Engineers about working with us.

19 This is just a rough schedule of what I described
20 earlier. We're scoping now; we move into that study
21 planning on the current schedule later this spring into the
22 fall, through the fall; and then the current schedule, the
23 developer expects to submit the application in December
24 2010; and then REA stands for a Ready for Environmental
25 Analysis notice, which is what we release after we decide

1 the application is complete and we're ready for all the
2 stakeholders, federal and state agencies, and other tribes
3 and other interested parties to give us terms, conditions,
4 recommendations on whether and how the project should be
5 developed for us to use in preparing our environmental
6 impact statement which, under the current schedule, would be
7 expected in the fall of 2011.

8 So at this point we're asking people to tell us
9 if there are other issues that should be addressed when we
10 do the environmental impact statement; we're asking for
11 people to recommend studies, and people who want to do so,
12 we ask that they address seven criteria that are in our
13 regulations; and there's materials about those criteria in
14 the bound handout.

15 We also ask -- it's particularly important; well,
16 all these items are important, but one that's particularly
17 valuable to us in our analysis is if people have information
18 about the river or the transmission line corridors, proposed
19 corridors, or any other information that they believe we
20 might not have in the record or even if they're not sure, if
21 they can submit that information to us we can use it, and it
22 will be in the public record and we can use it in our
23 analysis.

24 Comments and new information can be submitted by
25 handing things to us today, to the court reporter, or by

1 mailing them in or by electronic filing, or by reading them
2 into the microphone.

3 So at this point I'm going to let Ramya
4 Swaminathan, who is a representative of Free Flow Power,
5 describe the project. And in this setting, we can answer
6 some questions about the project as well, if you're willing.

7 MS. SWAMINATHAN: I'm Ramya Swaminathan, I'm at
8 Free Flow Power, and I wanted to tell you a little bit about
9 the projects that we are scoping at this point, and tell you
10 a little bit also about the wider context in which these
11 seven projects which are being scoped are also intended to
12 be representative of the broader slate of 55 projects that
13 we have proposed on the Mississippi River.

14 By way of introduction, we have 55 proposed
15 project sites. They extend from St. Louis to a little bit
16 below New Orleans. Each of the project sites is between 2
17 and 16 river miles and we just wanted to mention that there
18 are seven State jurisdictions that our projects are in.

19 I think Stephen probably hit most of the
20 highlights, so I'm not going to spend a lot of time on the
21 process, but to give you a sense of some dates.

22 The preliminary permits were issued by the FERC
23 in early 2008, and Free Flow Power filed our pre-application
24 document, Notice of Intent as Stephen mentioned on January
25 15 of this year. The scoping meetings and site visits

1 currently being held are being held in the context of the
2 seven lead sites, and as I mentioned, those seven sites are
3 broadly representative of the other 48, or the entire slate
4 of 55, I should say.

5 One point we wanted to mention was that in this
6 region, hydrokinetics we believe offers a compelling
7 alternative for renewable energy sources. In Louisiana in
8 particular and in this area in general, wind and solar are
9 less viable, simply for natural endowment reasons; and this
10 region in fact has one of the top sources of energy in terms
11 of flows and volumes in the Mississippi River.

12 To harness that energy, Free Flow Power has
13 designed a turbine generator which has a number of key
14 design features which I'll get into in the next slide; but
15 just to give you a sense graphically of what it looks like,
16 this slide is divided into two parts. The right side
17 depicts the one meter prototype that we fabricated and ran
18 in tank tests in Massachusetts earlier this year. The left
19 side of the slide is a rendering of what the second
20 generation turbine, which has an outside diameter of three
21 meters, is going to look like.

22 The key design features I mentioned earlier, the
23 particular one I wanted to mention was the first, which is
24 the low tip speed ratio, which essentially should mitigate
25 significantly fish injury from passage through the turbine

1 and/or mechanical strike.

2 Because this turbine is intended to operate in an
3 ambient flow environment rather than a high head
4 environment, there's really going to be very little --
5 there's no velocity changes essentially; no high velocity
6 regions that would cause turbulence, sheer stress, and de
7 minimus pressure gradient across the device.

8 The fixed and the moving part of the turbine are
9 designed to be a meter apart, which should mitigate
10 significantly grinding injury, which typically derives when
11 wildlife passes through it and gets caught between the fixed
12 and the moving parts of the device.

13 Given the Mississippi's nature as a major
14 commercial artery, we intend to deploy these below the
15 surface of the river and below the navigation channel so
16 that it does not interfere with commercial navigation on
17 this, which is a vital concern of the Army Corps and also of
18 the Coast Guard. There's minimal onshore equipment, which
19 typically would consist of cabling from groups of turbine
20 fields, to shore substations that essentially will convert
21 the electricity for either connection to an end user or to
22 the grid.

