

1 **VIRGINIA TOBACCO INDEMNIFICATION AND COMMUNITY**
2 **REVITALIZATION COMMISSION**

3 701 East Franklin Street, Suite 501
4 Richmond, Virginia 23219
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9 Research and Development Committee Meeting
10 Thursday, September 22, 2011
11 11:00 a.m.
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13 Hotel Roanoke & Conference Center
14 Roanoke, Virginia
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1 **APPEARANCES**

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4 The Honorable Kathy J. Byron, Chairperson

5 The Honorable Daniel W. Marshall, III, Vice Chairman

6 Ms. Mary Rae Carter, Deputy Secretary of Commerce & Trade

7 Mr. Butch Hamlet, III

8 Mrs. Sandra F. Moss

9 Ms. Connie Greene Nyholm

10 The Honorable Edward Owens

11 The Honorable Philip P. Puckett

12 Mr. Kenneth O. Reynolds

13 The Honorable Frank M. Ruff, Jr.

14 Ms. Cindy M. Thomas

15 The Honorable William C. Wampler, Jr.

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17 **COMMISSION STAFF**

18 Mr. Neal Noyes, Executive Director

19 Mr. Ned Stephenson, Deputy Executive Director

20 Mr. Timothy Pfohl, Grants Program Administration Manager

21 Ms. Stephanie S. Kim, Director of Finance

22 Ms. Sarah K. Capps, Grants Coordinator, Southside Virginia

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1 September 22, 2011

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4 DELEGATE BYRON: We welcome Ms. Moss,
5 she's a new member here. Welcome to our committee and to
6 the Commission. You'll find this very fascinating but welcome.
7 I hope everyone has looked at the minutes from May 25, 2011,
8 do I have a motion?

9 SENATOR WAMPLER: So moved.

10 MR. OWENS: Second.

11 DELEGATE BYRON: All in favor of approving
12 the minutes say aye. (Ayes). Opposed? (No response). Ned.

13 MR. STEPHENSON: Yes ma'am Madam
14 Chairman, I'm going to be very brief because Jerry Giles has
15 the best part of the program today and I don't want to steal his
16 time. I want to give the Committee a brief recap of where we
17 are to date. The Commission established a Research and
18 Development Fund of \$100 million. VEDP to date has
19 reviewed for you 26 applications and the cost of that review is
20 \$392,000, you have approved 15 of those applications worth
21 \$37 million and today you have three requests before you
22 totaling \$8.9 million and the balance in your fund is \$51
23 million. That's kind of a synopsis of where you are today.

24 I don't want to trespass on Jerry's work but I
25 did take liberty to average the scores so this is a benchmark of

1 what you've done so far. Like to date in this program, the 23
2 applications that have been reviewed by VEDP, the average
3 score of those 23 was 5.2. Among those that you approved the
4 average score of those was 5.7 and those that appear before
5 you today, their average score is 5.3. So for the numbers type
6 among us, you can see that today's applications are scoring
7 less than the average of what you have done before. That kind
8 of gives you a little background of what you have done. Unless
9 there's further questions, Madam Chairman, about the
10 process, I want to yield the floor to Jerry Giles to bring you the
11 three applications that he has reviewed for you.

12 DELEGATE BYRON: I would like to say a few
13 comments to the Committee before Jerry's presentation. For
14 the rest of our committee members, a few of your members
15 were able to attend the meeting the partnership had to review
16 and score the applications that we're going to do today. I
17 believe it was a meeting that everyone that went felt was very
18 beneficial for all of them in being able to sit there and not only
19 for the expertise on the panel that reviewed these and the
20 confidence that not only did they understand but they knew
21 the right questions to ask. They're certainly quite capable of
22 scoring the applications with the parameters that we've given
23 them. With that said, it also opened the eyes of some of the
24 Committee members that perhaps what we saw and the
25 results of that today might be something we'll have a bit more

1 discussion on based on our observations and maybe based on
2 some timing of this Committee and understanding better some
3 of the things that we want to look for in the R&D Committee
4 as we go forward. Some of that may start leaning towards a
5 different ratio on the commercialization side in looking at the
6 amount of the grant that's given. We were told by several that
7 the amount of the grants that we approved are substantially
8 higher than the average grants that go before other
9 governmental agencies for R&D. We're making approval on
10 applications to improve the economics of the Southside and
11 offer other opportunities but yet at the same time, we're
12 approving these applications and maybe not so much looking
13 at the dollars invested as much as we are the final score.
14 There may be some changes that we might want to look at and
15 we'll discuss that further on after we've had an opportunity to
16 discuss some of these. Danny, do you want to make any
17 comment?

18 DELEGATE MARSHALL: Yes, as a member of
19 this Committee since day one, it's one of the things that we
20 approve these applications that go to Jerry's committee and
21 then it comes back. I must say it was really an understanding
22 of sitting there and I was very impressed with the people that
23 Jerry had at the table and not just from Virginia but from
24 Georgia and people all the way from the west coast and it was
25 a real brain trust in that room. I would encourage any other

1 member on this Committee that you ought to go there and sit
2 and listen to them. Ultimately what they're doing is they're
3 looking after our interests. We get this score and then we
4 approve a lot of money. You saw that sheet about how much
5 money we have previously approved and a lot of money has
6 gone through there and this Committee. One thing we've
7 asked Jerry to do in his group is to make a recommendation to
8 us. I think he's already done so. We'll take those
9 recommendations. You'll probably see some changes to the
10 application process and also to the process concerning the
11 money.

12 MR. OWENS: There was an accumulation of
13 great brain trust in the room, and there's a lot of knowledge
14 there in one room.

