1	GULF OF MEXICO FISHERY MANAGEMENT COUNCIL	
2 3	HABITAT PROTECTION AND RESTORATION COMMITTEE	
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5 6	Hilton Palacio del Rico Hotel San Antonio, Texas	
7	August 25, 2021	
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9	VOTING MEMBERS	
10	Chris Schieble (designee for Patrick Banks)Louisiana	
11	Leann BosargeMississippi	
12	Dale DiazMississippi	
13	Phil DyskowFlorida	
14	Tom FrazerFlorida	
15	Bob ShippAlabama	
16	Joe SpragginsMississippi	
17	Greg StunzTexas	3
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19	NON-VOTING MEMBERS	
20	Kevin Anson (designee for Scott Bannon)Alabama	1
21	Susan BoggsAlabama	
22	Billy BroussardLouisiana	ł
23	Dave DonaldsonGSMFC	1
24	Jonathan DugasLouisiana	ł
25	Bob GillFlorida	ł
26	Martha Guyas (designee for Jessica McCawley)Florida	ì
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The Habitat Protection and Restoration Committee of the Gulf of 1 2 Mexico Fishery Management Council convened on Wednesday morning, 3 August 25, 2021, and was called to order by Chairman Chris 4 Schieble. 5 6 ADOPTION OF AGENDA 7 APPROVAL OF MINUTES 8 ACTION GUIDE AND NEXT STEPS 9 10 CHAIRMAN CHRIS SCHIEBLE: At this time, I would like to call the Habitat Protection and Restoration Committee to order. 11 The 12 members of the committee are myself, General Spraggins is the 13 Vice Chair, Ms. Bosarge, Mr. Diaz, Mr. Dyskow, Dr. Shipp, and 14 Dr. Stunz. 15 16 The first item is the Adoption of the Agenda, which is Tab P, 17 Number 1, and can I get a motion to adopt the agenda as written? 18 19 GENERAL JOE SPRAGGINS: I make the motion. 20 CHAIRMAN SCHIEBLE: Is there a second? Thank you, Dr. Stunz. 21 22 Does anyone have any other business they would like to see added 23 to the end of the agenda? Seeing no other business, the agenda 24 The next item on the agenda is to approve the June is adopted. 25 2021 Habitat Protection and Restoration Committee meeting minutes, which are Tab P, Number 2. Are there any changes to 26 27 the minutes? Can I get a motion to adopt the minutes as 28 written? 29 30 DR. BOB SHIPP: So moved. 31 32 CHAIRMAN SCHIEBLE: Thank you. Is there a second? 33 34 DR. GREG STUNZ: I will second that. 35 36 CHAIRMAN SCHIEBLE: Thank you, Dr. Stunz. The minutes are 37 hereby adopted. Next on the agenda is the Action Guide and Next 38 Steps, which is Tab P, Number 3, and I will turn it over to Dr. 39 Hollensead. 40 41 DR. LISA HOLLENSEAD: Thank you, Mr. Chair. There are two 42 things coming before the committee today. The first is Mr. Mike Celata, the Regional Director at the Bureau of Ocean and Energy 43 44 Management, will speak to some proposed renewable energy 45 projects, and, specifically, he'll be speaking on the request and interest of areas for offshore wind out in the Gulf of 46 47 Mexico. After that presentation, the committee should ask any

questions and direct staff to provide any formal feedback, as 1 2 appropriate. 3 The second agenda item we'll have before the committee today is 4 regarding the Generic Essential Fish Habitat Amendment, along 5 with the SSC recommendations. If you all will recall, at the 6 June meeting, I presented sort of an overview of some proposed 7 8 new methodologies for identifying and describing EFH in the 9 Gulf, and the committee requested that those approaches be reviewed by the SSC, and so we were able to do that at the 10 11 August SSC meeting, and Dr. Nance has a couple of slides in his 12 presentation on those recommendations that will be presented to 13 you. 14 15 If the committee is amendable to those proposed actions and 16 discussion, staff will alternatives, after some continue 17 developing that amendment and chapters and provide any revised versions of the document for the committee's review in the 18 19 future, and, if there is no other questions, that concludes the 20 action guide. 21 22 CHAIRMAN SCHIEBLE: Thank you, Dr. Hollensead. Do we have any 23 comments from the committee members, before we move on to the 24 agenda items? Seeing none, we have a presentation from BOEM on 25 renewable wind energy, which is Tab P, Number 4. Mr. Celata, 26 you can take it away, please. 27 28 PRESENTATION FROM BOEM ON RENEWABLE WIND ENERGY 29 30 MIKE CELATA: Good morning. I am Mike Celata. MR. As previously stated, I am the Regional Director for the Gulf of 31 32 Mexico office, out of the New Orleans area, and I wanted to 33 bring to your attention, the council's attention, and so I 34 appreciate being able to present to the committee this morning, 35 on an ongoing renewable energy development process in the Gulf 36 of Mexico. 37 38 BOEM, if you're not aware, our mission is driven by the OCS 39 Lands Act and the Energy Policy Act of 2005, and it is resource 40 development, energy development, expeditious development, in a 41 and environmentally-sound manner. safe Historically, most people are probably familiar with our oil and gas development 42 for the Gulf of Mexico. It's a major producer of oil for the 43 U.S. and, historically as well, we've had a growing marine 44 45 minerals program, where we supply sediment to projects for 46 coastal resiliency, partnering with the states and the Army 47 Corps of engineers and others to provide that sediment.

2 Renewable energy for the Gulf of Mexico is a new process, and 3 renewable energy has been being developed on the Atlantic coast, especially in the Northeast, for probably about ten years now, 4 5 and we wanted to make sure you were aware of what our process 6 entails and our desire to engage appropriate stakeholders to 7 better understand how the process may interact with stakeholder 8 activities and how we can deconflict those activities, moving 9 This is just the agenda, and I will give a little forward. background and talk about our process and then go on to the next 10 11 steps.

