

## **AGENDA ITEM 2-a**

MINUTES OF PRELIMINARY PUBLIC HEARING AND A REORGANIZATIONAL (REGULAR) MEETING OF THE UTILITIES COMMISSION, CITY OF NEW SMYRNA BEACH, FLORIDA, HELD WEDNESDAY, SEPTEMBER 18, 2006, AT 6:00 P.M., AT 200 CANAL STREET, NEW SMYRNA BEACH, FLORIDA

### **ADMINISTER OATH OF OFFICE TO WALTER ALLEN III – MAYOR VANDERGRIFT:**

Mayor Vandergriff stated we'll open the meeting with the swearing in of our newest member, Mr. Allen. He stated to Mr. Allen, the Mayor and the City Commission have appointed you for a term of three years on the Utilities Commission. He jokingly asked if Mr. Allen had any change of heart or anything, and still wanted to move forward with doing this job.

Mr. Allen answered no change of heart.

Mayor Vandergriff stated so you're willing and able. Mayor Vandergriff then administered the oath of office to Mr. Allen. He then congratulated Mr. Allen and those in attendance applauded.

Chairman Para thanked Mayor Vandergriff.

### **Preliminary Public Hearing RE: Revision of the Electric Pole Line Extension or Addition Policy:**

Chairman Para then thanked all for attending the September edition of the Utilities Commission and stated we'll start first with the preliminary public hearing. He then asked for roll call to be taken and all of the Commissioners were present as follows:

Commissioner Walter Allen III  
Commissioner Jeanne K. Diesen  
Commissioner William E. Hall  
Chairman Kevin J. Para  
Commissioner Richard L. Spangler

Others in attendance were as follows: R. Rodi, General Manager/ CEO; R. Montalvo, Director of Finance; R. Mitchum, Director of Electric Operations; T. Beyrle, Director of System Ops. & Generation; M. Rodriguez, Electrical Engineer; D. Hoover, Director of Water/ Wastewater; B. Mudge, Director of Human Resources; R. Skog, Interim Director of I.T.; E. Mahle, Public Relations Manager; L. Klinkenburg, Chief Accountant; R. Wetherington, Materials Manager; D. Simmons, Executive Asst./Recording Secretary; and additional U.C. personnel; Bill Preston, Interim U.C. Legal Counsel; Melanie Stawicki-Azam, Reporter for D.B. NEWS JOURNAL; Jerry Shaw, Reporter for THE OBSERVER; Mayor Vandergriff and City Commissioner Hathaway; Alex Kish and Brad Douglas, representatives of the firm Brent Millikan & Co., P.A.; Tom Missimer, from Missimer Groundwater Science, Inc.; Sally Mackay, Bill Rogers, Ken Taylor, Bob Tolley, Ron Vaden, Marie Young, Bill Ross, Lee Bidgood, Robert Bullard, Kevin Schweizer, Russ Putnam; and a few other unidentified men and women, all members of the public.

Preliminary Public Hearing RE: Revision of the Electric Pole Line Extension or Addition Policy (cont.):

Chairman Para requested Mr. Preston to read the notice of public hearing and proposed resolution.

Mr. Preston stated for the record this preliminary public hearing was authorized by the Utilities Commission during their August 21, 2006, Regular U.C. Meeting and notices appeared in THE OBSERVER at least ten days prior to this date. Notices were also placed on the bulletin board at the Utilities Commission office at 200 Canal Street and City Hall at 210 Sams Avenue. Proof of publication of advertisement of this hearing will become a part of the minutes. Mr. Preston then proceeded to read the proposed resolution by title only.

Chairman Para asked if there was any comments, either opposed or for the Revision of the Electric Pole Line Extension or Addition Policy. There being no comments, Chairman Para closed this preliminary public hearing at 6:04 p.m.

REGULAR UC MEETING:

Chairman Para opened the Regular U.C. Meeting with the Pledge of Allegiance led by Commissioner Allen, and requested for another roll call to be taken. The same attendees as shown above in the preliminary public hearing were present.

I. Special Item – Reorganizational Matters

(I-a) Election of Officers:

Chairman:

Commissioner Diesen stated to Chairman Para, I would like to suggest that we re-elect you Chairman for another year.

Commissioner Spangler stated do we have to second that, can we second that, or do we vote?

Mr. Preston stated it's not by motion, it's by nomination, you nominate and then vote.

Chairman Para asked if there were any other nominations.

Commissioner Diesen then stated I move the nominations close.

Chairman Para then requested a roll call vote be taken on Commissioner Diesen's nomination for Chairman. Chairman Para was elected by unanimous vote to the position of Chairman for the ensuing year.

Vice Chairman:

Chairman Para opened the floor for nominations for Vice Chairman.

(I-a) Election of Officers - Vice Chairman (cont.):

Commissioner Diesen stated to Chairman Para, I would like to nominate Commissioner Spangler for Vice Chairman.

After confirming there were no further nominations, Chairman Para requested for a roll call vote to be taken on Commissioner Diesen's nomination for Vice Chairman. Commissioner Spangler was elected by unanimous vote to the position of Vice Chairman for the ensuing year.

Secretary-Treasurer:

Chairman Para then opened the floor for nominations for Secretary-Treasurer.

Commissioner Spangler stated I would like to nominate Commissioner Diesen for Secretary-Treasurer.

Commissioner Diesen stated she would rather not do this position and then stated let's nominate our new Commissioner (Commissioner Allen).

Chairman Para commented let's baptize him with the fire.

Commissioner Spangler commented excellent.

After confirming there were no further nominations, Chairman Para requested for a roll call vote to be taken on Commissioner Diesen's nomination for Secretary-Treasurer. Commissioner Allen was elected by unanimous vote to the position of Secretary-Treasurer for the ensuing year.

Assistant Secretary-Treasurer:

Commissioner Diesen stated I nominate Commissioner Hall.

Commissioner Hall stated I decline.

Commissioner Diesen stated she did not want to do it.

Chairman Para then asked if there were any further nominations. He stated could I just appoint somebody and then asked Mr. Preston what should the Commission do on this.

Mr. Preston stated you can just not fill the position, but you can't appoint.

Chairman Para commented I was joking on that, regarding appointment.

Commissioner Diesen stated so we don't have to fill the position.

Mr. Preston confirmed that statement, you don't have to fill that position.

Chairman Para stated okay, we'll leave it vacant then.

(1) Agenda Changes, Additions and Deletions:

Mr. Rodi stated right before the meeting I was requested by City Commissioner Hathaway to see if we could defer item 7-b., which was the addendum addition of 6% payment to the city on developer infrastructure fees. He asked that be placed before you for your consideration.

Chairman Para stated all right, does anyone have any questions, or concerns, or suggestions on that.

Commissioner Diesen asked Mr. Preston if a motion was needed.

Mr. Preston stated to change the agenda item?

Chairman Para and Commissioner Diesen both commented to table it.

Mr. Preston stated I would make a motion and a second. He then asked are you tabling it or how are you handling the item?

Chairman Para stated well Mr. Rodi's the one that suggested, does Commissioner Spangler or anyone have any comments.

Commissioner Spangler stated I think the request was to get more information to make a better presentation.

Chairman Para stated all right.

Commissioner Spangler stated and I think we should go with that.

Commissioner Diesen stated I'll second it and she confirmed that was Commissioner Spangler's motion.

Chairman Para then requested for a roll call vote to be taken on Commissioner Spangler's motion and the motion passed unanimously on a roll call vote.

Chairman Para then asked if there were any other changes, additions or deletions to the consent agenda or the agenda. He stated I have actually two changes. I would like to move the presentation that I'll be making under Other Business to Public Participation. And under the Committee Report, I'll be presenting the Vegee Fuel Concept. He confirmed there were no objections to those actions.

(2) Approval of Consent Items:

Chairman Para then asked for a motion to approve the consent agenda items.

Commissioner Diesen made a motion to approve the consent items, item 2-a. Minutes of Regular U.C. Meeting Held 8-21-06, approve as submitted; item 2-b. Bid No. 17-04 – Annual

(2) Approval of Consent Items (cont.):

Tree Trimming Service – Contract Extension – 2<sup>nd</sup> Renewal, approve and award purchase order no. 3675 in the amount of \$195,000.00 to Trees, Inc. for the 2<sup>nd</sup> year extension for an annual contract; item 2-c. Bid No. 31-06 – Cable for Central Stores and Electric, approve and award purchase order nos. 3672 in the amount of \$80,691.00 to Gresco/Capstone Utility Supply and no. 3674 in the amount of \$108,887.00 to Electric Supply Company, the responsive and responsible bidders; item 2-d. VCOG Bid No. 1306-2070 – Water and Wastewater Chemicals, approve and award purchase order nos. 3635 in the amount of \$235,396.30 to O-N Minerals Company, no. 3634 in the amount of \$100,083.00 to Jones Chemicals, Inc., no. 3633 in the amount of \$19,947.50 to AirGas Specialty; no. 3637 in the amount of \$15,000.00 to Brenntag Mid-South, no. 3636 in the amount of \$5,736.00\* (note amount of \$13,593.00 incorrectly listed in recommended action of the agenda item) to KC Industries, LLC, and no. 3638 in the amount of \$61,000.00 to General Chemical, for a total of \$437,162.80; item 2-e. Sole Source Purchase – Pump, Transport, & Unload Bio-Solids Residuals, approve and award purchase order no. 3668 in the amount of \$175,000.00 to Shelley’s Environmental Systems, a sole source vendor per sections 2-1(2) of the Purchasing Policies and Procedures Manual; item 2-f. Annual Audit Services – FY’s 2006, 2007, & 2008, approve and award a three-year annual audit services contract to Brent Millikan & Company for the following amounts: FY2006 in the amount of \$48,200.00, FY2007 in the amount of \$50,800.00, and FY2008 in the amount of \$53,000.00; item 2-g. A1A Gravity Sewer Bypass – Quentin L. Hampton Associates, Inc., approve and authorize Quentin L. Hampton Associates, Inc. to proceed with engineering services outlined in the agenda item for the A1A gravity sewer bypass and as outlined in the documentation attached to the agenda item for an amount not-to-exceed \$59,620.00 and authorize the General Manager/CEO to execute any and all documents associated with same; item 2-h. Independent Contractor Agreement – Senior Network Consultant – B. Sanderson, Syntris Technology Consultants, Inc., to approve this agreement by and between Bonnie Sanderson dba Syntris Technology Consultants and the U.C. and authorize the General Manager/CEO to execute on behalf of the Utilities Commission; item 2-i. Utilities Commission Meeting Schedule for 2007, approve as submitted; item 2-j. 5G Wireless – Final Release Letter; approve the Termination of Agreement(s) between U.C. and 5-G Wireless Communications, Inc. as drafted by the U.C. Attorney and authorize the U.C. Attorney to execute on behalf of the Utilities Commission; item 2-k. KUA Agreement to Terminate Independent Sales Representative Agreement, approve the agreement as submitted and authorize the General Manager/CEO to execute on behalf of the Utilities Commission; item 2-l. 3<sup>rd</sup> Avenue Ground Storage Tank and Pump Station, approve and authorize Quentin L. Hampton Associates, Inc. to proceed with engineering services outlined in the agenda item for the 3<sup>rd</sup> Avenue Ground Storage Tank and Pump Station as outlined in the documentation attached to the agenda item for an amount not-to-exceed \$121,470.00, and authorize the General Manager/CEO to execute any and all documents associated with same; item 2-m. Sole Source Purchase for Demineralized Water for NOx Injection and Other Uses – Field Street Generation approve and award purchase order no. 3679 in the amount not-to-exceed \$32,400.00 to Siemens Water Technologies Corporation for the demineralization of water for Field Street Generation; item 2-n. Change to Personnel Practices Manual – Clarification of Educational Assistance, Section 4.2, approve the added wording for clarification, as shown in documentation attached to the agenda item, to the Educational Assistance, Section 4.2. and item 2-o. Supplemental Professional Services – Invoice No. 14547 – Brent Millikan & Company,

(2) Approval of Consent Items (cont.):

P.A., approve payment of this invoice in the amount of \$20,401.25. Commissioner Spangler seconded this motion and it passed unanimously on a roll call vote.

(3) Public Participation:

Mrs. Marie Young, a resident at 14 Chip Lane, addressed the Commission. She stated I see you have a large agenda so what I'd really like to do is just cancel out and make an appointment. I have a little bit of a problem with the water bill, so I'd like to make an appointment with someone so we can get together, is that possible.

Chairman Para stated I think our staff is very accommodating so that would probably be a good way to handle that.

Mr. Rodi interjected Mr. Montalvo.

Chairman Para stated Mr. Montalvo said he would take care of that.

Mrs. Young then asked when would be a good time.

Mr. Montalvo stated tomorrow would be a good time, if you call to my office we can set the time.

Mrs. Young asked okay, where's your office.

Mr. Montalvo explained it's downstairs on the first floor.

Mrs. Young stated the woman that sits downstairs can help me, what about around 3:00 p.m.

Mr. Montalvo stated that would be perfect.

Mrs. Young stated okay, I'll see you then.

Mr. Ron Vaden, a resident at 6622 Turtlemound Road, addressed the Commission and stated I'll make this real brief. I went to the City Commission meeting last week and voiced my opinion about the fiscal year 2007 budget (U.C.'s). The biggest complaint I have in it or opposition to it was the \$15 to \$30 million loan and the capital improvement projects. I had not went through the capital improvement projects in much detail, since then I've set back and went through it. There are several, several multi-million dollar projects in your capital improvements plans that this Commission now has the authority to spend the money, after the City's approved it, which are just an absolute waste of money and several of these projects are absolutely not needed. The first, that the Commission has already approved, is a low pressure main from Glencoe to Smith Street, it's absolutely not needed. The low pressure main was taken out of service at the recommendation of a prior consultant and now you recommend it goes back in, it's just not needed. I don't have the details but consent item 2-1., that you just approved, is the addition of a

(3) Public Participation (cont.):

storage tank at 3<sup>rd</sup> Avenue, it was taken out of service when the South Beach Pumping Station was built. That was no longer needed, it sat there empty for years, and if you're building that one back, you just pump water into it, pump water back out of it, chlorinate it; its absolutely not needed, just a major waste of money. He stated just one more example, and I'll stop there, that you have coming up is a 230 KV substation for a Florida Power & Light tie. New Smyrna Beach already operates on a double contingency basis, Edgewater operates on a single contingency basis and FPL doesn't see a need to build a substation for Edgewater on the 230 line and New Smyrna Beach absolutely does not need one. You have three transmission lines, one of the three will carry it, if one's derated and one goes out, the second one's derated, those two will carry it. If some situation, it's on peak load and you couldn't do that and it still wouldn't carry it, then you crank up the Smith Street generators, about 50 MW's. That project alone would probably be \$6 to \$8 million, it's underestimated in your capital improvement plans. That's a lot of money getting ready to fly out the window. He then commented and if this lady had a problem with the water bill, just give it about three years from now.