15 DELEGATE MARSHALL: You're talking about
16 not including this room?

17 MR. OWENS: That's debatable. What I did
18 notice in there and what I can understand about creating jobs,
19 it didn't seem to have the same weight as the technology
20 scores or the science of it. I mean I thought our role was to
21 put people to work, and I know that's a horizon that's far out.
22 I believe at some point we're going to have to bring the horizon
23 closer and require that the horizon get closer to the job
24 creation part.

25 MS. THOMAS: I can only echo the three

1 previous comments. I came away from the session very
2 enlightened and I came away thinking maybe we've been
3 putting a little too much weight on the science of it rather than
4 what the research and development projects are going to do for
5 our communities on an economic basis. I'd encourage
6 everyone to try to go and see some of this and experience these
7 sessions because you could learn an awful lot.

8 DELEGATE BYRON: Jerry.

9 MR. GILES: Good morning to all Committee
10 members. I'm happy to be here and present findings of round
11 five of this overall review process. It probably would make
12 some good sense if you want to stop and talk or call time out
13 momentarily and we can reassess where the ship goes. I
14 sincerely mean it was a true pleasure to have four members of
15 the Committee attend the session which was held September
16 1st in Richmond. I'd also echo the Chair's recommendation
17 that any of you that can fit it into your schedule we'd be very
18 happy to have you participate. I can certainly understand if
19 you haven't been through one of these sessions. Reading my
20 final recap of the score card and there certainly was a lot of
21 work that went into the overall process.

22 For the benefit of those in the room, to refresh
23 you on each of the exercises, we're testing the quality and the
24 depth of credibility of applications. We rely on five factors in
25 the science end of the equation and five on the

1 commercialization side. One of the things we found, and I'm
2 looking at the items that are in parenthetical and also that in
3 red. We had to push pretty hard to get people to send the
4 impact of their projects in the tobacco region based on direct
5 job creation as well as direct economic outcome and impact.
6 This is transformative and the bottom line is prove it to us if
7 you possibly can. Over time I must tell you, the quality of the
8 applications and we've been sharing this with the teams that
9 come through and they tended to really sharpen their targets
10 of focus in terms of what they could show us in that verbal
11 session which is 45 minutes. As you've already commented
12 this morning, each of these 10 factors has an equal weight and
13 there is no weighting heavier on the commercial side than on
14 the scientific side, that's obviously your call to make as well as
15 any other calls that are within your domain responsibility. It's
16 not a problem if you choose to change the weighting factors to
17 relatively simple mathematical equation. Are there any
18 particular questions on that piece?

19 Here's the actual recap. We received four
20 applications at the start of round five. It turned out in the
21 verbal session we all had three presentations and that was
22 application 2280, Edison II which chose on their own volition to
23 withdraw their application two days before. Consequently
24 you'll see the scores below that would reflect three as we went
25 through the entire process. The middle section, these are the

1 organizations and institutions, the academic or commercial
2 firms that we chose to work with in these five rounds. It's
3 interesting in the sense that application 2282, the first one at
4 the top of the list, also 2320 and both of those deal with the
5 science if you will, in taking the first one and kind of doing a
6 repurpose of tobacco into a biofuel configuration. A lot of
7 science involved in that. It's a project that probably still has
8 three years plus of applied science in order to get to the point
9 of being fully commercialized. Application 2320 it was
10 involved in introducing a brand new species into the tobacco
11 region itself, and it's fast growing and has a lot of positive
12 qualities in terms of creating a good yield, in terms of biofuel
13 production. It too just as in the first one, really requires a
14 huge investment at some stage. We're talking \$150 million or
15 more to actually having a refining process which right now
16 does not exist. In the tobacco region the only refinery that
17 exists in the state is the one that has gone belly up in
18 Hopewell. Nevertheless it's a very active field of renewable
19 energy and clean energy. We're seeing a lot of bioactivity and
20 seeing a lot of applications that come through.

21 The last one of the three that we looked at at
22 this time is the one that's closest to commercialization. That
23 would involve the relocation of corporate headquarters of the
24 existing company into the Southwest region. You're looking at
25 four communities out in the southwest. This is a project with

1 science that I would call good solid science and has a
2 commercialization play and job creation attached to it.

3 So, with that, I'll be happy to answer any
4 particular questions that you might have.

5 DELEGATE BYRON: Any questions of Jerry?

6 SENATOR WAMPLER: Would you go back over
7 the last project you spoke of, the one closest to
8 commercialization? I tried to read the reports and understand
9 the depth that they wish us to understand, but sometimes I
10 get lost in the way. When you say commercialization, would
11 you describe what you think that is and maybe how it stacks
12 up against others, if that's appropriate?

13 MR. GILES: I'll do my best. Basically the
14 technology is taking boilers, industrial boilers, school boilers
15 and boilers of any particular kind that are really powered by
16 fuel oil and that's the generation source and putting them
17 through their pattern of technology. It is a way to increase
18 energy saving, the energy efficiency of that particular
19 technology and at the same time eliminate, on a national basis
20 it's clearly marketed to users with various forms of technology
21 to eliminate oxides and make them burn cleaner and help
22 them meet standards. They tested the prototype with an
23 outside testing certification standard. They're now at the point
24 of trying to actually launch the production and launch the
25 market. Those that attended the session had a chance to see

1 what it would be like in the footprint. When all this comes
2 into play, you would employ people in Southwest Virginia to
3 actually perfect several technologies setting on top of the boiler
4 unit and those boiler units would be located all over the
5 United States.