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13 Recognizing that the Atlantic was in development for renewables, 14 and kind of being a little forward-looking, BOEM worked with the National Renewable Energy Lab to analyze the potential 15 for 16 renewable energy in the Gulf, and we did two studies, one that 17 looked at all renewable energy, or I would say not all, but the ones that we thought were appropriate at the time, like solar, 18 19 wave energy, and clearly wind energy, and, in that analysis, 20 solar energy actually has the largest potential, but it is not 21 technically economically feasible in the offshore environment at 22 the time of the studies, and so we did a detailed analysis on 23 wind energy, economic modeling of specific sites in the Gulf of 24 Mexico, and you can see the published studies here, and those 25 are available on our website, if you have further interest on 26 those.

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The process for wind is different, and it is -- For us to begin the process, we need a state, a state governor, to send a letter to the Director asking for a taskforce, and the Louisiana Governor did that back in October, and, hence, starting our process to explore the options for renewable energy leasing and further development in the Gulf of Mexico.

35 We held that taskforce meeting, and the taskforce meetings are 36 between states and local governments and federal agencies, and 37 so NOAA was involved, and the EPA, and the Fish and Wildlife Service were all invited to the meeting, as well as the State of 38 39 Texas, Louisiana, Mississippi, and Alabama. It's a regional 40 taskforce, and we did not include Florida. They are part of a 41 different taskforce, and, currently, in 2022, there will be a 42 moratoria on leasing wind energy. There is currently а moratorium on oil and gas, and so it's a regional taskforce that 43 44 does not currently include Florida. 45

46 We've been, since that date, conducting outreach and engagement 47 and trying to make folks aware of what we're doing, and I have a

more detailed slide on that later, but there are some advantages 1 for renewable energy in the Gulf, and clearly that's experience 2 from the oil and gas industry, and supply change, and that's an 3 experienced workforce with lower wages, but there are also 4 clearly challenges, and hurricanes is one of those, and I will 5 just mention that we are working with NREL to fund a study to 6 7 better understand the effects of hurricanes on renewable energy 8 in the Gulf of Mexico.

10 The map shows that the stronger winds are to the west, and they 11 are lower on the east. The wind capacity offshore of Texas and 12 Louisiana seems sufficient for economic development.

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This is the process, and so this is the planning process and the regulatory process that we implement, and we've already had the taskforce, and we've actually already put out the request for information, and I will talk about that a little bit, and then we have a series of other processes, all of which are open to public comment, and I will get into a little more detail about how that works, and then we move into a leasing process.

22 We have proposed an auction, a lease sale, in December of 2022. 23 Based on the timeframes you see here, we've compressed that 24 timeframe from what it typically states, and the Governor of 25 Louisiana has asked that we have -- It's possible that the sale may slip some months, but that is still our target. 26 Then, once 27 those leases are awarded, the company will do a site assessment 28 and check the soil and see what the sub-surface looks like, see 29 if there is any chemosynthetic or other types of communities 30 that need to be evaluated, and then they propose how they're 31 qoinq to build their windfarm in the construction and 32 operations. This can take ten years, seven to ten years, for 33 this whole process to happen. Then that shows where we are.

This is another representation of what we just talked about, and the added feature here is that there is also not only a regulatory process, but, of course, there's an environmental NEPA process, and, as we've closed out the RFI, we've taken into consideration those comments, and we would like to issue a call, and the call will be probably a smaller area than we issued in the RFI, and then we would have public comments there.

The goal for us is to move our environmental assessment up to happening during the call period of time, and we want to be able to do the assessment on a larger area, and, normally, that is done just specifically on the lease area, but we plan on looking at the environmental impacts of a larger area than might what 1 ultimately be for our leasing process.

3 You can see there is associated public comment, and, of course, 4 with the NEPA process, when we get to the leasing stage, there 5 will be a proposed notice of sale and a final notice of sale 6 announcing that auction, and we have a number of steps before we 7 actually get to the lease sale process.

9 This talks about the process itself, and so the Gulf of Mexico could be considered the whole planning area, when we started 10 11 looking at this, and, if you hit the next slide, you can see 12 that, when we issue, an RFI, the RFI will for a smaller area, 13 and so it's a winnowing-down process to define areas and, in 14 that process, work with stakeholders to understand the impacts 15 and determine where we might find a lease sale area that 16 actually provides less impact and risk to other stakeholders. 17

18 This is the map of the RFI area, and it was fairly broad. Ιt 19 was the central and western planning area, and it did not 20 include -- This is the planning area out to 1,300 meters, and we 21 took a broad approach, because renewables was new to the Gulf of 22 Mexico, and, since we did the study, there are other means to 23 develop for renewable energy, for wind energy, as opposed to the 24 model, where you just bring electricity back to shore, and that 25 electricity, that wind, can be used to convert power platforms, 26 or it could be used to generate other fuel sources, and so we 27 wanted, in the first pass, to understand what that interest was, 28 where that interest was.

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30 Up to sixty meters is generally a fixed platform, and I will 31 show a slide on that, and greater than sixty meters is usually a 32 floating wind turbine.

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This just shows, again, and so, after the RFI, we're going to go out with a call area that we believe will be smaller, and we're hoping that the call will be going out in September, and we're working with our headquarters, and the call area has to be approved by the director before we can send that out, and then, after the call, we will go down to wind energy areas and then, ultimately, have a lease sale.

I want to spend a little time talking about the RFI comments, because it's important to -- We're trying to put a map together, and, unfortunately, I didn't have it available for today, to know where the interest is, and one of the things that BOEM is looking for is competitive interest, and so we had ten industry comments.