Mr. Ken Taylor, a resident at 11A Country Club Drive, addressed the Commission and stated unfortunately you had no public participation before you approved your consent agenda, so I'm asking you to reconsider two items under your consent agenda before you close the meeting. The first one is item 2-f., I think I would like for you to reconsider that and allow public participation. And I would like for you to consider item 2-j., and allow public participation. And thirdly, although you are generally more lenient than the City Commission in allowing public participation, I think it would behoove the Utilities Commission, as well as the City Commission, to allow public participation as a matter of course on each item that comes before your body.

Chairman Para stated while you're there, why don't you tell us what troubles you about 2-f. or 2-j.

Mr. Taylor stated all right, 2-f., you are approving a renewal of the contract with Brent Millikan. Brent Millikan has held that contract for a number of years. In the past several years, there's been a lot of controversy and difficulty having to do with the budgets and audits, having to do with the Utilities Commission. I believe that as the auditor for the Utilities Commission for lo these many years, they should have been more informed of what was going on. They were not, or if they were, they did not present the information. And then, somehow they went back and looked at it again and recharged you for doing what they should have done in the first place. I think that does not sit well with an auditor who has had a contract with this body for lo this many years. Similarly I will speak to the City Commission when the opportunity affords itself and make a similar comment. I think what you should do is seriously reconsider whether or not you want to continue their services as auditor for another three years, which I assume that it is.

Mr. Taylor stated 2-f. (sic 2-j.), I'd like to know what the 5G Wireless program is, I haven't heard anything about it. I have a personal interest in knowing what it is, it says 5G Wireless – Final Release Letter, I don't have a clue what that's all about. Sounds like it has something to do with a wireless network or something of that nature, so I'd like to be informed, that's all.

(3) Public Participation (cont.):

Chairman Para thanked Mr. Taylor for his comments and stated there is another participant, but asked Mr. Rodi if he would like to answer, or does anyone have any comments.

Commissioner Diesen stated yes, I think we ought to address the fact that was a bid for the auditing services. There were what, 17 people that downloaded the RFP and one reply, it was as wide open as it could be. She then stated to Mr. Taylor that she thought he was on the Commission when that first came up.

Chairman Para stated yes, I think these things, 5G, I mean, I'm not going to speak on the other thing because that was standard procedures, but 5G, he said to Mr. Rodi, I think you explained it last time.

Mr. Rodi stated to Mr. Taylor, at the last meeting I had explained that 5G, we had a contract with them, they couldn't perform, and we terminated the contract. This money represents what we had expended and counsel has recommended that we settle it so that we can just move on.

Mr. Taylor thanked Mr. Rodi for the information.

Mr. Bill Rogers, a resident of 1102 Horton Street, addressed the Commission and stated I'm sorry Mr. Vaden left, I wanted to ask him a question. He made a lot of statements about what the Utilities Commission supposedly is doing wrong, I suggest that somebody ask him to back it up with documentation and proof of all these statements that he's making. Mr. Rogers stated I just wanted to get that on the record.

Commissioner Spangler stated he would like to make one comment to Mr. Rogers. A lot of things were said, the one I heard at the City Commission meeting that I really liked was all this consulting money that you're spending isn't necessary. Mr. Vaden was asked when did you do any rate schedules, and he said well we never did any rate studies unless we wanted to borrow money. Which begs the question well, how would we ever know if we needed to borrow money. I don't know a lot of the things that Mr. Vaden talks about but my suspicion is, because we have some people here who do know, that what he says is not worth answering, but he is a citizen and he can stand up here and talk.

Mr. Rogers stated the reason why I wanted to talk is I wanted the press to get it on record; he's making all these statements, let him back it up with proof.

Chairman Para then asked if there was another for public participation.

Mr. Lee Bidgood, a resident at 310 Quay Assisi, addressed the Commission and stated I just wanted to say living in New Smyrna Beach, I've enjoyed it very much and being a part of Volusia County, because relatively speaking I think our City and this County are "green". I look forward to hearing what Mr. Para is going to say about his Green Coast program. Today I happened to pick up a couple of things that seem to be interesting. One I learned that the County has bought five hybrid trucks; they're Ford F150's. They were getting with the old

(3) Public Participation (cont.):

equipment, about 14 miles to the gallon, now they're getting about 26. Some of the drivers were concerned that they would get bogged down and get stuck easily, and didn't know if they had enough power. Well, it turns out, they ran a test, and they couldn't stick them, absolutely would not bog down because that model has independent drive on all four wheels. I just wanted to mention that, its one of the things that's being done here in the County and I'm encouraged by that and I hope we'll see a lot more.

Mr. Bob Tolley, a resident at 803 Fairway, addressed the Commission and stated with your permission I have some comments I would like to share with Mr. Rodi and also to discuss something after the water harvesting presentation tonight and also Counsel's report, and asked to "save the running of his mouth" until later.

Chairman Para stated that's fine. After confirming there was no other public participation from the audience, Chairman Para stepped down from the chair and handed the gavel to Vice Chairman Spangler.

(3-a)\* Chairman Para – Citizen's Initiative – Our Green Coast: (\*Moved from 9-a)

Chairman Para had stepped down from the chair to make a citizen's initiative presentation.

Vice Chairman Spangler then stated the chair recognizes Mr. Para.

Mr. Kevin Para, a resident of 214 Palmetto Street, addressed the Commission and stated he was here tonight to present formally the document provided by University of Florida Worthington College, School of Business. It's a really interesting report as many of you have read it, it's the beginning. I wanted you all to know what efforts as a citizen I'm making so there's no confusion as you hear people gathering together. I think that the whole conversation about green and as it relates to the property on 44 is one that we're having on a multitude of levels. Certainly the citizens of New Smyrna Beach, the stakeholders, would like to voice some interest and some input into the process, the City Commission, Utilities Commission and respective staff members. This process is defined by the sample letter. He stated the "Green Team" is meant to be inclusive, not exclusive, and it's an opportunity as a springboard or a sounding board for members of the community to vocalize their interests, their concerns, and their possible suggestions in the process. I think that, as Mr. Bidgood says, from all different aspects our community is recognizing the value of going "green". I'll present a little later on the "Vegee Fuel" concept but just everywhere you go people are "cooking" at this level, they're very interested and they're interested in alternative ways. As Commissioner Hall mentioned at our last meeting, the value in finding alternative fuels, and like many of you I'm a little bit concerned that oil companies have the ability to bring down the price of fuel and I don't know what we're to expect. If it's suppose to come back up the third week after November or whenever that might be but nevertheless I think it fluctuates based on other factors and I think that we as citizens have this unique opportunity to weigh in on this. I'm not personally waiting for Washington to solve the problem, although I think it's a national issue. I think New Smyrna Beach is the perfect place, it's a dynamic community, and it has tremendous assets. I don't know that you could have

(3-a) Chairman Para – Citizen’s Initiative – Our Green Coast (cont.):

designed it better than it is having an inlet, having a representation right on the water from a utilities standpoint, having tidal flows, and a piece of property on the thoroughfares, east west, north south.

Mr. Para stated so again, it’s a really interesting project and what we’ll be doing is providing a questionnaire to people in the community. If you all have people that you would like to participate or suggestions, again we would be inclusive not exclusive, and we’ll probably get together some time in October. To just have a discussion and talk about what would be the next steps. I have a young lady, I’m not going to quote her name, I don’t have permission to do that, that’s working on her masters in economics, and she’s interested in taking on the project from the standpoint of not necessarily demonstrating feasibility, but demonstrating the economic impact, the positive impact that this project, or projects like this would have on New Smyrna Beach and its community and business community. It’s a multi-faceted project and I’ll be bringing you updates periodically. He concluded by stating thank you for your time and I’ll be glad to answer any questions.

Vice Chairman Spangler asked if there were any questions.

Commissioner Diesen asked if there were any handouts.

Mr. Para stated actually yes, I have a flyer. He then commented that it’s a corrected flyer, my face doesn’t appear on it anymore.

(3) Public Participation (cont.):

Vice Chairman Spangler then recognized Mr. Ross.

Mr. Bill Ross, at 221 N. Causeway, stated he was here to provide support for what Mr. Para recommends and also while here I thought I would comment on another position that I’m hoping the Commission will see fit to recommend to the City Commission for possible adoption. I was able to talk to some of you, and tried to talk to all of you, either directly or through others, about getting to see the movie “An Inconvenient Truth” that played locally here a month or so ago. I was just wondering how many of you actually saw that movie. He counted three and stated thank you for those who did see it, it was a pretty good eye opener to me and I also read the book, and also saw the Discovery special on global warming. I also have a son out in California who’s very excited about this thing and is keeping me abreast. What I was hoping we could eventually do as the City of New Smyrna Beach, besides the very far reaching project that Mr. Para is talking about, is just say me too on the Kyoto Protocols. These are the ones that unfortunately the United States and Australia, the only two advanced nations that did not sign on. The City of Portland, Oregon, started a project where municipalities, counties, could join. In the movie they showed Holly Hill as one of those that joined. I thought my gosh, Holly Hill, I never thought of them as that enlightened but good for them. However, on checking with them, I understand they are to consider it, I didn’t check directly, I checked through Suzanne Kosmas, she knew the Mayor and checked, and he reported it was under consideration, to be considered

(3) Public Participation (cont.):

this month by the Holly Hill City Commission. What it sort of says, I don't know all the parameters, but that we're trying, we endorse the concept to stop greenhouse gases, to diminish global warming, and as a municipality we're pledging to do our part. You get enough momentum there at the municipal, county level and pretty soon the Feds say hey we should be doing this but its coming from the ground up. That's the way politics is really suppose to work. You guys can lead and we look to you for leadership in the area of utilities and stuff, and fuels and all that, but the citizens want it and need it. We probably don't need it in our lifetime looking at the relative age, but for sure our children and grandchildren do need it. So I hope that you all will consider it and I hope the City Commission will ask you for your opinion, but even if they don't, I hope you send your opinion to them, because we can't just sit on our hands and say well we hope it happens. We are all bright people and we ought to be leading the way, leading this municipality in the right direction. He then thanked the Commission for their attention.

Vice Chairman Spangler thanked Mr. Ross and stated I'm sure we'll discuss that and I think we can probably recommend that to the City Commission and they won't argue with us either; I don't think they will.

Mr. Robert Bullard addressed the Commission. He stated I'm not a resident or property owner in New Smyrna Beach, I'm just a concerned citizen of Volusia County. I've been to Utilities Commission meetings before and have been involved in environmental and energy conservation, renewable energy issues, for over thirty years locally and nationally. I have talked to Mr. Para a lot about some of his ideas and the Green Coast Campus Concept, and I want to continue to support that. I had the opportunity to attend the National Convention of the American Solar Energy Society in July in Denver; it was an auspicious event. We had a lot of discussion about global warming and the relevance of renewable energy, alternative energy sources to dealing with this problem. I, myself, I regret to say, I have not had the opportunity to see the movie, "An Inconvenient Truth" but based on the discussion with some of the people who were at the ASES Convention, who had technical input into the movie, even since the movie was produced, their studies and those of their colleagues have been finding alarming things, almost on a daily basis, that there's implications of global warming. For instance, the amount of carbon gases that are being released in the tundra areas of Siberia, because that's one of the areas that's relatively warming up faster than anyone else, have become an issue that was not factored into a lot of the analyses, even a year and a half or two years ago. There's some other examples related to algaerial growth and nutrification of the oceans that are a result of this. You all probably have heard of the concept of nutrification, that's where nutrients naturally cause water bodies to go through changes, to have lower oxygen levels and a whole bunch of other detrimental effects on the health of the water body; so this is beginning to show up in the oceans too. In any event, I would like to encourage the Commission, which has been particularly enlightened in the past from my observation on this issue, to continue forward, to work with Mr. Para and the rest of us who are doing this.

Mr. Bullard stated I'd like to close to tell you what has happened since the Florida Energy Act was passed. You may or may not know there's been a significant development in the Energy Act providing a rebate for \$4 per watt for photovoltaic usage. I was involved in putting some of that

(3) Public Participation (cont.):

legislation together, as Lee Bidgood was too, and I have been inundated since the legislation was passed. Right now there's not a Florida Administrative Code Rule to implement it but that hasn't stopped people from calling me and tracking me down. I have, right now, over 100 KW of PV users that are available, interested, willing to buy into it. I expect by Christmas I may be up to 500 KW. It's a snowball type of thing, people are really interested, we have gone over a threshold with this \$4 watt incentive, that coupled with some Federal tax issues and Federal tax opportunities, have really made this type of alternative energy very doable in Florida. Unfortunately, about a 1/3 of the total global PV production is now under contract, long term contract, to be sold in Germany. About 1/2 of the United States production is contracted to Germany. Germany has a photovoltaic potential comparable to that of Anchorage, Alaska, it's about 1/3 of the PV potential we have here in Florida, and they are paying top dollar, they are buying up the market. I cannot get PV panels for five or six months at anywhere near the normal rates for my clients. They're going to be sitting there waiting after the Florida Administrative Code Rule comes in and the money is available, simply to get in line behind Germany and other European countries who are now buying at whatever they can on the spot market for photovoltaic panels worldwide. So hopefully the industry will respond and it will probably be in a matter of a year to two years before we see the supply open up again. But I would expect that I'm going to be showing up here in the next few months with a couple of your users who want to plug in and sell electricity back to you because of this program. If we can get the panels we will do it. So let's work with Mr. Para and see what we can do to make all of this happen. It's a great idea and I'll be around to help.

