

**Cowpet Bay West
Board of Directors Meeting
April 10, 2013**

Present: George Blackhall, Ed Wardwell, Sharon Koehler, Arran McGinnis, Holly Case
Phone Conference: Doug Rebak & Dick Lamoureux; Excused: Michael McGuire; Absent: Bill Canfield
Guests: Rosie Wells, Greg Miller & Judi Kromenhoek

Approval of Minutes:

Approval of Minutes of March 12, 2013: There being no objections to the minutes, a motion was made to approve the March 12, 2013 minutes as recorded. All were in favor.

Manager's Report:

RO, WWTP, Operating systems ran all month with no major issues.

Roof Assessment: Received third estimate from Bart Systems for repairing and replacing the damaged roof areas only. Arran has also revised bids from the other two contractors to only repair damaged areas, instead of replacing the entire 4x8 sheets of plywood.

Arran suggested that we include aluminum rail drip trim on each edge of the roof gutters. It comes over the edge, sealed onto the roof preventing water from coming onto the porches. Will have to add additional cost in proposals for the aluminum rail.

Current bids: Charleston Burton – \$125,000; Bart Systems – \$107,500; Resort Painting – \$105,500. These bids do not include aluminum rail drip.

Ed expressed concern that last year Charleston Burton repaired a roof for \$1,000, with 52 roofs why is there a large increase. Ed felt that \$75,000 would be more reasonable.

Arran will speak with all three estimators one more time and revise the roof assessments. He will have all three proposals with his notes and everything totaled up available within 10 days. He will also check with all three to see if they have any kind of labor guarantee.

Tree Trimming Estimate: Asphalt Tree Trimming – \$12,100; Charlie Berry will also provide an estimate. Miguel Rodriguez from Asphalt will be giving CBW a signed statement saying that we are not responsible for any injuries his staff may endure while trimming the trees. We currently have his license on file. Once we receive the second estimate Arran will forward to the Board.

Irrigation System: The list of materials and labor cost is approximately \$6,600. Aaron believes that we won't need everything listed on the estimate and feels it will be around \$5,000 to redo the entire irrigation system. This will include: readers, program, valves, wiring, take out the drip, stand-up sprays, and rerouting 8-10 locations that need additional water. We would pay him up front for material cost and pay him weekly as he completes the project. Once the system is complete, Arran will be working with the staff to train them so that they can maintain the irrigation system.

Sharon reminded the Board that the irrigation system was not budgeted. Board approved the \$5,000 for the irrigation system.

Sherman Williams: There are several projects that still need to be completed on property that require Sherman's skill set. Arran is asking to keep Sherman contracted with CBW until they are complete. He has gathered a list of projects and will prioritize what Sherman needs to accomplish. Some of the projects include: cracks in concrete walkways, drywall for water leaks, stair & rail repair, and gray water holding tank. Board granted permission to contract Sherman until the next Board Meeting at which time they will reevaluate what projects are left and whether or not to continue to keep Sherman contracted with CBW.

The second employee Domingo (Preimo), Sherman's assistant, has been released and will no longer be on payroll. Our current staff will assist Sherman with any upcoming projects.

Treasurer Report:

Bank Balances – April 10, 2013

General & Special	\$ 70,000.00
Reserve	\$ 362,700.00

Arrears: 2 owners are more than 30 days in arrears.

Quarterly Report: Sharon reported that we took in \$9,000 less in income this year according to the budget. Currently we are over budget on vehicle maintenance (new tires for the dump truck). Generator expense is over \$600 (Kent Harvey's work on the generator control panel in 2012), and two extra contracted employees working for CBW and not budgeted for, have contributed to expenses being over budget.

Mortgage Lenders: At the request of a mortgage broker, the Board decided to review the current standards required by mortgage lenders, in an attempt to meet their criteria for low interest loans. It required the Association to secure a fidelity bond and to revise our 2013 budget. With the help of our accountant, the budget was reallocated to comply with the lenders requirements, thus enhancing the value of our property for both sellers, buyers and refinancers.