6 SENATOR WAMPLER: That's the same
7 application that I reviewed. I wanted to hear it from you Jerry
8 to the extent that I think one of our big challenges is to or
9 where we would invest our money and what is the reasonable
10 likelihood of the return of jobs. I think I agree with Jerry in
11 his observations. My degree in Political Science said this is
12 not rocket science and I don't think there's a whole lot left to
13 prove.

14 MR. GILES: You'll notice at the bottom of the
15 score card there is a benefit to this but on this particular
16 project the new direct job generation and the payroll of
17 companies not on somebody else's payroll and talking about
18 new job generation. Over the first five years 35 positions, not
19 450. I stand by my observations to share with you in terms of
20 being ready to be commercialized this particular project is
21 closest to that opportunity.

22 SENATOR WAMPLER: If I could follow up on
23 that point. I agree with that assessment, and I think it's
24 accurate. My point would be that this probably should be
25 reserved for where do you want to go with the Committee later.

1 Certainly I think a project like this should receive some
2 funding to get over that last hurdle, but I also think that we
3 might be missing a type of incentive funding from other areas
4 because I don't know that this is still, while there's still science
5 involved, technology to be proven and dollars to be invested to
6 bring it to commercialization. Creating 45 jobs at the
7 corporate level, that's a good outcome, and that's what we're
8 all about. I'm not sure if we have our funding streams
9 properly aligned. Maybe I'm way off, outside the bounds of
10 this committee. I think the process proves that this is an
11 application that will create jobs and we ought to fund
12 something, whether it's now or later and do we need to go with
13 other sources to get it to the proper model and that's why I
14 think that this is a good discussion. Funding of this
15 regardless of the numerical score has merit because it's
16 commercialization, and the question is how much should we
17 fund out of here to get it to that point. It may be that we're in
18 a box where we have to do 100 percent of funding out of here
19 or it may be that we would share costs for this from maybe
20 another one of our funding streams. I don't have the answer
21 for the latter point I bring up but I'll leave it to the Executive
22 Committee rather than decide or if they want to make all the
23 funding come out of this Committee. That's kind of my
24 thoughts where we are with this effort.

25 DELEGATE BYRON: Are there any more

1 questions for Jerry on these applications? Any other
2 questions with regard to the vetting? Well, thank you very
3 much once again Jerry for your efforts and the time you spent
4 doing this.

5 MS. THOMAS: I think it's interesting to note
6 that all three of the applications that we're working on, that
7 none of them reached the meet expectations on
8 commercialization.

9 DELEGATE BYRON: I think it's important for
10 the Committee that when we first started reviewing a lot of the
11 applications, we had this threshold that we were looking at
12 trying to adjust that down to a different type of economics for
13 the Southside and having thresholds there that perhaps with
14 maybe one expectation but now thinking that some of these
15 projects were below a minimal of three. Then there's some
16 concern about whether or not they're going to continue to
17 combine this score because you may have a higher scientific
18 and lower commercialization. In combining them you may still
19 come out with a magic number, but it doesn't put the weight
20 on the commercialization and the job creation side. In
21 fairness with what Senator Wampler said with regard to the
22 merit of the project, I don't think there's a question that the
23 projects have merit. The question is whether this committee
24 feels that the dollars should go. The question of how many
25 dollars and should they all come from this Committee or

1 should we look to changing our parameters so the applicants
2 realize they need a higher threshold of commercialization in
3 order to get approval from the Committee, and all those
4 questions need to be answered.

5 DELEGATE KILGORE: I agree with what Ed
6 said earlier. It ought to be about creating jobs and getting
7 people to work, and these could be off the chart, but if it's only
8 going to create five jobs, then I don't know that we need to
9 invest that. We need to be investing in projects to get our
10 folks back to work and whether there is going to be
11 commercialization on the street and create two or three
12 hundred jobs and not five jobs. There's some that I believe is
13 what Senator Wampler was mentioning earlier where jobs are
14 there and if you can get it to the street, then maybe R&D
15 doesn't need to be funding it and maybe Southwest or
16 Southside, wherever the jobs are going to be created or TROF.
17 If it's something that is that far along. That's something you
18 all are going to have to make a call on.

19 DELEGATE MARSHALL: I have a motion.

20 MR. NOYES: If I may, particularly for
21 members who were not present as this program in its current
22 form was developed. It's true today and not being
23 argumentative and we should be adjusting but it is as true
24 today as it was when we were thinking about how this
25 program might operate. There is a huge financing gap in the

1 research and development process. After the basic research or
2 the bench research and then the commercialization stage that
3 Jerry referred to that costs tens or hundreds of millions of
4 dollars to roll out, that's where there is very limited
5 opportunity for the private sector applicants that go and find
6 financing for that demonstration stage where the science is
7 pretty much decided, as Delegate Kilgore pointed out. You've
8 got to be able to get it out in the market to test the science but
9 the types of folks that might be interested in purchasing it.
10 That has to happen and be demonstrated before you can go to
11 the markets and get money to spend that \$150 million to build
12 an ethanol refinery, and that's the gap that I was talking about
13 when we discussed this some time ago. Now, we may not be
14 satisfied with projects that don't score higher on the
15 commercialization side and that's a different question than
16 where the financing gap is for research and development
17 projects and that's a different question. I just want to remind
18 members of the Committee, particularly those that weren't
19 here early on. This was identified as that place where this
20 project or where in the process Tobacco Commission funds
21 might best be used.

22 DELEGATE MARSHALL: Madam Chairman, I
23 have a motion and if I get a second, I'll comment. Madam
24 Chair, the motion is that we table the three applications before
25 us.