Mr. Tolley then addressed the Commission and stated I was going to save my comments until later but I have to get in here now that I've heard about the recycled spinach program. A year ago I came here, approximately, came before you all with a presentation on renewable energy. Here we are almost a year later, a little short of a year, and I know your plates been full, Mr. Rodi's plates been full, it's been a heck of a year for everybody here, everybody in this room. But now I think we're finally getting past that year and there's going to be other decisions made this evening about where we're going to head in some other areas. What you're going to do to neutralize some of the garbage that was presented at Tuesday night's meeting. But I'd like to request my Commissioners to decide where do you folks want to go with the alternative energy issue. We're working with Oak Hill, with Edgewater, with FPL, with Leon County, Pasco County, Hernando County, and I'm a resident of New Smyrna Beach and here it is a year later. I'm just sitting here playing in the wind, I don't know what its going to take, but I know one thing, before I sit here tonight and listen to another Green Coast initiative by my Chair, I want to know what you folks are going to do from last year. Right now, I'll give you some figures to chew on, everyday we delay an alternative energy program in this City, it's costing us anywhere from \$30,000 to \$77,000 a day. He reiterated \$30,000 to \$77,000 a day, we can ill afford another year.

Vice Chairman Spangler then stated I think we'll close this discussion, and requested Mr. Para to come back to the Chair position.

Chairman Para stated I appreciate all the input, and asked if anyone else wanted to speak.

(3) Public Participation (cont.):

Mr. Ross Putnam, a resident of 110 Inlet Shores, addressed the Commission. He asked are any of you guys aware you do have a PV system at Coronado Elementary School, has anybody ever let you know that. There's one there that works and you can monitor and check it out.

Chairman Para stated I think our team is aware of that and Mr. Bidgood has been instrumental in the leadership of that. At the Middle School there's another, and I think we turned that over to Mr. Bidgood or the school system.

Mr. Putnam stated there just seems like a lot of bashing. Solar energy is a great thing, but its not the answer to everything, I think we definitely need to move in that direction and maybe talk to our developers and our new home builders about options, work with the building department or what have you. There's also at the Municipal Golf Course, a PV system, so use that in your defense. Hey, we have some stuff and we would like to maybe move forward with it, but don't let yourselves be bashed.

Chairman Para stated I agree and concur, nobody's at fault or anything else. I think it's a productive, progressive discussion where we say how we can move forward. It's not who's to blame, it's how we're going to go to the next step, and that's the purpose behind the next step's program is that we have a fruitful community discussion, therefore we can communicate with the leadership in the community, and let them know how important these things are to us.

Mr. Putnam concluded by saying I agree, thanks.

Chairman Para asked if there were any other discussion points.

Mr. Kevin Schweizer, a local architect, a resident at 880 Catfish, addressed the Commission and stated I just want to say how excited I am to see this up front again. I know we've had clients in the last year, actually we had a client come in, he wanted a zero energy house, and we designed that last year. The buzz is out there, people want alternative systems, and they hear some of the available options through the Florida Energy code systems. It's just an exciting time and I think its time to jump on board as much as we can and move forward. I do think it's the whole, in terms of the zero energy house, we ended up with PV's, wind, cisterns, and all kinds of things in order to create the zero energy systems, but it does take quite a few systems to come together to make it work. I think we ought to be looking at many systems.

Chairman Para stated we're at a such a unique place, it's like being at the turn of the century and flights just discovered, and we get to be a part of it. It's not a technology age where the average persons blocked out because we don't have the capacity to develop semi-conductors. It's a unique opportunity that the person in the back room of his or her garage can develop something that potentially could make a significant difference and we all have a stake in this environment. As I heard just this week on an MPR talking about new islands that are being revealed in Alaska because of the ice melt and polar bears dying. It's here, it's a reality, and we have a responsibility as the leadership, along with you as members of the community, to recognize that

(3) Public Participation (cont.):

we've got to turn a corner, we've got to do something different, and now is a perfect time. I agree with the gentleman out there, this is not about demonizing anybody, its about coming together as a community and solving the problem. He stated and at that I will get off my soapbox and we'll start the rest of the meeting. He then closed this section after confirming there was no further public participation.

(4) General Manager's Report

(4-a) Monthly Summary Report for August, 2006

and

(4-b) Budget Summary through July, 2006

and

(4-c) Commercial Monthly Report for July, 2006:

Mr. Rodi then stated he had just a couple of references. If you looked at the most recent financials, it does appear as though we are turning the corner. We have shut down all of telco now and the cable system is also shut down. Later on in the presentation tonight I'll be talking about the tower, the communications tower that's on the agenda and I think there's some interesting things with regard to that. As a topic item under staff, I've asked Tim Beyrle just to give us a perspective, and I think it's really appropriate from a standpoint of talking about renewables and what's happening on the fossil side of the house since most of our production comes through the grid. I asked Mr. Beyrle to give some overview about what he sees going on in the market and what he sees in the future with that.

Mr. Beyrle stated we've been seeing, lately, oil prices come down quite a bit and natural gas prices, although if you can still consider \$65.00 oil low. Compared to what we're use to it has come down quite a bit, we're seeing some reductions out in the market. The biggest problem we're having now is coming from a lot of transmission congestion around the state. It's been building for several years, and a lot of the utilities are seeing loads that they were projecting in 2008 and 2009, this year. So we're seeing congestion out on the grid now that wasn't expected for several more years. There are several projects underway in the Central Florida area and the South Florida area to relieve a lot of this congestion, but they won't be completed until 2008, 2010, and beyond. So one of our biggest hurdles right now is transmission congestion and its not so much a matter of what the market price for energy is, its whether or not we can get it in. We're looking out at fuel costs a year ahead and we're not seeing a lot of decrease in what we're seeing right now. Oil prices and natural gas prices have come down but depending on the hurricane season and what the demand is like next year, they could be right back where they were this summer, next summer. So that's really what we're contending with right now, we're looking at our options for next year and our energy supply, but we're really not seeing a large reduction in fuel costs right now.

Mr. Rodi stated there's one other comment I'd like to make, the 230 KV station, that is a station that will be built and paid for by FP&L. What that does is it allows us access to the 230 grid rather than running through the 115 and all the congestion. So it gives us some advantage for

(4) General Manager's Report (cont.):

access to power. I think there's more to a lot of the events happening out on the transmission system right now. There's also a change that's happening with the FRCC. They're moving from a coordinating body to being an enforcement body with reliability standards. We're hopeful that what we'll do is have a very strong connection to the grid for those purchases that we make off of it.

Commissioner Hall asked are there any stipulations or regulations as to our access to the FPL system that might be in place that would stop us from using that.

Mr. Rodi stated no, FP&L will have to deal with the siting issues. They're not coming a great distance on their 230 line, its only, I think three miles down the road on S.R. 44, so consequently we provide an ideal location for them. They have low growth issues all up and down the 115 system so that's the advantage for them.

Commissioner Hall stated my second, actually not a question a comment, a couple of speakers talked about alternatives and one said that we've been talking about alternatives now for at least a year. Actually its been about 18 months when Commissioners Spangler, Reynolds and I came on to the Commission, we were talking about alternatives. The workshop that Mr. Tolley referred to happened shortly after that. It's my position that we need, you know, talk is cheap, and please don't anyone take that the wrong way, but if we don't start acting and stop talking, we're going to be talking this time next year, about 2008, 2009. It's time that we really get into talking about and doing something about alternative fuel sources, alternative electric sources, energy sources, whatever. And they'll be some tough decisions for this Commission to make and the City Commission to make because its not going to be inexpensive, its going to be expensive. He added but in the long run it will be inexpensive.

Chairman Para stated I think to follow up on Commissioner Hall's comment, maybe this is a by-product of your question. If down the road we start generating renewables, is that maybe your question, are we able to connect up with that system or are they very proprietary. I will say nothing ill of Florida Power and Light, although it's a big corporation, it's an investor-owned corporation. Is that something that they're going to be like, its either our juice or no juice.

Mr. Rodi stated no, its an interconnection agreement and we're a control area so we're able to flow power through us through that system.

Commissioner Allen stated this interfaces with their existing 230 grid, which actually brings reliability to the 115 side of our system.

Mr. Rodi interjected yes it does, very strong.

Commissioner Allen stated and then the other aspect of it is if you add new generators on, that's going to bring even more reliability and uphold the voltage across the grid because not only has New Smyrna grown but the area is growing and its going to impact us in the long run if we don't do something in the very near future.

(4) General Manager's Report (cont.):

Mr. Rodi stated the advantage of having that capacity, and for those who aren't familiar, if someone builds a plant, stop to think of what we will have to do in order to accomplish this. My guess is we'll have to do an RFQ because these are expensive plants. We might have to have a lease purchase option, because when we start talking about these costs, they're very significant, and then you have the economy of scale. So that depending upon the size plant, if we're supportive of a wood biomass kind of a plant, you're talking about 3,000 tons per megawatt per day. So very quickly, you have a lot of mass to process and what that does is if you talk about the size of those plants, a lot of those are around 10 MW's, and our system's at around 100 MW at absolute peak. So there's a lot of discussion and I'm supportive of what I've heard here tonight. There's a lot more that goes with all of this and it goes to energy efficient homes and standards for construction and demand-side management. There are differences in rate concepts that can be used from a standpoint of decoupling rates. There's a great deal in depth to some of these comments that weren't addressed tonight and they're very important and a lot of times we hear about the accords. You may have heard of it as a carbon tax that deals with the generation of CO2 where renewables just replace themselves, that's the advantage. There's a lot to be said and I wanted Mr. Beyrle basically, because what we're seeing in a forecast, is continuing high costs off the grid. We'll get a stronger connection and if you have renewables you can sell them all day long, so there's some very positive things and I just wanted to make some passing comments on all of this.

Chairman Para stated when Mr. Beyrle and I was down at the conference, that was one of the things I commented at the last Commission meeting, again I might have a little tongue in cheek about the energy industry, but we've watched this. It's not something that we can, as a community with any level of honest expectation, see this number continue to stay down or go even further down. Not to mention the dynamics of all the environmental problems that are associated. And I know you're a guy working very diligently at a job on a day to day basis getting this energy in at the right price and getting it out, but again from our standpoint we're like you looking at those and also looking down the road, and we're interested in that. I'm most concerned that supply, because of the growth in Florida and the congestion you speak of, these are all words I continually hear, not only from the electrical transmission and the grid, but I'm also hearing it from the standpoint of fuel supply which is even of a greater concern. That's why we had our emergency meeting a little over a year ago right now on this very issue, so one or two placed natural, national disasters can really put Florida in a tremendous disadvantage. I think that's what this Commission was founded on, 70 some years ago, was having that level of independence so that we fix it here.

Mr. Beyrle stated generally speaking the congestion is from west to east and from south to north. If you have generation on the east side of the state, you can get rid of it all day long.

Commissioner Diesen stated we wouldn't necessarily be looking at just one type either would we. We wouldn't just be looking at just one type of generation, we would be looking at a redundant system or several others.

(4) General Manager's Report (cont.):

Mr. Rodi stated part of what you'll hear tonight, what Dr. Missimer will present, is some tremendous opportunity that we have to start to combine some of these technologies. For example, what kind of power is going to run the pumps and the horizontal wells and things we're going to talk about. Well, one thing we have a lot of here is heat and humidity so maybe there's an answer built into that.

Commissioner Diesen stated heat and humidity and water.

Chairman Para stated and too, what we might consider is because now that our electrical studies have come in, but I think we're still waiting on a final study from our electrical.

Mr. Rodi stated we have just some rate based questions on capacity fees and those kinds of items to clean up.

Chairman Para stated I think it would be productive for us to come together in a workshop and openly discuss, you know maybe a month out, openly discuss some of these ideas for generation and just take one topic rather than trying to spread ourselves in seven different directions. Let's just talk about that issue of generation and lets invite the City Commission to be a part of that workshop so that we can get some good communication going and lets talk about what it is that we really want for the City of New Smyrna Beach. He stated that might be something that we can agenda. He then thanked Mr. Beyrle for his comments.

Mr. Rodi stated I wanted to just make another observation, if you look at our August financials, you can see as far as sales are concerned we were at a little over \$57 million. And so for the remaining month of the year, the month we're in, if we happen to have a similar month, we will have met our proposed budget that we made last year, which was a \$63.7 or \$63.3 million. So it's right in that range, so those numbers are coming in very, very close to what had been forecast back then. A lot of that has to do with fuel and purchased power, so those costs have been considerably higher than what we even thought of then and they made up for the decline actually in the telco business. He stated I just wanted to make that comment and then asked if anyone had any questions on the General Manager's report.

There being none, Chairman Para went on to the next item.

(5) Commission Counsel's Report:

Mr. Preston stated he had no report.

Commissioner Diesen stated I would like to ask you a question, we talked about this last time, about moving forward with some sort of a complaint to the Feds. I don't know whether we didn't make a motion or I don't know where that is, but if we didn't make a motion I would certainly like to make a motion that we do that, that we file a formal complaint with the Federal agencies.

(5) Commission Counsel's Report (cont.):

Chairman Para stated I thought we did that, where are we at with that Mr. Preston?

Mr. Preston stated the directive that I took from the last meeting was not a complaint with any Federal agency. We did begin the process of finding local counsel to do investigation regarding a civil claim, but nothing regarding a criminal claim, criminal matter.

Commissioner Diesen stated I would like to make that motion, that we file a formal complaint and whatever has to be done to get it started at the Federal level.

Commissioner Hall confirmed she meant on the criminal side. He then stated he would second Commissioner Diesen's motion.

Mr. Preston stated as you're discussing it, recall that we did in fact, and I don't recall exactly when we did, but we did contact the FBI and submitted the information that we had at that time but we have of course gotten the most recent report from Brent Millikan and the information that the FDLE had gathered.

Commissioner Diesen stated and I would think if it's a formal complaint you will then be invited to sit down with them. At that point in time it should be expanded beyond the very narrow scope that it was originally given, the latest information that came out in the last audit report.

Mr. Preston stated and that is correct, it wasn't a formal complaint that we had filed previously.

Commissioner Diesen stated and that's what the motion was.

Chairman Para stated to add to that, Mr. Kish is here this evening, and conversations that we had, I got the impression the FBI really didn't take this matter seriously or when it was presented.

Commissioner Diesen stated he didn't file a formal complaint. If you don't file a formal complaint you're not going to get any reaction from anybody is my understanding of the way it operates.

Chairman Para stated whatever we need to do, that's a good point of order, and whatever we need to do to make, at least the right people in the right positions notified, I think that's the right thing to do.

Commissioner Diesen stated especially given the full report that we got.

Chairman Para stated the information I saw was very complete.

Commissioner Diesen stated to Mr. Kish, is there anyway for you to condense those 52 pages into something that could be more readable and so that they get the essence of it without having to wade through that.