Revised budget: A copy of the revised budget was sent to the Board, as well as a copy of the proposed letter to owners explaining the Board's decision for the revision. The Board now needs to make changes to and/or approve the letter from transmittal.

Year-End Accounting Meeting: George, Sharon and Holly had a meeting with Jeanne Brennan to finalize 2012 financials. Also discussed was the tight 2013 budget and the need to keep within its restraints. Other items discussed were the possible limitation of capital improvement projects until funds became available and the idea of evaluating increasing our water charges to our owners.

Reserve account: Ed expressed his opinion regarding the funds in our Reserve account. He feels it is no different than a savings account, and rather than having to increase charges to our owners, we should be able to use the reserve funds to cover unexpected increases in our expenses as well as the 2013

budget shortfall. Sharon will contact Jeanne to get a better understanding of our limitations, if any, regarding the reserve from an accounting standpoint.

Insurance Premiums: CBW has made one of three payments for \$75,000 in insurance premiums, with the remaining two payments due May 15 and June 15. Each year we wind up borrowing insurance premiums from our Reserve account and, because of budget overruns, never reimburse the Reserve for the loan. It is our intention to address this issue with the 2014 budget and to keep as much of our prepaid insurance funds untouched for 2013 as we possibly can.

Committees:

Solar Committee: Please see attached report from Michael McGuire.

Dick expressed concern on whether or not to be the first or second to have solar energy. In his experience usually the 3rd to embrace a new concept is the best, it allows time for any corks to be ironed out before spending large amounts of money on a newer technology concept.

Insurance Committee: Doug renewed the Property Insurance (completed). D&O, Liability and Auto Insurance are in place to be renewed when each policy expires through Mapfre. Doug will be receiving the pricing and believes it will be competitive in pricing to what we paid last year with Executive Insurance that recently canceled our D&O and Liability policies due to the lawsuit. Current Auto Policy is through Theodore Tunick & Company, upon its expiration Doug will seek a quote through Mapfe to we have all insurance policies through one carrier.

Old Business:

Lawsuits: Ed stated that Travelers is very adamant about having no discussion take place with anyone but Board members in a closed Executive meeting. George stated that they would have an Executive closed session after the Board meeting to discuss the lawsuits, with Board members only.

March 12 Action Items:

- Telephone Room (Completed)
- Mailbox Pricing (Completed) - Currently on-hold, but would still like to purchase a large mailbox stand for packages, board approved at March 12 meeting.
- W-52 Parking Spot Information to Travelers (completed)
- Employee Job Descriptions (Completed)

New Business:

Late Fee Structure: George would like to review our late fee structure. He believes that it should be \$25 for each month that they are late. Example: 1st month late fee would be \$25, 2nd month late fee would be \$50, 3rd month late fee would be \$75 and so on. This would create an expense so that owners are more apt to pay their Association fees on time. He would like to see a new late fee structure put into place at the end of the year. No Board decision was made on this matter.

Increase Water Fees: George Blackhall made a motion to increase water charges to 8 cents per gallon. Two Board Members were in favor, one was not and two would like more information. We will

investigate what other condos are charging their owners as well as an approximate cost of our in-house water production including the increased cost of electricity to run our water plants. Again, Jeanne Brennan will be asked to weigh in on this subject.

Reinstating Time Cards & Regulations: It was determined that while our outside staff was punching their time cards each morning upon arrival, they were no longer following employee manual procedure for lunch and end-of-day punch outs. It was acknowledged that Arran has been working hard to develop a good relationship with our employees.

After discussion the Board felt that Arran would use his discretion on when the employees would punch-in and out. He will also be more diligent about knowing exactly when they leave the property for personal issues. George asked that Arran have documentation signed by the employee for any exchange of time. Arran reassured that if any employee violates the policy that he will write them up to maintain appropriate documentation.

Establishing Committees: Previously we had a Long-Term Property Planning/Buildings & Grounds, Landscaping Committees. Need to find volunteers for each of these committees. JoEllen McCormack volunteered to be on the Landscaping Committee. Doug and Dick have volunteered for the Long-Term Property Planning Committee.