1 SENATOR RUFF: I'll second it.

2 DELEGATE MARSHALL: Madam Chair, by
3 tabling these applications they're not dead and they can come
4 back before us at the next meeting but what we'll hopefully do
5 is this group will get together and talk about some things and
6 lessons learned that were before us when we sat in on the
7 meeting with the partnership and some of the things we talked
8 about and even Senator Wampler brought up some things and
9 Delegate Kilgore did too. That will be so we can make sure
10 that we're investing this money correctly, so that's my motion.

11 DELEGATE BYRON: Do you want to amend
12 your motion until the next meeting? I'm going to call a
13 meeting next week. Maybe in January when we review our
14 next round of applications.

15 DELEGATE MARSHALL: I'll amend my motion
16 as to what you just said.

17 DELEGATE BYRON: Any further discussion?

18 SENATOR WAMPLER: To the extent that you'll
19 entertain this, this topic to the motion and bear with me
20 please but the process is not inexpensive and that's by design.
21 I think it is appropriate third party and subject matter experts
22 review the manner that we do and that's not where I'm going
23 with this. Between now and January if our end product
24 produces an average score that maybe is not as high as the
25 previous one, I wonder to what extent subjectively this

1 Committee needs to make recommendations to the reviewers
2 to attach a different weight. I would say that if you're very
3 close to commercialization and you create jobs and those jobs
4 are guaranteed to remain in the region, I would say we'd need
5 a much greater score than an objective, maybe some of the
6 objective scoring we have now or at least a way to modify that
7 report to reflect what I believe the Commission is, to create
8 jobs and reinvigorate the economy. I think that's consistent
9 with the motion. That's just one member's view of where we
10 are, and we're about creating jobs. If we can do that, then I'm
11 all for it.

12 DELEGATE BYRON: The Committee is going
13 to meet next week in line with our full Committee meeting and
14 discuss what those parameters are. I would suggest if it's
15 possible and I'll direct this to the staff that on the three
16 applicants that have already been scored, since they are tabled
17 and will be back before us again that perhaps additional
18 information just be presented to the staff to look at before the
19 January meeting if they have something that will change the
20 application's commercialization. Is that something the staff
21 will be able to evaluate? I don't see them going back before
22 the partnership again.

23 MR. NOYES: The staff can certainly be in
24 touch with the applicant's private sector partners and would
25 be pleased to report ahead of the January meeting. As to your

1 question on evaluating this, I'm not sure what we'll get, so I
2 can't promise that there will be any kind of relevant evaluation
3 process, but we can certainly be in touch and bring back to
4 you what we learned from the applicants.

5 MS. NYHOLM: Just to clarify what I think I
6 hear what you're saying. We can take these three for instance
7 and look at the scoring that have been given in each of these
8 10 categories, now have equal weight and one of the categories
9 gets double weight and two of those categories get, the vetting
10 has been done and we may come up with a different total
11 score based on those weights.

12 MR. NOYES: We can do the match.

13 MS. CARTER: I'm a little confused. I guess
14 I'm wondering or my concern is that these folks came to us
15 under this application process in good faith under what we're
16 supposed to be looking at now. I don't know if we're doing
17 them justice saying now we're going to change the rules.

18 DELEGATE BYRON: The applications may not
19 go forward based on the feeling I'm getting on job creation. No
20 one can guarantee a certain score is going to happen and the
21 application would go through. We'd still be approving or not
22 approving the application. I'm just saying I think based on
23 some of the comments that have been raised that it would be
24 beneficial for each of those applicants to have another
25 opportunity to come back before the Committee.

1 MS. CARTER: For purposes of the meeting
2 next week would be to do what?

3 DELEGATE BYRON: To review the process by
4 which the partnership and this Committee, the process that
5 we want to have in place going forward in regard to our grant
6 approval, and I'll let Ned say something.

7 MR. STEPHENSON: Madam Chairman, I don't
8 mean to delay on Danny's motion but Jerry's group which I
9 think we all admire, they've distilled their work essentially to a
10 single number and up until this time, we have just even
11 weighted everything and that's what we've done. I happen to
12 note that among all the applicants or applications you have
13 approved thus far, the science score is higher than the
14 commercialization score. I don't think that's your intention,
15 but that's just what happened. I was wanting to suggest to
16 the chair that between now and the next meeting that the staff
17 bring to you some math that weights the scores in a manner
18 that we think we hear you want toward commercialization in
19 order to give you the benchmark by which you can make your
20 decisions, not only on the three that are before you but also to
21 send a signal to the next batch of applicants before VEDP as to
22 what it is you place emphasis on. So that would be bringing
23 some mathematics to you to deal with the process in favor of
24 commercialization.

25 DELEGATE BYRON: I've already spoken to

1 that but I appreciate you offering that. I look forward to that
2 information. It will help guide us in this process.

3 MR. STEPHENSON: My final comment is that
4 that which the staff does, does not in anyway alter the current
5 process that VEDP uses. They will continue to evaluate the
6 scores just as they always have and we'll fill the scores to suit
7 what you want.

8 DELEGATE KILGORE: I guess we could have
9 that meeting before or after the Executive Committee meeting.

10 DELEGATE BYRON: Maybe we could get there
11 and start it at 8 and have it the morning before the full
12 Commission meeting.

13 MR. STEPHENSON: There is no meeting the
14 morning of the full Commission meeting at 10:00 a.m.

15 MS. CARTER: Will the applicants have a
16 chance to speak to this after?

17 DELEGATE BYRON: I'll generally allow that
18 and I'll ask if they want to make any brief comments or now if
19 they want to, they can.