2 We had ten companies that provided us areas where they were interested in potential wind energy leases, and most of that 3 interest is on the shelf, and so that is in less than two or 400 4 5 meters of water, and most of that was interest in less than sixty meters, and it was for fixed platforms, and much of that 6 7 area, if you were actually to look on a map, if you went south 8 of Lafayette in Louisiana, they would be west of that area, but 9 most of the interest is on the shelf, and we believe that the call probably will be narrowed down to the shelf. 10 11 12 There was interest off the shelf in floating. At that point, it 13 didn't seem like there was competitive interest, and we may have 14 a call in the future in that area, but I think we're going to be 15 moving forward with more of a shelf-focused next step. I also 16 want to add that we did receive comments from the Southern 17 Shrimp Alliance, and one of the reason that -- A map that they 18 provided, and it looks like the map that they gave us was 2014 19 through 2018 tow events, which basically had a large scale and 20 encompasses the entire shelf. 21

This shows that, as we get to the leasing area, everything is smaller and smaller, and so the next step will be the call, and we'll have wind energy areas, and the leasing areas could even be smaller areas within that.

27 is the type of structures that we're looking This at, 28 potentially, to be installed in the Gulf of Mexico when we get 29 to the operations plan, and so we have monopiles and jackets 30 that are fixed to the seafloor. Monopiles and jackets are 31 dependent on soil capacity and the strength, and, in the Gulf, 32 we may need these jackets, because of the soil content, but 33 those are all tied to the seafloor, and then, greater than sixty 34 meters, we have much of floating capacity, and it's very similar 35 in oil and gas. When you have a structure nearshore, it's fixed 36 to the bottom, and, as you get into deeper water, generally, you 37 might have some floating production platform or floating 38 drilling rigs.

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This kind of shows a typical windfarm layout, and, if you look 40 at the top-right, and so, for fixed foundations, you need to 41 have a cable that runs from those wind turbines to a transformer 42 and then a cable that runs to some sort of grid connection point 43 44 With floating wind, it's a very similar setup, except, onshore. 45 from the floating winds to the substation, or the transformertype position, your cable is not coming back to shore, but, then 46 47 again, you have a cable that runs onto shore, to a substation,

and brings that electricity into the grid. 1 2 3 A couple of things this is that this is the typical process that is planned for the Atlantic, but this may not be what happens in 4 the Gulf of Mexico. It could be that, if we have turbines, and 5 we have had companies show interest in this, where they have a 6 7 platform offshore that they are converting water to some other 8 hydrogen, and then they would pipe it into shore and use that 9 hydrogen as a fuel source in the existing process plants that may exist either -- There is a lot around Houston for oil 10 processing, or even up the Mississippi River, and so there is a 11 12 transport mechanism to shore. 13 14 With hydrogen, those transport mechanisms may exist. With 15 electricity, a cable would need to be installed, and those are other assessments of impacts that we would have to look at in 16 17 our NEPA document. 18 19 This is a lot of the stakeholder outreach that we've already 20 done, and, of course, we have the council meeting here today, and we're meeting with the Marine Fisheries Commission 21 on 22 October 20, and these are just some of the things, and we have a 23 lot more planned in the future, and what I want to say about 24 this is that we have our traditional process, but we don't want 25 to limit our outreach to those comment periods, and we want to 26 engage with committees like you all. 27 28 We have data, and so this is an example map of information that 29 we have on brown shrimp, and we are collecting data for this for 30 other habitats and other types of fishing, and we're looking at 31 this for -- We will have a map of DOD, and we will work with the 32 Department of Defense, and we're looking to establish working 33 groups with folks so that we can collect data and share our data 34 and validate the data and determine where, when we develop wind 35 energy areas, we can deconflict as much as possible with 36 whatever the constituent or stakeholder that we have. 37 38 For example, this dataset is from 2009, data collected from 1987 39 to 2009, and it's based on reporting from shrimp trawls, I think 40 11,637, and it represents shrimp caught per one hour towed, and 41 so it's critical to know if this is the right dataset, is there 42 better data that we can talk to the shrimp industry about, and then say here's where companies are interested in leasing, and 43 44 how does that work for you, and where can we move our 45 boundaries, so that there is the least conflict. 46 47 We have, again, shrimp data, a map from the Southern Shrimp

Alliance, that I said shows the 2014 to 2018 tow effort, and is 1 2 that better data, is it data we can use in conjunction with 3 and, really, our next step for us, after these data, informational and awareness meetings, is to get down and make 4 sure the data we have is accurate and provide working groups and 5 go into some analysis and provide feedback and start all over 6 7 again with the appropriate groups, so that we can get an answer 8 that is effective for BOEM and has the least impacts to other 9 constituents, like commercial fishermen or recreational fishermen. 10

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This is just a series of maps that we have, and we won't go into 12 13 detail today, and this is the white shrimp. This is the pink 14 shrimp map, and I do want to say that we met with the Louisiana 15 Fisheries Management Council and presented this data to them as 16 well, and we met with the Louisiana crab fishermen and the 17 council, and we're going to be working with the finfish and reef 18 fishery. If there are groups that we need to meet with that we 19 haven't met with, we will be happy to do that as well, but this 20 is just examples of data that we want to work with folks in 21 roll-up-your-sleeves meetings and get a better understanding of 22 what this is, or what the impacts are.

These are the next steps, and we have had the RFI, and the comment period is closed. We're still working with some of those comments, to get a better representation of where industry interest is, and some of that data was submitted proprietary, and we're trying to get public information maps, because we need to get more specific information out there, as to where we're going to be moving forward.