(5) Commission Counsel's Report (cont.):

Mr. Kish stated absolutely, we can try to condense the report down based on the allegations and what we're actually recommending to you in the forms of actions to take.

Commissioner Diesen stated can we ask you to work with Counselor Preston on that?

Mr. Kish stated absolutely and I'll reiterate what he said, before we had at your request, had made a contact with the Federal authorities to submit the actual package to them and I physically handed it to them myself.

Commissioner Diesen stated but that wasn't a formal complaint.

Mr. Kish stated that is correct.

Commissioner Diesen stated you just said here, this is what we found, I have an obligation to do it and that's it.

Mr. Kish stated and there was a follow-up on their part but it's again, I think that's probably a very direct way to actually formalize the actual process to provide it to them. I'm guessing they would have to give you some response, either yes or no. At least in this stage, instead of just ignoring it, some response would have to come.

Chairman Para asked if there was further discussion, there being none, he asked for a roll call vote on the motion on the floor.

Commissioner Diesen's previous motion, to file a formal criminal complaint and whatever has to be done to get it started at the Federal level, then passed unanimously on a roll call vote.

(6) Committee Meeting Reports:

ADD-ON (6-a) Chairman Para – Vegee Fuel Concept:

Chairman Para stated I had presented to each of you a summary. I apologize for presenting sort of an ad-hoc representation of waste vegetable oil, a presentation or presence of green in the community and the little byline here is we're looking a little bit greener. I can walk us through quickly this little report I've put together, the purpose of it is to convert a non-emergency vehicle to waste vegetable oil. We want to experiment with renewable alternative fuels and this is an excellent way for us to start, it's a very economical way. We have dollars, I quoted \$1,500, I find now its \$2,000 in the designated green account with the Commission, and it can certainly be done for less than that. An overview is this company, I'm not endorsing a specific company, but this particular company is very pro-active. A gentleman who is out of the country but who was here last meeting, had a successful model out in the parking lot, and we saw that. Again, with a non-emergency vehicle this can be an excellent way to start. Where this kind of hinges and why staff and I believe, I certainly concur, is that it possibly involves some volunteering in our community. We've got a very strong volunteering presence in our community and I think we

(6-a) Chairman Para – Veggie Fuel Concept (cont.):

can do a lot in the area of getting help to collect this oil. I know that there probably will be some questions up here if I advocate we have staff out there at the restaurants pumping oil out of their waste oil drums, so I don't think that will go over really well. But we've got a lot of folks who are really passionate about this issue, and including myself, that would be more than happy to do it. One restaurant, Boston Fish House, a gentleman over there had said yes, it's going to cost me \$150 a month because that's what I get out of my oil, but I believe in what you're doing and I'm committed to it. Over and over again, the community, people are ready for this and are ready to get started. Alternative fuels could lead into possible generation, experimentation with the Smith Street site, so I'd like to collect oil and have it stored there. We have a particular container that's actually out of conformity right now with OSHA regs. and DEP regs. so if I could use that tank to store oil in, that would be a good place to do it. The objectives are as a greater value to the community, valuable research data, community buy-in, and greater potential participation of people in the school system. That's another place, Commission Hall, maybe we can get the school system involved to donate their oil, they would get a kick out of that, that's the future generation that we're talking to. Anyway, it's all naturally grown fuels. I've provided also some information on the company, the gentleman out in California, his name is Chris Reece, he's willing to help us. I've given an example of the fuel tank we can put in there, and the whole bit, including a press release. I'm not author proud if somebody else has an idea, but: The Utilities Commission of New Smyrna Beach is looking a little bit greener and we need your help. One of the first efforts is to convert a non-emergency service vehicle to burn veggie oil. This conversion is relatively inexpensive and will give us a first hand experience of alternative fuels. You can help your utility company succeed in this effort by volunteering. We need your help in collecting fryer oil from local restaurants. If interested, you can please contact Commissioner Para for details. He stated I offered myself up to that, my wife says I don't need another project so if there's somebody else that wants to volunteer, I'll be glad to relieve myself of that. But I'll step forward with that and also, it could go on to the flyers, it could be a part of our mail out that goes out, just communicating progressively with our customers. He stated that is my presentation.

Commissioner Hall asked if Chairman Para was volunteering his car.

Chairman Para stated I have a pickup truck that I would be glad to collect oil in, yes.

After a couple of other comments, Chairman Para stated its going to be an exciting exercise and I'd like to let the community know these wonderful restaurants that are stepping up to the plate and actually taking a financial loss and helping us, that's part of the community buy-in, to get us started. And I share with Commissioner Hall, I'm frustrated, I want to stop talking, I've been talking about this for 30 years, and I know some of the colleagues out in the audience that are passionate about this are many years my senior, but I want to get started and this is a great way to start. If you will authorize me to work with staff on these tenants I will be glad to continue that process.

Commissioner Diesen stated you mentioned earlier that you thought we should have a workshop and really get this thing off the ground. We had one, Mr. Chairman, are you willing to work

(6-a) Chairman Para – Veggie Fuel Concept (cont.):

with our CEO to do that?

Chairman Para stated yes, but this is something incremental that I wanted to get started.

Commissioner Diesen stated I didn't mean on that, I mean on the bigger.

Chairman Para stated absolutely, I invited Mr. Rodi early, and I've also invited our City Manager and Mark Rakowski, he's already formally agreed to be a part of the discussion with the Green Team to discuss this, so yes, absolutely. He then asked if there was a motion that would allow him to do this (vegetable oil conversion).

Commissioner Allen then made a motion that Chairman Para will be able to pursue this.

Commissioner Diesen confirmed you mean to oil up a car, and then she seconded the motion.

Commissioner Hall then asked to oil up who's car?

Chairman Para stated a Utilities Commission's car.

Commissioner Hall asked if Chairman Para had picked out the person who's driving it.

Chairman Para stated yes, I have but then added no I haven't, I'm looking for volunteers.

Commissioner Diesen stated well you can wait until later and get a volunteer or you can select a volunteer later.

Chairman Para stated no, I'll let Mr. Rodi do that.

There being no further discussion, Commissioner Allen's previous motion then passed unanimously on a roll call vote.

(7) Old Business

To allow set up for the next presentation, a brief recess was taken. The meeting reconvened at 7:08 p.m.

(7-a) Water Harvesting – Missimer Groundwater Science, Inc. – Dave Hoover:

Mr. Rodi introduced Dr. Tom Missimer by stating he is really a world expert, has had assignments all over the world, and his specialty is obviously water. We're most fortunate to not only have his abilities here, but he has a lot of common sense, so its a wonderful combination. He added I told him I was going to introduce him by stating he walks on water and then say thank you, but it is close.

(7-a) Water Harvesting – Missimer Groundwater Science, Inc. – Dave Hoover (cont.):

Dr. Tom Missimer addressed the Commission and presented a PowerPoint presentation. He stated what I'm going to do is make some comments, and added we took a look at the property that you own. First of all, you are very fortunate as a utility to own a piece of property of this size with the ability to use it for different things. I work for utilities in a lot in different parts of Florida and they're right now trying to acquire pieces of property like this for multiple uses and they're finding that with the growth rates and the values of the property, they're not able to find them and they're having to break things up at great cost to put them together. I also was very surprised at your discussion here today about sustainable energy because some of the comments I'm going to be making tonight regarding your property, and maybe your future, also have to deal with sustainable water management methods. Particularly ground water and what some of your neighbors to the north are beginning to do and what progress we're making with actually having people excited about things, the DEP being excited about a project which is truly unusual, and maybe the Water Management District will follow suit.

Dr. Missimer stated we're going to take a look at some possibilities of how you can utilize your property that you have. Basically you have a large parcel of property, actually on the northwest of the intersection of I-95 and S.R. 44. Now there's a number of possibilities that you can use this property in addition to the use you already have for your utility site. One of them is to look at the lower Floridan aquifer, this aquifer is a saline water aquifer and its not used to any degree in this area. To the south of here in Melbourne, its used as a primary source of water supply for a low pressure reverse osmosis system, so it is used to some degree. Its being looked at to the north of you by the City of Daytona Beach for aquifer storage and recovery, in other words using the storage in the system to supply or take either wastewater, actually we call it reclaimed water, highly treated reclaimed water, and we're looking at some things there. One of the things is taking the reclaimed water, excess run-off, or wet season kind of water and using it as a storage facility. One of the problems we have in Florida is we don't have the water when we need it. Down in our area of Florida, we had discharges from Lake Okeechobee that just destroyed the estuarine system in the process. If we could have stored just .0001%, we would have had a sustainable water supply for the next ten years. The issue is storage, particularly in event related storage.

Dr. Missimer continued by stating so this lower Floridan aquifer can be used for multiple things. The first one is aquifer storage and recovery (ASR) which is basically you pump the water into the ground and you pump it back out when you need it, so you don't lose it to evaporation or other methods or seepage. Again, we look at this site, at reclaimed water, or actually raw ground water, pumping in a wet season from perhaps the upper Floridan down into the lower Floridan so that when you have all this excess water and you have no potential wetland impacts, you can put that into storage and take it back out in the dry season to lessen the impacts of these types of wells. This is being looked at directly in Daytona Beach and in the meeting with the DEP last week, they were very enthusiastic about it because we would put a closed system in where you wouldn't have to add chlorine or any other types of things that could actually re-mineralize or take other things out of the rocks that we don't want in there and put them in the water supply.

Dr. Missimer stated another potential use of the lower Florida aquifer on the site is for a brackish

(7-a) Water Harvesting – Missimer Groundwater Science, Inc. – Dave Hoover (cont.):

water RO source. Again this is being used all over Florida and the first one I worked on, I remember was Pelican Bay Development, one of the first sustainable developments with 100% reuse and reverse osmosis, and that was actually began in 1977, so this has been around for a long time. Brackish water reverse osmosis in Florida, Florida was the first state I might add that used brackish water RO in the continental United States, it was in 1966 at Rotundo. Desalination or membranes using for desalination were invented at the University of Florida. He commented I have a hard time with that, you know that I graduated from a couple of other places that are sort of rivals but we will give them credit. He stated but they did fumble it for commercial development.

Dr. Missimer stated reclaimed water storage ponds is another issue we're going to discuss, the idea again of trying to store water when you have it so that you have water available when you don't have it or to actually supplement your reclaimed water system. Another supplemental water source is some harvesting of water using some horizontal wells on the property. We're going to discuss each of these in a little more detail.

Dr. Missimer stated the first one to look at is what can you use the Florida aquifer water for and again its predicated on the water being an acceptable quality. The lower Floridan aquifer can be blended to a degree with either the reclaimed water or raw ground water to increase supply. A lot of times you have very high quality water going out into your distribution system and as long as you meet certain criteria you can actually increase the hardness a bit or increase the chloride by using some blend water, but you make sure its optimum in its ability in the system to be used plus not causing corrosion problems and other issues. You can also use that blend with your reclaimed water to basically increase the amount of reclaimed water that's available in the system and that does two things that are important. It allows you to hook up more customers during particularly dry periods and have the water available to them and also it allows you to spread that water around and use a larger percentage of the amount of water. The blend ratio is the critical thing, how much can you blend from a well and that's largely dependent on what the salinity of the water is in the lower Florida aquifer. He stated I have a little graph here so you can see, if you start out with treated water quality with a chloride concentration of 50 or 100 or 150 mg/l, this is if you look at what the quality of water might be in the lower Florida aquifer. You can see the higher the quality of water in the aquifer the larger the blend you can get and still maintain the drinking water standard of 250 mg/l. You don't always have to maintain the drinking water standard for use in irrigation with reclaimed water because in a lot of places in southern Florida and throughout Florida the chloride concentration maybe gets up to 300 or 400 in the irrigation water but its still of sufficient quality to meet the needs of the consumer. Only certain plants might be affected by that, but again we're looking for some type of sustainable solution and some blend is a very good idea and is used by many utilities to reduce the overall cost of the water but still maintain the high quality product going to the consumer.

Dr. Missimer stated by the way, the actual chloride concentration in the lower Floridan aquifer, there are not a lot of data available because not many people have actually done any exploration. So we have looked at what available data there are and we've looked at the governmental agencies studies, primarily the U.S. geological survey and some fairly sophisticated geophysical

(7-a) Water Harvesting – Missimer Groundwater Science, Inc. – Dave Hoover (cont.):

studies that were done by the St. Johns River Water Management District. He stated that TDEM stands for Time Domain Electromagnetic Surveys, and all that is a fancy thing, you run a really powerful electrical source through the ground and you measure the conductivity of the sediments and there's a direct relationship between how fast or how easy the electricity passes through and the salinity of the water. It's a lot more complicated than that but in reality that's what they did. We looked at both of the studies that have been done and unfortunately they seem to have totally different answers to what they came up with. Now, being an old well guy myself, I drill the holes to make sure what the geophysicists tell me is really there because its about half and half, sometimes it works and sometimes it doesn't because its also dependent on the pores and how they're connected in the subsurface. The important thing here to know is that some of the studies have said that the chloride concentration in the aquifer is around a 1,000 or a little bit above that at the top of the lower Floridan. That would be very good for the Commission because that would allow you high blend rates and a lot of options that you could use that water for that are all very economic. Another study says that its around 5,000, that limits your ability to blend but it still allows you to use it as a source of reverse osmosis or storage, but you have to calculate very carefully the economics at that point. When it gets above 5,000, in the 10,000 range, you really have very limited options in using the aquifer water at that point.

Dr. Missimer then stated let's talk a little about aquifer storage and recovery, a technology that some people would like you to believe is new. Actually on the Thames River in England they started pumping water during the wet season into areas that had become saline back about 1500 by using seepage pits and bringing it in. We have to, in our society, rediscover the wheel because people fail to read the literature and actually look at things, this is not a new technology. The first time water was stored in a saline water aquifer was in Virginia in the 1940's. So we have now been using this successfully, in Florida today I believe there are 18 operational aquifer storage and recovery systems and there are around 42 under development. World wide there are storage systems like this, today the last count I looked at was in 30 other different countries, and right now, I'm working on a very large one in the Middle East that's called strategic storage. It's being built to take very expensive seawater, desalted water and pump it inland and store it just in case something might happen to one of those desalination facilities, which over there might happen any time. In this particular case, aquifer storage and recovery, the concept is storage, put water in the ground, and withdraw it back when you have the need. It can be seasonal, it can be for emergencies, it can be for long term storage, as long as you know that its not going to go away and you have characterized the aquifer properly. Now, every storage facility is like a tank, it has a wall, and when we pump fresh water into saline water we cause a plume of fresh water to occur in the subsurface and the boundary of the tank is the interface between the fresh water and the saline water. We're very lucky, the water doesn't just flow away and it doesn't mix very well, these fluids seem to stay separated for very long time periods if they're managed correctly and designed correctly. There are regulations that affect these things, like regulations would affect everything, and as the Utilities Commission you know who the players are and how easy they are to deal with on a given thing. Do you have to pump water in that essentially meets drinking water standards for the major things like primary drinking water standards? You can get exemptions to things like odor and color and things like those that are not really going to affect the aquifer systems, so we have been very successful in getting permits.