20 DELEGATE KILGORE: We have a motion to
21 table.

22 MR. NOYES: We have a motion and a second.

23 DELEGATE BYRON: Does anyone care to
24 speak?

25 MS. WHITE: Thank you for allowing me to

1 speak. I wanted to say I'm a little surprised how the scores
2 are scored because the way we looked at them, that's for the
3 region jobs and long term. The projects that we have there,
4 there are three parts here. One is to increase production in
5 the region. That's the commercial part. They're interested in
6 working here and creating jobs. There's a minimum number
7 of jobs of course. We'll try to make that work as much as we
8 can. The second part is, is it commercially viable now. They
9 have to decide which way they're going to be working. The
10 last part is in the region and their role is to build a commercial
11 project and market the specific areas for these projects.
12 There's no guarantee that anyone will come here but if it gets
13 too cumbersome, they'll go somewhere else. I think it's
14 important to try to work with them. We look forward to a
15 successful project.

16 COURT REPORTER: Would you please speak
17 up?

18 MR. FLINN: I'm Gary Flinn. I'm the Director
19 of the Institute for Resources, the ProteiosBio ILAR for the
20 Project. ChemTex the industrial partner is very interested in
21 working with us in our capacities and going into other areas.
22 We had a meeting in Richmond, and they feel very strongly we
23 can do what needs to be done. We already have proven feed
24 stocks and we have to show in this region a large scale
25 production capacity and any additional work can be done, we

1 know we can do that for them. They've been very instrumental
2 in the proposal that they put forth and they will do a lot of
3 work with us, helping to recruit growers that would live in the
4 Tobacco Commission footprint. They'll be paying growers to
5 grow material and they're germ – and that's been proven and
6 to factor all of these and work with the Institute in order to
7 produce large scale plants and working with farmers to plant
8 the acreage they have available. David had mentioned that
9 they are very interested in the region, but these steps have to
10 be answered. It kind of goes back to what Mr. Noyes said
11 earlier. You have to develop the capacities or do the due
12 diligence in this region. We can show you all these steps,
13 there is strong interest in locating in this footprint, but if we
14 don't do this work they won't come here.

15 MS. NYHOLM: If you do this and you prove the
16 giant reed and this giant opportunity, is there somebody in the
17 following food chain that would follow you to build the plant,
18 to build the biofuels plant and use the feed stock? Which is
19 the chicken and which is the egg? I wouldn't build a \$300
20 million plant with nothing to feed it.

21 MS. WHITE: Well, whether it's the chicken or
22 the egg, that's the issue in the whole industry. Currently
23 what's happening is that anything that is grown is being used
24 for biofuels—for example, there are groups that will use it for
25 biodiesel production. If somebody builds the facility,

1 somebody will prove –

2 COURT REPORTER: Would you please speak
3 up?

4 MS. NYHOLM: That partner, they're situated
5 in this industry elsewhere in the world and they're ready to go,
6 to help you go to that next level once you can prove and you
7 can create the food and they would create the refinery here.

8 MR. ROGERS: I'm Edwin Rogers, and I'm the
9 Director of Clean Energy R&D Center. We appreciate Jerry's
10 comments and the Committee recognizing the
11 commercialization strides. I respect the discussion talking
12 about tabling, and we understand that's not a denial. As a
13 great juror said, justice delayed is justice denied and time is
14 money. A grant delay could be an opportunity denied a
15 tobacco region because nobody knows better than
16 entrepreneurs. You have to be focused on the fierced urgency
17 of now, which is a quotation from Martin Luther King. The
18 fear of now is so important for these companies to get to the
19 market as soon as they can. With respect to the vetting of this
20 proposal, the Center for Innovation and Technology went
21 through a comprehensive application process in which there
22 were over 200 proposals and working on funding through the
23 Commonwealth Energy Fund. One of the recipients of that
24 was, a small amount of money \$200,000 but for a Northern
25 Virginia funding agency to make an investment in a company

1 in the tobacco region or I think the only one in the tobacco
2 region. There's quite a commitment made to Southwest
3 Virginia there, thank you.

4 MR. DAVID: We spent an amount of time
5 learning about the tobacco region and I've personally been
6 down here over the last three weeks, half my time and made
7 numerous trips down here and looked at over 20 buildings
8 and narrowed it down on a short list of four buildings that
9 would be great manufacturing sites for us. We've got a special
10 needs permit for one building, contractors doing bids, and I'm
11 ready to enter into lease negotiations quickly. I made a
12 personal commitment and rented a house in Abingdon, my
13 son is enrolled at the Junior College down there and we're
14 committed to the area and are enjoying it very much. We
15 think it would be a great place for us to do business and look
16 forward to working with you in the future.

17 MR. RAWLEY: Madam Chairman, I'm Buddy
18 Rawley, Chairman of the Dan River Development Center. A
19 partnership between Pittsylvania County and the City of
20 Danville. The biomass, Application 2282, would be housed at
21 the business and development center. I'd like to introduce the
22 spokesman Peter Majeranoski.