32 We hope that the call will be going out in the next month, and 33 it will probably be a narrow area, maybe just showing interest on the shelf, and we'll start our environmental assessment in 34 35 November, after the call and the review of comments, and we'll 36 winnow it down to smaller wind energy areas. Again, aside from 37 this process, we want to engage, wherever possible, sharing what we know and learning and deconflicting as we go, and with an 38 39 auction still planned for December of 2022. 40

This is the team, and I believe Tershara is on the call, and she might help me with any specific questions that may exist, and Idrissa our Renewable Energy Coordinator for our Gulf auction, and Mariana is our Fisheries Team Lead. Dana is the Data Management lead, who has been helping us collect all the data and information, and, of course, we have our communications folks who are helping us organize all of our outreach events.

1 That's all that I wanted to say today, and we're happy to answer 2 any questions, and I'm looking forward to further 3 collaborations, and so thank you.

5 CHAIRMAN SCHIEBLE: Thank you, Mr. Celata, for a very 6 informative presentation on this. We have a couple of questions 7 here for you. Dr. Stunz, first.

9 DR. STUNZ: Thanks for the presentation. I think one question that a lot of the council would have for you is regarding 10 11 fishing around these structures, and so one of the questions I 12 had would be, obviously, when they spin -- I don't know how far 13 the tips of the blades are off the water's surface, but that 14 would, obviously, impact access, or how close you could get to reason the fishing community probably 15 them, but one 16 Especially recreational, but commercial as well, is that the oil 17 and gas platforms are, obviously, very good places to fish, and they are very popular, and it was very controversial as they 18 were being removed, and it still is, and still are, as they're 19 20 coming out.

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22 One strategy here would be certainly to allow fishing around 23 these, but I just wasn't sure what the dynamics were like around 24 them, and is it conducive to that?

MR. CELATA: That's a very good question, and so I think there is two different perspectives there, and one of the things that we would be interested in is let's just say the shrimp industry and the size of the vessel, and, if they would navigate in between these wind turbines, how much space do they need?

32 I think, in the Northeast, in some projects, they have agreed to 33 space the turbines a mile apart, so that the vessels that were 34 used in that area could navigate between the turbines, and so, I 35 mean, that is information that would be helpful for us in the 36 future, when they get to develop the project, and so it is 37 possible to navigate between the turbines, if we know and work 38 with the developer moving forward of what that type of spacing 39 needs to be. 40

I don't think I have enough experience, and, for BOEM, there are only turbines offshore in Virginia in federal waters, and there is five offshore off of Rhode Island in state waters. I mean, I would imagine, you know, that they would be similar to oil and gas.

47 Now, they are smaller, right, and each individual turbine jacket

1 is going to be smaller than an oil and gas platform, but I would 2 think that you would have similar reef capabilities over time, 3 and, clearly, that is an objective, to have recreational 4 fishing, and it would be good to have comments on that that we 5 can incorporate into our process.

7 DR. STUNZ: Just a quick follow-up to that, Mr. Chairman, if you 8 don't mind. Certainly navigating around them is important, 9 probably, to the shrimping fleet as well, but I think, from a recreational and commercial fishing perspective, getting close 10 access -- You know, currently, you're able just to tie up to 11 12 these structures, and the fishing is good right next to it. 13 Once you move a short distance away, the fishing isn't as good, 14 I think, to get buy-in from the recreational and and so 15 commercial fishing communities, you would want to allow access 16 right up to the structures, assuming that the blade is not going 17 to take out the top of the vessel or something like that.

19 I think that they're designed so that navigation MR. CELATA: 20 can happen in between and that the blades would not impact those vessels. I mean, I don't -- I don't want to speak out of turn, 21 22 but I think that's a fair point, and I think that's definitely 23 something that we will take note of and consider moving forward. I mean, I did grow up in Massachusetts, but I've been here since 24 the 1980s, and I totally understand the recreational fishing and 25 26 the oil and gas industry platforms, and I think that we would hope that that was something that we could work out with the 27 28 wind energy industry as well.

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30 CHAIRMAN SCHIEBLE: Thank you. We'll go to Mr. Gill next and 31 then Dr. Shipp.

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33 Thank you, Mr. Chairman. Thank you, Mr. Celata, MR. BOB GILL: 34 for the presentation. Ι appreciate it, and, from my 35 perspective, I think I like the thrust of where you're going, 36 but what I hearken to is what I would call the recent experience 37 on the east coast and the west coast, where, despite things like 38 your MOU with RODA and the agency, and indications of public 39 engagement and incorporation into that process, the boots on the 40 ground are almost universally feeling like they are not part of 41 the process and that they are not at the table, and, therefore, 42 they are on the menu.

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In the Gulf, the process is sufficiently early, in comparison to the east coast and west coast, that you have an opportunity to learn from the lessons that you are experiencing on the east coast and west coast and perhaps engaging with the fisheries world that has potential significant impact from, for example, the science point of view, which maybe Dr. Walter is going to address, impacting existing surveys, which provides the data that helps us assess the fisheries status, et cetera, which is a problem, for example, in the Northeast.

7 From both the recreational and commercial fisheries point of 8 potential impact of, particularly given the view, the 9 accelerated pace of wind energy installation, could be huge, and so what I get from your presentation is that you are paying 10 11 better attention to the needs of the fisheries stakeholders, and 12 think that's good, and I encourage you to keep that I 13 engagement, so that, collaboratively, the end result is an 14 acceptable working arrangement for all, and so I urge you to 15 keep that process in mind, and it's not SO much all 16 presentations as it is collaborative engagement and working 17 together to find the solutions that are needed for, if you will, 18 cohabitation. Thank you, sir.

20 MR. CELATA: I mean, that is actually why I'm here, and that is 21 my commitment. Working here with BOEM for thirty years in the 22 oil and gas industry, I think the Gulf of Mexico is a unique 23 place, and collaboration between all the folks, the fishing 24 industry and the oil and gas industry and the government, hasn't 25 been great over the years, and I want to know how to do what you 26 just asked me to do.