23 The device has no chemical lubricants and uses
24 only hydrodynamic bearings.

25 Free Flow Power is committed to being flexible in

1 terms of deployment. We understand that each site is
2 specific, and areas of the river are different in terms of
3 their particular characteristics. This area of the river is
4 the deep draft area of the river, has significant depth to
5 it. North of Baton Rouge, the navigation channel is
6 maintained only to a depth of nine feet, and the river
7 itself is far shallower. Therefore in this area of the
8 river we expect that we will be deploying the turbines
9 stacked more vertically, attached to pilings that are driven
10 into the river bed. In all likelihood in shallower areas
11 of the river, we will have to rely on more lateral arrays;
12 and that's what some of these graphics are trying to get at,
13 just to give you a visual sense of what they would look
14 like.

15 The O&M, the operations and maintenance, the
16 installation of these is intended to be modular, swift, and
17 economic, and will rely heavily on standard operational
18 protocols that already exist for the deployment of marine
19 infrastructure in this environment; and there are a
20 tremendous number of companies that actually do that and
21 have a good deal of expertise.

22 The next slide is intended to give you a sense of
23 scale with respect to the deployed turbines, and to tell you
24 what you're looking at, you're looking at Site 8, which is
25 one of our lead sites. It's here in New Orleans, it's where

1 the site visit was held yesterday. Within that site -- and
2 this is strictly hypothetical; it's really intended only to
3 give you a sense of scale -- the bright green dots in the
4 middle of the picture show two rows of arrays; and in each
5 case, the arrays are 75 feet apart on a horizontal basis.
6 When I say that I mean this way (indicating); the width of
7 the river, that's 75 feet apart. And on the length of the
8 river, that's 50 apart; and each piling that's depicted has
9 six turbines on it, stacked vertically; and I believe there
10 are 32 pilings.

11 I'm not going to spend a long time on this slide,
12 I apologize; it's densely written. This presentation is
13 available on our website and all this information has been
14 condensed from the pre-application document, which is also
15 available on our website. But it gives you a sense of the
16 seven lead sites, their characteristics in terms of
17 surrounding land use and some habitat notes; and these
18 characteristics together really will give you a sense of why
19 these seven sites are more broadly representative of the
20 entire slate of 55 projects.

21 And finally, selected resource areas, we wanted
22 just to highlight some of the resource concerns and issues
23 that we have uncovered so far in the process of engaging
24 with stakeholders and in the diligence process we've gone
25 through in researching the various issues surrounding these

1 sites.

2 Some of the major ones are navigation, water
3 quality, aquatic and terrestrial species and cultural
4 historic sites. So we just wanted to acknowledge those.

5 And as Stephen mentioned, if you have any
6 questions, I or my colleagues would be happy to help.

7 MR. BUTLER: What was the typical depth of water
8 around New Orleans?

9 MS. SWAMINATHAN: The depth varies.

10 MR. BUTLER: I was asking about the typical depth
11 of water between here and Baton Rouge.

12 MS. SWAMINATHAN: As I mentioned, the navigation
13 channel in this area is maintained to a depth of 45 feet;
14 and you'll find significant gradient and depth, a different
15 variation in depth depending on where in the river you are.
16 The outside of the bend tends to be both where the river
17 flows the fastest and also where the depth is the greatest.
18 And therefore, in the place we were yesterday in Greenville
19 Bend, for example, I can tell you that the far side of the
20 river, the outside of that bend, the depths reached at
21 points 120 feet below the water reference plane. And that's
22 a critical feature to the Army Corps, because we need to be
23 below the lowest point that the water is, adjusted for
24 seasonal and historical lows.

25 MR. BOWLER: Any other questions about the

1 proposal?

2 I have a couple more slides, and then we'll have
3 a speaker.

4 So as our preliminary list of scoping issues,
5 we've -- especially on cumulative effects, we've included
6 water quality, fishery resources, wetland and terrestrial
7 resources related to the transmission line siting,
8 commercial navigation, and recreation. And we define a
9 geographic scope under the National Environmental Policy
10 Act, and in this case we're proposing the middle and lower
11 Mississippi River for the water quality fisheries and
12 terrestrial resources; and then basically the extent of
13 navigation for the commercial navigation.

14 And we also identify a temporal scope which we
15 are defining as the past, present and foreseeable future
16 actions out to 30 to 50 years, which is the licensing
17 horizon under the Federal Power Act for an original license.

18 I don't think we need this except to say, state
19 your name for the record when you speak, and also explain
20 any acronyms. And with that, I will give you a chance to
21 offer your comments, and I can bring the microphone to you
22 or you can come up to the podium if you have notes, or
23 whatever you're most comfortable with.

24 MR. CUMMINGS: My name is Sean Cummings, I'm a
25 business person-entrepreneur in New Orleans, and also have

1 an appointed government position with the City of New
2 Orleans as the Chief Executive Officer of the New Orleans
3 Building Corporation.

4 This is an entity that's purpose is to put to
5 beneficial use the sort of latent real estate holdings of
6 the City of New Orleans that may have been acquired over
7 decades, years; in an old city like this, maybe a century;
8 and should be leased, should be sold, should be otherwise
9 developed for the public good more thoughtfully than they
10 have been in the past.