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Like I would cite this aquifer to aquifer storage system that we're looking at for Daytona Beach right now, we are pleased to say the DEP was very enthusiastic, we were shocked, and it was a really pleasant meeting.

Dr. Missimer stated in terms of potable water or potable-type water like upper Floridan or surficial aquifer going down, that is probably not going to be very difficult to permit, its a matter of testing and following protocols. If you use reclaimed water, reclaimed water requires you to look at it a little bit more difficult in terms of the permitting aspect, so we have to look at what kind of potential contaminants are there. You have a very high quality reclaimed water, you're using it for irrigation, and meeting the standard for potability for that particular thing could be done here. And the idea, there's a lot of research being in the safety of storing reclaimed water in ground water systems and mostly in Australia because they're actually allowed to purposely introduce microbes into the ground in containers and see what happens to them in the subsurface with a natural water quality. The fortunate thing is that the anaerobic bacteria in the ground use them for food, so they're starved systems. So actually the subsurface is a very good treatment thing for very minor concentrations of certain type of viruses and other things that people have concern with. The lower Floridan aquifer appears to be very suitable at this site for storage and again the recovery efficiency of how much water you get back for what you put in will depend a lot on the salinity that's primary in the aquifer, what's there naturally.

Dr. Missimer stated now how ASR systems work, and this is an example, where you would pump from the upper Floridan or the surficial system on your site. You take the water in a wet period, when you have excess water in the aquifer and water levels are high, and you pump it down into the deeper aquifer, or the lower Floridan in this case, and you create this plume of fresh water. I avoid using the term bubble which is commonly used because everybody has the analogy of bursting bubbles and its not exactly what happens down there. You form this plume and you basically withdraw this water, either from the well you're pumping it in or a well that's down gradient nearby. Now, the efficiencies of how you get the water in and out can be improved by using a little common sense and logic, sometimes you have an injection zone that's a couple hundred feet thick and you pump it through the full injection zone, but you put a valve in the middle of it, so that when its opened the full injection zone is pumped, and when its closed, when you're pumping it out, you only pump from the top of the aquifer, because buoyancy actually makes the water move up towards the roof of the aquifer where its confined. So that way you can improve your efficiency of recapture of the water. In the design of these kinds of systems its very important to realize that you're going to have to sort of flush out the aquifer one time to create the geometry, so there's a certain amount of water that you quote "waste" that flushes it out, but that's part of the capital cost, not part of the operating cost and doesn't enter into an efficiency calculation in the system. Some people say we have to have it at 85% or 100% efficiency otherwise it doesn't work. Let me tell you something, you don't have to have it at that high rate to be economic.

Chairman Para asked if it would disturb Dr. Missimer if we asked questions along the way.

Dr. Missimer stated go right ahead, because a discussion is better than a presentation every time.

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Chairman Para stated you have some really neat stuff, its very interesting information. Just from common sense, I imagine a bowl of salt water, pour in fresh water, and it just all mixes together. I'm trying to get my arms around that, how does that work?

Dr. Missimer stated basically when water flows it flows through the connected pores in an aquifer and when you're injecting fresh water, its pushing the saline water out under pressure. Now initially it will mix a little bit but it reaches an equilibrium where you have a fairly sharp interface between the saline water on the outside and the fresh water on the inside. As the chloride or salinity goes down in the aquifer, that geometry is even much better. Now as it goes up, the things that create mixing are the heterogeneous in the aquifer, the differences in pore sizes from one zone to another.

Chairman Para interjected some of the frequency from which you draw it down.

Dr. Missimer stated not necessarily the frequency to draw it down, how the pores are connected, the type of porosity, the quantities. Some people try to do these, for example, the aquifer yields a million gallons a day from a well, some people tried to inject two million gallons a day. That causes mixing because you get turbulent flow that mixes it up so to speak. The issue is to characterize the aquifer and inject what the aquifer will take. One of the systems to example when you're talking about efficiency of how much you get in and out, the Everglades system which is the world's largest system being actually proposed, 333 wells at 5 mgd per well. If you look at that its billions and billions and billions of gallons. Now do I think it will ever get built the way it was proposed, no, but on the other hand it will be a major portion of the Everglades restoration because storage is the issue. Storage provides efficiency for your utility to operate or the environment to operate on.

Chairman Para stated now is that pressure, when you inject down this water, does that build the pressure because in hydraulics water doesn't get compressed it goes places, where's that going?

Dr. Missimer stated you're right, basically what you do is you're pumping it down and that basically pushes the water out and creates the plume in the subsurface. When you turn the pump off the pressure measures the whole way across, it's the same after you turn the pump off. Now the water stays there and slowly, if there's not much salinity difference between what you're pumping in and what's in the aquifer, you get buoyancy which is the primary pressure that will push the water up and the slope of which the water flows through the aquifer is the other thing that will move it in the direction that its going.

Chairman Para asked what the gradation of the material is that deep, at a 1,000 feet deep. I don't know, you get down 70 or 80 or 100 feet you get a limestone layer.

Dr. Missimer stated this is going to be all carbonate, the mineral will be dolomite primarily, some fractured dolomites and some porous limestones and dolomites mixed. Looking in, what we call the upper Avon Park formation and basically we're looking at that a little further to the

(7-a) Water Harvesting – Missimer Groundwater Science, Inc. – Dave Hoover (cont.):

north. What's being done in terms of the steps, to answer some of the questions you have, you don't want to put it into a cavern, you pump it into a cavern its gone, that's just not a zone that's acceptable to do it. What you look for is a limestone that has good porosity, the pores are connected, but not big pores like giant caves, because when you have large zones where the aquifer is very permeable, the water enters fast and it leaves fast. So you look for a type of aquifer that has those characteristics. In Daytona Beach, I've set up a cooperative arrangement between the City of Daytona Beach and the Florida Geological Survey. They're going to drill a series of cores and they're going to core the material at the ASR site and at two other sites. Basically that information then will be used in the initial assessment of the ASR to characterize the aquifer, using geophysics, good characterization, and then a series of tests where you actually inject and recover water to see what actually happens. Then you characterize a system and you can make projections on how well the system works, but you do it in steps. If a consultant comes in and says I want to put a system in and I want to do all this type of thing and its going to cost you \$4 million, fire them because that's not the way you should do it. You do it one step at a time, you put a test well in to look at the quality of water. If the quality of the water isn't acceptable or the geology isn't acceptable, it isn't going to work. That well might be used for something else like a reverse osmosis system or could be used for mixing, but it may not be good for aquifer storage and recovery, so you don't lose a lot of money by putting that initial system in. You take it as steps along the way, if you characterize it and you say okay this looks very good, then you go to the next step, but you don't put your entire bank account into that type event.

Chairman Para then asked do you offhand know the specific gravity of the dolomite of the limestone, is that a very dense composition.

Dr. Missimer stated well the specific gravity of the mineral, if I recall, is what 2.67 for dolomite and the limestone is like 2.45 or something to that effect. But the specific gravity isn't the issue, its the pores, the pore types and how they're connected.

Chairman Para stated the pores represent the density and my question is related to that is the calcium chloride being stored in its latent in the actual materials.

Dr. Missimer stated the water that is being pumped in is displacing the water that's in the rock. Now there's certain water in the rock that will not come out because its in enclosed pores.

Chairman Para stated well go on, I'm just curious about that.

Dr. Missimer stated because that doesn't come out period, and the idea is that's when you push the system out. Now again, there's a lot of these systems that's been operated for a lot of years and I've designed several of them. In Collier County it really has helped there because that system is in an area where there's a big disparity between a peak day and average day use. In fact the ratio is 8, because if everybody leaves and we have the true snowbirds flying north for the summer. In that case, if its only 30% efficient, it still meets the needs that the plant capacity doesn't have to be built for that so we store a lot in the ground so you don't have to parallel lines

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in, you don't have to put unused plant capacity which means more sustainable energy and more efficiency of design of the utility. That's what fresh water systems or treated ASR systems are used for, getting your plants to be more efficient, then you don't have to build a whole plant for use in 10 days or 20 days a year, and also the issue too, you have emergency backup.

Dr. Missimer stated there's one other thing too that we're looking at in Daytona Beach, we haven't said a lot publicly about it because we're just beginning to finalize some of the concepts, and one is a 100% reclaimed water system. That means no more discharges to tidal water and basically where do we want to put the water, we want to put it in the upper Floridan water, right on the coast where the saline water is, to keep the saline water out, re-pressurize the system, and provide long term sustainability. Now the issue's always going to come up is well is that water going to contaminate the wellfield? Designing it with 25 years of travel time between the two places and allowing the natural system to take care of it and putting it in a good quality, the answer is that is a very viable system and I really believe that having zero discharge of reclaimed water is good for the environment and produces a higher level of sustainability in any utility system if you can achieve it, because then you waste no energy in the system. He stated so this is kind of how ASR works. He then added any questions you may have go right ahead and ask.

Dr. Missimer stated going to another potential use, this is again the lower Floridan aquifer for brackish water, feed water wells. This is a well known technology, to give you an idea, the first system I worked on was Sanibel Island. Now we have 20 years of record on energy and water quality. The quality of water has changed, the salinity has gone up over a period of time, which it does in these systems. The energy consumption on that plant, because of technological changes, has gone down 67% in 20 years, that's cost per 1,000 gallons of water, and that's documented, that's published in two peer review journals. The reason, the operating pressure of this system at that time, was 690 psi, you had to push through the filter to make the saline water and it was only 65% to 70% efficient. Today, that system operates at a higher salinity and an 80% recovery and at a pressure of just over 165 psi because of plastic technology and changes. So brackish water reverse osmosis has become a very big competitor in Florida because we're running out of the easy water in the shallow aquifers because of conflicts with the environmental wetlands issues and spring feed issues and other things. Brackish water RO has now becoming a very large player, we have five or six major municipalities in Florida which have only brackish RO water for use, Cape Coral, Sanibel, City of Sarasota, Sarasota County. There's a lot of these systems, Collier County's about 60%, its just become too difficult for them to fight the environmental battle over this thing, its much easier to go to this system. The biggest issue is concentrate disposal, the bottom one. Basically you have saline water produced by taking the salt out of the water and making it fresh and some of the ions in it, it produces a thing called ion imbalanced toxicity. If you throw it out into the sea, certain critters don't like it because its not in the same ratio it is in the sea, its in the ratio that it is in the aquifer minus the efficiencies of removal. But this has been shown not to be that toxic, its not critical toxicity or acute toxicity, most of the animals that live in the water, if they don't like it they move. Now in South Florida, we get rid of most of the concentrate through deep injection wells into a sea water aquifer and its gone, nobody has any problem with it. You can mix it in power plant discharge and dilute it 700 or 800 or 1,000 or whatever it is to one. It is much less expensive than sea

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water reverse osmosis, much less expensive. I use to quote the number \$3 per 1,000 gallons of sea water and about a \$1 per 1,000 gallons with brackish water but to move them up on \$80 barrel oil just go up about a \$1 each, or maybe a little less on brackish. This is well known technology, its used right down the coast from you in Melbourne and I would encourage you to look at those plants because they're very good quality and you can mix this water and blend it with your other waters and maintain a very high quality municipal system.

Dr. Missimer stated one of the other things you have the ability to do on this site, is to store some reclaimed water in on-site lakes. There are some issues in storing reclaimed water in lakes simply because in Florida when you have an open body of water, sometimes you have a higher potential of evaporation rate than you have rainfall, sometimes its about equal, and you have some seepage around the sides if you don't line it. Your water levels will tend to reach an equilibrium with the surficial aquifer on the outside, so you'll lose some water in that system. In order to change, sort of achieve a net storage, you basically have to increase the water, make a mound with the lake around the system. Now you can achieve that on your site because you have a lot of land and you're not going to flood your neighbor, you have some ability to do it, but the issue is once you stop putting the water into the lake, seasonally the lake's going to come to an equilibrium that's lower and when you really need the water in the dry seasons so much you may not have it. If we look at this kind of a condition, where you have the lake, as its being recharged there in the bottom you can see the water comes in and goes out the sides and you form this mound, but then it will reach it back to an equilibrium condition. So your most efficient way of storing water is either some way of covering it, some way of containing it, creating a true tank so to speak. We can achieve that in the subsurface where you have no loss from evaporation in aquifer storage and recovery, but we have some mixing on the edges and some difficulties in recovering, but this is one thing you can do and achieve some additional water. Particularly if you're towards the end of a wet period and you're going into your dry season, you could actually store effectively on your site a certain amount of water and then take it back out. Again the lakes are not a viable option for long term storage, they're short term storage type things because of again, the evaporation loss and the water leaking out the sides. The short term type of stuff, daily or weekly or meeting the surge potentials or towards the end of the wet season, those are good ideas, and every bit of water you can store that you can effectively put into your system reduces your overall cost of operating your system and in terms it gives you more sustainable supply of water.

Dr. Missimer stated there's one other thing you can do on this site and that's some water harvesting at certain times of the year. You can do this with horizontal wells or typically what we call bank filtration type of wells, this is a matter of laying very shallow wells and skimming some water out of the system and adding that probably primarily into your irrigation systems. Surficial aquifer water is a little harder to treat than upper Floridan water because it contains higher amounts of organic carbon and it contains some iron. Now you could mix that again with your reclaimed water and achieve additional water in the reclaimed water system.

Chairman Para stated when they had the presentation of WAV, and that was out of three options, that was the one they kind of went with. I'm curious, you mentioned iron and what.

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Dr. Missimer answered organic carbons.

Chairman Para stated again I'm just looking at it from a lay person's perspective, people in Florida drank that stuff for many years, is that a problem?