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28 Do I need to go to a meeting in Grand Isle? Can we set up a 29 working group under this committee, or another committee, and those are the things that I am trying to find out, so that I can 30 31 do what I want to do, and I'm not sure that I 100 percent know 32 how to do that, and so that's kind of what I'm asking, for help 33 in exactly engaging whoever I need to engage, hopefully at some 34 point in-person, as we move forward, and my expectation, for me 35 and my staff and for Tershara, is that, for the next-year-and-a-36 half, we'll be spending 80 percent of our time on renewable 37 energy and working and talking to folks and trying to figure out 38 a solution that works.

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40 **CHAIRMAN SCHIEBLE:** All right. Next, I'm going to go to Dr. 41 Shipp, because I saw his hand pop up, and then Troy Williamson 42 will be next after that.

44 DR. BOB SHIPP: Thank you, Mr. Chairman. Greg asked the 45 questions that I was interested in, regarding fishing, and so I 46 will pass. 47

1 CHAIRMAN SCHIEBLE: Okay. Troy. 2 Thank you, Mr. Chairman. 3 WILLIAMSON: Thanks for the MR. I am wondering about the 4 presentation, and financial consideration that's paid to the federal government by the 5 lessee, and are these strictly lease payments, or is there also 6 7 a royalty based on energy production? 8 9 There will be a royalty, and, yes, that will be MR. CELATA: It's similar to oil and gas, where there is an 10 included. upfront cost to bid on the lease and acquire the lease, and, as 11 12 you move into production of these electrical generation, or if 13 there is some sort of other energy developed, there would need 14 to be a royalty paid to the federal government. 15 16 CHAIRMAN SCHIEBLE: Are you good, Troy? Do you have a Okay. 17 follow-up? 18 19 I am fine. MR. WILLIAMSON: Thank you. 20 21 CHAIRMAN SCHIEBLE: Okay. Thank you. I am going to go to John 22 Walter next and then Mr. Strelcheck. 23 24 DR. JOHN WALTER: Thank you very much, Mr. Chair. I'm not on 25 your committee, and so I appreciate you calling on me. I will 26 speak for the Southeast Fisheries Science Center and say that we 27 are glad to be here in this conversation, and we did give a 28 presentation to the taskforce a couple of weeks ago, and wind is 29 something that is definitely high on our radar. 30 31 We've got a number of what we call buckets, when we get into 32 this discussion, but buckets of things that we have to pay

33 We've got a high regulatory burden, and, attention to. obviously, the agency has to consider a lot of the regulatory 34 35 aspects, and we've also got to consider, as Mr. Gill said, the 36 impact on our science surveys and our science advice, and I know 37 that there's a memorandum of agreement between BOEM and the 38 agency to evaluate and to mitigate the impacts on our scientific 39 surveys, because we don't want to jeopardize long time series of 40 data that could lead to greater uncertainty in our scientific 41 advice. 42

43 Then we've got our protected species, our finfish, our shrimp, 44 and our human dimensions, all of which are quite important, and 45 we have either regulatory or management mandates to address 46 them, and that's something that the Science Center is working to 47 try to do due diligence to consider all of those impacts, and so

we look forward to being able to work together on that. 1 2 3 To that end, I think these communications with the council are going to be necessary, and probably will need to be frequent, 4 and perhaps more frequent, to do that. 5 Also, there is an outreach to the Gulf States Commission, and 6 Ι know the 7 commission is having a meeting where they will be focusing on 8 aspects of wind as well. 9 10 These, and other, meetings, such as some of our comprehensive planning that has been done for aquaculture, I think are going 11 12 to be really integral to being able to do the spatial marine 13 planning that is going to find the most optimal solution to 14 wind, as well as all of the other natural and human resource needs in the Gulf, and so thanks for this opportunity, and we 15 16 look forward to working together. 17 18 MR. CELATA: Thank you. We look forward to continued working 19 together, and I do think that the aquaculture data development 20 is kind of a model that we can build upon, and we're definitely excited to meet in October at the Gulf States Marine Fisheries 21 22 Commission. 23 24 CHAIRMAN SCHIEBLE: Thank you, John. I think, Andy, you were next. Clay, did you have something to that point? 25 26 27 MR. ANDY STRELCHECK: Thanks, Mike, for the presentation. Ι 28 wanted to just kind of convey a few things to the council, more broadly, and one is that I'm pleased that we have such a good 29 30 working relationship with BOEM and Mike and his team and that 31 we're able to engage and interact with him. 32 33 The agency, as a whole, has been dealing with this issue of wind 34 energy development for a number of years now, and it started in 35 the Northeast, and, obviously, is expanding to all of our 36 coastlines, and so that's going to benefit us, I think, in terms 37 of some of the lessons learned and in terms of that engagement. Right now, we have, I think, fourteen or sixteen projects in the 38 39 Northeast regarding wind energy leases, and we have two that are developing in the South Atlantic, and now, obviously, the work 40 41 that Mike just spoke about here. 42 Directly to Mike and some of the feedback on your presentation, 43 44 you had in your presentation a slide about kind of the broad 45 planning area and then the request for information, in terms of 46 narrowing down the areas, and I think what's going to be

