Interview Transcript[[1]](#footnote-1)

Subject: Junior Meteorologist in Energy Trading

I: [explaining project]

I: Why don’t we start off with what your job position is and what you do.

S: Sure. So I’m a junior meteorologist. I’ve actually only just started about 10 months ago so this is my first operational meteorology job after having done my master’s. Job-wise, I’m communicating in energy trading risk around the weather for the traders so mainly in terms of renewables and demand…renewable generation and demand obviously in terms of temperatures. On a daily basis, it’s really operational and just sort of really monitoring model changes and things like that.

[2:30]

I: Okay is it mostly wind and solar radiation then?

S: Yeah. This time of year it’s very much wind and solar. In Summer solar is big. Wind, solar, and temps so people trading gas are also very interested in temperatures for demand so those sort of three main aspects. Precip as well. We do precip forecasts for hydro trading. But key ones would be wind and temperatures.

[3:03]

I: Okay. And what kind of lead times are you forecasting for?

S: We do interday forecasting, that’s within day and day ahead. Then we do remainder of balance of the week. Then we do week ahead and then as long as we feel comfortable making a comment on basically. Intraseasonal is obviously very useful so if we can sort of…couple weeks ahead if we have an idea, usually kind of after the end of the model period so 15 days we’ll go for a general setup based on teleconnections and things like that.

I: Do you personally make any decisions or are you mostly the communicator of the forecast?

S: Yeah, I do. As a junior, I currently always check with the other meteorologists in terms of not having too many conflicting views put out, but many things are kind of left to forecast myself and then put out myself.

I: How do you put the forecasts out? What kind of products do you give to colleagues?

[4:31]

S: So we tend to do, depending on what we’re forecasting, we tend to give an absolute number so for example if we’re forecasting, say a wind forecast for next week, we would give values for each day. So that’s the general kind of set up is to just give a single number as a value in terms of all the variables we’re doing so temperature, wind, precip. But we sort of have additional ways of communicating the risk around that so we might go for clusters, say, and for example if you wanted to, for things that are maybe a bit more important, maybe have more risk on, we would do a cluster spread so for example temperature so you might say we think it’s going to be…also you usually compare it to normal so a day so much above normal and then maybe have a couple of degree bandings and put a percentage likelihood against that of what we think the likelihood of temperatures falling in that bracket will be.

[5:47]

I: Okay. So is this text based? Is it graphics based? How is it delivered?

S: Text. Yeah, text. Yeah we’ll just send out numbers like spreadsheet-based numbers literally like a table…as our clusters will be. We do a presentation where we might put a graphic in terms of, a map temperature spread, but that’s the only thing that we do a graphic for.

[6:21]

I: Okay. And so the uncertainty that you’re presenting to other people is in terms of the range as well as the percent probability? Is that correct?

S: Yes. So it’s a range, the probability, yeah.

I: And is that a subjective thing? The percent probability.

S: Yes. Yeah, so we kind of, we would have our opinion of what we think it will be and then we might compare it to say what models, the ensemble spread a model spread of what the clusters are and then add our own opinion on what we think is more likely but in terms of sending that forecast out, we would do, it would be an agreement of what is the view on that.

[7:24]

I: Gotcha. How do your users then use that uncertainty information? Do you have any idea of that? People who receive the forecast.

S: Well then that’s up to them, no, that’s more their own way of how they manage risk, basically. We don’t know how they then interpret that.

I: So, I think that’s all I have. Do you have any other questions or comments or anything else you’d like to share?

S: I don’t think so, no. So are you, did you say this is your main piece of research at looking at how risk is communicated?

I: Yeah it is. So the next step from this, basically we’re kind of gauging how the uncertainty information is presented so we’re finding that a lot of people use these percent probabilities as well as maps, hazard maps of some sort or another as well as kind of line graphs. So what our next stage is is we’re kind of in the process of developing a decision game that’s going to be online so we’re going to send that out and it’s hopefully going to be ready in the next month or so. These interviews are kind of to make sure that we’re developing the games so that it’s actually relevant and using things that people actually use. So it’s been very helpful. So once the survey is ready to go, which should be in the next month or two, would it be okay if we send it to you?

S: Yeah. Of course. Yeah.

I: Okay. And you’d be welcome to send that along to anyone else, perhaps the decision-makers you give your forecasts to or whoever. We’d like this to be as widespread as possible. So then what we’re going to do with results from the survey is we have a design team and they’re going to help us tailor make some novel, hopefully novel forms of presenting information and they will be tested again to make sure that everyone understands them with end goal being coming up with better ways to communicate uncertainty that are useful and meaningful to the decision-makers.

S: Yeah, because I mean visual things like maps for probabilistic stuff is much, much better. I think we’d rather do that it’s time though isn’t it? It takes time to generate a map. But yea, definitely, I think they’re always, there are definitely much better ways of communicating risk.

I: Yeah, well especially with hazards and, well even temperature anomalies it’s really useful to know exactly where they occur that’s a key component of forecasting and decision-making.

S: Yeah. Absolutely. Yeah. Wow interesting, yeah do send us along anything you want us to have a look at or trial. That would be interesting to see.

I: Great. Well thank you so much for all of your help today. Have a good day and we’ll be in touch soon.

S: Thank you, you too, bye.

1. The interviewer is denoted by “I” and the subject as “S” [↑](#footnote-ref-1)