May Meeting: The next meeting of the Board of Directors will be Wednesday, May 8, 2013. 8:00AM AST.

Meeting was adjourned at 0940.

ACTION ITEMS

Golf Cart Trailer Price	Arran
Chlorine Injections System/Testing Equipment	Arran
Mailbox Stand Pricing	Arran
Modified Roof Estimates	Arran
CBW Credit Card	Sharon/George
Projects for Sherman	Arran
Letter of explanation for revised budget	Sharon
Lien listing	Sharon/Holly
Tree Trimming Estimates	Arran
Call Travelers regarding W-52 Parking Spot	George

Attachment - Solar Committee

Report to the Board

Mike McGuire, energy chairman

February/March 2013

Energy situation assessment:

Because of the untimely death of Max Harcourt, CBW's actions in dealing with a growing energy problem were sidetracked. During that interval the problems associated with having WAPA as our primary energy supplier have grown significantly. WAPA has become less reliable and more expensive. Their reliability problems have been largely offset by our recently dependable back-up diesel generator. However, the same cost drivers which affect WAPA also affect us. While I do not have studies on our generator's economic performance, the state-of-the-art in generators achieves about 13.5 kWh per gallon, which figures to \$0.37 per kWh if diesel fuel is \$5.00/gallon. So our full cost approaches that of WAPA.

So while we have no dependability problem for CBW, except for voltage fluctuations, we do have a growing cost problem. This is our core problem to solve.

We have a single meter from WAPA so to them we are a single commercial customer. On paper this limits the amount of power we can net meter to them through an agreement with them. (Note: The law provides for net metering for residential customers up to 20 kW, commercial to 100 kW with an aggregate total for St Thomas of 100 MW, after which further net-metering will be suspended.) To receive the necessary permits we must go through a application process, the flowsheet for which is shown below. It appears there is no way for us to legally add any energy source without permitting.

The issue of how we add as much alternate energy as we may want is a legal one. Anna Paiewonsky has been and will continue to work on this front for CBW. As I will discuss below, we have potentially attractive solutions to vastly reduce our energy cost, but the danger of being prevented by WAPA from implementing them cannot be ignored.

Potential energy solutions

Without sounding all Jimmy Carter, it should be clear that with our energy cost, conservation is the best policy. Energy saving technology has a dramatically quick payoff, since most energy saving devices were developed to work for a mainland with \$0.05 to \$0.10 per kWh electricity cost. A campaign to help residents be able to do this may be useful AFTER we have an WAPA net metering agreement. Much can be done.

A spot check showed we CBW averaged 50% more electricity use 10 years ago than today. That grass-roots conservation makes our problem significantly smaller.

Energy generation options available to us in theory, at least, are diesel, wind and solar. The cheapest of these from a capital expenditure standpoint is diesel. However, as explained above, its operating cost is high, and its maintenance risk is also significant. Were we to make all our own electric energy from diesel generation, we would soon become a mini-WAPA.

Wind has similar high capital cost to solar, and our wind supply is as adequate as our solar supply. Unfortunately, it has significant visual and sound hurdles, which I would think would not survive even a short debate among us.

That, of course, leaves only solar. Solar (photovoltaic or PV) energy, which though in use through much of the US, has a poor economic return with cheap mainland power costs. Here on St Thomas, solar is a no-brainer.

First a primer. PV cells are alloyed silicon layers, essentially a transistor. When solar radiation of certain energy levels (colors) is absorbed by the silicon's electrons, they jump to a free state and becomes an electric current. A group of such cells are place together to make a panel. Panels are grouped together to make arrays. Panels are encased in strong, coated aluminum. Inverters convert the DC from the panel to more usable AC. These inverters are integrated or separate. Solar panels convert about 20% of the sun's incident energy to electricity. That amount of solar energy reaches a maximum of 1000 watts per square meter (about 100 watts per square foot) depending on time of day, day of the year, and cloudiness. So at 20% efficiency we can make 20 watts per square foot during peak hours. Averaging all these factors, you can figure on having 5 hours of peak conditions during each day, or 100 Wh per square foot. CBW currently uses somewhat between 2000 and 3000 kWh per day, so we would need 20 to 30,000 square feet of solar panels to make all our electricity.