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critical and important, as BOEM progresses, obviously,

engaging with the fishing industry and the agency as you hone-in 1 on those specific lease areas. 2 3 4 It's really hard to, obviously, understand the impacts to the fishing industry and protected resources on a broad scale, and 5 we've certainly identified that in our input to you, in terms of 6 7 the agency, but we'll certainly encourage you and can work with 8 you in terms of kind of where we see opportunities to engage, 9 maybe industry groups that BOEM needs to speak to, and the Science Center and the Regional Office for National Marine 10 11 Fisheries stands ready to provide the data and information to 12 support that work. 13 14 Then, ultimately, I think engagement with this council, going 15 forward, is going to be critical and important. We meet five times a year, and a lot of those meetings are in the northern 16 17 Gulf, and so I think it presents a real opportunity not only for you to talk to the council, but potentially have some meetings 18 19 with industry members as well as part of that process, and so I 20 see a lot of opportunities, and I look forward to our continued 21 work with one another. 22 23 MR. CELATA: Thanks, Andy, and I don't know if I've spoken to you, and so congratulations on your new position, but, yes, we -24 25 - Actually, I think some of the data is proprietary, but 26 clearly, if we can probably share it with NOAA, as another 27 federal agency, and get to specifics with you all a lot faster, 28 while we try to work out how we can make that information 29 available more publicly, and so, I mean, I'm happy to ___ 30 Tershara can work with your folks, and we can set up a direct 31 meeting there, if that's helpful. 32 33 To the extent that we can MR. STRELCHECK: Yes, absolutely. 34 provide data to you that's not confidential and work out the 35 ability to transfer data that may be confidential, through 36 confidentiality waivers, we're happy to do that. 37 38 MR. CELATA: Yes, absolutely. Thanks. 39 40 CHAIRMAN SCHIEBLE: All right. Thank you. I'm going to go to 41 Dr. Porch and then Leann Bosarge. 42 43 DR. CLAY PORCH: Ι also wanted to thank you for this 44 presentation, and it was very helpful to me. I would like to 45 follow-up on several of the comments that have been made so far, 46 and one of them is that we know, from the Northeast experience,

47 and other stakeholders, that these windfarms could potentially

have profound influences on fish stocks and marine mammal 1 2 stocks, for a variety of reasons, either positive or negative. 3 As was mentioned earlier, you have the potential that some of 4 our surveys could be profoundly affected in a way that maybe 5 useful 6 makes them less than they were before, and SO acknowledging that the partnership we've had with BOEM in the 7 8 past, where in fact BOEM has funded some of our marine mammal 9 surveys, I wonder if you're aware of any plans for a pipeline to fund monitoring studies, particularly for protected resources, 10 11 but also our fish, so that we understand the impact of these 12 turbines on the actual population, and so establishing а 13 baseline and then monitoring any changes in fish and marine 14 mammal populations. 15 16 I am not aware of exactly what our current studies MR. CELATA: 17 are, and I know we've done a lot of studies in the Atlantic, in 18 terms of baseline, and the point is to make sure we all 19 understand what data we currently have, and we've collected a 20 lot of information on the oil and gas side that could be 21 applicable. 22 23 We are looking at future studies and trying to fund those, and 24 there's an internal process for that, and we probably have, within the agency, only \$30 or \$40 million a year to do that, 25 and so we are looking at that, but I don't have any specific 26 studies that I can think of off the top of my head, but we can 27 28 get back to you on that. 29 30 CHAIRMAN SCHIEBLE: Thank you. Next, we'll go to Leann. Okay. 31 32 MS. LEANN BOSARGE: Thank you, Mr. Chairman. I wanted to thank 33 BOEM and Mr. Celata for coming to present to the council today, 34 and I have to -- I would be remiss not to mention Ms. Tashara, 35 who I think is listening in as well, and she has reached out to 36 shrimp industry, and we really appreciate that. the We appreciate you thinking of us and actually contacting us, and 37 38 it's usually the other way around, when we deal with things like 39 this, and we're contacting you all, and so we appreciate you 40 putting us at the top of the list and being cognizant of the 41 fact that this will most definitely have negative impacts for

42 43 the shrimp fishery.

Having said that though, I want to answer a few specific questions posed today, and so I think one of the things, which Andy touched on, is to try and continue to update this council, stay before this council, as you progress down this road, and I

know it's a long path, but if you can come to us, hopefully 1 before your next comment period on something that is coming out, 2 so that we have time to take it in and meet with the relative 3 4 APs and get you good feedback. 5 The other thing I would suggest is to actually present to the 6 7 Shrimp AP. We have a very broad group of fishermen, covering 8 the entire Gulf of Mexico, and some of which actually operate in 9 the South Atlantic, on that AP, and they're seasoned veterans in the industry, and I think that you would get a lot of excellent 10 feedback from them, and so that meeting, I think, is coming up 11 12 maybe next month, tentatively, and so maybe you can get with 13 staff and pencil that in. 14 15 I submitted some comments, actually formal comments, to BOEM, and so I know you have these, but I would like to take just a 16 17 second to touch on a few of them that I think would be helpful 18 for the group to hear. 19 20 First, like some of that data that you had I in your 21 presentation, and I appreciate you reaching out and getting that 22 I heard you say the Southern Shrimp Alliance presented data. 23 you with some of the trawl data that they had, probably from 24 presentations given to the Gulf Council, but you mentioned it 25 was maybe 2015 to 2018, or 2014 to 2018, and we actually have a 26 dataset that goes from 2004, I think it is, through current, 27 whatever the most current data we have, which may be 2019. 28 29 I would encourage you to reach out to NMFS and/or to council 30 staff, and I'm not sure which group would give you that, access 31 to that, but I think that will -- Combined with your SEAMAP 32 data, it should truly give you a good picture of where the 33 operating, because SEAMAP industry is is random sample 34 locations, which, compared to the number of samples, or trawls, 35 that the actual industry does, it's somewhat minor, compared to 36 the actual fleet, and so you need some fleet data to go with 37 that SEAMAP. 38 39 I think one of the biggest things that we can do differently in the Gulf, when we approach wind energy, than has been done in 40 other areas, like on the east coast, is that we have a well-41 established oil and gas industry that has been here for decades 42 in the Gulf of Mexico. Because of that, we have learning 43 44 experiences, and a learning curve, that we're much further 45 along, as far as how that impacts stakeholders and what to do to 46 mitigate that. 47