Dr. Missimer stated well it really isn't that big of problem but your aesthetics, it doesn't meet potable water quality standards. Your aesthetics, typically you have a very large range of dissolved iron, actually certain dissolved iron, and the closer you are to wetlands its usually higher because there's a fixation issue with organic sediments and there's a relationship with iron. The water is like tea-colored, number one that is usually not acceptable in our potable tap, and I can tell you that, today, and the organic carbon is the biggest issue.

Chairman Para interjected and you can't treat that out?

Dr. Missimer stated you can treat it out, its just expensive to treat it out because basically what you're having to do is essentially bleach the water, take the organic carbon out. You can't do it with chlorine because when you mix the organic carbon with chlorine you form trihalomethanes which are carcinogens, so you lose there, it's a balance. He stated the iron is what they call an aesthetic value and it ranges from typical concentrations from about .1 mg/l to about 5 mg/l that are naturally occurring. The drinking water standard is .3, secondary standard, it's not really a health issue as much as it will stain your laundry when you add things to it, your white shirts will look a little greyer.

Chairman Para jokingly stated we just need a good sales campaign by Ms. Mahle, get your iron in New Smyrna water.

Dr. Missimer stated there's probably some good aspects too but the problem is with the tannic acid, that's the primary organic acid in there. It produces the color and when you do chlorinate it and disinfect it, it produces some bad disinfection by-products which are an issue.

Chairman Para stated so we need to get the University of Florida to come up with another system to take that iron out.

Dr. Missimer stated actually the systems are there already, there's another membrane process called membrane softening which takes the iron out completely and most of the organics, so it already exists at an 85% recovery rate or even 90%. A lot of utilities are switching over from conventional treatment type things like lime softening. Lime softening takes most of it out but the organic, uncolored organic polymers are still there and that creates the disinfection problem, and causes you to use a different disinfection method. If you would normally use chlorine, you may use chloramines or other ways of doing it. If you happen to have a system fortunate enough to have both the conventional treatment plant and a reverse osmosis plant then you can actually blend the two waters to get the trihalomethane concentration under the drinking water standard and that way you can continue to use that other source or change the treatment methods.

Recently I'm working on a project for Sea Coast Utilities, or I guess we're going to work on, we

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just won the project last week, but they're converting one of their plants, 28, almost 30 mgd from the old technology to the membrane technology because of this specific disinfection.

Chairman Para commented I really like this man, I could talk to him all night. He then apologized to everybody and added I'll be quiet for awhile.

Dr. Missimer stated that's okay, that's what I'm here for, I'm here to help you understand what available things you have that you can use. Again, on the horizontal wells the efficiency will depend upon the specific characteristics of the aquifer, how permeable the sands are and how you can keep it maintained. One of the issues of these kinds of wells is we can have clogging problems or precipitants that form on a well when its vertical. We put a little tube in there, we spray some acid or other things, we clean it out, pump it back out, and you clean it fairly easily. When you're in a horizontal system its not quite as easy to clean it because you're trying to insert a tube between two points and trying to clean it, its a lot more difficult. Its almost analogous to cleaning a distribution system; and it presents some challenges to say the least.

Dr. Missimer stated your biggest issue on your harvesting is going to be the same issue we have, the wetlands issue, what the wetlands rules are going to be with the St. Johns River Water Management District. I believe their threshold is somewhere of an impact about .4 to .45 feet of additional drawdown, is one of their criteria, but it depends on the wetland type, the proximity and a lot of other issues. You can say the wetland issue is not only a physical issue, its a political issue too because there's wildlife issues and fire issues, its a very complicated one. So horizontal wells can be used to a degree and when you're designing most efficient, a system that has the best economics, most sustainable system, you don't depend on a single source. Its kind of like you're talking about power, you're looking at multiple sources of power. Water's the same way, if you have three different aquifers you can use, look at each of them. You develop something from each of them because at certain times when you really are having a problem like a drought and the Florida aquifers affecting wetlands, if you have another source of supply you can really use that in a backup capacity or switching between systems. You look at optimizing your best mix of technologies and what you don't want to do is what the city of Santa Barbara, California did. When they had a drought in northern California, they cut off the supply, and the distribution system was only charged three days a week on a rotating basis to the city. If you were in an area where there was no water and your house caught on fire, it burned to the ground. Now what they did is they went out and bought this very elaborate, very nice sea water desalting system. They installed it, they tested it, and then it started raining again and then they sold it. So they are right back to the same system they have and I would not recommend that as a viable way of managing your utilities; its a very expensive way. The idea is to try to keep all of your options open and spend your money wisely in determining which of the options you find acceptable and which ones will provide you the most sustainable system.

Dr. Missimer stated recommendations, what we would recommend, a lot of the issues I talked about on the lower Floridan aquifer are predicated on understanding the aquifer characteristics and water quality. We would recommend that you place a test well in that aquifer to determine what you can use it for. To make that determination I think there's an investment there, probably

(7-a) Water Harvesting – Missimer Groundwater Science, Inc. – Dave Hoover (cont.):

a 6” or 8” in diameter well with non-metallic casing and some good geophysical logging, good test protocol program to get you that information that you need. What the structure of the water quality is like, if its going to be density stratified, what it is at the top, how much you have at depth. Also you would want to look, if you’re going to do some water harvesting, you need to do the same thing as a surficial aquifer system, you need to go out there and do a standard hydrogeologic assessment of the aquifer, characterize it, figure out how much you can get out of it, and how you can get it on your site without impacting the wetlands. Really in conclusion, you have a real opportunity with the piece of property that you have because you can do some things in it without interfering with your neighbors and nobody in this area is using the lower Floridan aquifer for anything. So once you actually establish a use nobody can come back in and put a straw right beside your new plume of fresh water and take it back out again. We do have that problem in the Middle East, there aren’t any water use rules except in the Amoriges, the use rules are made by one guy who is the ruling counsel which is nice; benevolent dictatorship is a very efficient form of government. But on the other hand when his buddies all have little hobby farms out there, its kind of hard to say sheik no, you can’t use anymore water. At least we have a democratic way of doing it without taking him out to sea or whatever. Dr. Missimer then stated he would be happy to answer any questions and reiterated you are fortunate to have that piece of property.

Commissioner Diesen asked what kind of costs are involved with the assessments.

Dr. Missimer stated an assessment of a surficial aquifer system is not very expensive, comparatively speaking, because you’re only putting in 30 ft. wells, you might have a couple \$100,000 in cost for something like that. That would be about a typical investment, and looking at various options including some ground water modeling, so that you could look at what you could present to the District as something they would accept. The lower Floridan aquifer is more expensive because of well construction costs for the deep well, you’re talking about maybe a 1,200, 1,300 or 1,400 ft. well. On the upside with everything, you might be looking at \$750,000. I think its going to be less than that but we’ve been having some wild fluctuations in well drilling contracting costs based on fuel issues, labor issues, and capacity. We’ve had some drillers, we put out for bids, and we get no bids because there isn’t a contractor who wants to do it or we get an out of state bid for somebody who’s not qualified. So right now as construction is going down a little bit and utilities, you’ll probably see a lesser cost, but I would put it on the high side of \$750,000.

Commissioner Diesen stated to your knowledge, because of the interest in this, are there any Federal funds available for it.

Dr. Missimer stated actually the 444 funds that you’ve heard so much about are around and they’re predicated on you being a partner with somebody, usually because they are controlled by the St. Johns River Water Management District and I’m very much aware of the politics of the WAV stuff and I don’t know how that all will separate itself out, but there are some USEPA direct grant funding and then there’s direct appropriation funding from Congress. It might sound a little crazy but when I worked for an international engineering firm, in one year we were able

(7-a) Water Harvesting – Missimer Groundwater Science, Inc. – Dave Hoover (cont.):

to procure \$65 million in direct utility funding. It depends on how well connected your local congressman is and how the budget is working in Washington, but sometimes you can actually get quite a bit of funding.

Commissioner Diesen interjected get it earmarked you mean.

Dr. Missimer stated yes, they're direct appropriations, there's so many attached I can't even count them. He added it depends on who your lobbyists are in Washington, there's some very effective ones.

Commissioner Diesen stated exactly. Okay, so there are some funds, that's the important thing to know, other than the earmarks, but that's always a backup. So you're talking about on the recommendations, we're looking at around \$2 million.

Dr. Missimer stated I would say really on the way high side. For example, if you got the test well in and it looked like it was feasible, you might have an assessment cost, and with the other monitoring wells, and then for a prototype well which you would use, its going to be, I would say \$1.5 million, in that general range. With the surficial system fully together, you would have about \$2 million, but you would have a capacity of something for that, not just a test program. You would have an operational well of at least 1 or 1.5 MGD if you went through that process.

Chairman Para stated with the dollars you could do the surficial studies and that's something relatively inexpensive, is it not.

Dr. Missimer stated yes, that's relatively inexpensive. You can put down a lot of 30 ft. or 40 ft. wells and run tests for not very much money. The biggest issue is figuring out an optimal program that's acceptable to the agency in terms of how much you can harvest, trying to get in between the wetland areas, and see how it combines with some percolation or some concepts you might have with reclaimed water; that kind of thing.

Chairman Para stated well I don't know about my colleagues, but I really liked your opening statement and what you talked about incrementally moving along. I kind of shiver at \$750,000 but the other side if there would be some way to get a proposal together and go out for bid or whatever we would need to do to get to the point where we could begin that process at least on the horizontal side, kind of assess what we've got and transitions and all the rest out there that might be a good way to start.

Dr. Missimer stated ultimately you're going to have to find out for all your other options what that quality of water is because that's the primary issue. It also affects the economics of the reverse osmosis system, whether or not its truly brackish or not brackish. If its at 1,000 mg/l around there, that's a very doable system in terms of economics, but if its 5,000 mg/l its pretty expensive.

Chairman Para asked could we start there and ramp up to it, and what would we need to do, put

(7-a) Water Harvesting – Missimer Groundwater Science, Inc. – Dave Hoover (cont.):

out an RFQ for that?

Mr. Rodi stated part of what I was going to request is approval to increase Dr. Missimer's contract to \$50,000, you had originally approved it for a \$25,000 cap. There's some additional work we've asked him to do but at the same time we can also develop an RFQ to start to address this issue, and this way we can get some bids.

Chairman Para stated he's clearly a very knowledgeable man, an excellent report, and I can't make a motion but I'm very much in support of letting him go the next step for us.

Commissioner Diesen stated I'll make the motion and Commissioner Spangler seconded the motion.

Commissioner Hall asked what's the motion.

Commissioner Diesen stated we're moving to increase the amount of money for Dr. Missimer from \$25,000 to a \$50,000 cap.

Commissioner Diesen's motion then passed unanimously on a roll call vote.

Chairman Para stated that allows Dr. Missimer to move ahead with getting us more information and you do what you do best, Mr. Rodi, and provide us.

Commissioner Diesen then asked Mr. Rodi, do you also need a motion to do an RFQ?

Mr. Rodi stated I would like preliminary approval to begin to form that up.

Commissioner Diesen stated so move, for the General Manager/CEO to develop an RFQ on water harvesting. Commissioner Allen seconded that motion and it passed unanimously on a roll call vote.

Dr. Missimer thanked the Commission and stated I enjoyed the discussion but added I'm still available to answer any questions you might have.

Chairman Para the last thing, and I think its appropriate for us to discuss it in candor at this point, can we formally move in the direction of discussing with any other agency to combine our efforts, for instance Daytona or somebody else, so that we qualify for 444 funds or what.

Mr. Rodi stated I think as we start to develop the proposal we'll be able to answer that question. I think right now I don't know how to address it specifically.

Dr. Missimer stated well, I can give you one example, actually the ASR system that the City of Daytona Beach is doing, I think Holly Hill will be a participant in that, and they're also looking at the salinity barrier concept together because Holly Hill has a disposal issue, its much better

(7-a) Water Harvesting – Missimer Groundwater Science, Inc. – Dave Hoover (cont.):

putting it in the ground where it can be used rather than putting it into the sea. So there's a teaming that's occurring there.

Chairman Para stated I'm certainly not wanting to address the politics of the discussion but from the practical standpoint, as a Utilities Commissioner that's all I'm interested in, can we make it work, can we combine our efforts with somebody else. I guess the questions been answered but I'm all for people working together. He then thanked Dr. Missimer for his presentation and time.

(7-b) Addendum – Addition of 6% Payment to City on Developer Infrastructure Fees – Brent Millikan & Co. P.A. – Roberto Montalvo (DEFERRED):

Chairman Para stated the next item on the agenda is the deferred one for the 6% and then went on to New Business.

(8) New Business:

(8-a) Venetian Bay LLC – Memorandum of Understanding (MOU) RE: Proposal to Install UC Infrastructure – Jim White:

After Chairman Para introduced this item on the agenda, Commissioner Diesen commented we received a copy this afternoon (revised version).

Mr. Rodi stated just to give you a little background and I'm keeping this in a very open public forum. As you know we passed the addendum to the Developer's Agreement and Mr. Johnson had volunteered to give us a pricing and build to our specs., the installation of a water and Bright Water line along S.R. 44. Where we are now, I think you may have noticed the construction is underway, and we've had some preliminary review of what the pricing is. We had a meeting with Mr. Johnson and we, being Counselor Preston and myself. What this memorandum of understanding represents is how we will conduct business with regard to this portion of this project. It runs from basically Airport Road to the Fire Station on what's labeled as Williamson Boulevard currently. There's also a leg that Venetian Bay has finished that is north on Airport Road from S.R. 44 and then there's another small section on Pioneer that's had a 12" line installed. So what we're proposing is to do a credit against his total ERU bill based upon what we're calling best practice cost. We're at the stage now that Jim White, who is on vacation currently, will be meeting with Venetian Bay representatives to go over those costs, agree upon which costs are part of the project and then those would be offset against his total ERU's. The purpose for bringing this before you is it does involve a contract, it is something that I want you to be aware of and give your approval to as well because I would like to be able to execute this. Then secondly, when we deal with the costs, then you'll know what the trade offs were on the ERU's. Much in a similar fashion as we did with Mr. Dever, so there's a parallelism there. He then asked Counselor Preston if he had anything he wanted to add to that.

Mr. Preston stated no, I'll be glad to answer questions, but I think that was adequate.

(8-a) Venetian Bay LLC – Memorandum of Understanding (MOU) RE: Proposal to Install UC Infrastructure – Jim White (cont.):

Chairman Para asked is there any specific rubbing point or is everybody happy?

Mr. Rodi stated it seems as if the discussions are going well. The pricing that he's given us in a very preliminary look is less than what our studies have shown that we should be paying for foot, so I think we are getting the leverage of and economy of a larger developer doing this work.