23 MR. MAJERANOSKI: Good morning Madam
24 Chair and other committee members. Just a quick recap,
25 Titon Biosciences and biofuel and the proposal and the

1 production of both ethanol and biodiesel. I'd like to make
2 three points, and I appreciate all the comments made today.
3 Mr. Noyes' point about that critical capital funding or that
4 critical gap in funding from science to commercialization. As
5 an entrepreneur and private sector guy, that's a tremendous
6 value-added opportunity that the Tobacco Commission can
7 provide from R&D. Specifically I think you should look not
8 only to investing in companies but investing in the industry for
9 Southside and Southwest to create jobs in the area. In our
10 case, I know job numbers are very crucial and our application
11 shows 25.5 jobs. The industry that we hope to create and
12 when you consider biofuel, that goes way beyond because
13 when you consider direct jobs you're looking at a lot of farm
14 jobs, manufacturing jobs. So I ask that you consider how you
15 view this process and certainly take that into consideration, as
16 I know you will. The last point I heard talk of earlier, the bio
17 facility or ethanol facility in Hopewell. I think this provides an
18 opportunity for the region because this is a brand new facility
19 completed last summer, and I think it's a \$150 million to
20 build. A big part of that investment has already been made, so
21 I think the technology to get to that next step, that's a very
22 interesting and high opportunity entry point for the production
23 of biofuels. The last point is that new energy possibilities will
24 bring other funding like USDA which has the EPA and that
25 involves the biomass projects which will open up funding.

1 Thank you very much for listening.

2 DELEGATE BYRON: We have a motion to
3 table these applications until the January meeting and it has
4 been seconded.

5 MR. OWENS: I'd like to amend the motion and
6 offer a substitute motion that we table 2282 and 2320 and
7 consider application 2323.

8 DELEGATE BYRON: Do you want to speak to
9 that Mr. Owens?

10 MR. OWENS: One of them has been through
11 the process and the amount of jobs they said they would
12 create and there might be a corporate headquarters in the
13 region. Those things give me reason to think that this project
14 may be ready to go forward.

15 DELEGATE BYRON: We have a substitute
16 motion to approve application 2323 in the amount of \$2.163
17 million and table applications 2320 and 2282 until the
18 January meeting has been seconded. Any further discussion
19 from the Committee?

20 MR. STEPHENSON: Would that be tabled
21 until the January meeting?

22 DELEGATE BYRON: January.

23 MR. OWENS: I meant next week.

24 DELEGATE BYRON: You want to table the
25 other two for next week?

1 MR. NOYES: There wouldn't be sufficient time
2 between now and next week for the staff to work with.

3 DELEGATE MARSHALL: My motion is to table
4 it until January for all three. I assume yours is except 2323
5 and table 2282 and 2320 to be tabled until the January
6 meeting.

7 DELEGATE BYRON: Does everyone
8 understand the motion? All in favor say aye. (Ayes). Any
9 opposed?

10 SENATOR RUFF: No.

11 DELEGATE BYRON: That will be a
12 recommendation to the full committee. All right, moving
13 along, Neal.

14 MR. NOYES: We received several proposals,
15 number 2327, City of Bristol has been withdrawn. Number
16 2428 the CAER proposal with Babcox and Wilcox which is
17 Phase III of a three-phase program was previously awarded.
18 This is completing a construction phase, B&W Nuclear Energy,
19 Nuclear Energy, Incorporated integrated systems, the proposal
20 for the M power reactor, \$7.5 million have been previously
21 awarded, this is \$3 million which is about 105. CAER owns
22 the assets installed and constructed. Staff wishes to note that
23 the beneficiary has already exceeded its commitment for hiring
24 at both the CAER and the operational headquarters in the City
25 of Lynchburg. There's also active discussion at this time

1 additional employees in Central Virginia. This will directly
2 enhance the Nuclear Energy Sector and pivotal to the
3 economic expansion in Central Virginia. Moreover, there is a
4 letter of intent between Babcox and Wilcox and the TVA to
5 joint pursue development of a construction permit and
6 operating license for up to 6M power plants. Visitation to the
7 Bedford County CAER facility by potential domestic and
8 international clients is already underway as discussed in the
9 initial application, and there is every reason to believe that the
10 economic impact projections provided by Mangum Economic
11 Consulting will be fully realized. All required matching monies
12 are committed and available. Both Phase I and Phase II
13 awards were made without referral to VEDP for vetting based
14 upon the fact that only construction was involved rather than
15 there being a specific research program that was to be funded.
16 Accordingly, staff recommends an award of \$2,916,222
17 without VEDP vetting.

18 SENATOR RUFF: So moved.

19 DELEGATE BYRON: I thought we'd do these
20 in a block.

21 SENATOR RUFF: That's fine.

22 MR. NOYES: Application 2429, the Institute
23 for Advanced Learning and Research. The ILAR has requested
24 \$1,438,628 to support applied research and development of
25 bio materials and therapeutic proteins in plants. In this case,

1 varieties of potatoes. Two firms; Global Cell Solutions based in
2 Charlottesville, Virginia and J.R. Simplot Company of Boise,
3 Idaho have committed to provide ProteiosBio with established
4 foundation technologies including a world wide global license
5 agreement for a two-phase initiative to be accomplished in
6 collaboration with the IALR. The requested grant supports
7 both phases, and all equipment purchased using Tobacco
8 Commission monies will be owned by the IALR. Phase I,
9 expected to take approximately one year, involves using
10 genetic and coding techniques to increase protein density
11 within the tuber, optimization of protein collection and
12 purification, and development of processes to grow potato cells
13 in bioreactors. Phase II would leverage the previous work to
14 produce proteins for use in veterinary and human medicine.
15 The application clearly shows that global commercial markets
16 for biologics are vast and that there is an array of additional
17 possibilities that could benefit from development of plant
18 biomass based protein production. The fact that J.R. Simplot
19 Company desires to establish an east coast presence is
20 noteworthy, and the prospect of future commercialization that
21 would support the agricultural sector of the southern Virginia
22 economy is desirable as well. The applicant has reviewed and
23 accepts the terms of the R&D grant and security agreement.
24 Twenty direct jobs are projected in relation to this request by
25 the end of year three. A concern is that a substantial portion

1 of the matching funds have not yet been secured. Efforts are
2 underway but with the understanding that a condition of any
3 award by the Tobacco Commission must be that no funds
4 shall be disbursed until all financing necessary to complete
5 the full scope. The staff recommends referral to the VEDP for
6 vetting. I'd ask Committee members to note something new.
7 We're asking applicants at this time to provide a quarter-by-
8 quarter list of expenses and activities from detail about them
9 which is very helpful to me as I reviewed these. They now
10 know what it is their expectations are, and being able to
11 monitor these R&D projects will be so much easier having this
12 information, so project 2429 is recommended for vetting by
13 VEDP.