We need to leverage that experience and make sure that we apply 1 it to renewables, in this case wind, and most of that can be 2 done through NTLs. You have NTLs, which is a notice to lessees, 3 and so, essentially, that's regulations for anybody operating 4 5 out there offshore in the oil and gas industry. 6 7 However, those only apply to oil and gas, as I read them, and so 8 we need to reissue those NTLs, those regulations, to apply to 9 renewable energy as well, and some of those that are specific, as far as protecting and mitigating impacts to the bottom 10 trawling fleet, are the requirement that those cable lines, 11 12 pipelines, that all of those are buried below the mudline. 13 14 It would be my opinion that anything sixty fathoms or less, 15 depth of water, because that's where penaeid shrimping typically occurs, and so 360 feet or less, ought to be buried under the 16 17 Any kind of transmission line, cable, mudline. pipeline, anything like that, that we're to trawl over -- I don't even 18 want to know what happens when metal doors and cables interact 19 20 in a marine water environment with an electrical line on the 21 seafloor on a steel-hulled boat, and so that's a scary 22 proposition for me. 23 24 another one would be your idle iron Then NTL, where, 25 essentially, you lay out, for the energy industry, when a structure is officially considered no longer producing and then 26 what has to happen to that structure. You can't just leave it 27 28 there forever rusting away. That bottom was utilized by other 29 users of the Gulf before oil and gas went in, and somebody was 30 given, essentially, private access to it, which would be the oil 31 and gas industry, or renewable energy, but, when they're done 32 with it, it's time to give that public resource back. 33 34 We need to make sure that that process is in place and spelled 35 out, as to how they have to clean up any mess that may be there, 36 and they need to put that piece of bottom back in the condition 37 it was when they started their project there, clean it up. 38 Then, finally, I think that, from what I have seen, most of this 39 40 wind energy -- Most of the projects that are proposed are not 41 profitable. They don't turn a profit, and they go into negative. Now, that could change in the future, but, right now, 42 that's what I have seen. 43 44 45 Having said that, I think it is extremely important that financial assurance be in place before you go out there and 46 start installing any of the structure, and that's required in 47

1 the oil and gas industry, and they have to put bonds, and/or 2 other financial assets, to show that they have the money on-hand 3 to remove that structure and clean up any mess on the seafloor 4 when they're done there. 5

6 For a project that's certainly not intended, at this point, to 7 be profitable, that's even more important, and so that NTL needs 8 to be put in place, and then the last NTL that I think is going 9 to be important, that has been extremely important in oil and 10 gas, is this whole chain of title and the liability that flows 11 with that.

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13 In the world on land, you know, you buy a house, and it's now 14 yours, and the liability from the guy that owned it before is, 15 by and large, gone. It's not that way in the oil and gas world. 16 Whoever put that structure in place, and say it's a Chevron, 17 and, well, they eventually sell it to somebody else, and say 18 it's an Apache, or some other oil company, and it flows on down 19 the line. 20

21 Well, it gets to that last guy, that is getting that last bit of 22 energy out of that hole, or that windmill, or whatever it may 23 be, and it's time to remove it, and they go bankrupt, and so 24 they don't have the money to remove it, and something happened 25 with the financial assurance. Well, the way it's set up is that 26 liability starts flowing uphill, and it goes back in the chain of title, and you never actually release your liability for 27 28 cleaning up the mess at the end, and so I think that NTL needs 29 to be put in place as well.

31 I think that's about it, and I had a list here, and so I told 32 you to get the full set of shrimp data, reach out to industry, 33 which you've already done, and to the Gulf Council continuously, to the Shrimp AP, and then I hope that you will consider putting 34 35 a fund in place for damaged gear, much like the one that you 36 have in the oil industry for shrimpers, where, when we trawl 37 over things that aren't supposed to be there, or are supposed to be buried and aren't, we can be compensated for the gear that 38 39 we've lost, because we certainly don't have the profit margins 40 that the energy industry has, and so it means a lot to us when 41 we damage one of the most important pieces of equipment in our operation, and so thank you again for being here. I have tried 42 to get that in quickly, because I know we're short on time. 43 44

45 MR. CELATA: I just want to thank you for those comments. I 46 think that you're absolutely right that we have lessons learned 47 from the oil and gas industry that we can apply moving forward,

and then, in the Gulf, I think you have a very seasoned staff, 1 2 and I have my staff that understands those things. 3 We also -- If it's not an NTL, I mean, we have options to 4 actually put those in the lease document, and that's something 5 we're looking at as well, but we will definitely take all those 6 notes down, and, if you want to send your list to Tershara, that 7 8 would be fine. I know there's already been comments provided, 9 but we're happy to remind us of the things that we need to consider moving forward, and so thanks. 10 11 12 CHAIRMAN SCHIEBLE: Okay. Thank you, Mr. Celata. We appreciate 13 you taking the time to be with us here today and answering all 14 these questions and a great presentation for us, and it was very 15 informative. In the interest of time and staying on schedule, 16 that will be the end of our questions from the council today. 17 We're going to move on to our next agenda item, and thank you 18 again for your time today. 19 20 MR. CELATA: Thank you. 21 22 CHAIRMAN SCHIEBLE: Next on our agenda, we have the Draft of the 23 Generic Essential Fish Habitat Amendment, which is Tab P, Number 24 5, and the SSC recommendations are under Tab B-5(e). Dr. 25 Hollensead, would you please take it away? 26 27 DRAFT: GENERIC ESSENTIAL FISH HABITAT AMENDMENT 28 29 DR. HOLLENSEAD: Thank you, Mr. Chair. To quote Ryan Rindone, 30 I'm going to hot-potato it to Dr. Nance, as the SSC Chair, to provide his recommendations. 31 32 33 The hot potato, huh? Mr. Chairman, thank you DR. JIM NANCE: 34 for that. Let's go ahead and bring up Slide Number 31. This is 35 a recap, because I know you've seen the document, but the 36 council is considering three approaches to update essential fish 37 habitat for its managed species. 38 39 The first would retain the current methodology of qualitatively 40 joining spatial layers by five ecoregions, twelve habitat types, 41 and three depth zones with species habitat attributes tables 42 informed by comprehensive literature review. However, this approach results in very broad descriptions of essential fish 43 44 habitat. 45 46 alternative that's in the draft would retain An this 47 methodology, but would update the benthic habitat sources and