Chairman Para stated so you need from us just a motion to approve the Memorandum of Understanding.

Commissioner Spangler stated I'll make that motion, to approve the Memorandum of Understanding (MOU) regarding Venetian bay, LLC's proposal to install Utilities Commission infrastructure and authorize the General Manager/CEO to execute the documentation. Commissioners Diesen and Allen seconded this motion and it passed unanimously on a roll call vote.

(8-b) Co-Location on UC Communications Tower – Jim White:

Mr. Rodi stated I have another PowerPoint presentation. He stated I wanted to start with this particular view and what this represents is the T-Mobile coverage area and this is obviously the company that's asking to co-locate on our tower. I think if you look at other existing cell phone providers you'll see similar coverage depending upon what towers they're on. But you can see in the vicinity of the U.C. property there's a big white area. Understand that those cell phone providers have the obligation for 911 service and its their requirements. I know this has been presented its our obligation and it is not. There's also a competitive issue that's starting to quietly play out now. There's been another cell phone provider in the past that I've said no to and I'll explain the reason for my no's, but what's occurring competitively is they're now developing wireless interface cards with your computer to then become very competitive with other wireless providers using their cell networks and I think you may start to see some of the commercials on T.V. So there's a lot of opportunity here and frankly in our assessment about what we want to do with wireless with a number of providers here, Sprint, T-Mobile's moving in, and Verizon is here, that it's a very dynamic emerging competitive market so that has a lot to do with the capability of these companies.

Mr. Rodi stated I tried to represent, and obviously that's the location of our existing tower site, so that you could see the wastewater treatment plant off to your right along I-95 and our storage pond, that's that large block down there. The site itself, and this was taken from some prints, shows the tower in the center, it shows the satellite dish on the left lower side outlined in an aqua form, and shows what we're calling the headend building with all the boxes and the green in it there. That's a representation of how the tower site was actually laid out.

Mr. Rodi stated the next slide is the actual physical tower if you have not seen it out there and you can see the fiber trailers that are set up there, the satellite dish down at the bottom and then the antennae array up on the top. The next is just a closer view of the antennae array which

(8-b) Co-Location on UC Communications Tower – Jim White (cont.):

includes a number of UHF antennas, there's some 5G stuff up there, and there's a Canopy antenna. Right in the center you can see a light for FAA requirements that is currently not working, and then there's a lightning rod that is attached there for lightning strikes.

Mr. Rodi stated the next is just a representation of those different antennas with the different UHF bands and their orientation to north. I wanted to point out here, this is the monopole and the representation of it. I've circled an area that says 100 mile an hour wind design, that's what that says. Now that means with all of the attachment locations on it, so that essentially once you start allowing co-locates you end up using the capacity and the capacity for this unit is designated to be 100 mph. Obviously if we have any hurricane of any real magnitude it raises a question about the sustainability when fully loaded, but now, right now, its no where near that.

Mr. Rodi stated this is what it cost to just put the tower up there. These costs were pulled out and separated over this past year in 2005, that year ending, and you can see that there's \$293,000 that was spent on that tower and you can see there are just different connections of the tower to the headend building and those kinds of items.

Mr. Rodi stated here's the headend building, there's another \$335,000 invested in that. He stated the tower height increased in size over some of the original design concepts. My reference for saying that is originally, not this tower, but the location of a tower had a migration from being on the east side of I-95, then moved to the west side, then it was suggested to go to another location way east of I-95, and then there was a contract to have a different company build a tower where this one is. The contract never was executed, I mean the contract was, but it was never built and then the U.C. took it over. So this has had quite a history.

Mr. Rodi stated next is some of the communication equipment that is inside that headend building, which is another \$1.3 million. I wanted to show you there are some significant costs and this isn't all of them that related to the headend building, the fiber system, the cable system, and you see a lot of the equipment there that relates to the cable business. One of the questions that still is in place with regard to this tower is, obviously I mentioned the lightning rod, the first drawings indicated that this would be a tower that would be a 100 ft. high, then it was changed to make it 190 ft. high and then it has a 9 ft. lightning rod on top of that, so its 199 ft. high. The tower itself has grounds that when lightning strikes to dissipate the energy into the ground. So these are ground rods down 29 ft. and there are a number of them. The headend building itself has a number of driven grounds that are around the building. Then if you can imagine, around the tower is what they call a ground grid, and if you can imagine this to be like a checkerboard with just the wires crossing each other in a rectangular square fashion. It has two purposes, and one is a safety related purpose for people. Should you be walking on the surface and there's a lightning strike, its meant to keep the potential, the electrical potential that's running through the ground almost the same so that you, in taking a step, don't become a conductor. Substations have them also, you don't see them, they're under the ground, they're very complex installations in their testing. They're not complex to build but they take very precise construction. The other purpose in a communication tower standpoint is to try to shunt the electrical energy away from the control room, the actual headend building where all this electronic equipment is. Over the

(8-b) Co-Location on UC Communications Tower – Jim White (cont.):

time that I've been here, there have been significant numbers of electronic devices ruined while we had lightning storms there. Those are indicators that the ground grid system isn't working as well as it should. One of the things we did, I asked the relay group just to go out and measure the driven grounds, added this is not a measurement of the ground grid, at our substation, at the communications building, and some other tower points just to see if the driven grounds were good enough. Why I'm bringing this up is that there remains to be work done to test and repair the ground grid. The engineer assigned to this has consistently said that it is not functional, needs to be repaired, and the testing becomes very critical.

Mr. Rodi stated when I've been asked about this particular tower I've said the U.C. is reserving space and that's been the answer I've provided. And the space is for the U.C. and the City Police and Fire needs, those are the two entities, and by the way that does meet the City's minimum co-location requirement. Underneath all of this there are still a number of technical issues where bottom line is the tower is not commercially ready. The reason why I've said that is there are questions about the proximity of that headend building to the tower, the adequacy of the ground grid that I've mentioned and the grounding of the headend building itself. There is an issue of the nearby substation and what happens when there's failure of equipment at that substation at 115 KV, there is what they call fault current that goes into the ground, into the ground grid and dissipates over some distance. The contention by the engineer is this was built too close to that substation. To compound that issue, if there's a 230 KV station built by FP&L, right across from where our existing 115 KV station is, we have a further aggravation of that same type of ground fault. Technical point, the tower itself has a design spec. that an engineer puts his stamp on, its an impression in the paper, saying that engineer is warranting that its designed to the specs. that are there. That stamp however was for a different company and it was just used here. My guess is it is probably more of a technical kind of an issue about having it be reassigned but it does enter into our occupancy permit which we still don't have from the City. There are a number of outstanding issues, some of them very minor. What I mean by the jurisdictional questions, according to code, communications towers are not subject to City type codes however there's a building here, if its going to be occupied then that building is subject to it. There's a lot of different overlaps. We don't have a functional emergency generator there which is important for back up. The reason why all of these issues are compounding is that if we're commercially presenting this and we don't say well we think there are problems with this and that, and these companies are presenting services to their customers, then I think we have a series of questions to answer. He said basically that's the reason why I've said its just not available for co-location.

Mr. Rodi said the next slide, these costs here, and the skew on this is due to trying to force an Excel spreadsheet onto a PowerPoint, but you can see for the fiber system and all of those components, there's \$2.7 million there. We're still using the fiber system for purposes of broadband, essentially it goes to Venetian Bay. Currently, now, since the cable business was shut down effective September 1<sup>st</sup>, all of the other equipment at the top of that is currently not in use. We plan to activate some of the Canopy stuff that's there, I've just been trying to sort through how much more money to put into this to make it a commercially available thing. Using it for ourselves is one thing, to start to have commercial arrangement is quite another thing.

(8-b) Co-Location on UC Communications Tower – Jim White (cont.):

Mr. Preston asked if he could add something before you begin discussion, because the agenda item is for discussion. What I hear is depending upon the side of the coin you come, either a legal nightmare or a legal desert, but there are a lot of legal issues, liability issues that are apparent. First of all I would suggest that we put a light bulb in the top.

Mr. Rodi interjected we are working on that.

Mr. Preston stated but as you discuss your recommendations regarding co-location, it seems as though there are some significant liability issues here that you want to take into consideration.

Commissioner Diesen stated that was going to be one of my questions, all these negatives that you brought up and all these issues, no. Is that our liability, if they co-locate and suddenly they walk across the grid and are zapped, or is it “buyer beware”. If those are all our issues it seems to me that they’re almost insurmountable at this point in time to allow others to come in and co-locate.

Mr. Preston stated and I suggest they would be our issues. They’re existing currently and if we were to co-locate or allow someone to co-locate on a facility that we created that was substandard then we would certainly be liable.

Commissioner Diesen stated well, couldn’t we say to them it’s substandard, if you want to co-locate bring it up to standard at your own expense.

Mr. Preston stated caveat emptor, and I believe if you want to take the risk I would suggest that you could in writing suggest that there are these inherent problems and dangers with the site, and get all of the hold harmless agreements that you can get and all the releases you can get. With this significant report that I heard tonight, I wouldn’t recommend that. I would recommend at this point trying to resolve what the potential liability issues are before subjecting any third party to those potential dangers.

Commissioner Diesen asked is the City aware of all of these issues because they are the ones that asked us to co-locate.

Mr. Rodi stated no, I think they are aware of parts of them over the history. For example on issuing of construction permits and as to how some of that occurred. It’s not like some of these things aren’t repairable either, they can be fixed. The point was all along in shutting down the telephone business, the cable business, one was a timing issue but in addition to that we’re still pursuing getting the CO, there are some things we still have to buy and some of them are relatively simple but some of the others I don’t know where they would head. For example the engineering stamp, is that a significant problem or not, I just don’t know the answer to that right now.

Commissioner Diesen stated it seems to me the idea of whether if its located too close to that building is a significant issue as well.

(8-b) Co-Location on UC Communications Tower – Jim White (cont.):

Mr. Rodi stated part of that goes to code and whether for example distances from residential buildings, that's one thing. Distance from that tower to the building without an adequate grounding dissipation system is another thing. So I have been working with completing this to a point, we've finished the grading, put the stone in, and knowing full well that you may have to dig it back out again to repair the ground grid. Trying to get the generator going but because we didn't have a general contractor, so then there's not a recognized qualified person. The City's aware inside those issues but as far as others who would say well there's a tower, its got extra capacity, put something on it and make some money, that's all very reasonable but the background wasn't.

Chairman Para stated can I jump off here, number one you paint a very bleak picture for the tower, having get all this information tonight, it almost appears to be a liability. What is it's current value if it were to be deemed surplus and sold.

Mr. Rodi stated I really don't have a clue on that, obviously someone would come in and be able to make repairs, for example the ground grid might be a minimal amount, say \$15,000, but then again you have to be able to accurately measure those ground grids and that's not readily done.

Chairman Para stated currently we're using it for our UHF.

Mr. Rodi interjected that's all shut off now.

Chairman Para stated so really its not a critical component because we're out of the telecommunications business.

Mr. Rodi stated that's right and what we have going in there now is a T-1 line that's carrying our signal for purposes of broadband internet.

Chairman Para stated we've told people in Venetian Bay we're shutting down.

Mr. Rodi stated not the internet part though.

Chairman Para stated not the internet, how many customers do we have, like 28 customers?

Mr. Rodi stated I don't know how many internet, ten, I'm just guessing.

Chairman Para commented that's a pretty big asset for ten customers.

Mr. Rodi stated well, there's another part of this. If an investment is still used and useful, then you don't have another loss to write off. Think about that a little bit because that's why I put the \$2.7 million up there. Could the tower itself be sold and the land retained for leasing?

Chairman Para stated I'm not in favor of that, I'm just trying to move along for the discussion and ask some questions because other people are asking them so I want to ask them myself or

(8-b) Co-Location on UC Communications Tower – Jim White (cont.):

anticipate them. The other question is, I don't like utility companies being in that telecommunications environment. Is this something for instance that we could say to the mobile companies, do some sort of a quotation, a request for participation, and give them this detailed report, you might want to say the bad list, all the "dirty marks", and say part of this is going to be cleaning all of these things up. So we take something on the negative side of the ledger sheet, which we're struggling in our value system to put dollars in, and say to them all right if it's \$150,000, that's part of your upfront costs, and we'll give you a contract of a year or two years, and see who bubbles to the top, as far as discussion purposes.

Mr. Rodi stated another perspective if I may, part of having this tower used by someone else would be to declare it as surplus, then we go out for bids, and those very astute companies are going to offer us, I don't know, but I would imagine it wouldn't be a whole lot; but that's how I have to get rid of equipment.

Chairman Para stated and because part of the future is with the wireless, with the fiber and there's the potential to use the building for that, and you and I have talked about that, correct?

Mr. Rodi stated yes, and we plan to do that.

Chairman Para stated so that's the future, but in the meantime is there a period of time between now and then so that this mobile company can amortize out their expense, if its two years, can they do that, can they amortize that out and assume all this dirty list of responsibilities.

Mr. Rodi stated my bottom line is I think what we need to do is understand more about what its going to take to fix it, because frankly once I started hearing all of this, I just parked it. There was not a reason to get into the detail of would the whole ground grid have to be redone and what is the issue with the building, and it could be its not a whole lot or it could be a lot, I don't know.

Commissioner Diesen stated what about the Fire and Police too though.

Mr. Rodi stated well they need space, I'm told, for the purposes of their emergency communications and I was asked to reserve some space a long time ago after first coming here, so it was just a spot on that monopole, that's all.

Commissioner Allen stated I think we have to get to a point where we evaluate what we have right now, especially when you look and you have your main substation sitting there and fault currents. You need to evaluate what's going on with the ground grid and do a comparison. Is some of the damage to the electronics in the building, did those happen at the time that there was some high volt currents possibly. I would kind of do that kind of investigation to see what's going on there and especially when you're looking at 230 KV coming in there; there needs to be some research done on that area.

Commissioner Spangler stated just so I'm a little up to speed, this tower is on U.C. property.

(8-b) Co-Location on UC Communications Tower – Jim White (cont.):

Mr. Rodi stated yes.

Commissioner Spangler stated I heard a comment on a tape recording of the September 6<sup>th</sup> meeting where it was said that some company contracted to do it and they went belly-up and the U.C. took it over.

Mr. Rodi stated there was an agreement that was signed to install the tower and they executed the agreement but they never moved forward to build the tower.

Commissioner Spangler stated so we built the tower.