The problem is we can only make that during the day, and we have no place to store it. WE could buy batteries, but that is even more expensive. The obvious solution is to use WAPA as a battery by net metering, in which we make more than we need during the day and push it back to them, turning our electric meter backwards, and taking it from them at night. Depending on how big a system we build, we can conceivably make our bill from them zero. That system size would be about 30,000 square feet, producing a peak power of 600 kW. Let's name that the full demand system. We have somewhat over 40,000 square feet of ocean-side east and south facing roof which is ideal for solar. It is as if the architect planned for this situation 50 years ago.

A full demand system without a net metering agreement would furnish much more energy than we could use for the middle quarter of the day, about four times more, while leaving us without power for two-thirds. In the early morning and late afternoon it would be just right. At this time we do not know our variation in use during the day. If our demand were to coincide with peak sunlight hours, we could simplify the problem. This

could be done for water production, but little else of significance. I hesitate to pursue this until we better understand our demand variations.

The criticality of net metering is reflected in the economics of batteries. If instead of using WAPA for nighttime power, excess power is stored batteries, then batteries must be charged each day with half the power produced. For an average unit that is about 9 kWh which must be stored. Batteries to store this amount chosen optimally would cost \$0.20 per kWh over their lifetime. With net metering that cost should be zero. Batteries, like diesel generation are expensive alternatives, but of the two, batteries are better and must be considered as part of a comprehensive plan.

An issue which precedes my involvement is where to place panels. Here is what I believe are facts:

The least expensive place to place solar panels is on our wonderfully oriented, correctly-sized roofs. No structural modifications would be needed to attach to the rafters, nor would the presence of panels increase susceptibility of roofs to hurricane roof damage. The panel attaching mechanism are engineered for the desired wind rating.

Ground mounts are possible but more expensive due to leveling, footers and rack cost. They are also more vulnerable to storm damage and theft. Let the debate begin.

In our case one benefit of roof mounting is that the electric panels and meters are quite close to array location making power delivery circuitry simple and less expensive. Were we to go with integrated micro-inverters, we would have a very simple, low-maintenance system.

Solar systems are themselves low maintenance and systems from the 70's are still running. Their performance is easily monitored and troubleshot electronically. There is intense price competition among producers, and high quality products can be bought without significant price penalties. Quality is paramount for us in such a large purchase, as is quality of engineering and service. I believe we have capable vendors who have been invited to submit proposals. Besides the best on island, I have asked a firm with whom Vinny Verderamo is familiar to bid. Off-island bidders will help keep prices down, while I expect we will be most comfortable with those with an island record of performance.

Once we have proposals based on the vendors knowledge of our needs and the permitting possibilities, I suggest that we come to a consensus of what we want to do. I will take the responsibility of presenting the board with viable alternative plans. The chosen plans would then be sent out for bid. Plans will vary in scope, type, and installation staging.

Our next job would be to choose financing and the method by which we capture and use incentives from the government, principally the 30% federal tax credit, which would

go to the owners of the equipment, be that a third party or condo owners. This is an issue which will require full board deliberation, although I will frame the issues for you.

Electricity usage varies widely among CBW residences. The median usage for CBW condos is about 500 kWh per month, but about 15% of units use 2 to 3 times that amount. Some empty units, as indicated by zero water consumption, use over 600 kWh per month, presumably on AC alone. If we sized the system for average users, we would only need a 20,000 square foot, 400 kW system. Should we pay 50% more for 15% of the residents' extra use? Since solar power, once installed and paid for, is almost free, what price should we charge for power? If zero, it's unfair to those who use energy frugally; if at WAPA rates, it's unfair to large users. This will call for transparent, Solomon-like decisions.

These are good problems. If we go roof-mounted solar we are looking at \$3 to 4 per watt installed. That makes the full demand system a \$1-2 million investment with an annual gross savings of up to 1,000,000 kWh at \$0.53/kWh not counting tax credits. Solving this problem should benefit CBW in quality of life and property values and distinguish us as the leading property of our kind.