life history tables based on information available through 2020. 1 The second method that's proposed using a non-parametric kernel 2 density estimation approach that would only consider species 3 presence to inform descriptions of essential fish habitat. 4 This model is simple to construct and results in a more refined 5 description of essential fish habitat. 6 7 8 The third approach, method, would use boosted regression tree 9 modeling to identify and describe essential fish habitat. This complex quantitative approach would better measure the linkages 10 11 between species observations and habitat function. However, 12 this method is complicated, time consuming to perform, and at 13 times can generate results that are difficult to interpret. 14 15 We discussed the document, and it was very well presented to us, 16 and our recommendations are the SSC encourages the use of more 17 computational methods for identifying and describing essential 18 fish habitat. However, the SSC agreed that extensive 19 consideration needs to be taken to ensure habitat and species 20 presence data inputs are spatially comprehensive and as complete 21 as possible. 22 23 The SSC suggested that a representative from the NOAA Habitat 24 Division provide a presentation outlining the essential fish 25 habitat consultation process at a future meeting. The SSC 26 recommended that a hierarchical approach, based on available data by species and life history stage, be used to inform action 27 28 and alternative selections. With that, Mr. Chair, that's the 29 end of the presentation. 30 31 CHAIRMAN SCHIEBLE: Thank you, Dr. Nance. I appreciate that. 32 Dr. Hollensead. 33 34 DR. HOLLENSEAD: If there were no questions for Dr. Nance, if 35 you were amenable, I might propose perhaps a little way forward 36 here in the upcoming months, if there are no questions about 37 this presentation. 38 39 CHAIRMAN SCHIEBLE: I don't see any questions here. 40 41 DR. NANCE: Thank you very much. I appreciate that, and I just wanted to just add too that I appreciate being here with you, 42 and I have enjoyed being here. 43 44 45 CHAIRMAN SCHIEBLE: Thank you, Dr. Nance. You've done a great job representing what the SSC has recommended for us. 46 47

Thank you, Mr. Chair. What staff and I had 1 DR. HOLLENSEAD: sort of talked about, after getting the feedback from the SSC, 2 and we agreed, and there was sort of a broad recommendation that 3 the data sources that were going to be used for the various 4 methodologies -- That there should be some very good rationale 5 provided for those, and we should double-check to make sure they 6 7 were the most contemporary possible. 8

9 When I pulled some background information for the SSC, I gave 10 them the data sources and things that we had used from the 2016 11 five-year review, and I'm sure the rationale for selecting those 12 is appropriate. However, I wasn't here, and so it might be good 13 for me to actually start from the ground up and begin pulling 14 together some of those data sources.

16 We're talking about perhaps engaging some of the SSC members as 17 well, to get their feedback on where may look at some of the 18 data sources that we could use to construct the habitat maps, and so I think that portion -- If staff would take the time to 19 20 do that, and, while that's being done, I have high hopes that 21 perhaps the IPT could get together and the actual drafting of 22 the document, some of the other things that we would have to 23 take into account, fishing effects and non-fishing effects and those sorts of things, with those actions and alternatives, 24 25 could also be developed while we're working on sort of the 26 technical aspects on that.

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I think we were thinking that perhaps, if we could have some time to work on that, because that's going to take some considerable work to do, that perhaps not bringing a revised update in October, but rather January, to give us some time to really sort of pull this together, so that you have a more complete picture.

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In an ideal world, I would hope to have an appendix that would really outline some of that rationale for those data sources and provide some pros and cons for those, so that, as we go through interpreting the discussion of the document, as well as for the committee's consideration, they could be informed of the selection for those alternatives for the various FMPs.

42 CHAIRMAN SCHIEBLE: Okay. Thank you, Dr. Hollensead. I don't see any issue with having this back in the January meeting, and 43 44 we can discuss that next, as far as the agenda and schedule 45 I think something that would be helpful, maybe for the qoes. council perspective, is some real-world examples 46 of the 47 difference between like the boosted regression tree analysis

versus the kernel density analysis, to see where they've been 1 applied in different fisheries aspects. 2 3 4 I know they list an example in the Pacific of the kernel density, but there's not really a specific listed in here for 5 the boosted regression tree, and, if we could see some in 6 7 action, where they've used that work before and how they have 8 been used, that may help us as a council, I think, going forward 9 with this too, to make a decision. 10 Yes, sir. We could do something like that. 11 DR. HOLLENSEAD: 12 It's funny, because the Northern Pacific -- They don't use the 13 boosted regression tree model, but they use the maximum entropy, 14 and so that's like the Cadillac of some of these things, and 15 they have some data to do that, but that model is very similar, 16 and so, if the council had some questions about how are these a 17 little different, we could explain that to the council, just to 18 help everybody when they go to make their preferred alternatives, so that they're understanding a little bit more of 19 20 the background. 21 22 CHAIRMAN SCHIEBLE: That would be perfect. Thank you. Sure. 23 Any other questions at all regarding the document? Seeing none, do we have any other questions from the committee about anything 24 25 we've seen today? I would like to get a motion to adjourn the 26 committee then. Is there a second? Meeting adjourned. Thank 27 you. 28 29 (Whereupon, the meeting adjourned on August 25, 2021.) 30 31