Mr. Rodi stated I presume that's true.

Commissioner Spangler stated so we have a tower that's on our property, and someone wants to share usage and we don't think the tower is up to snuff, and it's a liability. It's not only a liability for someone else, it's a liability for us too then, physical liability. He added I understand your comment about the loss.

Commissioner Diesen then asked Mr. Rodi, are you looking for a motion from us?

Mr. Rodi stated well we said we would discuss this and the question was why did I say that I was reserving space for the U.C. on that tower exclusively, so I've explained.

Commissioner Diesen stated given all that you've said and what our attorney has said, I'm have at it if you want to assume all the liability, if somebody else does would be mine, but I don't think we could afford at this point to entertain co-location. I'm not voting for it.

Mr. Rodi stated that's why I wanted to bring up the initial information, I don't know finite answers enough to conclude that we can't ever co-locate. All I know is right now, and prior to right now, those are the reasons why I had said we reserved the space for ourselves because we were still working at trying to fix these problems.

Commissioner Diesen asked Mr. Rodi if he had discussed this with the City Manager yet or did you bring it to us first.

Mr. Rodi stated I brought it here first.

Commissioner Spangler then asked who is it that wants to co-locate on this tower, the City?

Commissioner Diesen stated T-Mobile.

Mr. Rodi stated T-Mobile because they're expanding in this area, I gather.

Commissioner Spangler stated and are we under pressure to do this?

(8-b) Co-Location on UC Communications Tower – Jim White (cont.):

Chairman Para stated the thing, just to take a stab at it, is that it bubbled up at a City Commission meeting and the premises is that the City, and for good wisdom, does not want 15 towers along the gateway to our community.

Mr. Rodi commented that makes a lot of sense.

Chairman Para stated and they're saying why don't you put one pole up and you've got one that really is not being used or used extensively, can we do that. So from a practical standpoint the conversation's going in the right direction and of course, now our CEO is rightfully saying, look there's all these shortcoming and liabilities, let's slow down and let's understand what it is that you're actually, what kind of Pandora's Box are you opening up in this process. I know these folks have deep pockets but they also have very good lawyers that write in things and they end up shoveling responsibility back our way, so I just think it's a tremendous amount of liability right now.

Mr. Preston then interjected I think you have the better lawyer.

Chairman Para stated I would agree with you but however they're still hard at it. He stated I think we've had good discussion tonight and we've gotten some good points but I think that, Commissioner Spangler, is really the thing that they were just, and for good reason, trying to say lets just have everything on one tower and I think we got a good answer back in this detailed report. Obviously if it's a cell phone company that comes in and says look I'll just make all of these problems go away and I'll going to make you a deal you can't refuse, we'll listen. I think that's what we're all saying here tonight.

Commissioner Diesen stated and hold us completely harmless.

Chairman Para commented exactly.

Commissioner Spangler stated is that legally possible, to give somebody something that's dangerous and then be held legally harmless.

Commissioner Diesen stated if you tell them up front its dangerous, right?

Commissioner Spangler stated well I'm not sure.

Commissioner Hall stated boy, that's a tricky one.

Mr. Preston stated what the perspective is that I've gained is that what we have is some question more than answers right now with our particular site and the pole. And really answering those questions with what needs to be done at what expense before we commit to co-location is what's important now. If we go to the extreme, and I don't hear that we're at that extreme, but if we go to the extreme where there is open, obvious liability concerns with design, construction, what have you, as I said earlier, I would not want us to be in a position where we try to hold ourselves

(8-b) Co-Location on UC Communications Tower – Jim White (cont.):

harmless from that; it's open and obvious knowledge. Can you get hold harmless and release documents executed, yes, you can, are they upheld all the time, no, they're not.

Commissioner Diesen then stated to Mr. Rodi, I suggest you talk with the City.

Mr. Rodi stated again I need to make, and Counselor correct me if I'm wrong, this is the monopole and that facility is equipment. For the U.C. to dispose of equipment we have to declare it as surplus and then it goes out for competitive bid. So if someone comes to us and says well look I'll take that thing over for you, I'll fix it up. In a private world that's how you'd do it, you would say take this off my hands, and I'll give you a deal. Here, I want to bring that up again, the methodology I'm compelled to use is declare it as surplus, it goes out for bids, and then we go from there. So the approach that we were trying to use was work at fixing what we could fix and get some detail on this to find out just where we were and of course what's intervened now is someone who is very serious about needing tower space.

Chairman Para stated so your definition would be that if somebody were to use it for two years it would be deemed surplus. If somebody were to lease it for two years it would be deemed surplus.

Mr. Rodi stated no.

Commissioner Diesen stated if they came in and took it over, if they wanted to take it over.

Mr. Rodi stated I can't even go there, I've got to say its surplus, all comers give me a price.

Commissioner Diesen stated I think we ought to continue this, I'm not ready.

Commissioner Spangler stated I don't think that we're ready to do business with anyone with that, without even getting into the issue of whether we want to sell something that's sitting on our land and whether we're selling something that they can come back on us against, and then there's the issue of if we sell it for just a little bit, then we have to write off the rest, and that's not cheerful. I think probably we need to see what we can do to make that thing workable, I think we need to take some time to look at it and defer letting anyone else attach to it. Just say we see some problems and we want to investigate the problems before we revisit the issue.

Chairman Para stated that sounds like a good motion.

Commissioner Spangler stated is that a motion?

Commissioner Allen stated are there not people out there, communication, ground type gridding that will evaluate and give you an idea of what can be done?

Mr. Rodi stated yes, and we have some quotes from a firm that said they can come in and fix the ground grid and I think it was \$12,000 to \$15,000. Saying it and then showing that they actually

(8-b) Co-Location on UC Communications Tower – Jim White (cont.):

did it is another issue, but no, I think those folks are out there.

Commissioner Allen interjected and then put their stamp on it.

Mr. Rodi stated yes, and then we would also have to talk about the transfer of the stamp to make sure that it can be assigned and I'm assuming it could be. These are the kinds of issues that we need to work through.

Commissioner Allen stated I believe some time in the future there's going to be a viable need for that particular type of tower in that area, especially governmentally.

Mr. Rodi stated that's why I showed the pattern to begin with.

Commissioner Spangler stated I'd like to make a motion that we not accept any other people for locating on the tower and that we take some time to see what we have and make it right, and we can revisit the issue later. Commissioner Allen seconded this motion and it passed unanimously on a roll call vote.

(3) Public Participation (cont.):

Chairman Para then recognized Mr. Tolley again.

Mr. Tolley stated to Mr. Rodi, I've known you about a year now, a little over a year, but I've got to tell you, yea, we don't see eye to eye on a lot of things, and I have fun banging heads with you at times, but I can't tell you how much I appreciate you being here. What you've had to put up with, nobody should have had to put up with. I can just imagine the toll its taken on yourself and your family. I wouldn't have done what you've done. I'm actually ashamed of all the back dooring and the garbage that's gone on. I was so mad that I wasn't here last Tuesday night and I didn't have a shot again tonight because somebody ran out the door, had to crawl back under the rug.

Mr. Tolley stated to Mr. Rodi your leadership has been an inspiration. He commented I had to write this down because I'm not good with these words. And I can tell you, for the most part you really stand up for a good thing. I'm sorry to see the City has come to this, officials who are responsible to the citizens, were negligent in their oversight duties, but you've caught the wrath of this. As an example, they never once bothered to seriously question the whole telecom concept as confirmed by even the lack of a simple business plan, which knowing them they put together on a roll of toilet paper. They even provided operational authority to move forward in the early afternoon when nobody was around as an emergency ordinance, which hopefully Mr. Rogers will have a comment on at some point. I can't tell you how good tonight I felt when all the Commissioners voted to move ahead with the complaint with the FBI. I think you're going to see a lot of sarcasm and smirks get wiped off a lot of faces now. I really look forward to you moving forward Mr. Preston.

(3) Public Participation (cont.):

After a few other comments, Mr. Tolley asked Mr. Rodi one other thing just so I understood, was there a decision for further discussion on the alternative energy tonight.

Chairman Para stated I think what's going to happen is we're going to have during our next regular scheduled UC meeting, Mr. Rodi and I are going to discuss possibly a workshop and put our heads together on that. Meanwhile, hopefully the Green Team will get together and discuss some of that stuff. Again, we just continue this dialogue which I think has been all healthy tonight.

Mr. Tolley stated just one other thing, tomorrow I'm going to begin the process of getting the previously closed FDLE investigation reopened. I guess I wouldn't be speaking out of turn if I was to say to somebody over there that in fact a decision has been made to officially file a complaint with the FBI. He confirmed by stating it is what it is as of tonight, right.

Chairman Para thanked Mr. Tolley for his comments and then recognized Mr. Rogers.

Commissioner Diesen also thanked Mr. Tolley for supporting Mr. Rodi. She stated I agree with you, commented I seldom agree with you, but I do agree with you that he's done a wonderful job and we're very fortunate to have him. I wouldn't have put up with this either.

Mr. Rogers addressed the Commission again and stated to Mr. Rodi I'll give seconds to that, its been a tough road and you've done a great job with it so far. Mr. Rogers then stated in response to what Mr. Tolley just said, I was a City Commissioner at the time that the emergency ordinance for telecommunications was brought forward. The City Attorney either drew up or reviewed the ordinance and should have given the City Commission advice as to whether to move forward with it or not, and/or whether we needed a public meeting. Looking back we should have asked for a business plan, I think that would have been an obligation without any input from the City Attorney. And also, it probably would have been a good idea, even if it wasn't legally required, to go ahead and ask for a public meeting so the public could respond to it. I feel that we didn't handle this situation properly at that time and like I said looking back I see now the error of our ways. But it was a unanimous decision by the Commission, our Attorney sat there and didn't tell us that we were doing anything wrong, and we rely on our attorneys to give us good advice.

Chairman Para then asked if there was anybody else, while we've got the floor open that would like to speak this evening. There being no further public comments, Chairman Para closed the floor.

(9) Possible Other Business – Time for Commissioners:

Chairman Para then started with Commissioner Spangler for possible other business.

Commissioner Spangler stated can I read about today's News and Observer a little bit to you, comment on it.

(9) Possible Other Business – Time for Commissioners (cont.):

Chairman Para stated have at it.

Commissioner Spangler stated I think this is irresponsible journalism. It says here, and we won't say who they're quoting, he's also cited mismanagement of the City's Rate Stabilization Fund which he said should have eliminated the need for rate increases and a fuel adjustment charge on residents' bills. Now that sounds like \$5 or \$10 million to me and the way that I arrive at that is in the last year I think we've had, and I wrote it down somewhere, here it is, we've already spent \$22 million purchasing a little bit of fuel and a lot of energy. It's my understanding that we'll probably run close to \$24 or \$25 million and about 25% to 30% of that is actual fuel. So \$6 or \$7 million of that energy was fuel and the cost of fuel doubled in the last 18 months so that means our additional fuel costs alone were \$3 or \$4 million. I don't know how a part of a million dollars could have paid that and eliminated the need for increases. So I think when it says the fund had about a million but some was transferred out, that the fuel adjustment could have all been done with less than a million dollars, when we know the price of the fuel went up \$3 or \$4 million. I don't think anybody checked their figures and I think probably the individual that said that was misquoted in the paper and somebody ought to check on that and correct it.

Commissioner Allen then stated he had no comments at this time.

Commissioner Diesen stated to Commissioner Spangler I don't think that was misquoted probably, if you looked at the transcript I think it was misinterpreted by the individual. The Rate Stabilization Fund has been a catch all fund for a long time and it didn't just happen. I think it needs to be re-looked and there should have been some better investigation into it before those kinds of things were published, I agree with you.

Commissioner Diesen stated and to back up some of the things that were just said here, I would like to have the Commission's approval to perhaps reopen Mr. Rodi's contract and look at a couple of the items within that contract, if he's agreeable to it and if the Commission is. He's been here over a year, he's done an outstanding job and I think its time to re-look at some particular tenants of that contract.

Chairman Para stated without objections, Commissioner Diesen would you mind bringing us back some information, some cognizance on that issue.

Commissioner Diesen stated sure, if Mr. Rodi's agreeable.

Chairman Para stated well obviously you and he would talk so I'm just asking you if you would head that up.

Commissioner Diesen stated sure.

Chairman Para thanked Commissioner Diesen and then asked if there were further comments.

(9) Possible Other Business – Time for Commissioners (cont.):

Commissioner Hall stated I want to welcome Mr. Allen to the Commission.

Chairman Para stated I'm glad he's here.

Commissioner Diesen added I'm glad you're a minister as you can pray for us and we sure need it.

Chairman Para additionally commented if everybody's okay with it, before the meeting officially starts, tag you're it (regarding the invocation).

Chairman Para then stated he had a couple of quick things. He stated to Mrs. Mudge, Katie Connor had written about an insurance issue, are you familiar with it. He then asked if anyone minded if he pursued this in this way.

Commissioner Diesen asked is this our business?

Chairman Para stated well I'm simply asking a question so I understand more.

Mrs. Mudge answered yes, Katie Connor, who was our previous Materials Manager retired. When the retiree retires they take on 100% of the cost of the benefits if they choose to continue on in the benefit. The letter more or less was asking if we're going to do anything for the retirees this year to help them with the increase that they also had with health insurance, as we did with the employees.

Chairman Para stated so the policy currently is that we don't do anything but we provide them access to buy into it at 100% expense. That is the current policy that we've all agreed to.

Mrs. Mudge stated correct.

Chairman Para stated okay, that's all the information that I needed, thank you, I appreciate you doing this. He then stated the other thing that was mentioned earlier this evening, the Kyoto Treaty, he asked Mr. Rodi if he would mind investigating that for us and seeing if there's some level of participation we could recommend so that could be brought before us at our next meeting.

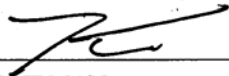
Mr. Rodi stated sure.

Chairman Para stated that was it for him, thanked all for being here, and to Commissioner Allen, thank you for being here, you're a blessing to us all.

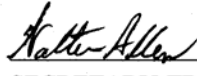
(9) Possible Other Business – Time for Commissioners (cont.):

There being no further business to come before the Commission, Chairman Para adjourned the meeting and the regular U.C. meeting closed at 8:54 p.m.

APPROVED:

  
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CHAIRMAN

ATTEST:

  
\_\_\_\_\_  
SECRETARY-TREASURER

These minutes were formally approved by the Utilities Commission at their  
October 16, 2006 meeting.