14 Project number 2436, Wise County IDA, the
15 Clean Coal Commercialization Funding. The Wise County IDA
16 is requesting \$5 million to support pilot scale demonstration
17 projects of super paramagnetic nanoparticles capable of
18 substantial reductions in the sulfur content of coal. Applied
19 research at the bench scale has established that the
20 nanoparticle technology has a high affinity to bind with sulfur
21 contained in low to medium sulfur content coal samples.
22 Existing coal washing processes appear to be capable of
23 separating and removing nanoparticle materials bound to
24 sulfur without significant equipment additions for the end
25 user. This technology would offer the opportunity for coal

1 producers to add cash value to low and medium sulfured coal
2 and to generate IRS tax credits. Field trials will require the
3 capacity to produce 50 to 100 metric tons per month of super
4 paramagnetic nanoparticles. Two to four Kgs of nanoparticles
5 per ton of coal, where coal washing plants routinely process
6 300 tons per hour. Our funds would be used for equipment
7 and personnel costs. You have an attachment that you can go
8 over, with any equipment purchase using our monies to be
9 owned by the applicant. The full three-year project scope
10 includes purchase and installation of characterization
11 equipment, pilot scale nanoparticle production equipment,
12 development of technical data packages, and scale up
13 quantification and field demonstrations. Fifteen new jobs at
14 the Appalachian American Energy Research Center in Wise
15 County are anticipated during year one of the research and
16 demonstration phase with a total of 60 by year three.
17 Employment plans for Wise County at true commercial scale is
18 estimated at 100 FTE. All funds necessary to accomplish the
19 proposed scope of work appear to be committed and available.
20 Note that this project has gone through the vetting process
21 once, resulting in no award. This is a revised application,
22 which staff believes to be a far better project. Accordingly, the
23 staff recommends referral to VEDP for vetting.

24 DELEGATE BYRON: What is different in the
25 revised project?

1 MR. NOYES: It's far more clear what the
2 specifications are and what's expected and specific equipment
3 used, and there's a lot of scientific discussion and
4 commercialization. It's much more clear this time than it was
5 in the beginning. I might say that the grant request is larger
6 than the first one.

7 SENATOR WAMPLER: Is this removing
8 undesirable sulfur? I think we've got to consider the impact
9 and the greater market share and that product that will be
10 sold and produced in Virginia. How much more taxes that
11 locality would receive and what the Commonwealth would
12 receive and to the extent that part of those dollars are
13 reinvested in the Virginia Coalfield Economic Development
14 Authority to create jobs. Every direct job probably supports
15 six indirect jobs, and the multiplier is much greater than just
16 one for one. With objective scoring, that might not come out
17 and maybe Senator Puckett has another idea on how to
18 evaluate that but the end result is that the economic impact is
19 quite a bit.

20 DELEGATE MARSHALL: To me Madam
21 Chairman, if you look at Southside and Southwest and you
22 see these coal cars and it's going somewhere and I think that
23 would open up all kind of markets for Virginia coal and
24 looking at the number of jobs that that would create. Is
25 anyone here to speak for this?

1 MR. HOPKINS: I'm Tim Hopkins. You know,
2 as Senator Wampler pointed out, it's not so much just the jobs
3 from coal but there are a lot of resources from coal that
4 currently can't be sold for very high dollars on the market.
5 Right now our country is facing, or if we were to have
6 economic recovery, we do not have enough low sulfur coal to
7 produce steel due to the demands from China and India.
8 Right now because the economy is soft here, we have enough
9 coal; if we face any kind of economic turnaround, we won't
10 have enough. We're working in Virginia to have the best coal
11 in the country and probably the best coal in the world. We
12 have a lot of what they call metallurgical coal and in terms of
13 its sulfur content, it's like 1.3 and it needs to be 1.8. If you
14 can reduce that and instead of selling that coal for steam
15 generation or at a much lower value and you can increase the
16 value of that coal anywhere from \$100 to \$200 a ton. Some of
17 this isn't being sold because people want to get the higher
18 value. The second thing dealing with job retention. We also
19 have some new EPA guidelines that will be effective in 2014
20 against the coal-fired power plants. About 65 percent of our
21 coal-fired power plants do not have scrubbers. Retrofitting
22 those scrubbers require a huge amount of time and money
23 that has to be undertaken by the power companies. It's not
24 just about scrubber retrofits, it's about retrofitting the entire
25 facility. This is overall going to cost a lot of money. If all that

1 happens, it means your electric bill may quadruple because
2 there won't be enough power generated in this region. There's
3 several of these coal burning power plants in Wise, and if we
4 can reduce that sulfur, and we know we can by 50 percent or
5 more and we can help these plants meet that guideline
6 without having to do the retrofit and without increasing the
7 cost of the coal.