11 I also made a mistake, somewhat humorously, in
12 that I skipped the 2 o'clock meeting today, thinking that
13 the 7 o'clock meeting would have a good bar, but --

14 (Laughter)

15 -- I don't know; so I'll try to still be lucid
16 without liquid aid.

17 Very briefly, you all, I don't know from what
18 perspective each person comes here, but straight and to the
19 point from my view: New Orleans is significantly in the
20 process of reinventing itself. For two hundred plus years
21 this was quite a prosperous city, it was in part the envy of
22 the nation; people, new people, new ideas were drawn, the
23 economy was a magnet, it was a bustling port town, it was
24 robust, it was prosperous. For the last seventy years or
25 so, it hasn't been.

1 The silver lining of the horrible catastrophe of
2 Katrina and Rita is that New Orleans not only has the
3 opportunity to but frankly needs to reinvent itself. It
4 needs to do so without losing its signature sense of place;
5 all the reasons that generation after generation has come
6 here and sort of made New Orleans one of the unique, wildly
7 admired and beloved cities of this nation and this world.
8 But we need to do something else in the sort of serious
9 business department; and that is in keeping with the basic
10 teachings of Michael Porter, the great economist at the LSU
11 of the Northeast, the Harvard; where he says, cities like
12 great companies, like a great university will focus on
13 areas, will focus limited resources on areas where they have
14 a competitive advantage.

15 And so if you adopt that, which strikes me sort
16 of third grade, second semester, simple logic, that we do
17 not have a great geographic endowment that bestows upon us a
18 unique advantage when it comes to solar power. We do not
19 have that same sort of geographic advantage when you talk
20 about the wind corridor in this nation. But the State, this
21 region, generates a ton of energy for the world, and there
22 could not be a more timely issue than the puzzle that's
23 before us; how do we generate clean, renewable energy at
24 utility scale if you're in Louisiana or if you're in this
25 region of Mississippi, for example.

1 So I think that Free Flow Power has put forth an
2 exceptionally well thought out, meticulously detailed path
3 to commercialization with least impact on the environment.
4 There is no visual impact. There is really no fisheries or
5 species impact. And so I just wanted to come here today to
6 say on a personal level how impressed I am with the
7 management team, how impressed I am with how thoroughly they
8 have thought through this, and how timely and how perfect a
9 fit it seems for this region and particularly this city as
10 we look to focus our resources where we have a competitive
11 advantage like this extraordinary river, like the flow of
12 this water that's free, and what we might do with that to
13 send a strong message to the nation, to the globe, and do
14 our part for posterity that, while it was on our watch we
15 had the heads up and we acted to see that we were able to
16 generate clean, renewable energy in this area of the country
17 on par with what anyone else is able to do in wind and solar
18 elsewhere.

19 MR. BOWLER: Thank you very much.

20 I didn't introduce us, but I'll just generally
21 tell you who we are so you do know who you're speaking to
22 today. Three of us are staff of the Federal Energy
23 Regulatory Commission, which as I said earlier is the lead
24 federal agency reviewing the proposal. And then we have
25 three of our contractor staff who will be helping us in that

1 endeavor; and then there's three of the Free Flow Power team
2 who are proposing the project; and our court reporter and
3 two guests. So that's just so you have some context here,
4 you're speaking to today.

5 MR. CUMMINGS: There's one thing that I left that
6 may be sort of relevant.

7 The central project for the New Orleans Building
8 Corporation and the largest capital project in the state is
9 called Reinventing the Crescent, which we have spearheaded.
10 It's the five mile redevelopment of the Mississippi
11 Riverfront between Jackson Avenue in the uptown direction of
12 where we are today, and Poland Avenue at the Navy and Marine
13 installation where the Upper Ninth Ward meets the Lower
14 Ninth Ward at the Industrial Canal. And we will begin in
15 August with the first \$30 million traunch of cash that is
16 being invested. It purports, according to LSU-based
17 economist but also private consultant Dr. James Richardson,
18 to create over 24,000 new permanent jobs in New Orleans,
19 from 8,000 to 10,000 new residences on safe, high ground
20 right at the river to be catalytic in the sense that it
21 sparks around \$3.7 billion in private investment in this
22 core part of the city.

23 And that's in part the other reason that the
24 paths have crossed with Free Flow and why I am quite
25 comfortable, really advocating in a public forum how

1 important this is. Because the Mississippi River is where
2 the City of New Orleans began; it is frankly where we have
3 returned. And to be able to harness the power of it, not
4 only for quality of life matters but for energy, would be a
5 terrific milestone and help shape the identity for New
6 Orleans in this region going forward. Thanks.

7 MR. BOWLER: Any other questions?

8 If not, I'll keep the record open for 15 more
9 minutes, so that we've at least been here an hour to give
10 people the opportunity. But unless somebody shows up, I'll
11 turn the microphones off and we can relax until that time.

12 (Off the record.)

13 MR. BOWLER: By my watch, we have 8 o'clock, and
14 having given everybody who showed up the opportunity to
15 speak, I'll close the meeting at this point. Thank you.

16 (Whereupon, at 8 p.m., the scoping meeting
17 concluded.)

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