8 DELEGATE BYRON: Brevity would be
9 appreciated Tim, and thank you very much.

10 MR. NOYES: We've recommended this for
11 vetting. Now, project 2437, again Wise County IDA, and this
12 is the Clean Energy Biopolymer Commercialization UXB
13 International. Wise County IDA is requesting \$2,475,000 for a
14 pilot level scale up and demonstration of biopolymer soil
15 amendments and to valid performance and utility in the field.
16 Biopolymers offer a sustainable alternative to petrochemical oil
17 based polymers and would have applicants such as soil
18 stabilization, nutrient retention, crop yield and root mass
19 enhancement, dust and heavy metal abatement and reduced
20 irrigation requirements. UXB's current scale capacity is
21 insufficient for demonstrations to industrial partners who
22 desire to see 50-to-100-acre test sites and thousands of
23 gallons are needed for even medium scale field trials. It is
24 necessary to confirm the ability to produce biopolymers
25 economically at large scale. Fifteen new jobs are projected in

1 year one of this three-year development effort, with
2 approximately 50 net new jobs by the end of this research and
3 development initiative. Employment at a point of
4 commercialization in Wise County is estimated at 100 FTEs,
5 clearly post proof of concept, and like the NanoQuantics
6 proposal discussed previously, it is imperative to move
7 technology to the pilot scale that drives the UXB request.
8 Financing would be used for equipment, ownership of
9 equipment acquired with our funds to be retained by the Wise
10 County IDA and personnel expenses. Required matching
11 funds appear committed and available, and the staff
12 recommends referral to VEDP for vetting.

13 DELEGATE BYRON: If we don't have any
14 questions or comments, do you want to take these in a block?
15 We have 2429, 2436, 2437 and 2428.

16 MR. NOYES: Three for vetting and one for a
17 direct award.

18 DELEGATE MARSHALL: So moved.

19 DELEGATE BYRON: We have a motion and a
20 second. Anyone that didn't get a chance to speak that wants
21 to speak before we vote? I'd ask B&W to come up. Bob,
22 would you speak to that?

23 DOUG LEE: I think it's important to hear
24 what's going on and the money being invested there and with
25 the announcement next week, we won't be there but you can

1 tell us about it.

2 BOB BAILEY: I'm Bob Bailey, Executive
3 Director at the Center for Engineering, and here's Doug Lee
4 who's the program manager for B&W. I'll make a few quick
5 comments and then let Doug speak. First of all, I want to
6 thank the Commission for your support and the proposed site
7 in Bedford County and that region. I'd like to extend an open
8 invitation for any Commission members to come anytime and
9 see what we're doing, and we're very proud of it. The building
10 and the test methods speak for themselves, and it's something
11 to see.

12 DELEGATE BYRON: You didn't mention it,
13 but we just had a groundbreaking a couple of weeks ago and
14 somebody flew in from Las Vegas for one of the companies who
15 are considering possibly moving their headquarters here. It
16 involves the research being done in the building and it's
17 attracting all sorts of different people and opportunities
18 because of the work that's being done there.

19 MR. LEE: We've spoken to the regulatory
20 commission and they came down for the groundbreaking, but
21 there's different examples of some of the potential that can be
22 achieved. I also would like to thank the Tobacco Commission
23 for its support. This facility wouldn't be possible without your
24 support. We're in the final stages of some of the work and
25 we're looking forward as we move forward with these projects.

1 We're changing the landscape for some of these aspects,
2 especially for nuclear power, not only at North Anna, and I
3 had the pleasure of speaking to the National Community on
4 various aspects. The TVA has chosen this technology for
5 supplying additional power to the TVA region and the Oakridge
6 National Laboratory, something like 700 or 800 megawatts of
7 power. The process to get the technology to being able to build
8 a plant is long and arduous and these tests facilities, but
9 when we're successful, not only will we have a substantial
10 number of jobs, but in the greater or Central Virginia area
11 we'll be able to create additional jobs, and that involves
12 Virginia and relative to existing programs. Let me just say in
13 closing we're very indebted to the Tobacco Commission for
14 your support, and we have a world class facility.

15 DELEGATE MARSHALL: What size is the
16 unit?

17 MR. LEE: The units or the reactors in it
18 produce 150 megawatts of electricity. The plant we're building
19 for the TVA which is licensed is a 2 million plant producing
20 300 megawatts electric. You can generally figure about a
21 1,000 megawatts will take care of 100,000 people.

22 DELEGATE BYRON: Thank you. We have a
23 motion to accept 2428, 2429, 2436 and 2437, staff
24 recommendations in a block and we've got a motion and a
25 second. All in favor say aye. (Ayes). Any opposed? (No

1 response). We'll recommend that to the full committee next
2 week. Our next application date is Friday, November 18th and
3 our next committee meeting is next week, September 29th at
4 8:00 a.m. All right, any public comment?

5 MR. STEPHENSON: Before you adjourn
6 Madam Chairman, I wish to ask the Committee would you
7 want to review the relationship with VEDP for vetting the
8 applications for the new year? You had earlier earmarked
9 \$400,000 for that purpose. I didn't know if the Committee
10 wanted to renew that relationship.

11 MR. OWENS: So moved.

12 SENATOR WAMPLER: Second.

13 DELEGATE BYRON: Any comment? All in
14 favor say aye (Ayes). Opposed? (No response). I know we've
15 asked people to bring forth a lot of information. We know
16 some people probably feel it's frustrating on your end, and we
17 are responsible as members of the Commission to make good
18 decisions on how we spend our money. Sometimes you get
19 caught up in that, and we appreciate everyone's
20 understanding as we go through this. So, with that, we will
21 adjourn the meeting.

22

23 PROCEEDINGS CONCLUDED

24

25

